Ministry of Education

Malawi Education Reform Program - MERP

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

FOR

SOUTHEAST EDUCTION DIVISION (SEED)

Client
Ministry of Education
Malawi Education Reform Program

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ABBREVIATIONS AND ACCRONYMS

AIDS	Acquired Immune Deficiency Syndrome
DACC	District AIDS Coordinating Committee
DTSCs	District Technical Support Committees
EAD	Environmental Affairs Department
EMA	Environmental management Act
ESA	Environmental and Social Assessment
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
ESS	Environmental and Social Standard
GPE	Global Partnership on Education
HIV	Human Immuno-deficiency Virus
LMP	Labor Management Plan
MERP	Malawi Education Reform Program
MESIP	Malawi Education Sector Improvement Program
MGDS	Malawi Growth and Development Strategy
MOE	Ministry of Education
PCR	Pupil Classroom Ration
PDO	Program Development Objective
PTA	Parents and Teachers Association
SEED	South- East Education Division
SEP	Stakeholder engagement Plan
SIG	School Improvement Grant
SMCs	School Management Committees
STIs	Sexually Transmitted Infections
WB	World Bank

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EXECUTIVE SUMMARY

This Environmental and Social Management Plan (ESMP) guides implementation of Subcomponents 2.1, 2.2 and 2.3 of the Malawi Education Improvement Program (MERP) in the South–East Education Division (SEED) to manage identified potential environmental and social risks and impacts. The ESMP draws perspectives from a wide range of stakeholders and complements mitigation and enhancement actions contained in MERP's Environmental and Social Management Framework (ESMF), the Stakeholder Engagement Plan (SEP), The MERP Labor Management Procedures and MERP School Block Construction Manual. The Program comes with both benefits and risks. The major risks relate to labor and working conditions, community health and safety, occupational health and safety and, Resource Efficiency and Pollution Prevention and Management to a lesser extent with biodiversity threats.

A. General Environmental and Social Positive Impacts and Enhancement Measures

- **Environmental Benefits**
  - Enhanced community and school environmental awareness and improved management of the school environment.
  - Enhanced aesthetic look of the school environment making the learning attractive.
  - Improved waste management in the school premises (Annex 10).
  - Contribution to climate change mitigation through tree planting.
- **Enhancement Measures**
  - Support SEP implementation targeting actions for biodiversity conservation in schools.
  - Avoid the use of invasive alien species as ornamental plants.
  - Strengthen capacity of school management in waste management.
  - Develop school-based adaptation plans to reduce vulnerability of the schools to climate change.
- **Social Benefits**
  - Improvement of learning outcomes
  - Employment opportunities, asset creation among the construction workers
  - Enhanced sense of program ownership, and promotion of local skills especially for the local artisans.
- **Social Benefit Enhancement Measures**
  - Use the Labor Management Procedures, the SEP, and all MERP operational documents to ensure compliance to national and international best practices.
  - Provide employment opportunities to the local communities as artisans and suppliers of construction materials but build capacity among the local artisans for quality and efficiency.
  - Collaborate with Community Police to ensure safety of the construction materials and coordinate the program implementation processes with strong local participation.

B. Potential Construction Negative Impacts and Mitigation Measures

- Potential for Occupational Health and Safety Risks
  - Provide H&S training to the construction workforce and ensure site premises are provided with appropriate fencing (where applicable). Use hazard notices/signs/barriers to prevent access to dangerous areas.
  - Ensure adherence to speed limits on site and on transporting routes.

- Ensure compliance with the use of Personal Protective Equipment (PPE) for workers.
- Ensure provision of Health and Safety (H&S) facilities at the Program sites, including shaded welfare areas, bathrooms, and potable water.
- Provide hygienic, adequate facilities for workers, ensuring toilets and changing rooms are separated to male and female.

- **Potential for Community Health and Safety Risks**
  - Implement the Emergency Response Plan when need arises (Appendix 8)
  - Sensitize workers and surrounding communities on different communicable diseases including Sexually Transmitted Diseases and ways of preventing them.
  - Revise the architectural design for site-specific requirements by utilizing district historical and programion climate data to inform site-specific architectural designs for resilient structures.
  - Provide necessary fire prevention equipment on site in line with applicable regulations.
- **Potential for increased labor and working risks.**
  - Ensure worker access to and awareness about the Grievance Redress Mechanism, and adherence to legal labor standards as per National and ILO regulations (child/forced labor, no discrimination, working hours, minimum wages).
  - Use the Emergency Response Plan when need arises (Appendix 9).
  - Ensure the workforce has access to primary healthcare on site (First Aid Kit), providing prescriptions.
  - Ensure work conditions in accordance with all applicable health and safety regulations and norms by providing, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, adequate sanitary and washing facilities, cooking and storage facilities, and basic medical services.
  - Prepare, adopt and implement workers code of conduct.
  - Sensitize workers on labor related issues and regulations to ensure that the artisans are compliant.
  - Engage all nonskilled labor force from surrounding communities to minimize the risk of migrant workers and associated negative impacts. Work with traditional leaders to control influx of migrant workers.
  - Sensitize workers and surrounding communities on dangers and prevention of Gender Based Violence.
  - Sensitize surrounding communities on issues of child labor and ensure recruitment of people that are aged 18 and above; and restrict workers from sending learners to buy various merchandise at the construction site.
  - Implement a deliberate policy for gender equality, youth and vulnerable groups participation in all activities.

- **Risks on Resource Efficiency and Pollution**
  - Use the Emergency Response Plan
  - Ensure optimal traffic routes to minimize lengths of travel while avoiding settlements if possible.
  - Ensure vehicles and equipment are switched off when not in use to avoid noise and air pollution.
  - Schedule traffic activities to avoid peak hours on local roads if feasible.
  - Ensure safe driving by program personnel through training/induction.

- Collect and segregate wastes and ensure safe storage and in line with legal requirements.
    - Ensure appropriate containment and disposal of construction wastewater, including sanitary water.
- Ensure appropriate and safe storage of contaminants such as fuels, construction materials and wastes. Provide absorbent and intervention materials in sufficient quantities and at relevant locations for intervention in case of leakages/spills.
- Implement appropriate secondary containment and spill controls for maintenance or refueling works.
- Ensure immediate cleaning of any spills and remediation of contaminated areas after construction.
- Ensure watering of transportation roads during dry and windy conditions. Generally, keep roads in good condition.
- Cover truck loads with canvas to avoid dust, quarry dust and sand blow.
- Ensure appropriate stockpile management (friable materials) to minimize dust blow. Minimize drop heights for material transfer activities such as unloading of friable materials.

C. Stakeholder Engagement

The MERP PFT will ensure that the local communities are informed at an early stage about the planned Program, timelines, expected impacts and communication channels (Ref SEP). The PFT will also seek for feedback from the communities about the program through implementation of the SEP.

D. Implementation and Monitoring

The Program has qualified and dedicated Environmental and Social Safeguards Specialists who will facilitate the implementation of the ESMP involving:

- Measuring progress on environmental and social change or performance against scheduled actions and targets and performance indicators.
- Measuring effectiveness of the change and provide timely information about the success of the program to enable changes to be made to the system, if required; and determine whether the mitigation measures set out have been effective in enhancing, avoiding, minimizing or eliminating environmental and social impacts.
- Reviewing the costs incurred and how they relate to the budgetary provisions in the ESMP.

E. Key Recommendations

(i) PFT should constantly refer to the ESMP in liaison with the Local Artisans to ensure compliance and effective implementation.

(ii) Recommendation 2 – Develop capacity building plan for the local artisans and implement for quality construction works and community benefit through skill transfer.

(iii) Implement all safeguard tools such as the SEP, the GRM and the policies and procedures to ensure mitigation and enhancement measures for greater benefits of the program.

(iv) The ESMP will need both technical and financial support for effective implementation. Requirements have been provided in this ESMP.

(v) The construction works should commence early in the dry season and off school sessions.

CHAPTER 1 – INTRODUCTION

1.1. Program Background

The Ministry of Education (MoE) will be implementing the Malawi Education Reform Program (MERP) with support from the World Bank (WB) and the Global Partnership on Education (GPE). MERP is channeled towards expansion of equitable access to education, improvement of quality and relevance of education, and improved governance and management with the objective to improve learning environments for students in lower primary in public schools. The Program will be implemented in selected schools of all education divisions in the country, and this document guides the South–East Education Division (SEED) subprogram.

Component 2 of the Program falls under Environmental Category B due to its moderate, site-specific, and reversible potential impacts and risks that are manageable with readily designed mitigation measures. As such, MoE as a Program Implementing Agency (PIA) is obligated to institute material measures and actions in accordance with World Bank's Environmental and Social Standards (ESSs) and national legal frameworks. MERP triggers some of the ESS calling for Environmental and Social Assessments (ESA) and preparation of an Environmental and Social Management Plan (ESMP) to set mitigation along with monitoring and institutional `arrangements to effect during the design, implementation, operation, and maintenance phases. In the same vein, Section 24 (I) of Malawi Environmental Management Act of 1996 outlines legal requirements that all program developers in both the public and private sectors comply with regarding environmental assessments. Non-compliance with the assessment requirements is an offence and attracts some penalties[1].

1.2. About this ESMP

This document constitutes an ESMP for the SEED outlining the environmental and social management commitments for MoE as PIA to manage potential negative impacts and enhance potential positive impacts resulting from the Program. The ESMP draws complimentary Safeguard Instruments to apply (e.g., the stakeholder engagement plan, the grievance mechanism etc.), included as Annexes to this document. As such, this introductory section as well as the program description (Section 2) and the legal framework and other requirements (Section 3) serve as a background for all of the Safeguard Instruments. The ESMP covers all of the identified environmental and social risks and impacts in all the SEED subprograms and allows for the management and monitoring of these and any new risks adaptively.

The ESMP and other Safeguard Instruments are provisional and take on the form of a framework. The proposed mitigation measures have been integrated into the program design at the individual school construction sites as there is a large number of schools receiving the construction works. The Monitoring and Evaluation (M&E) Section of this ESMP, will be used on an annual basis to report on relevant monitoring across all school and sanitation blocks constructed in the SEED.

[1] Chapter 1 is dedicated to providing the introduction of the Program and the ESMP. Details of the Program are presented under Chapter 2. A slight change to the provided template was made to render the document coherent and readable.

The ESMP and appended Safeguard Instruments will be publicly disclosed to demonstrate MoE's commitment to being transparent and accountable, and accepting responsibility for the potential program impacts (both positive and negative). No personal information/ data should be included in these publicly disclosed documents, and any personal data collected for the purpose of the program. This ESMP and appended Safeguard Instruments, and maintained by MoE, will be done so in a secure manner in line with EAD and the WB's policy.

1.2.1. Purpose and Objectives

This ESMP has been developed to outline the program's overall environmental and social risk management strategy in implementation of Component 2 of MERP. It is a 'living document' that will be regularly reviewed and updated by MoE in response to changes to the program description, changes in the program organizational structure, changes in legislation and any other guidelines and practices subscribed to, as well as changes in program design and local context. The objectives of the ESMP are to:

(1) Ensure that Component 2 of MERP operates in compliance with Malawi's legal requirements, policy and procedures, and international good practice, notably the World Bank Environmental and Social Framework.
(2) Ensure that the potential negative environmental and social impacts of the Program are managed appropriately.
(3) Ensure that the potential positive environmental and social impacts of the Program are enhanced and sustained.
(4) Provide the baseline against which future monitoring and evaluation can be undertaken.

1.2.2. Potential Users

The potential users of the ESMP include the World Bank, MERP Program Implementation Unit, local Artisans, Education Division Managers and the EAD. To ensure effective and formal communication between the field team and other stakeholders the following shall be done: (i) The contact details of the key construction team will be available to all relevant parties (ii) All employees will be fully aware of the environmental management requirements detailed in this ESMP (iii) A copy of the ESMP will be readily available for ease of reference to all requirements.

1.3. Methodology

Prior to field visits for consultations, desk work was accomplished. Consultations were then mostly conducted through field missions to the construction sites where observation of site-specific environmental and social concerns were made. A total of 26 Schools were visited conducting both Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs).

1.3.1. Consent

Participants in the ESMP process were requested to participate in this study voluntary. They were given the chance to decide whether or not to take part in this study. When they decided to take part, they were asked to sign a consent form. After signing the consent form, they were told they were to still free to withdraw at any time and without giving a reason. The Consultant requested participants to confirm that they had no objection to being identified in the document since it will be publicly disclosed.

1.3.2. Deskwork

This involved the review of literature related to the MERP activities including Environmental and Social Management Framework (ESMF), Program Implementation Manual (PIM), Program Construction Manual (PCM), Social, Environment Management Act; Forestry Act; Water Resources Act; Pesticides Acts; Public Health Act; Occupational Safety, Health and Welfare Act; Agriculture Policy; National Water Policy; National Environment Policy; Malawi National Land Policy; Malawi Development and Growth Strategy (III), among other pieces of relevant legislation and policies. In addition, a review of Malawi's Legislation and Regulation Related to Building Development at Each Step of the Building Life Cycle was done[2]. The desk review examined international instruments and the World Bank operation procedures as reference bases.

1.3.3. Focus Group Discussions

At each school where block construction will commence, the consultant organized focus group discussions. Participants comprised both men and women. Issues for discussion included the level of awareness about the program, availability of local artisans to participate in the program, social and environmental issues.

1.3.4. Key Informant Interviews and Site Inspections

Stakeholders including School Committees, the District Environmental Officers (DEOs), and school leadership were interviewed (**Annex 7**). KIIs were conducted to further understand issues raised during the FGDs and any related issues. For example, the Head teachers were asked to locate the construction site for our inspection.

[2] This review was basically done in Managing Risks for a Safer Built Environment in Malawi. Building Regulatory Capacity Assessment. Washington, DC: World Bank.

CHAPTER 2 – PROGRAM DESCRIPTION

This section dedicates a description of Component 2 of the program which is subject to the Environment and Social Assessment. The description focuses on activities that have implications on the environmental and social risks and commitments imposed by national and international policy and legal requirements.

2.1. Program Overview

In an attempt to improve the learning environment in the education sector in particular the primary education, the Government of Malawi (GoM) through the Ministry of Education is embarking on the implementation of the Malawi Education Reform Program (MERP). The Program is in tandem with the aspirations of Malawi's Vision 2063 of achieving an inclusively wealthy and self-reliant industrialized upper-middle-income country. It also aligns with the Sustainable Development Goal (SDG) number 4, which is to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." This also follows the goals, objectives and strategies of the Government of Malawi in the education sector as stipulated in the National Education Sector Investment Plan (NESIP 2020-2030). The goals and objectives focus on expansion of equitable access to education, improvement of quality and relevance of education and improved governance and management.

MERP which the MoE is implementing with support from the World Bank, Global Partnership for Education (GPE) and the Government of Malawi is a successor of another program, the Malawi Education Sector Improvement Program (MESIP) which the MoE successfully implemented for another four years with funding from the World Bank. While MESIP was implemented in 8 districts in the country, MERP will be implemented in all the 34 Education Districts in Malawi.

The expected implementation period of the Malawi Education Reform Program is 4 years from December 2021 to December 2025. The Program Development Objective (PDO) is to improve learning environments for students in lower primary in the public schools.

The program scope consists of five components which contribute to the PDO, and these are: Component 1: Expanding and Reforming Primary School Improvement Grants. Component 2: Improved Learning Environments in Lower Primary to Support Learning Recovery after COVID-19. Component 3: Supporting Girls' Learning. Component 4: School Leadership Programme; and Component 5: Program Coordination and Capacity Building.

The following are the PDO level indicators for the Malawi Education Reform Program (MERP): (i) Pupil – classroom ratios (PCRs) in lower primary, school-level average, and interquartile range (ii) Share of schools with pupil-qualified teacher rations in standards 1-2 in the acceptable range [Percent]Student dropout rate (total, male and female) Percent.

The program, under component 2 subcomponent 2.1 will involve construction works of 10,900 classrooms and 1,000 sanitation blocks. In addition, the program under component 2, sub-component 2.2. and component 3, sub-component 3.1 will recruit 3,500 auxiliary teachers and 2,605 learner mentors. It is therefore required that the

construction works follow principles of green building and social aspects of the lives of learners and other stakeholders within the construction sites. Furthermore, the social assessments should be extended to the auxiliary teachers and the learner mentors' interventions of the program. To facilitate this, it is required that a consultant is hired to prepare Environmental and Social Management Plans (ESMPs) to guide the construction of the classroom and sanitation blocks; and the implementation of auxiliary teachers and Learner Mentors related activities.

The Program Development Objective is to improve learning environments for students in lower primary in public schools. The program consists of five components which focus on improving learning environment in lower primary schools targeting the most disadvantaged schools and students and an emergency contingent component which can be triggered to prevent or manage a resurgence of COVID-19 in schools or any other emergency, as defined in the Financial Agreement (FA). The program will be implemented over four years, from January 2022 to December 2025.

Expected outcomes: The program is expected to strengthen the learning environments in lower primary schools, as indicated by improved Pupil Classroom Ratios (PCR); schools with Pupil-Qualified Teacher Ratios (PqTR) in the acceptable range; and reduced student dropout rates (Total, Male and Female, %).

Program beneficiaries: Approximately, five million students at lower primary school age would benefit from the program, including around 2.5 million female students. In addition, the program is expected to support recruitment and training of 21,500 teachers, and additionally benefit about 21,000 teachers in remote postings.

This component has three sub-components namely (i) Construction of low-cost classrooms and Sanitation blocks (ii) hiring of auxiliary teachers to address severely large class sizes in lower primary in targeted schools (iii) Providing revised Hardship Schools Support to address the large disparities in staffing between schools in remote areas and those close to trading canters. This sub-component will reward teachers who accept postings in the most remote schools. The MoE will refine and re-circulate tools to guide district-level officials in allocation of teachers to the schools with the highest PqTRs and provide guidance and training on implementation of those tools.

2.2. Sub-component 2.1: Low-cost construction

As suggested earlier on, Component 2 of MERP is subject to an ESMP. The component is about aims to improve learning environments in lower primary to support learning recovery after COVID-19. This component will provide finance targeting schools with exceptional need (MERP School Improvement Grants, "MERP SIG"), to support construction of low-cost classrooms and sanitation blocks, and hiring of auxiliary teachers to address severely large class sizes in lower primary in targeted schools.

This financing will complement the support to all schools provided under Component 1. Adequate safety and quality of construction, while maintaining low costs, will be ensured under the new standardized design for low-cost classrooms (Table 1 & 2). Implementation will be fully aligned with these measures prescribed in this ESMP.

Table 1 – General considerations for the implementation of the standardized classroom and sanitation block designs and construction

Considerations	Description
Construction Requirements for Quality Control	● The School Management Committees (SMCs) will use established Procurement and Contract Management Guidelines to procure services of local artisans and building materials. ● Construction will be conducted in accordance with the approved standardized design and abide by Malawi's Safer Schools Construction Guidelines. The guidelines establish the standards and requirements for materials, techniques, and procedures for the construction of safer schools. ● Cement blocks for the construction will be supplied by Local artisans for quality control and standards. Local artisans will be identified within the districts by machinery at district council and school management committees.
Safety Considerations	● Safety of students and teachers during the on-going construction will be prioritized with clear sites markings for no trespassing.
Environmental, Social and Climate Change Adaptation Considerations	● The buildings will be located and oriented on existing school sites to adapt to climate hazard risks especially flooding, high temperatures, and gales. ● Design, construction and regular maintenance of the infrastructure will take account of climate-related risks and include feasible measures to support climate change adaptation and mitigation obligations. ● Consistent with the Government of Malawi's 'Use of sustainable Construction Materials regulations, 2018', construction will use sustainable and environmentally friendly features and construction materials. ● No trees will be cut, and, to further reduce the program's carbon footprint, the use of burn bricks will be prohibited. Construction of school structures will use low carbon and climate resilient materials (for walls, roofing, and foundations) which will ensure durability and adequate functionality given the climate risks. ● Non-toxic building materials will be used for construction and chemical exposures such as lead, mercury, polychlorinated biphenyls, and asbestos from building materials will be prohibited. ● Separating, reducing, reusing, recycling, composting, and any other relevant means will be considered for managing school waste, to find ways to get rid of school waste with the least adverse effects on the environment.

The eligibility of schools for additional MERP SIG is based on EMIS data and targeted to approximately 3,270 schools (around 57 percent of public primary schools) which face severe shortages of classrooms and teachers. In total, the component will support construction of around 10,900 classrooms and 1,000 sanitation blocks, and appointment of 3,500 auxiliary teachers.

Through a Performance Based Condition, the component will also support the rolling-out of Hardship Support to Teachers in Remote Schools. The component has three sub-components. Each will be managed by the Component Lead with the support of a focal point. Schools with PCR above 90 will receive funds for a construction of one block and those that have PCR above 160 will be eligible to receive finance for a second block once the first one is complete, and schools with PCR above 215, a third block once the second is complete. The following are considerations for the allocation of classroom and sanitation blocks (Table 1 & 2).

Table 2 – Eligibility for additional MERP

Classroom Block				
Classroom Criterion	Schools	Eligibility	Total Classrooms	Total MERP SIG for classrooms (US$)
Substantial needs (LP PCR 91-160)	2283	2 Classrooms (1 block, US$14,000)	4566	31,962,000
Major needs (LP PCR 161-215)	660	4 Classrooms (2 blocks, US$28,000)	2640	18,480,000
Extreme needs (LP PCR > 215)	610	6 Classrooms (3 blocks, US$42,000)	3660	25,620,000
	3553		10866	76,062,000

Table 3 – Sanitation Blocks and eligibility

Category	Schools	Eligibility
Pupil-toilet ratio above 120 AND eligible for classrooms	970	1 Sanitation Block (US$5,000)
Zero toilets AND eligible for classrooms	41	1 Sanitation Block (US$5,000)
Total qualifying	1011	

2.1.1. Summary Construction Works

Component 2.1 of the MERP will involve construction of classrooms and sanitation blocks which like many constructions works will involve the following activities:

(a) Community Mobilization and Sensitization
(b) Identification and preparation of construction sites
(c) Identification of local artisans
(d) Resource mobilization and transportation for the program
(e) Storage of the procured materials
(f) Block making
(g) Foundation and building
(h) Operationalization
(i) Maintenance

2.3. Sub-component 2.2: Auxiliary teachers

The auxiliary teachers will be allocated to grades 1 to 4 basing on the PqTR. Guidelines for recruitment and deployment of these auxiliary teachers will be developed and

disseminated to the schools. The School Management Committees (SMC) will be responsible for the recruitment and management of the auxiliary teachers at school level. The Auxiliary Teachers will receive honoraria of Mk 80,000 per month. The resources will be channeled through the schools' bank accounts which are managed by the SMCs. The overall coordination of the sub-component is led by the Directorate for Basic Education. The component will be implemented in close coordination with the Desk officers who will coordinate all auxiliary teachers and teacher deployment activities at the district level; (d) PEAs who will supervise the use of MERP School Improvement Grant (SIG) at school level; and (e) SMCs which will manage the use of MERP SIG.

Key considerations for implementation

- Adverts for the recruitment of the auxiliary teachers will be done at Council level. The advert will indicate vacancies available in the eligible schools in the targeted districts.
- Training school governing bodies and community on the guidelines for the recruitment and management of auxiliary teachers.
- Auxiliary teachers will be qualified teachers who are not currently employed in the official Government teaching workforce. All graduates from IPTE will be eligible to apply for the position.
- Schools will place auxiliary teachers in the grades 1 to 4 which have the highest PqTR of above 90.
- Auxiliary teachers will be absorbed into main workforce based on the turn of IPTE deployment. They will be deployed in the same Councils and schools depending on current pqTRs
- Prior to expiry of contract of the previous cohort, Councils will advertise for the next cohort.
- Within the population of schools with PCRs/PqTRs above 90, priority for allocation of auxiliary teachers will be given to those schools with the highest PCRs/PqTRs, with each qualifying school classified as having substantial (Table 4).

Table 4 – Eligibility for additional MERP School Improvement Grant (auxiliary teachers).

Need	PqTR	Schools	Eligibility
Substantial	PqTR 91 - 120	1366	1 teacher (US$1,150/yr)
Major	PqTR 121 - 160	626	2 teachers (US$2,300/yr)
Extreme	PqTR > 160	215	4 teachers (US$4,600/yr)
Total qualifying		2207	

Table 5 – Implementation Activities

Sub-component 2.2: Auxiliary teachers	
Core activity	**Sub-activity**
Develop, refine and print guidelines for recruitment and management of auxiliary Teachers	- Conduct needs assessment on auxiliary teachers. - Review of the guidelines for recruitment of auxiliary teachers - Print and disseminate the guidelines
Community Mobilization and Sensitization meeting for school governing bodies, community and traditional leaders	- Conduct community sensitization meetings on recruitment and management of auxiliary teachers
Conduct Training on recruitment and management guidelines for Auxiliary Teachers to school governing bodies	- Conduct district-level training sessions for PEAs and Desk Officers - Conduct zonal trainings
Develop a plan on hiring/distributing auxiliary teachers	- Cost and budget for auxiliary teacher based on the yearly programs
Hire and distribute auxiliary teachers across the districts to address disparities in teacher deployment.	- Coordinate auxiliary teachers hiring process and teacher deployment activities
Monitoring and supervision of auxiliary teachers	- Regular activity implementation progress monitoring - Quarterly review meetings.

The progress on the sub-component implementation will be monitored through a set of intermediate results indicators. The DEP in collaboration with DBE will monitor and evaluate the implementation of the component based on the change in:

- PqTR in lower primary (average and interquartile range) (73 average and 23 interquartile by the end of Year 4, with 86 average 44 interquartile at baseline)
- Share of schools with PqTR below 90 in lower primary (70% by the end of Year 4, with 62% at baseline).
- Student repetition rate in lower primary (female) – 18% by the end of Year 4 (26.13 % at baseline).
- Student repetition rate in lower primary (male) – 20% by the end of Year 4 (28.1 % at baseline).

2.2. Sub-component 2.2.3: Hardship Schools Support

To address the large disparities in staffing between schools in remote areas and those close to trading centres this sub-component will support a revised Hardship Schools Support Scheme to reward teachers who accept postings in the most remote schools. The MoE will refine and re-circulate tools to guide district-level officials in allocation of teachers to the schools with the highest PqTRs and provide guidance and training on implementation of those tools. The ministry will also develop an MoU with relevant ministries and agencies i.e., Ministry of Finance, Local Government, DHRMD and National Local Government Finance Committee on the implementation arrangements of the scheme. This activity will be funded through achievement of the two conditions as stipulated below:

- PBC 4 – upon establishment of the scheme and provision of updated guidance to districts (US$2.5 million).
- PBC 5 – upon achieving annual increases in the share of schools with PqTRs in

Standards 1-2 within an acceptable range (61-90) (US$7,500,000)

Hardship Schools Support and improvements in inter- school allocations will reduce the large inequities in staffing between schools in remote areas and those in trading centres, which constitute one of the most severe forms of inequity in service standards between schools; and further improvements in intra-school allocations will reduce inequities in staffing between lower and upper grades.

The overall coordination of the sub-component is led by the Directorate for Basic Education. The component will be implemented in close coordination with the DEP and TA will be procured to support the DBE to review and update the Teacher Management Strategy.

Key considerations for the sub-component implementation

- The program will use the new definition of the new remoteness system, introduced by the updated Primary Teacher Management Strategy approved by MoE in 2018, which identifies three categories of school remoteness based on the distance to the nearest trading centre, conditions at the school, and conditions at the trading centre.
- Under the revised scheme, Hardship Support will be provided to teachers working at schools which are in 'Category A' schools (see details below). Teachers in Category B schools will not be eligible for the new Hardship Support Scheme but will continue to receive the existing rural allowance if they currently receive it. Teachers in Category C schools, which are not remote, will be discontinued from the existing allowance scheme.

Table 6 – Hardship School Support Eligibility

Category	Type	Number of schools	Number of qualified teachers	Number of students	Average PqTR at school level
Category A	Most remote	1,703	16,133	1,173,388	73.9
Category B	Remote	1,853	22,220	1,558,338	71.1
Category C	Not remote	2,277	38,972	2,430,335	65.0
Total		**5,833**	**77,325**	**5,162,061**	**69.6**

Table 7 – Activity Implementation across the four years.

	Sub-component 2.3: Hardship Schools Support	
Year	**Core activity**	**Sub-activity**
Y0	Verification of beneficiary schools for Hardship Support	- Use EMIS data to get a list of schools. - Sampling beneficiary schools
Y1	Revision of Hardship Schools Support	- Refine and re-circulate tools to guide district-level officials in allocation of teachers to the schools. - Issue a circular on the revised scheme. - Ensure necessary adjustment in the budget. - Provide necessary training to the districts. - Update policies and guidelines on teacher transfers, promotion and discipline. - Develop MoU on Hardship Schools Support with relevant ministries. - Develop a costed implementation plan on teacher requirements including the results framework
Y1	Review and update teacher Management Strategy	- Hire a TA for Teacher to update the TMS. - See endorsement of TMS by LEG - Seek formal approval of TMS
Y1	Implement revised Hardship Schools Support	- Establish implementation of the new scheme ensuring teachers in Category A only receive the new Hardship Schools Support
Y1-4	Monitoring and supervision implementation of the hardship support to schools	- Regular activity implementation progress monitoring

CHAPTER 3 – THE POLICY, LEGAL AND REGULATORY FRAMEWORK

The SEED under the MoE is obliged to fully comply with national legal requirements, policy and procedures, and international good practice, notably the World Bank Environmental and Social Framework (2017). The national requirements for ESA are described to provide the basis for compliance regarding environmental and social management as well as stakeholder engagement.

3.1. The National Policy Framework

3.1.1. National Environmental Policy (2004)

The Policy was adopted in June 2004 with its mandate derived from Section 13 of the Malawi Constitution. The policy recognizes the country's natural resource endowment such that if properly utilized, the resources may provide the basis for sustainable socio-economic development. The policy also takes note of serious degradation of the environment. Hence, strategies for environmental planning and environmental impact assessment, audits and monitoring. On environmental planning, the objective is to ensure that national and district development plans integrate environmental concerns, in order to improve environmental management and ensure sensitivity to local concerns and needs. The Environmental Impact Assessment Guidelines prescribe the process, procedures and practices for conducting site specific ESMPs accounting for the level and amplitude of the potential impacts. There are also sector specific policies and legislations that prescribe the conduct for managing the environment. Summarized below are some of the policies relevant to the implementation of the SEED-ESMP.

3.1.2. National Land Policy (2002)

The National Land Policy of 2002 provides the institutional framework for democratizing the management of land and outlines the procedures for protecting land tenure rights, land-based investments and management of development at all levels. It seeks to promote optimum utilization the country's land resources for development. The policy provides opportunities for the people of Malawi to embark on a path of socially and environmentally sustainable development. The policy requires that an environmental and social impact assessment be undertaken for all big land development programs and those planned in fragile ecosystems to protect biodiversity and water resources.

3.1.3. Decentralization Policy (1998)

Through the Decentralisation Policy, some of the roles of the authority at district level (District/City Council) are to implement or facilitate development programs; to ensure development programs in their area are implemented in a sustainable manner; and to mobilize masses for socio-economic development at the local level. Therefore, for effective implementation of the program by the MoE must not side-line the District/City Council in the sub-programs' implementing area. The Decentralisation Policy also provides for environmental services such as refuse disposal, sewage removal and disposal, environmental reclamation, and environmental education. MoE must use the existing environmental services where they are not in capacity.

3.1.4. National HIV and AIDS policy (2012)

The Policy highlights that HIV and AIDS impact on the country is quite significant and affects a range of socio-economic activities be it in agriculture, fisheries, public sector, private sector, tourism, urban areas, rural areas, among others. HIV prevalence in the country varies from one region to the other and from rural to urban areas. The highest rate is in the Southern Region and the lowest in the Northern Region. Prevalence rate is high in urban areas as compared to the rural areas. National HIV Policy identifies migrant workers and women among highly vulnerable people to transmission of HIV and AIDS and other sexually transmitted diseases.

Increased disposal of income may enhance some workers to indulge in extra-marital affairs within the surrounding villages. These sexual activities would enhance the spread of HIV and AIDS among workers and local people. During implementation of the PFT should liaise with the District AIDS Coordinator for Zomba, Mangochi, Machinga and Balaka to sensitise workers as well as surrounding communities on the dangers of HIV and AIDS. Further, Information, Education and Communication (IEC) materials on HIV and AIDS should be distributed. It is also recommended that during Construction Phase of the blocks, much of the labour force should be sourced from the surrounding communities to reduce the influx of migrant workers who may exacerbate the situation.

3.1.5. The National Water Policy (2005)

The overall goal of the National Water Policy 2005 is to provide an enabling framework for sustainable management and utilization of water resources, to provide water of acceptable quality and in sufficient quantities; and ensure availability of efficient and effective water and sanitation services that satisfy the basic requirements of every Malawian; and for the enhancement of the country's natural ecosystems. In line with this policy, the program developers and administrators must (i) advocate for effective and efficient utilization and management of water resources (ii) participate or support efforts towards water resources conservation, harvesting and protection (iii) ensure and promote proper management and disposal of wastes (iv) properly disposing materials that can pollute water resources (v) promote public awareness on guidelines and standards for water quality, public health and hygiene, and pollution control.

3.1.6. National Gender Policy (2008)

The National Gender Policy recognises the importance to deal with socio-cultural, political, legal, and economic challenges, which include persistent unequal power relations between men and women, boys and girls due to strong patriarchal attitudes; increasing cases of gender-based violence; high HIV and AIDS infection rates especially among women and girls; limited male involvement in reproductive health, HIV and AIDS care and support services. In the area of HIV and AIDS, the National Gender Policy advocates for integration of gender concerns and issues in the prevention, treatment, care, support and mitigation of the impact of the pandemic. The Policy therefore advocates for ensuring that gender concerns and issues are mainstreamed throughout all activities relating to HIV and AIDS. It also requires effective participation of vulnerable groups particularly women, girls, People Living with HIV (PLWAs) and people with disabilities in all decision-making processes.

The Policy further requires that the rights and dignity of those living with and affected by HIV and AIDS; particularly women and children are respected, protected and upheld in a conducive legal, political, economic, social and cultural gender friendly environment. It aims to promote access to non-discriminatory, confidential and gender friendly HIV and AIDS services, appropriate for and accessible to women, the youth and other vulnerable groups. TB/HIV co-infection is known to be extremely tricky to manage and presents many challenges for the traditional approach in combating TB. It is therefore important to recognize this important co-infection relationship and its gender implications when implementing the program.

3.1.7. National Forest Policy (2016)

The National Forest Policy promotes sustainable national forests, woodlands and trees for the improvement of the quality of life in the country by conserving the resources for the benefit of the nation and to the satisfaction of diverse and changing needs of Malawi population, particularly rural smallholders. The policy prevents changes in land-use that promote deforestation or endanger the protection of the forests which have cultural, biodiversity or water catchment values. The policy discourages development activities in gazetted forests unless proven to be environmentally friendly for which suitable inter-sectoral and local consultations will be conducted. Above all, the policy advocates for carrying out of environmental and social impact assessment where actions are likely to have significant adverse impacts on important forests and other resources. Preparation of the ESMP for the program is in line with provisions of the policy.

3.1.8. National Youth Policy (2013)

The National Youth Policy (2013) defines youth as all persons from age 10 to 35 years regardless of their sex, race, education, culture, religion, economic, marital and physical status. It recognizes that youth is a definitive social entity that has its own specific problems, concerns, needs, and aspirations. The policy further notes that the definition of youth has continuously changed variably in response to political, economic and social perspectives, hence uses the word “youth” and “young people” interchangeably. The goal of the National Youth Policy is to create an enabling environment for all young people to develop to their full potential to contribute significantly to personal and sustainable national development. The Overall objective of the policy is to provide a framework that guides youth development and implementation of all youth programmes that contribute to the improvement in the welfare of the youth in Malawi. The policy provides for several rights to the youth including the right to participate in all decision-making processes relating to the welfare of the youth, including governance issues, the right to social and economic services and the right to gainful decent employment opportunities either in any sector on completion of formal or non-formal education and/or when entering the legal working age in the country. The policy has places economic, social and cultural responsibilities on the youth such as to actively take part in all national development processes and to undertake initiatives for their own economic development. Therefore, it will be imperative for the program to promote involvement of young people in various activities including construction works.

3.1.9. National Sanitation Policy (2008)

The goal of the National Sanitation Policy (NSP) is to promote effective coordination and develop mechanisms for the delivery of sanitation and hygiene promotion at national level. The NSP is a framework for development of programmes and initiatives that to address sanitation and hygiene challenges prevailing in the country. These programmes will contribute to improving the health and quality of human life, a better environment and a new way for sustainable wealth creation. The NSP aligns with the Constitution of Malawi revised in 1995 enshrining responsible management of the environment to provide a healthy living and working environments for all the people of Malawi. To ensure that sanitation and hygiene are promoted during program implementation, the Local Artisans will ensure that sanitary facilities such as toilets are provided to ensure that human excreta are properly disposed of. In addition, the Local Artisans will provide potable and clean water to workers. Further, the Local artisans will provide waste receptacles to workers for the proper dispels of waste that will be generated during construction phase.

3.2. The National Legal Requirements

3.2.1. The Constitution of the Republic of Malawi (1995)

The breadth of MERP activities crosses the environmental, construction, education, and health sectors reflecting a range of legal and policy framework to comply with. The Constitution of the Republic of Malawi (1995) is the supreme law of the land. Section 13 (d) of the Constitution provides that the state shall actively promote the welfare and development of the people of Malawi by progressively adopting and implementing policies and legislation aimed at managing the environment responsibly in order to (i0 prevent the degradation of the environment (ii) provide a health living and working environment for the people of Malawi (iii) accord full recognition to the rights of future generations by means of promoting environmental and social protection and sustainable development of natural resources (iv) conserve and enhance the biological diversity of Malawi; and (v) enhance the quality of life in rural communities with the ultimate aim of attaining sustainable development.

3.2.2. Environmental Management Act, (1996) Cap.60:02

The Environment Management Act (1996) makes provision for the protection and management of the environment and the conservation and sustainable utilization of natural resources. Sections 24, 25 and 26 of the EMA provide the legal framework for managing the Environmental Impact Assessment (EIA) process. - Section 24 outlines activities that require an EIA before they can be implemented. A prescribed list of Programs for which EIA is mandatory is provided in Malawi's Guidelines for EIA, 1997.

3.2.3. Forestry Act (1997) Cap. 63:01

The Act provides for participatory forestry, forest management, forestry research, forestry education, forest industries, protection and rehabilitation of environmentally fragile areas and international cooperation in forestry. Fragile areas include steep slopes, riverbanks and water catchments areas. The Act prohibits construction and operation of a program in areas that are protected by the Act (e.g., steep slopes, riverbanks and water catchment areas). Furthermore, section 46 (a) states that "no person shall cut, take, fell, destroy, uproot, collect or remove forest products from a forest reserve, customary land,

public land, or protected forest area unless they have a license. Other Relevant Policies for considerations. The construction of classroom blocks and sanitation blocks can demand the use of poles and timber which can contribute to worrying deforestation rate around construction sites or indeed protected areas where trees.

3.2.4. Local Government Act (1998) Cap., 22:01

The Act, as read with Section 146 of the Constitution, provides the mandate to the local assemblies in planning, administration, and implementation of various development programs in their areas. It further provides for environmental functions, which include urban management, local planning, local afforestation programs, control of soil erosion, and appropriate management of solid and liquid waste.

3.2.5. Public Health Act, Cap 34.01

The Public Health Act requires developers to provide sanitary and health facilities in workplaces to promote health and well-being of the primary occupants and to avoid harmful effects of waste on public health. The Environmental and Social Assessment report recognizes the importance of practicing improved hygiene and use of improved sanitary facilities for sustainable livelihood.

3.2.6. Occupational Safety, Health and Welfare Act (1997) Cap. 55:07

The Act regulates work conditions with respect to safety, health, and welfare of workers. During construction phase, there will be several workers working on the site using different types of machinery and facilities. Construction activities in general pose several occupational health and safety risks and probable risks to workers and the surrounding communities at large. Furthermore, increased movement of vehicles and equipment during construction can pose a risk of accidents to the surrounding communities as well as the construction workers.

3.2.7. National Construction Industry Act, 1996

The Act provides for the establishment of the National Construction Industry Council of Malawi (NCIC), for the promotion and development of the construction industry, registration of persons engaged in the construction industry in Malawi, co-ordination of training of persons engaged in the construction industry and general matters incidental thereto. The NCIC is responsible for regulating the construction industry in Malawi through among others: registering consultants and construction firms, standardizing quality control, codes of practice, procurement process; and legal contractual procedures in liaison with other organization.

3.2.8. The Labor Relations Act, 1996

The Labour Relations Act promotes sound labour relations through the protection and promotion of freedom of association, encourages effective collective bargaining and promotes orderly and expeditious dispute settlement, conducive to social justice and economic development. Part V of the Act stipulates dispute settlement procedures by presenting ways and channels of dispute resolution. Furthermore, it encourages the establishment of internal dispute handling machinery as a primary platform to receive and handle workplace matters before the involvement of a third party. Pertaining to this, MERP will set up Workers Grievance Redress Management Committees within the

Grievance Redress Mechanism to provide an opportunity for reporting and settlement of grievances from workers. In addition, Occupational Safety, Health and Welfare Committees shall be instituted at each construction site in order to promote contact and dialogue.

3.2.9. Infection Prevention and Control Policy (2006)

This policy was formulated to provide guidance to health facilities in development and implementation of infection prevention and control programs. The policy emphasises that implementation of infection prevention and control programs be done at various levels of health care delivery system within the public and private sectors. Under the Infection Prevention Control (IPC) section, the policy stipulates that all health care facilities (public and private) in Malawi shall have an active IPC program in place; aimed at promoting IPC practices and surveillance focusing on clients, patients, health care personnel and the environment. The ESMF must not contradict the programs under infection prevention and control.

3.2.10.Malawi Standards (MS) 615: 2005

Waste within healthcare facilities, handling and disposal (code of practice): This standard provides criteria for segregation, collection, movement, storage and on-site disposal of waste within healthcare units, biological research facilities, abattoirs and veterinary surgeries. The standards must be observed at the COVID-19 service centres, laboratories, isolation/quarantine rooms and in general, the hospitals involved in the program.

3.2.11.Education Policies and Legal Framework

Malawi Republic Constitution, the Education Act of 2012, the Malawi Vison 2063 (MW2063), the Malawi Growth and Development Strategy III (MGDS III), the National Education Sector Plan (NESP, 2008-2017), the National Education Standards (2015) and the Policy Investment Framework (PIF, 2001), the National Education Policy (NEP, 2013) and associated policies promote ideals of socio-economic equity, justice and inclusivity. Section 13 of the Malawi Republican Constitution (1995) stipulates:

> *The state shall actively promote the welfare and development of the people of Malawi by progressively adopting and implementing policies and legislation aimed at achieving the following goals: gender equality, nutrition, health, the environment, rural life, education, the disabled, children, the family, the elderly, international relations, peaceful settlement of disputes, administration of justice, economic management and public trust and good governance.*

Consistent with the Republican Constitution, the Education Act of 2012, states: *The* purpose *of education in Malawi shall be to equip students with knowledge, skills and values to be self-reliant, and to contribute to national development. The Act further outlines the national goals of the education system, inter alia, to (i) develop in the student knowledge, understanding; and skills needed by Malawians to compete successfully in the modern and ever-changing world; (ii) promote national unity, patriotism and spirit of leadership and loyalty to the nation; and (iii) promote equality of educational opportunity for all Malawians by identifying and removing barriers to achievement.*

3.2.12.Public Health Act of 1966

The Public Health Act 1966 seeks to preserve public health through the following provisions relevant to the program:

Parts III, IV, V, VI and VII discuss infectious and epidemic diseases and how to handle them. These diseases may be identified during the construction phase among the program staff. The Act dictates notifying the Ministry of Health, when diseases such as T.B., Cholera and Measles are identified. A full list of notifiable disease is presented in Part III. Medical personnel, program managers, family members must follow the provisions given in the Act when handling the diseases, which among others include isolating the patients and allowing medical personnel to attend to the patients.

Part VIII discusses venereal diseases such as syphilis and acute and chronic gonorrhoea. The Act discourages employing people found with the diseases or keeping employees found with the diseases. This is however in conflict with the Constitution of the Republic of Malawi 1994 which is much more recent than the Public Health Act 1966. The constitution gives everyone the right to employment and hence cases will have to be treated differently depending on the nature of work, the employee is involved in.

Part IX of the Act relates to sanitation and prohibited nuisances. Following Part IX, the Local artisans must ensure that there are sanitary structures; vehicles and any other materials used are not in a state that can cause accidents; machine smoke cannot cause injuries to health; and that all material defined as nuisance are not in the workplace.

Part X has provisions for conservancy; sewerage and drainage; and encourage new buildings to have sewage systems, either private or public (connecting to the local authority sewerage). The Act further guides the protection of sewerage systems by preventing throwing or emptying waste that may injure the sewer, affect free flow of contents or affect treatment of sewage; emptying waste of higher temperature than 110oF; and emptying petroleum, sprit or carbide of calcium.

The provisions of the Public Health Act are to be followed and any deviation from the Act is punishable by fines and imprisonment. The Act gives the local authorities the right to inspect any premises for compliance with the Act.

3.2.13. The Employment Act of 1999

This Act 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
- Section 6(1) - Equal pay
- Section 7 - Remedies for infringement of fundamental rights
- Part IV of the Act prevents employment of young persons, and the restrictions are provided in detail in sections 21(1) and 22(1) as follows:
- "21. (1) subject to subsection (2), no person under the age of fourteen shall be employed or work in any public or private agricultural, industrial or non-industrial undertaking or any branch thereof. *22. (1) No person between the age of fourteen and eighteen years shall work or be employed in any occupation or activity that is likely to be - (Hazardous work) (a) harmful to the health, safety, education,*

morals or development of such a person; or (b) prejudicial to his attendance at school or any other vocational or training programme."

3.2.14.Workers Compensation Act (2000)

The Workers Compensation Act of 2000 provides for compensation for injuries suffered or diseases contracted by workers in the course of their employment or for death resulting from such injuries or diseases. Section 4 (1) states that if an injury, other than the contraction of a scheduled disease, arising out of and in the course of employment is caused to a worker, the employer shall, subject to this Act, be liable to pay compensation in accordance with this Act. To comply with this Act, MERP will ensure that all eligible occupationally injured workers are compensated accordingly. As such, artisans will be required to report to the nearest Labour Office every occupational accident (that incapacitates a worker from earning wages for at least7 days within 21 days of occurrence as stipulated in section 24 of Workers Compensation Act. To check artisans' compliance on this regulation, workers under the program and the School Management Committee will be sensitized on the provisions of the Workers Compensation Act.

3.2.15.HIV and AIDS (Prevention and Management) Act (2018)

The HIV and AIDS (Prevention and Management) Act makes provision for the prevention and management of HIV and AIDS; provisions for the rights and obligations of persons living with HIV or affected by HIV and AIDS; provisions for the establishment of the National AIDS Commission; and provisions for matters incidental thereto or connected therewith. Part 4, Section 6 (1) states that discrimination on a basis related to HIV or AIDS is prohibited. Part 5, Section 9 (1) states that a person living with HIV has the right to privacy and confidentiality regarding information concerning their status. Part 8 of this Act gives provisions to employers by stipulating requirements in several sections quoted as follows:

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

The MoE will ensure that HIV and AIDS intervention measures are put in place that respond to the requirements of the Act. The construction Local Artisans to be engaged need to have an HIV and AIDS workplace policy as a guide to implementing the interventions.

3.2.16.Occupational Safety, Health and Welfare Act, 1997

The Occupational Safety, Health and Welfare Act has provisions for the registration of a workplace and the regulation of the conditions of employment in workplaces, with regard to the safety, health and wellbeing of employees. The Act provides for inspection of plant and machinery, for the prevention of accidents in the workplaces, including government

establishments and operations, as well as building and civil engineering construction works (Section 5). It requires that employees are provided with appropriate protective clothing and equipment to prevent accident and injury.

The program will have to comply with the Occupational Safety, Health and Welfare Act when implementing the various program activities for refurbishment of the laboratories. Workers will have to be provided with appropriate protective clothing to prevent accidents related to the construction and operation functions; and breathing masks, earmuffs and goggles where they will be exposed to potential risks and offensive substances as required by the Act (Sections 58, 59, 60).

3.2.17. Gender Equality Act, 2013

The purpose of this Act is to act and address the inequalities prevalent between men and women in various aspects of daily life in Malawi. The Act seeks to promote gender equality, equal integration, influence, empowerment, dignity and opportunities for men and women in all functions of society; to prohibit and provide redress for sex discrimination, harmful practices and sexual harassment; to provide public awareness on promotion of gender equality. The Act applies to all persons and to all matters. This means it will apply to private and public institutions, including religious settings and chiefs. It also applies to the Government. It affects all aspects of life in Malawi. The Act in Part 2 prohibits of sexual discrimination and harmful social or cultural practices; Section 7 calls for all workplace policy to ensure that sexual harassment is avoided.

Section 14 (1) & (2) indicates that every person has the right to access education and training including vocational guidance at all levels except in the cases of special need, the Government shall take active measures to ensure that educational institutions provide equal access to girls and boys and women and men, to:

(a) The same curricula.
(b) The same examinations.
(c) Teaching staff with qualifications of the same standard.
(d) Institutional premises and equipment of the same quality, irrespective of sex of learners at the same level; or
(e) Provision of sanitary facilities that consider the specific needs of the sex of the learners.

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

3.2.18. Environment Management (Waste Management & Sanitation) Regulations, 2008

The regulations apply to the management of general and municipal waste in Malawi. Part III of the regulations has provisions on management of general or municipal solid waste with Section 7(1) regulating that any person who generates solid waste shall sort out the

waste by separating hazardous waste from the general or municipal solid waste. Section 8(1) regulates that every generator of waste shall be responsible for the safe and sanitary storage of all general or municipal solid waste accumulated on his or her property so as not to promote the propagation, harbourage or attraction of vectors or the creation of nuisances. Section 10(1) has provisions for collection of municipal solid waste as being the responsibility of a local authority.

Section 11 has provisions that general or municipal solid waste may be disposed of at any waste disposal site or plant identified and maintained by a competent local authority or owned or operated by any person licensed to do so under these Regulations. Part V of the regulations has provisions on management of municipal liquid waste with a general requirement stipulated in Section 23 that no person shall discharge effluent into the environment unless it meets prescribed environment standards. Section 36 has provisions on hazardous waste that state that:

(1) No industry, business or medical facility shall discharge any hazardous waste in any state into the environment unless such wastes have been treated in accordance with acceptable international methods that are approved by a competent local authority in consultation with the Director.

(2) *Hazardous wastes whether treated or not shall not be discharged into a disposal site or plant unless such disposal site or plant has been approved and licensed for that purpose in accordance with these Regulations.*

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

3.3. International Instruments on Safeguards

3.3.1. The Word Bank Environmental and Social Safeguards

The World Bank Environmental and Social Framework (ESF) sets out the World Bank's commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards (ESS) that are designed to support Borrowers' programs, with the aim of ending extreme poverty and promoting shared prosperity. Environmental and Social Standards (ESS) establish the standards that the Borrower and the program will meet through the program life cycle. Examination of these standards suggests that ESS1, ESS2, ESS3, ESS4 and ESS6 are the only relevant standards to the program as discussed below:

ESS1 - Assessment and Management of Environmental and Social Risks and Impacts. ESS1 obligates responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a program supported by the Bank through Investment Program Financing (IPF), in order to achieve environmental and social outcomes consistent with the ESSs. MERP has some activities which will both positively and negatively impact the environmental and social environment.

ESS2 - Labor and Working Conditions. This standard makes recognition of the importance of employment creation and income generation in the pursuit of poverty

reduction and inclusive economic growth. Borrowers are persuaded to promote sound worker-management relationships and enhance the development benefits of a program by treating the workers in the program fairly and providing safe and healthy working conditions. The programme will create employment opportunities for local artisans. However, there are risks which may arise from the construction activities as will be analyzed in the subsequent chapter.

ESS3 – Resource Efficiency and Pollution Prevention and Management. ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the program life cycle.

ESS4 – Community Health and Safety. The focus of this standard is to address the health, safety, and security risks and impacts on program-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable. Construction of classroom and sanitation facilities will involve gathering of community members at construction sites creating conducive environment for the spread of diseases. Moreover, transportation of materials will also create the risks of accidents. Thus, ESS4 has will apply to the construction works.

ESS5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement - involuntary resettlement should be avoided. Where involuntary resettlement is unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented. MERP implementation does not intend to acquire acquisition of new land. Rather the construction of blocks and sanitation facilities will take place on existing land on the school premises. Thus, ESS5 does not apply in this case as the MoE will avoid land acquisition of private land and resettlement of persons.

ESS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources. The standard recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. ESS6 also addresses sustainable management of primary production and harvesting of living natural resources and recognizes the need to consider the livelihood of program-affected parties, including Indigenous Peoples, whose access to, or use of, biodiversity or living natural resources may be affected by a program.

ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities ensures that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities. ESS7 is also meant to avoid adverse impacts of programs on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts.

ESS8 – Cultural Heritage recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. ESS8 sets out measures designed to protect cultural heritage throughout the program life cycle.

ESS 9 - Financial Intermediaries recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction. FIs are required to monitor and manage the environmental and social risks and impacts of their portfolio and FI subprograms, and monitor portfolio risk, as appropriate to the nature of intermediated financing. The way in which the FI will manage its portfolio will take various forms, depending on a number of considerations, including the capacity of the FI and the nature and scope of the funding to be provided by the FI.

ESS10–Stakeholder Engagement and Information Disclosure recognizes the importance of open and transparent engagement between the Borrower and program stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of programs, enhance program acceptance, and make a significant contribution to successful program design and implementation.

3.3.2. World Health Organization Guidelines on COVID-19

To help countries navigate through these challenges, the World Health Organization (WHO) has updated operational planning guidelines in balancing the demands of responding directly to COVID-19 while maintaining essential health service delivery and mitigating the risk of system collapse (**Annex** 1). This includes a set of targeted immediate actions that countries should consider at national, regional, and local level to reorganize and maintain access to high-quality essential health services for all. As the situation remains fluid it is critical that those managing both the national response as well as specific health care facilities and programs keep abreast of guidance provided by the WHO and other international best practice.

Most of the anticipated positive and negative environmental and social impacts can be effectively enhanced/mitigated by establishing measures for the various phases and components of the program. Compliance with national and international environmental and social criteria will be ensured by the mitigation measures.

3.3.3. International Labor Organization (ILO) and United Nations (UN) Conventions

Malawi is a signatory to International Labor Organization (ILO) and United Nations (UN) Conventions. Such being the case, most of the provisions in the ILO Conventions are incorporated in Malawi's labor related legislation. Additionally, ESS2 is in part informed by several International Labor Organization (ILO) and United Nations (UN) Conventions. These include:

- ILO Convention 87 on Freedom of Association and Protection of the Right to Organize.
- ILO Convention 98 on the Right to Organize and Collective Bargaining.
- ILO Convention 29 on Forced Labor.
- ILO Convention 105 on the Abolition of Forced Labor.
- ILO Convention 138 on Minimum Age (of Employment).
- ILO Convention 182 on the Worst Forms of Child Labor.

- ILO Convention 100 on Equal Remuneration.
- ILO Convention 111 on Discrimination (Employment and Occupation).
- ILO Convention 155 on Occupational Safety and Health
- ILO Convention 187 on Promotional Framework on Occupational Safety and Health

3.3.4. Climate Safeguards System (CSS)

The African Development Bank developed a Climate Safeguards System (CSS) as a set of decision-making tools and guides that enable to screen programs in vulnerable sectors for climate change risks and identify appropriate adaptation measures to reduce vulnerability. The system delivers on a key objective to mainstream climate screening and adaptation in programs. The CSS comprises four (4) modules:

- Climate Screening: the screening process assesses the vulnerability of a program concept to climate change and assigns to the program a categorization, ranging from 1 (most vulnerable) to 3 (least vulnerable).
- Adaptation Review and Evaluation Procedures: this set of procedures has been developed to enable the user to identify adaptation measures for a program; a different set of procedures is followed depending on the categorization of the program.
- Country Adaptation Factsheets: the factsheets can be produced at any time and are independent of the processes described above; they are based on a template into which up-to-date information on climate projections and country indicators can be imported from various sources.
- CSS Information Base: contains a portal that gives direct access to the climate projections developed for African Countries. It also contains a database of adaptation activities and links to a wide range of information sources on adaptation; it provides information required for use of the modules described above.

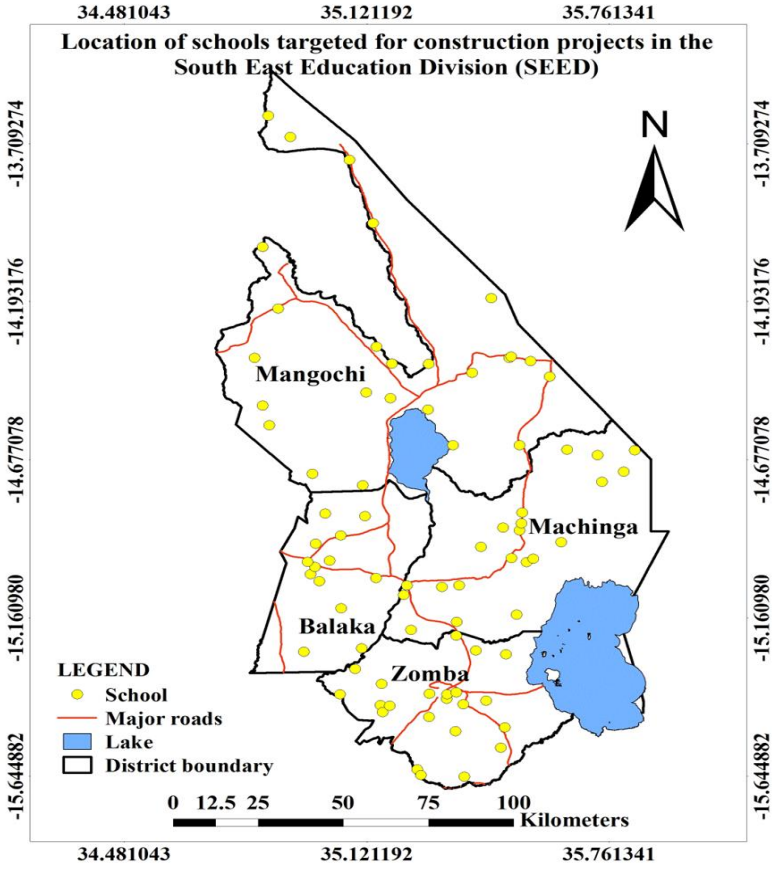
Table 8: Gaps between Malawi Legislation and World Bank ESS

World Bank ESS provisions	Malawi Legislation	Gaps Identified	Mitigation Measures
ESS 1: Assessment and Management of Environmental & Social Risks and Impacts	Environmental Management Act (1996) EIA Guidelines (1997)	Environmental Management Act (1996) and EIA Guidelines (1997) does not indicate the need to prepare ESMF for programs to guide the preparation of program specific ESMPs.	Preparation of the ESMF for MERP
ESS 2: Labour and Working Conditions	The Labour Relations Act (1996) Occupational Safety, Health and Welfare Act, (1997) Employment Act (2000)	The national legislation does not mention the need to develop Labour Management Plan or Procedures	MERP has followed ESS2 and developed labour management procedures with relevant provisions to bridge the gap
ESS 3: Pollution Prevention and Resource Efficiency	Environment Management Act (1996); Environmental Management (Waste Management and Sanitation) Regulations, (2008); Malawi Standards (MS) 615: 2005	The national legislation mostly focuses on pollution prevention and less on aspects of resource efficiency. However, the MS 615:2005 provides for the procedure management of Health Care Waste.	MERP will follow provisions of ESS3 on resource efficiency including development of mitigation measures for the SEED program. Waste management plan is developed and attached.
ESS 4: Community Health and Safety	Occupational Safety, Health and Welfare Act, (1997)	The Occupational Safety, Health and Welfare Act, (1997) does not focus much on community health and safety	ESS4 addresses potential risks and impacts on communities that may be affected by program activities.
ESS 10: Stakeholder Engagement & Information Disclosure	EIA guidelines (1997) Local Government Act (1998) National Decentralization Policy (2000)	No provision for development of the GRM	MERP has SEP with GRM

CHAPTER 4 – ENVIRONMENTAL AND SOCIAL SETTING

This chapter provides a description of existing environmental and social contexts in which the construction works will operate. The description is guided by the Terms of Reference which suggested the consultants to carry out a survey to collect, collate and present baseline information of the existing environmental and socio-economic characteristics of, within and around the proposed subprogram sites. The consultant uses secondary information to accomplish this task.

4.1. The Biophysical Contexts of SEED



The Southeast Education Division comprises four districts including Zomba, Machinga, Balaka and Mangochi which together were allocated a total of 268 school blocks and 24 sanitation blocks spread across the division (Figure 3). This section describes the SEED biophysical environment at a broader scale although the ideally site-specific descriptions would have been desirable. Where necessary, site-specific features are described.

Figure 1– SEED Map indicating the school location where classroom and sanitation blocks will be constructed under the MERP Component 2.

All subcomponent activities described under sections 2.1.1 - 2.1.3 will apply to the SEED program. The ESA was imposed on a total sample of 26 sample schools to prepare a single ESMP for the division. This section describes the biophysical environment at the district level within which the schools are located.

4.2. Balaka District

4.2.1. The Biophysical Environment

Geographical Location*:* Balaka District is located in the Southern Region of the Republic of Malawi. Ntcheu borders it to the northwest, Mangochi to the north, Machinga to the east, Zomba to the southeast, Blantyre to the south, and Neno to the southwest. The district headquarters is 201 km from Lilongwe, the capital city of Malawi, and about 127 km from Blantyre, the main commercial centre in the country. The district covers an area of 2,193km2 representing 2.4% of the total land area of Malawi. It is the 20th largest district in the country and the seventh largest in the Southern Region. Balaka District is located in latitude 140 59'15.38"S longitude 340 57'22.23"E.

Climate and climate change: Climate and climate change influence the design as well the construction activities. Balaka has two distinct seasons, a cool, dry season that runs from June to August and a rainy season from October to April while May and September are transitional months. The average annual rainfall for the district is 750mm. The district generally experiences hot to warm climate with mean annual temperature of 25^0C, with the highest temperatures being experienced in areas close to Shire River. The lowest temperatures in the district are normally experienced in June and July while the highest temperatures are registered in October and November. Balaka, being in the Great Rift Valley, experiences varied climatic changes. Temperatures range from 19 to 38^0C with an annual average around 25^0C. Balaka is one of the vulnerable districts to climate change experiencing frequent dry spells and flash floods including windstorms. Rainfall amounts and days vary in each of the Extension Planning Areas (EPAs), across the last four years. The mean rainfall for the district is 541mm/annum which is below the national average for the same period. Ulongwe received the highest amount (737mm/annum) seconded by Bazale (664mm). Utale and Phalula receive the lowest rainfall of 448 and 451mm and rainfall days of 69 and 52 days, respectively. On the other hand, Bazale, Mpilisi and Ulongwe experience long rainy seasons and would be ideal for crops which mature relatively late. Utale and Phalula are rain shadow areas and generally not suitable for most crops except drought tolerant varieties. Our ESMP should consider the climatic vulnerabilities highlighted here.

Geology and Soils*:* The types, fertility levels, and characteristics of the soils determine land use and classification. Soil types in Balaka vary across landscapes, with dominantly occurring alluvial soils often calcimorphic, lithosols, mopanosols, gleys and ferruginous soils. There are medium-textured sandy soils along the Shire River, sandy loam to clay sandy soils with medium textures in the upper Balaka plain and heavy-textured sandy medium and shallow stone soils in part of the upper Ulongwe and Bazale. Phalula is characterized by gravel and loams soils as Utale has generally sandy loams, clay sands, and sandy soils with medium texture. While some areas are generally suitable for construction, it will be necessary to assess site-specific conditions for stable foundations. Consultation with the district councils and school management committees is recommended for informed decisions.

Vegetation: Vegetation in Balaka is characterized as: closed canopy woodland, woodland/savannah (mixed species), and Mopane woodland. Other small areas are covered with perennial wet grassland (Shire Valley) and open canopy woodland of hills and scarps.

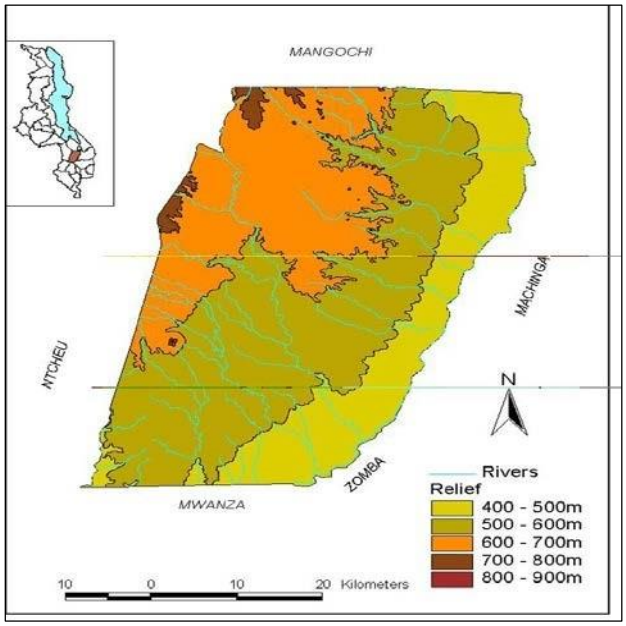


Figure 2 – Vegetation type distribution across Balaka District (Source: Balaka SEP).

4.2.2. Socioeconomic Contexts

Population: The programed population of Balaka district in 2017 was 422,925 (NSO, 2008). The district has ten Traditional Authorities (TAs): Amidu, Chanthunya, Kachenga, Kalembo, Nkaya, Nsamala, Sawali, Phalula, Toleza, and Matola. The annual population growth rate for the district is 3.5 per 1,000 populations (DHS 2010 report). Population distribution of the district by TA indicates that TA Nsamala is the most populated, claiming 23.5% of the total population.

Education service and challenges*:* Balaka district considers education and skills development key for socio-economic development; industrial growth; and economic empowerment for different groups of people especially women, youth, and disabled persons. Education also has a strong impact on literacy; behavior in terms of reproductive, maternal and child health; and HIV and AIDS awareness. The district has 165 primary schools of which 161 are public primary schools and four are registered private primary schools. These primary schools are grouped into twelve education zones, each of which has an average of around thirteen schools.

Balaka has approximately 1,800 teachers in public primary schools of whom 1,000 are male and 800 are female (41.7%). The distribution is skewed to urban centres because of favorable facilities such as hospitals and tarmac roads. Few female teachers work in rural areas as they tend to follow and stay with their spouses who work in urban centres. In private primary schools, there are 36 teachers in the district, of which 10 are females (27.8%). Pupil Teacher Ratio of 77:1 has been documented which is higher than the recommended 60:1. Some zones, such as Nkhonde and Ulongwe, have very high PTRs. This could be attributed to increasing primary enrolment in public schools and high attrition of teachers due to deaths, resignations, and transfers to other districts. The

district needs a total of 538 additional teachers for it to attain the recommended PTR of 60:1. Other challenges in the primary schools are as follows.

- Shortage of qualified teachers
- Shortage of classroom blocks and accommodation for teachers
- Shortage of facilities such as furniture, boreholes (safe water), and latrines
- Lack of purpose-built TDCs in Chiendausiku, Maduwani, Mpilisi, Mponda, and Nkhonde
- HIV/AIDS prevalence that causes death, absenteeism, and OVCs.
- Inadequate teaching and learning materials such as textbooks.
- Learners come to school hungry and may not be in a school with a school-feeding Programme.

A fresh look at these problems suggest that MERP is a relevant program to the district although safeguard measures are needed to enhance purported benefits of the program.

Opportunities for MERP and the ESMP

- Good community participation
- Presence of development partners such as Build On, United Purpose, CRECCOM, World Vision, Village Reach, Program Concern International (PCI), Eagles Relief, and Save the Children.
- Presence of active PTA, SMC, and Mother Group committees
- Cooperation among teachers
- Presence of Primary School Improvement Programme (PSIP)
- Tremendous increases in enrolment
- Good relationship between learners, teachers, and communities

Health Services: Balaka District is faced with many health systems challenges, including inadequate infrastructure, inadequate staff houses, inadequate health personnel, and familiar disease and health conditions such as Sexually Transmitted Infections including HIV and AIDS, vaccine preventable diseases, maternal complications, tuberculosis, malnutrition, and diarrhea. These contribute to high maternal and under-five children's deaths which are at 10 and 33 per 1,000 annually, respectively. HIV and AIDS is a real problem in all the SEED district. Balaka's District AIDS Coordinating Committee (DACC) coordinates all activities related to HIV/AIDS in the district. The committee mainstreams HIV/AIDS activities into other sector programmes in order to achieve the 90:90:90 target, in accordance with the National HIV/AIDS Strategy. Raising awareness among workers about the HIV and AIDS situation is fundamentally important. The strategy would be to integrate awareness within the implementation of SEP.

Environmental degradation: Balaka is characterized by medium-textured sandy loamy soils prone to erosion and fertility loss. This poses challenges in river salination, particularly the Shire River, and affects the fisheries, agriculture, and energy sectors. Although data to show trends of soil erosion is not readily available at the district level, the increasing sediment loads in rivers and reservoirs provides evidence of increasing rates of soil erosion.

Deforestation: Deforestation has contributed to water salinity and lowering of the water table. Virtually all rivers carry loads of sediments deposited through soil erosion leading to siltation. Water hyacinth on the Shire River at Liwonde barrage has affected aquatic life like fish.

Waste: Over 60% of waste produced is solid waste, followed by liquid and gaseous waste. These wastes are mainly produced by households, markets, hospitals, and industries. The most challenging waste sources are markets where the district is responsible for waste management. The construction sites are attraction points for markets which often produce wastes.

Habitat loss: Habitat loss presents the single greatest threat to biodiversity and is an important cause of known extinctions. All species have specific food and habitat needs. The more specific these needs are and the more localized the habitat become, the greater the vulnerability of species to loss of habitat. In Balaka, loss of habitat comes from population pressure leading converting forested lands to agricultural use. Most customary land in the district has been denuded of its flora and fauna and the only species surviving are those whose habitats are highly protected in parks.

Invasive Alien Species (IAS): IAS are recognized as the second greatest threat to biological diversity after habitat loss. The spread of IAS threatens many local species with extinction. Invasive species may out-compete native species, repressing or excluding them and, therefore, fundamentally change the ecosystem. Current records of the IAS in Malawi, estimate the country increased its number of IAS from 29 - 31 IAS with the inclusion of black wattle and Eucalyptus bug (Fifth CBD Country Report - Malawi). The main pathways of IAs include agriculture, ornamentals, horticulture and forestry.

4.3. Machinga District

4.3.1. Biophysical Environment

Geographical location: Machinga District is in the Eastern Region of Malawi, between Lakes Chilwa, Chiuta, and Malombe and shares common boundaries with Mangochi District in the north, Zomba District in the south, Balaka District in the west, and the Republic of Mozambique in the east (Figure 3). The district is approximately 101 km north of Blantyre and about 258 km south of Lilongwe, the capital city of Malawi.

The total land area is estimated at 3,771 square km and its population density is 172 persons per square km, making the district one of the least densely populated in the Eastern Region. Liwonde National Park covers 596 km^2 of flat terrain of the Rift Valley floor east of the Shire River and south of Lake Malombe. The Malosa-Liwonde Forest Reserves, Ntaja Escarpment in Kawinga, and Lungwe Hills in the Nyambi area are mountainous with gradients of more than 12% and flat-bottom valleys. The Kawinga Plain is drained by the Mpiri, Mikoko, Lifune and Sankhwi Rivers, which flow into Lakes Chiuta and Chilwa. With the exception of the natural mound running east to west, dividing the marshes and providing a transportation corridor through to Nayuchi, the area around the lakes is flat with strips of seasonal marshes bordering Lakes Chilwa and Chiuta.

Geology and soils: In the lowlands, rock outcrops are very rare due to thick and widespread soil. However, near the geothermal manifestations, there are Precambrian Basement Complex outcrops composed of quartz-feldspathic gneiss with some strips of

high grade-coarse grained marble. In the western and southern parts, the regionally predominant biotite-hornblende gneiss largely outcrops the area. The topographically high domes of Junguni and Mongolowe are composed of syenites and nepheline syenites belonging to the Paleozoic Lake Malawi Granite Province. There are many evident morphological breakups that may be referred to as faults, and the drainage pattern itself indicates some preferential trends that could be related with hidden structures.

There are four soil types occurring in the district. Nsanama, Nampeya, Nanyumbu, and Chikweo. EPAs have loamy sand to sandy loam soils and occur around Lakes Chiuta and Chilwa. Nyambi, Mbonechera, and Mtubwi EPAs have clay loam-to-loam clay soils. The upper parts of the EPAs have sandy loam to sandy clay, while the lower parts of EPAs have loam to sandy clay loam soils. Soil erosion in the district has resulted in significant reduction of yields and formation of gullies and floods in areas like TAs Liwonde and Sitola. The grazing lands in the district are all punctuated with reels and gullies. According to the World Bank's National Environmental Action Plan (1991), 13 tons of soil per hectare per year are lost through erosion in Machinga District. This results in yield loss from 2.6 to7.4%.

Climate and Climate Change: Machinga District generally experiences warm to hot temperatures. Minimum temperatures range from 14°C to 22°C in June and July, while maximum temperatures ranges from 22°C to 33°C in October and November. The maximum extreme temperature registered was 33.4°C in December 2013 and minimum extreme temperature registered was 14.0°C in July 2013.

4.3.2. Social-economic context

Human population: According to the NSO (2008) population, in 2017 Machinga District had a population of 647,401 of which 312,961 were males and 334,441 were females. Chief Kawinga's area is the most populated in the district, with approximately 23% of the total population. The population growth rate for Machinga district is 2.9%, which is slightly higher than the national average growth rate of 2.8%. The district fertility rate is 6.1 children per woman (NSO 2008), against the national rate of 5.2. The underlining causes of this high fertility rate are low uptake of contraceptives, early marriages, and teen pregnancies.

Labor and Employment: Machinga District Labor force comprises men, women, and youth. The labor force participation rate for both the formal and informal sectors is 99.1%, 99.2% for men and 98.9% for women (NSO 2008). Most employment is done informally, as is evidenced by the low numbers of people seeking formal employment through the District Labor Office. A total of 361 job seekers reported over the last five years. The total number of employed people in the formal and informal sector is 8,100, of which 5,600 are men and 2,500 are women. Records for employment figures in the formal sector are scarce and indicate that almost 25% of the total 8,100 are employed formally. These figures have implications for recruitment of both construction artisans and Auxiliary Teachers.

Health: Machinga is one of the cholera hotspots in Malawi; experiencing outbreaks almost every year. The main risk factors are use of unsafe water, poor hygiene practices, and poor sanitation. The problem is worst in Lake Chilwa where people live right on the lake in temporary shelter built on the lake locally known as Zimbowela and use the lake

both as a toilet and a source of drinking water. Cholera outbreaks lead to unnecessary loss of life and disrupt health services and economic activities. There is a need to intensify water, hygiene, and sanitation activities with special attention to Lake Chilwa's community. Local leaders, beach committees and the fishermen themselves should effectively address this health issue.

Education: The literacy rate of the adult population in the district as reported in the Welfare Monitoring Survey (WMS) (2011) was 59.7%, which is lower than the national average adult literacy rate of 73.6%. The literacy rate for Machinga's women is 46.4%. High illiteracy levels can be attributed to the large number of pupils who drop out of the school system before they reach Standard 5.

4.3. Mangochi District

4.3.1. Biophysical and Socioeconomic Contexts

Geographical location: Mangochi District is situated in the Southern Region of Malawi (at the Southern end of Lake Malawi). It entirely surrounds the eastern tip of Lake Malawi. The district shares boundaries with the following districts: Machinga in the South-East, Balaka, Ntcheu and Dedza in the South –West, Salima in the North and shares an international boundary with Mozambique in the East and Northeast. Mangochi District has a total land area of 6,273 km^2 which is proportionately 19.8 percent and 6.7 percent of the southern region and the whole country land area respectively. Mangochi District is approximately 200 Kilometers from Blantyre, a major commercial and industrial city of the country. The district is approximately 320Km from Lilongwe via Liwonde. The average traveling time by road from Blantyre and Lilongwe is 2.5 and 4 hours respectively, at an average speed of 80 kilometers per hour.

Topography geology and soils: Mangochi district lies between the rift valley of the southern end of Malawi. The topography of Mangochi falls into 2 categories; the rift valley/coastal; plans and hilly-forested areas which arise above plains. The hilly areas run from the North-East running Southwards. It includes the Namizimu Forest reserve and Mangochi hills among others. The hilly areas rise above undulating to flat plains where estates are common. The Western side of the district is dominated by flat plains but punctuated by isolated and a chain of hills.

The district is underlined by crystalline rocks of Precambrian to lower Paleozoic which are mainly referred to as Malawi Basement Complex. These rocks are overlain unconformably by sedimentary rocks and subordinate alkaline igneous complexes. Alkaline igneous complex is common in the district as the district lies between the rift valley of the southern end of Malawi and are called Chilwa Alkaline Province. The Chilwa Alkaline has an exceptional range of lithologies, from carbonatite to alkaline granite. The carbonatite includes pyrochlore, bastnaesite, monazite, phosphate, fluorite and carbonate. In addition, tertiary lacustrine deposits occur in a narrow belt parallel to the lakeshore. These range from sandstone, mudstone, gravel and shell limestone among others (JICA et al..,2013). Mangochi district lies within the rift valley, hence, lithosol soils dominate the district. These soils are shallow and stony. There are also alluvial soils mainly around Lake Malawi and Lake Malombe. The alluvial soils are grey to brown in

colour and neutral to weakly alkaline in nature. In addition, dambo soils occur on the stretch between Lake Malawi and Lake Malombe and they are called gleys or hydromorphic soils (GoM, Mangochi SEP 2017-2022).

Hydrology: The program area has numerous water bodies including lakes, rivers and streams. Mangochi has Lake Malawi and rivers including the Shire River which is a source of water for domestic purposes in some households within the program area. The lake and rivers have fresh water used for irrigation in the dry season.

***Climate and climate change*:** Mangochi District experiences warm tropical climate with mean annual temperatures ranging from 18 to 32 degrees. In exceptional instances, temperatures go as high as 40 degrees Celsius. The lowest temperatures are experienced in June and July while the highest temperatures are registered between the months of October and November. The climatic zones are distinguishable in Mangochi. The eastern highlands covering the entire Namwera experience cooler temperatures and receive more rains. While the Coastal plains, from the foot of Namizimu Highland Forest Reserve, Chilipa area and the Bwanje receives less rains and experience high temperatures. The dry season in Mangochi extends from May to October.

Vulnerability: Seven of the 14 Traditional Areas in Mangochi district are classified as flood prone. In Mangochi district, local populations have been deprived of their main livelihoods due to the intense alternating between droughts and floods caused by El Niño. Vulnerability has been exacerbated by other socio-economic problems such as high illiteracy rates. The development issues which have been identified in the district include high population growth, high illiteracy levels, food and nutrition insecurity at household level, high morbidity and mortality rates, loss of biodiversity and environmental degradation, low access to safe water and sanitation, poor road and communication network, high HIV prevalence, high crime rate, high incidences of Gender Based Violence, low household incomes, weak revenue base for the Council and weak Institutional capacity for the effective decentralized services delivery.

4.3.2. Socioeconomic Contexts

Population: The programed total population of the district for 2017 is 1,091,666 with the annual growth rate of 3.55% according to 2008 Population and Housing Census Main Report.

Education and Challenges: Mangochi faces challenges in the delivery of education services. According to the 2015 Malawi Statistical Yearbook, 91% of Mangochi population over 15 had no education, compared to 74.2% of Malawi´s total population.

4.4. Zomba District

4.4.1. Biophysical and Socioeconomic Contexts

Location: Zomba District covers an area of 2,580 square kilometers, which represents about 3% of the total land area of Malawi. The district shares boundaries with Machinga District to the North, Balaka District to the Northwest, Mulanje and Phalombe Districts to the South, Chiradzulu District to the Southwest and the Republic of Mozambique to the East. According to the National Physical Development Plan (NPDP) of 1998, Zomba District ranks as a sub-regional centre in terms of its size to the other surrounding Districts.

Topography, Geology and Soils: The topography of Zomba District offers a great variety; from mountainous and hilly regions of the Zomba Plateau which forms the ridge dividing the Upper Shire Valley in the western part of the district, to the broad, flat plains of Lake Chilwa in the East. The district elevation varies from 2,085 metres above sea level on Zomba Plateau to 627 metres at Lake Chilwa. The diverse topographic characteristics generate a vertical and horizontal variety of climatic zones between different areas of the district. The geology of Zomba District is also very diverse. Generally, the base complex is composed of metamorphic rocks derived from sedimentary and igneous rocks of Precambrian origin. These zones contain (i) Mineral limestone, which are mined on a commercial basis; (ii) Sand, which is suited for glass manufacturing and (iii) Gemstones such as amethyst, tourmaline and aegerine, which are found in Mpyupyu Mountain and Zomba Plateau. The Plains surrounding Lake Chilwa are characterized mainly by sandy and rocky solid that show some stratification.

Hydrology: The major rivers in Zomba District are the Shire, Likangala, Thondwe, Domasi, Mulunguzi, Naisi, Namadzi, Phalombe Lintipe and Likwenu. Zomba Plateau is the source of all but two of these rivers, namely the Shire, which originates in Lake Malawi and Phalombe, which originates on Mulanje Mountain. The rivers form part of the Lake Chilwa Catchment Area. Lake Chilwa, an inland drainage lake located kilometres eastwards from Zomba City, is the only lake in the district and the most prominent source of water and fish for many residents of the district and surrounding areas.

The soils in Zomba District are mostly well-drained, yellowish-brown to reddish-brown, medium to fine textured and slightly medium acidic and of great depth. Generally, soils in the district can be grouped as lithol soils for the high areas and terrigenous soils for the low-lying areas. West of Lake Chilwa, moderately deep sandy soils occur over either ironstone or soil parent materials with a high percentage of iron oxides or concretions. At the lowest sites in the landscape around Lake Chilwa, soils have developed under the influence of groundwater or stagnant water, resulting in poorly to imperfectly drained soils with a dark grey color and classified as eutric and mollic gleysols. Generally, the overall type and texture of the soils in the low-lying areas are suitable for intensified agriculture.

The upland soils, though less fertile, are suitable for developments in agro- forestry, riverine farming. In general, the soils in Zomba District are moderately fertile, with the fertility rising with the proximity to either Zomba Plateau or Lake Chilwa. Due to deforestation and agricultural practices, soil erosion becomes a rising concern.

Vegetation: Zomba District can be separated into two distinct biotic communities. The highland, which enjoys medium to high rainfall is semi-evergreen forest, while the other part is primarily savannah, turning into moderate wetlands towards Lake Chilwa.
The vegetation in Zomba is characterized by 'Miombo' woodlands (on the plateau, hills and escarpments), and 'Mopane' woodlands, which are largely dominated by *Colophospermum Mopane* with open glades, cover the fringes of the district. Woodlands consisting of natural tree species like brachystegia stipulata, brachystegia manga, brachystegia speciformis and *Jusbemadia globifora.* Wetland vegetation is dominated by perennial wet fringes. The natural vegetation has been reduced and disturbed in recent years due to cultivation.

Climate. Zomba experiences a tropical climate with three main seasons – cold-dry, hot-dry and hot-wet, ranging respectively from April to July, August to October and November to March. The hottest months are September, October and November, with average temperatures ranging between 28 and 30 degrees Celsius. June and July are the coldest months, with minimum temperatures as low as 10°C. The annual rainfall varies between 600mm and 1500mm. On average, February is the wettest month. More rainfall tends to fall on the windward (eastern) side of Zomba Mountain. Areas to the west of Zomba Plateau experience little rainfall throughout the year, as they are located on the leeward side. Zomba district faces the impacts of climate change including occurrence of extreme weather events such as floods, cyclones and droughts.

4.5. Climate Change and Disaster Risks

All districts under SEED are vulnerable to the impacts of climate change and most common threats are flush floods and strong winds. These have implications for resilient designs of the school blocks. Observations, on the ground showed that old school blocks have developed cracks. This suggests the need to consider the design that accounts for resilience to climate change. Results of vulnerability assessment at country level shows observed changes in climate as follows:

- Mean annual temperature has increased by 0.9°C between 1960 and 2006, an average rate of 0.21°C per decade. This increase in temperature has been most rapid in the rainy summer (December to February) and lowest in the hottest season (September to November).
- The average number of 'hot' days per year in Malawi has increased by 30 between 1960 and 2003.
- The average number of 'cold' days per year has decreased by 16 between 1960 and 2003. Northern and Southern Malawi has experienced a drying trend since the early 2000s, while Malawi's centre has seen slightly increased rains.

Projections indicate consistent increase in temperatures across time scales and across geographical regions of the country.

Table 9 – Programed Temperature

Geographical Location	Near Century Period: 2011-2040.	Mid Century Period: 2041-2070.	End century Period: 2071-2100.
Lower Shire Valley	0.03^{o}C-0.04^{o}C: temperature increase.	1.4^{o}C-2.8^{o}C: temperature increase.	2.5^{o}C-4.2^{o}C: temperature increase.
Shire Highlands	0.034^{o}C temperature increase (Jun-Dec).	1.0^{o}C: temperature increase.	1.5^{o}C-2.4^{o}C: temperature increase.
Central Areas	0.7^{o}C-0.9^{o}C: increase. temperature	1.3^{o}C: temperature increase.	temperature increase.

Lakeshore Areas	0.8°C-0.9°C: Increase temperature	1.5°C-2.0°C: temperature increase.	2.5°C-3.0°C: temperature increase.
Northern Areas	0.2C-0.9°C: Increase temperature	1.4°C-1.9°C: temperature increase.	1.7°C-2.3°C: temperature increase.

Table 10 – Programed Precipitation

Location	Near Century Period: 2011-2040.	Mid Century Period: 2041- 2070.	End Century Period: 2071-2100.
Lower Shire Valley	800 mm – 1000 mm: mean rainfall.	January rainfall to increase by 8% while summer will be drier by 3% to 5%.	Rainfall to decrease by about 15%.
Shire Highlands	1000 mm – 1200 mm: mean rainfall.	Winter rainfall to increase by 15% while summer rainfall will decrease by 10%	Summer rainfall to decrease by 25%.
Central Areas	800 mm -1100 mm: mean rainfall.	Rainfall to decrease by 10% to 22% (Oct to Dec).	Rainfall to decrease by 20% to 56% (Oct-Dec).
Lakeshore Areas	Increased rainfall by 5% to 25% (Mar to Apr).	Winter rainfall will decrease by 65%.	A general decrease in rainfall by 60%.
Northern Areas	Increased rainfall by 3% to 8% (Jan to Apr).	Decreased rainfall decrease by 10% to 36% (Oct to Dec).	Rainfall to decrease by 56%.

Contrastingly, precipitation projections are not consistent over time and across geographical regions of the country. Based on the programed climate changes, the country climate will become more extreme, with more high intensity rainfall events and higher temperature. SEED region falls under Shire Highlands and Lakeshore areas increased rainfall in the next decade although beyond this decade rainfall will decrease. Temperatures in the region will consistently increase (Table 8).

CHAPTER 5 – ASSESSMENT OF ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

5.1. General Environmental and Social Impacts and Risks

The planned construction is expected to directly contribute to achievement of the overarching program development objective which is is to improve learning environments for students in lower primary in the public schools**.** Construction works will general both environmental and social benefits as follows:

5.1.1. Environmental Benefits

Environmental degradation is one of the major challenges facing the country and some parts of the SEED program areas are no exception. Implementation of the program will have the following environmental benefits/impacts:

- Increased environmental awareness among the local communities and improved management of the school environment.
- Enhanced aesthetic look of the school environment making the learning attractive to learners.
- Contribution to government's afforestation agenda. The proposed tree planting will promote restoration of degraded areas of the school environment.
- Improved waste management. During operation of the school blocks waste management facilities will be left for use by schools, thus promoting sanitation and hygiene in schools.
- Reduction of soil erosion resulting from restoration of bare ground.
- The program contributes to climate change mitigation by promoting tree planting after decommissioning the program.

5.1.2. Environmental Benefit Enhancement Measures

The construction of school blocks and sanitation blocks brings some environmental benefits and can be enhanced through:

- Support the engagement of local communities systematically through environmental restoration programs and environmental awareness programmes. School Management Committees should work with District Environmental Officers for guidance in the development of School Environmental Management Programmes.
- Support ongoing tree planting initiatives around the school blocks but avoid the use of exotic trees which are invasive.
- Strengthen the capacity of school management for effective waste management and promote the concept of circular economy in schools.
- Support actions for biodiversity in schools.
- Provide opportunities for reskilling and upskilling for the green transition.

5.1.3. Social Benefits

During the screening process, respondents expressed positive attitudes towards the program. They also articulated expected benefits accruing from the program (Table 10).

Table 11 – Perceived benefits of the program by various stakeholders.

Stakeholder Category	Stakeholder perceived benefits of the program.
School Management Committees	In all visited schools, representatives of the SMCs appreciated the program for several good reasons. The program will: • Reduce absenteeism especially among girls owing to the provision of sanitary facilities and good leaning environment. • Disruption of classes due to bad weather conditions will be reduced as learning under trees will be an issue of the past.
Headteachers and Teachers	In all schools, this category of respondents believed that: • The recruitment of Auxiliary Teachers will reduce workload and give maximum attention to learners. • Head Teachers also expect the classroom construction to increase performance among pupils. • Reduction in overcrowding thereby creating more conducive environment for learning. • Improved attendance by girls given sanitation blocks.
Learners	Representatives of learners included: • The program will enhance learning environment. • Learners who learn outside classrooms attend classes intermittently. With the provision of school blocks this behavior will be under control. • Extended periods of learning as a result of increased classrooms. This will improve learning for good performance.
Members of the Community	Communities around the construction sites were optimistic of employment opportunities through the provision of the following: • Foundation excavation • Sand and building blocks. • Involvement in the construction of the blocks • Transpiration of materials. • Selling pols for scaffolding

Other social benefits captured during the screening process include the following:

- Promotion of local skills especially the local artisans
- Asset creation among the construction workers
- Enhanced social cohesion because of community engagement and creation of sense of ownership of school management.

5.1.4. Social Benefits Enhancement

To enhance the benefits of the program the following measures should be instituted:

- Use the Labour Management Procedures, the SEP, and all MERP operational documents to ensure compliance to national and international best practices.
- Provide employment opportunities to the local communities as artisans and suppliers of construction materials but build capacity among the local artisans for quality and efficiency.
- Collaborate with Community Police to ensure safety of the construction materials. Empower school management committees for effective engagement and collaboration with the local artisans.
- Coordinate the program implementation processes with strong local participation.

5.2. Evaluating potential impacts and risks of the construction works

As indicated earlier, the construction works trigger only ESS1, ESS2, ESS3, ESS4 and ESS6. The significance of the risks and impacts is generally moderate given the extent of the activities (Table 11).

Table 12 – Significance of impacts and risks based on the screening and assessment results.

Environmental And Standards	Key assessment results	Ranking risks and impacts
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	The programme will generate limited environmental and social impacts confined within limited spaiotemporal scale. SEP, ESMF, Consutruction Manual, Labour Manageent Procedures have included messures to minimise potential risks and impacts. Specific risks and impacts are described later in this chapter.	**Moderate**
ESS2: Labor and Working Conditions	The screening process and the assessment activitiy revealed the following potentail impacts: ▪ The risk of unfair treatment, discrimination, and discrimination among construction workers especially the artisans. ▪ The risk of different forms of forced labor and child labor.	Moderate
ESS3: Resource Efficiency and Pollution Prevention and Management	Construction works will involve land clearing, transfer of construction materaisl such as sand and quarry dust and use of chemicals to contrlol termites. All these activties have the following impacts: ▪ Reduced air quality ▪ Increased noise ▪ Soil and groundwater pollution prevention and control Considering the size of the constructions, the spatial scale of coverage, the magnitude of these impacts is unlikely to genertae signifcant impacts.	Moderate
ESS4: Community Health and Safety	Construction activities will involve interactions among the local communities. If not controlled, work migrants pose health risks. Construction activities, equipment, and infrastructure can increase community exposure to accidents. Communities that are already subjected to impacts from climate change may also experience an acceleration or intensification of impacts due poor design and site selection. Gender-Based Violence (GBV) or Sexual Exploitation and Abuse (SEA) of children may arise from the interaction of program the local artisans with vulnerable groups such as women and children. Given that, the SEP and Labour Management Procedures are in place, and their implementation will reduce the significance of these risks.	Moderate
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Construction sites are not located any cose to the protected areas. However, limited number of trees may be removed during site preparations activties. During operations planting of of ornamental plants may pose treats to biodiversity and ecosystems.	**Low**

5.3. Gap analysis between the Malawi legal framework and the World Bank Environmental and Social Framework

For ESS 1, it is mandatory for all programs/programs supported by the World Bank through Investment Program Financing (of which MERP is party), to have the environmental and social assessment and management of social risks and impacts carried out. Thus, the program has to be subjected to Environmental and Social screening process under this standard. Additionally, there is a possibility that the construction activities are likely to cause negative environmental and social risks and impacts and hence, need for subjecting the program to Environmental and Social screening process. However, with regards to MERP, the gaps are shown in Table 2-4b.

Table 13: Gaps between World Bank ESS and Malawi Legislation

World Bank ESS provisions	Malawi Legislation	Gaps Identified	Mitigation Measures
ESS 1: Assessment and Management of Environmental & Social Risks and Impacts	Environmental Management Act (2017) EIA Guidelines (1997)	Environmental Management Act (2017) and EIA Guidelines (1997) do not indicate the need to prepare ESMF for programs/programs whose exact locations are either known or not. Only ESIA process is discussed.	Preparation of the ESMF MERP
ESS 2: Labor and Working Conditions	The Labor Relations Act (1996) Occupational Safety, Health and Welfare (Amendment) Act, (2014) Employment Act (2000)	The national legislation does not mention the need to develop Labor Management Procedures, including the requirement for grievance mechanism to be established as early as possible in the program/program development phase.	MERP has followed ESS2 and developed Labor Management Procedures with relevant provisions and GRM to bridge the gap
ESS 3: Pollution Prevention and Resource Efficiency	Environment Management Act (2017); Environmental Management (Waste Management and Sanitation) Regulations, (2008)	The national legislation mostly focuses on pollution prevention and less on aspects of resource efficiency.	MERP will follow provisions of ESS3 on resource efficiency which included the program screening of its activities for risks and impacts assessment
ESS 4: Community Health and Safety	Occupational Safety, Health and Welfare	Though issues of Infrastructure and Equipment Design and Safety are highlighted in	This gap has been addressed through the implementation of ESS4 and World Bank

World Bank ESS provisions	Malawi Legislation	Gaps Identified	Mitigation Measures
	(Amendment) Act, (2014);	the National Construction Industry Policy (2015), and issues of workers OHS in the Occupational Safety, Health and Welfare Act, (2014 revised), The later does not focus much on community health and safety but that of workers	Environmental, Health and Safety Guidelines as well as GIIPs which address potential risks and impacts on communities that may be affected by program activities.
ESS 10: Stakeholder Engagement & Information Disclosure	EIA guidelines (1997) Local Government Amendment Act (2017) National Decentralization Policy (2000)	No provision for development of the GRM	The MERP has developed a stakeholder engagement plan which includes a GRM

5.3.1. Preconstruction Risks and Impacts

Loss of community support due to inadequate stakeholder engagement during

During FGDs, it was clear, some members of SMCs and some district education officials are generally aware of the program although some are not. However, there still remains a good proportion of the communities left behind. Pupils are also not aware of the program, yet they are the major stakeholders. The lack of awareness may affect support from the community. For example, experienced local artisans may become hard to identify. The lack of awareness has also the potential to create conflicts among community members as some will perceive exclusion.

Limited awareness about Gender Based Violence and Harassment (GBVH)

During consultations, local communities expressed unawareness about the issue of gender-based violence in workplaces such as the construction industry. However, the industry, particularly when it comes to major infrastructure programs, are a high-risk environment for GBVH which can affect community members, workers and service users. GBVH risks can intensify within local communities when there are large influxes of male workers from outside the area. Such workers often come without their families and have large disposable incomes relative to the local community and can pose a risk in terms of sexual harassment, violence and exploitative transactional relationships. These risks are higher where workers come into close contact with the local community, for example on access routes or when living together in remote areas. During the construction phase, workers are also vulnerable to various forms of harassment, exploitation, and abuse, aggravated by traditionally male working environments.

Vulnerability to climate change and disaster risks

Malawi is impacted by a wide range of hazards, particularly droughts, floods, landslides, cyclones, heavy winds, wildfires and earthquakes. As discussed in Chapter 4, future climate projections may intensify these vulnerabilities, especially in the construction Industry. Some schools are located in low-lying areas experiencing frequent floods and heavy storms. These areas may require additional guidance for suitable designs. Our field observations showed that, existing old school blocks are cracking due to poor soil types exacerbated by intense floods, in addition to windstorms with devastating impacts. Our examination of architectural designs reveals a generic picture void of site-specific requirements (Annex 3). Considering climatic variations across SEED districts, the general design will provide guidance in the context of dimensions of the school blocks but may not be sufficient for some site-specific demands. The level of concern/impacts is assigned a moderate score considering that all schools are susceptible to windstorm but not necessarily so with flush floods. There is also a construction manual artisans will need to follow.

Figure 3 – One of the School Blocks in Zomba displaying susceptibility to cracking.

Increase in noise levels resulting in disturbing classes.

Site preparations and clearing in some cases will involve the use of machinery. If this will be done during school sessions, learning will be disturbed due to increased levels of noise. Moreover, workers at the sites may also be a source of noise.

Threats to Biodiversity Conservation and Sustainable Management

Potential threat to biodiversity: Observation showed that the most common ornamental plants used to beautify the school environments are alien species. These species are often invasive – one of the major threats to biodiversity in the country. For example, water hyacinth is invasive and threaten water bodies in the country.

- ***Removal of limited vegetation:*** The construction of classroom and sanitation blocks will all occur on school premises with minimal removal of trees. No trees will be cut, and, to further reduce the program's carbon footprint, the use of burnt bricks will not be allowed. The actual field consultations and observations showed that the construction program will have minimal impact on trees around the school premises. Where the proposed construction sites have trees, most of these trees are exotic (especially Gmelina species) and they are few (< 6).

- ***Trees of conservation concern:*** Observations were made regarding the possibility of program activities involving removal of trees and or the disturbance of plant species with conservation concern. In Zomba, one school block is located the construction within an area where a threatened tree species locally known as Mpingo or Phingo was identified (Figure 3).

Figure 4 - African Blackwood [Dalbergia melanoxylon (Phingo)] sampled at Mpotola Primary School in Zomba. This tree should not be removed as it is locally becoming threatened.

Resource Efficiency and Pollution Prevention and Management.
Potential for Pollution: The program will involve transfer of materials through vehicles which may generate the following the major risks and impacts:

- Reduced air quality due to use of old cars and dust.
- The construction or rehabilitation will entail works that may result in the creation of solid waste, noise pollution, and minor congestion due to the use of vehicles and machinery.
- Soil pollution due to the use of cleaning chemicals and preparing the bricks for sealing.
- Emission of GHGs especially Carbon dioxide through vehicle operations.

Increased completion for water uses: Construction works at school level will generally be a small-scale activity which does not pose potentially significant use of water and will not have potentially significant impacts on water quality. However, during consultations, communities expressed concern over increased competing demands for limited water sources.

Potential for exclusion of learners with physical disabilities
If not considered in the design, the lack of ramps may negatively affect learners with disabilities. The final design should articulate the need for inclusivity, involving children who are currently at the school, parents, local people, specific groups such as young mothers and older people, and people with learning disabilities and neurological conditions, including those with sensory and physical impairments.

5.3.2. Construction Phase

Labor and Working Risks

Our consultations with communities, District Councils and MERP representatives revealed a number of labor risks that might arise during program implementation. These risks are also recognized in both the MERP Labour Management Procedure and the SEP.

- Risk of spread of HIV and AIDS, STIs, and COVID-19.
- Noncompliance with labor laws and regulations by the artisans eg complaints over delayed payment and low wages as indicated during consultations.
- Influx of migrant workers.
- Discrimination.
- Occupational Safety and Health risks during construction.
- Gender Based Violence (GBV) and Child labor.
- Sexual Exploitation and Abuse (SEA).

Community Health and Safety

Experience has shown that, construction activities are associated with wide range of risks. During field consultations, the following featured most:

- ***Accidents***: Risks on community health and safety will arise from program activities such as the use of improper scaffolds and equipment, transportation of materials, and potential risks associated with the collapse of blocks during constructions and during operations.
- ***Theft of construction materials:*** There are also security concerns such as theft and violence and occupational health and safety risks associated with the beneficiaries of the program.

- ***Climate change and disaster risks:*** Schools are vulnerable to climate change and may experience an acceleration or intensification of impacts due to poor architectural designs. Second, the health, safety, and security risks and impacts may be of greater concern on program-affected communities with particular attention to people who, because of their particular circumstances, may be vulnerable e.g., those with disabilities.
- ***Communicable diseases:*** Other community health risks include the spread of diseases such as HIV and AIDS and COVID-19 and those listed under Subsection 5.2.2 of this chapter.
- ***Transportation risks:*** during the transportation of materials accidents may happen due to negligent driving, congestion, and spillage of materials.

Gender Based Violence.

Construction, particularly of major infrastructure programs, can be a high-risk environment for GBVH affecting community members, workers, and service users. GBVH risks can intensify within local communities when there are large influxes of male workers from outside the area.

5.3.3. Operation Phase

The following risks will be associated with operations of the classroom blocks:

- Climate change and natural hazard risks
- Threats to biodiversity and ecosystem through introduction of IAS as ornaments.

Table 13 – Environmental and Social Mitigation Plan – **Pre-Construction**

Impact Description	Mitigation Measures	Performance Indicator	Target	Responsibility			
				Mitigation	Monitoring	Time Frame	Required input
Land Use, Soils and Geology, and Climate Change							
Impacts on school playground	• Grievance Redress Committees will be established in all school sites to ensure any complaints/comments regarding the Program will be received and responded in a timely manner, providing solutions and taking corrective measures as appropriate.	Number of Committees	56	PFT	PFT	2023-2023	Included in SEP Additional US$10,000.00
Climate change and hazard risk sites	• Classroom structures like foundation within the program will follow MERP designed plans provided in the MERP Construction Manual. • Collaborate with SMCs and District Council Town Planning Sections to guide proper site selection and approve the MERP classroom architectural design.	Meetings	5	PFT	PFT		
Noise							
Increase in noise levels	• Grievance mechanisms/committees will be established in all construction sites to ensure any complaints/comments regarding the Program will be received and responded in a timely manner, providing solutions and taking corrective measures as appropriate.	Number of Committees	56	PFT	PFT		
Air Quality							
Decrease in Air Quality	• A grievance mechanism will be established to ensure any complaints/comments regarding the Program will be received and responded in a timely manner, providing solutions and taking corrective measures as appropriate. • Implement the SEP	Number of Committees	56	PFT	PFT		
Biodiversity Conservation and Sustainable Management of Living Natural Resources							
Threats to plant species of conservation concern.	• Pre-construction inspection will be conducted prior to finalization of the detailed design to ensure relocation of classroom blocks will be done if the current proposed site affects plant species of conservation concern. • If more data become available during additional inspection to be conducted prior to the finalization of the detailed design the updated and required actions will be taken within the ESMP.	Number of Site Visits	56	PFT	PFT		0
Socio-Economic Environment							
Physical and Economic Displacement	• Ensure that no land acquisition for the program is expected. This will be avoided. Should there be need the land acquisition will be done in accordance with national laws and in the event of gaps between WB ESS5, the necessary measures to close these gaps will be determined. • When displacement cannot be avoided, appropriate compensation for loss of assets will be provided through program-specific measures to be developed for displaced communities and individuals.	Number of Site Visits	56	PFT and Local Artisans	PFT Local Artisans	2023	Included in the SEP Budget

Table 14 - Environmental and Social Mitigation Plan – Land Preparation & Construction

Impact Description	Mitigation Measures	Performance Indicator	Target	Responsibility		Time frame	Required Input
				Mitigation	Monitoring		
	Land Use, Soils and Geology						
Impacts on agricultural lands	• Land preparation and construction works will be conducted at designated sites that will be visibly and appropriately marked. • Training will be provided to the construction personnel so that they maintain the pre-established construction boundaries. • Implement Program Grievance Mechanism. If any comment related with arable lands is received through the Grievance Mechanism, evaluate the complaint and where necessary plan and implement corrective actions.	Number of Training Sessions	5	PFT Local artisans	PFT Local artisans	2023	US$20,000.00
Impacts on School Playground	• Land preparation and construction activities will be carried out in designated areas that will be visible and properly marked. • Trainings will be provided to the personnel working in the construction, and they will be ensured to stay within the construction limits already determined. • Implement Program Grievance Mechanism. If any comment related with playing ground is received through the Grievance Mechanism, evaluate the complaint and where necessary plan and implement corrective actions.	Number of Training Sessions	5	PFT Local artisans	PFT Local artisans	2023	
Soil Erosion	• Before the onset of site preparation and construction works, erosion control measures like drainage channels, settling structures, etc. will be implemented. • In order to eliminate the risk of erosion in periods of excessive rainfall, the waters from the roofs will be separated from surface run-off by directing through temporary channels and soil embankments. • Erosion control measures will be implemented following the completion of excavation works and slopes will be improved. • All of the disturbed sites will be restored to the most possible extent in a timely manner following the completion of stripping and excavation works.			PFT Local artisans	PFT Local artisans		
Soil Contamination	• Discharge of materials into soil that would cause contamination will be prohibited. • Accidental spills and leakages will be managed. • Solid wastes, hazardous wastes and wastewater to be generated as a result of land preparation and construction activities in the program sites will be further properly managed.			PFT Local artisans	PFT Local artisans		
Landslide Risk	• During the construction phase in the cracked rocks, special attention will be given, and precautions should be taken against the landslides that may develop locally, by observing excavations where applicable.						

Impact Description	Noise	Performance Indicator	Target	Responsibility		Time Frame	Required Resources
				Mitigation	Monitoring		
Increase in noise levels	• Implement Program Grievance Mechanism. If any comment related with noise is received through the Grievance Mechanism, evaluate the complaint and where necessary plan and implement corrective actions. • Carrying out construction activities only during the day. • Prefer machinery, equipment and vehicles with lower sound power levels and sound reduced models. Using newer models. • Conduct maintenance of construction vehicles regularly by means of a regular vehicle maintenance and repair program which is also recommended by the manufacturer. • Define and obey speed limitations for construction vehicles. Carry out relevant trainings and provide instructions to drivers of construction vehicles on the driving speed limits. • Avoid driving of construction vehicles through settlements where possible. • Use of designated site access roads. Evaluate construction of access roads where required to avoid traffic through residential areas. • Prohibition of construction vehicles entering the construction site and prohibition of keeping them running while waiting on the construction site. • Provide site personnel with necessary environmental training that aims at reducing noise caused by Program activities. • When necessary, in order to protect the employees from the noise caused by machinery and equipment, work will be carried out in accordance with the provisions of the "Occupational Health and Safety Law" and necessary measures will be taken to protect workers from risks that may arise from health and safety, especially hearing risks, as a result of exposure to noise. Notification of communities/settlements about the noise levels that may be created during construction phase due to heavy machinery use.	Number of training sessions	5	PFT/Local artisans	PFT/Local artisans	2025	Additional Included in SEP US$20,000.00

Air Quality							**Resources Required**	
Decrease in Air Quality	• In order to minimize the dust and impacts that may occur in soil stripping and cut and fill works during the land preparation and construction phase of the program; measures such as water spraying at emission source, filling and unloading operations without tossing, covering vehicles with tarpaulin during material transportation and keeping the upper part of the material at 10% humidity will be taken. • During the whole activity, the program site will be regularly moistened with water truck. • Employees will be ensured to work in accordance with the Traffic Law, and special attention will be paid to make loading according to loading standards. • Apply dust suppression methods such as watering with water trucks at construction sites, service roads, and quarries/material borrow sites and material storage sites. • Apply water suppression, pressurized distribution or spraying systems to minimize dust where and when necessary, on paved or unpaved road surfaces. • Carry out loading and unloading of materials without throwing and scattering. • Cover excavated materials with nylon canvas or with materials with grain size larger than 10 mm during transportation. • Prefer local licensed quarries and material borrow sites for the reduction of transportation distance of materials. • Where necessary, place wind shields or barriers around material storage sites to prevent spreading of dust emissions where necessary. • Avoid driving of construction vehicles through settlements where possible. • Implement Program Grievance Mechanism. If any comment related with dust and air quality is received through the Grievance Mechanism, evaluate the complaint and where necessary plan and implement corrective actions.	Frequency of watering in a week	Local artisans	2	SMCs	PFT/Local artisans	Included in SEP Budget Additional training budget: USD 5,000	
Water Resources and Wastewater Management							**Timeframe**	**Required Resources**
Impacts on Surface Water Flow and Flood Risk	• During the construction phase, surface waters will be crossed with appropriately designed art structures and techniques. • Within the scope of the program, the drainage measures (concrete underground drainage, head ditch) to be used for the control of surface waters and	Number of inspection trips/month		EAD/PFT				USD10,000.00

	groundwater to ensure the stability of the cuts and fillings to be produced around the site and to remove them from the fill body will be provided. • All wastes that may result from the program activities will be managed in line with the related managed; including the excavation materials to be stored periodically / temporarily, as well as fuel, oil, oil, cement, etc. that may be accidentally released into a receiving environment.						
Impacts on Groundwater	• Within the scope of the program, drainage measures (concrete underground drainage, head ditch) to be used for the control of surface waters and groundwater to ensure the stability of the cuts and fillings to be produced along the routes and to remove them from the fill body will be provided. • When determining the locations of temporary fuel or oil storage areas, the locations of water resources will be taken into consideration and dangerous material spills / leaks such as fuel, oil, oil, cement etc. will be taken under control immediately. • In order to monitor the water quality from the resources and groundwater wells within the program study area, periodically at least 2 times a year (rainy and dry periods), the groundwater samples will be monitored by taking the groundwater samples at the points to be determined by considering the locations of possible pollution sources. • Use the Emergency Response Plan (Annex 10).		Local artisans	Local artisans/PFT EAD			

Resource and Waste Management							
Possible impacts from storage of excavation material	• Use of excavation material as much as possible in filling works. • Storage of excavated material that cannot be used for filling operations in temporary storage areas where necessary permissions have been obtained and have sufficient capacity. • Proceeding according to the cut and fill program to minimize excavation wastes during excavation operations.		Local artisans				
Waste Management	• Comply with the requirements of applicable waste management regulations for the management of all waste generated as a result of the program activities. • Segregate wastes (i.e. hazardous / non-hazardous, recyclable / non-recyclable) and store them temporarily in designated storage areas • Ensure that waste storage areas meet the standards set by the relevant legislation: - Determining sufficient and appropriate storage areas and ensuring that conditions such as container types, labels and classifications are appropriate in these areas, - Ensuring impermeability on the grounds of storage areas against possible contamination of soil and groundwater, - Sufficient ventilation of the area under conditions where volatile wastes need to be stored, - Establishing a suitable drainage system against leaks, - Restriction of physical access to waste storage areas (through gates, fences, etc.); ensuring that only authorized persons can enter the storage areas, - Placing warning signs and panels with the name and contact number of authorized personnel in storage areas, - In order to response in case of emergency such as spills and fire immediately, keep absorbent materials, fire extinguishing equipment, etc. ready at a close location, - Quick identification of any possible spillages / leaks by periodically performing visual checks in hazardous waste storage areas, • Ensuring that wastes are not spilled out of areas other than those reserved for this purpose and providing all necessary waste management training and periodic repetition of these trainings, • No waste should be disposed of or burned at the construction site, • Marking waste explosives and used explosive containers as explosive waste. Storage of explosive wastes separately in storage areas reserved for this purpose, where only authorized personnel can work. Delivery of these wastes to construction sites should be provided by licensed companies.		Local artisans				

Biodiversity							
Loss of vegetation and Invasive alien species	• Natural vegetation will be conserved to the best possible extent during land preparation, and native species will be used in restoration after completion of the construction phase. If 1 tree is cut due to the construction 10 should be replanted at a site not earmarked or planned for any future construction. • Vehicles and equipment entering the site will be checked for invasive alien species. If identified, necessary measures will be taken in line with the Program standards to eradicate the species. • Instead of using herbicides, which would destroy the natural vegetation and enable introduction of invasive alien species, different vegetation management methods will be considered as appropriate spatially and temporally. • During the land preparation and construction phase biodiversity monitoring studies, potential for presence of invasive alien species in the area will also be monitored.	Biodiversity Management Plan	Local artisans, SMC				
Cultural Heritage							
Impacts on Cultural Heritage	• Regardless of the degree of importance, if any archaeological / cultural heritage is encountered, construction activities in the find area should be stopped immediately and the relevant museum expert will be notified. • Following the reviews of the relevant Museum Directorate, necessary arrangements will be implemented, such as determining the boundaries of the archaeological / cultural heritage / area, measures to be taken for its protection, and informing the employees to prevent any physical intervention. • Information on cultural heritage protection measures will be made public with settlements.	Meetings	5	PFT/Archeological expert	PFT/Archeological expert		USD 15,000

		Socio-Economic Environment					
Impacts on Local Economy, Livelihood Sources and Employment	• In order to ensure minimum negative impact and maximum positive impact on the local economy, it is important that the consultations and the grievance mechanism within the scope of the SEP are properly operated.		Stakeholder Engagement Plan Community Relations Plan		Local artisans		
Impacts on Infrastructure Status and Social Services	• In order to ensure minimum negative impact and maximum positive impact on the local economy, it is important that the consultations and the grievance mechanism within the scope of the SEP are properly operated. • In order to reduce the economic negative effects of short-term road closure and route changes, creating alternative routes and announcing these changes with local media and corporate		Resettlement Action Plan Stakeholder Engagement Plan Community Relations Plan		Local artisans		

	announcements is a necessity of positive stakeholder engagement. • In the selection of the roads to be used during the construction phase, the understanding of not passing through the settlements and keeping the use of the roads in its vicinity at a minimum level should be adopted if possible. • The construction phase can have an abrasive effect on roads. In order to prevent such effects from affecting daily and economic life negatively, it is recommended that complaints about the issue are taken into consideration and necessary maintenance and repair works are carried out. • Construction vehicles can also cause physical damage due to various accidents. Fences, walls, wells, trees, etc. can be damaged due to construction activities. Damaged assets should also be compensated. These situations should be stipulated in Local Artisans contracts. • In order to minimize the socio-economic effects that may occur if the construction activities temporarily disrupt infrastructure services such as water, electricity and internet in a planned or unplanned manner, it is important to make a plan that avoided cuts as much as possible and to announce planned cuts to stakeholders with local media and corporate announcements. • In the event of sudden and long-term cross-section, compensation practices should be developed at the community level.						
Impacts on Vulnerable Groups	• The use of access roads should be planned in a way that does not jeopardize the travel safety of other vehicles in villages with bussed training, and traffic measures (warning signs, speed limits, and information about settlements and schools for the periods when large and dangerous goods will be transported) should be taken. • Passages should be structured to allow safe passage of pedestrians. When schools are in session and children are not under adult supervision, measures should be taken to prevent entry into the construction sites. • Occupational health and safety measures should be taken at the construction sites and construction activities.		Stakeholder Engagement Plan Community Relations Plan Pollution Prevention Plan Construction Impacts Management Plan Traffic (Transportation) Management Plan		Local artisans		

	• Necessary measures should be taken for the safety of maintenance and repair activities, teams and local people. • The grievance mechanism should be actively and efficiently operated.						
	Labor and Working Conditions						
Impacts on Labor and Working Conditions	• All workers, direct, contracted and others in the supply chain should have the right to organize. In this regard, grievance mechanism has an important part. A secure grievance mechanism system should be established that workers of all levels can benefit from. A fair and transparent employment procedure should be adopted. Positive discrimination should be practiced for disadvantaged groups. In case all measures are taken, remaining impact would be negligible. • Ensure drinking and utility water to be supplied meet the requirements. • Provide trainings to personnel on general waste management, housekeeping, first aid practices and communicable diseases. • Ensure proper first aid equipment is kept on site, at various related locations. • Establish adequate medical rooms at the construction sites, provide sufficient human resources and keep a suitable patient transport vehicle on site. • Ensure construction phase personnel's retrenchment is conducted in compliance with all applicable legal requirements and WB ESS2. • Use the Labour Management Procedures to ensure contractual requirements are fulfilled during the process. • To maintain and improve the employee-management relationship. • To protect sensitive employees such as child labor, migrant workers, personnel supplied by third parties. • Ensure safe and healthy working conditions using the MERP Labour Management Procedure.	Number of training sessions	4	PFT	PFT/Local artisans	Partly included in SEP USD 15,000	
Risks of the spread of HIV and AIDS and STIs	• Develop and implement CoC for workers; • Regularly sensitize workers about HIV and AIDS, and STIs; • Distribute HIV and AIDS information and education materials to the workers and surrounding communities;	• Availability of CoC • Number of sensitization campaigns conducted Number of workers segregated by sex	Workers	Local artisans MERP-PFT	Local artisans MERP-PFT District Health Offices	Quarterly	100,000.00

	• Mobilize and put condoms in strategic places where workers can easily access them; • Allow infected workers to access Anti-Retroviral Treatment (ART) from public health facilities; and • Employ workers from the surrounding program site to minimize promiscuity.	employed from surrounding villages					
Risks of the spread of Cholera	• Wash your hands and utensils regularly with clean water drawn from protected water sources; • Drink and use safe water (e.g. water drawn from boreholes, kiosks, bottled water with unbroken seals); • Treat water drawn from wells with chlorine or household bleach; • Boil or filter drinking water drawn from wells; and • Boil, cook food well, keep it covered and eat while it is still hot.	• Number of hands washing pales available on construction sites • Number of workers received face masks and wear them	Zero Cholera transmissions	Local artisans MERP-PFT	Local artisans MERP-PFT District Health Offices	Quarterly	100,000.00
Risks of the spread of Covid-19 among workers, pupils and community members	• Enforce all workers to wash their hands regularly with soap and water or use hand sanitizers if water and soap is not available; • Divide workers into small groups of 5-10 people in order to reduce overcrowding; • Workers must cover their mouth and nose when coughing and sneezing using handkerchiefs or tissue paper or sneeze into a flexed elbow; • Provide face masks to all workers; • Workers should keep a social distance of one meter from one another all the times; • Regularly sensitize workers to refrain from touching their faces, mouths, noses and eyes and to avoid handshakes; and • Isolate any worker from others who shows symptoms associated with Covid-19.	• Number of hands washing pales available on construction sites • Number of workers received face masks and wear them	Zero Covid-19 transmissions	Local artisans MERP-PFT	Local artisans MERP-PFT District Health Offices	Quarterly	100,000.00
Risks of increased GBV/SH/SEA/IPV	• Sensitize workers and communities about the consequences of GBV/SH/SEA/IPV; • Sensitize workers about the program CoC and make sure CoC is responsive to GBV/SH/SEA/IPV issues;	• Number sensitization campaigns conducted • Availability of CoC for local artisans and workers	Vulnerable population groups (e.g. women, girls, children, etc.)	Local artisans MERP-PFT	Local artisans MERP-PFT GRM Committee Ministry responsible for women children	Monthly	250,000.00

	• Develop and implement a robust Code of Conduct (CoC) for a contractor and workers; • GBV/SH/SEA/IPV incidents should be reported to relevant authorities within 48 hours; • Provide psycho-social support to all the survivors of GBV/SH/SEA/IPV; • Create partnership with local NGO to report local artisans and workers' misconduct and complaints/reports on GBV/SH/SEA/IPV to police and • Take all perpetrators of GBV/SH/SEA/IPV to relevant authorities for prosecution.	• Number of GBV/SH/SEA/AIP/ reported to relevant authorities			and social welfare		
General OHS Management	• Employees will be aware of any possible OHS risks and will be trained against them properly. • Local artisans must ensure immediate response to and timely reporting, analysis and communication of all incidents to MERP PFT. • All incidents shall be recorded in the approved incident reporting system and be analyzed to a level commensurate with the actual consequence or potential risk rating, whichever is higher. • Local artisans is committed to return workers to meaningful and productive employment at the earliest possible time. • Local artisans employees will undergo a medical assessment to ensure they are medically fit to perform their role before commencing the works and these controls will be repeated annually. • Local artisans must ensure that health assessments are carried out in respect of all personnel who engage in specific tasks with the potential for occupational exposure. • Local artisans recognize that fatigue may arise from hours and patterns of work and activities, and travel/commute time. • Local artisans acknowledge the risk associated with program area operations and provides for the reporting and rectification of hazards. • Where personnel are required to work alone, the activities and conditions shall be risk assessed and a safe system of work developed. • Where a manual handling task is required a risk assessment shall be completed to identify the hazards. The risk of injury should be assessed for	Number of training workshops	4	PFT/Local artisans	Local artisans/PFT	2026	Assignment of personnel (HS Expert at site): USD 10,000

	each hazard, and appropriate controls implemented, including manual handling training as appropriate. • Local artisans must supply suitable facilities for personnel. • Local artisans must ensure commitment to monitoring and reporting of occupational health hazards and hazardous occupational environments, and implement controls to reduce risk in accordance with all applicable regulations and, wherever practicable, with regard to accepted best practices • Local artisans must ensure the safe control of hazardous substances and reduce the level of exposure to personnel, property and the environment in accordance with the ESIA Requirements • Local artisans must ensure that all personnel and visitors wear or use personal protective equipment provided if it is necessary to protect them from harm. • Local artisans must ensure that sufficient Safety Signs are posted in workplaces and travel ways to prevent incidents, identify hazards. • Local artisans must ensure that all personnel undertaking activities where there is a risk of a person falling from one level to another do so in a controlled manner to reduce the risk of personal injury. • Task specific hazard identification will be done for each activity. • Access to the program area will be restricted by the Local artisans and necessary precautions will be taken such as fencing the area and placing relevant signs etc. • Site inductions will be carried out by the Local artisans. • Inspections of the program site should be carried out weekly. Local artisans will undertake weekly inspections of the whole work site						
	Community Health and Safety						
Risk on traffic and pedestrian safety due to construction traffic	• Investigate all construction areas and construction access routes for potential community interaction (with a particular attention to schools, children parks, etc.) with Program construction phase traffic. Based on results, develop and implement site specific measures (i.e., improve signage,				Local artisans		Assignment of personnel (HS Expert at site): USD 10,000

	visibility) and driver/operator trainings prior to initiation of any construction work. • Implement access restriction at construction areas and access routes, by specifying restricted zones, (i.e., dangerous routes), fencing, barriers, etc. • Install signs, signals, markings and other appropriate traffic regulation devices, including reflective and flashing signage for nighttime traffic safety, at all required sites. • Avoid passage of construction traffic through the settlements, whenever alternative roads are present. • Where passage through existing settlements is unavoidable, take all necessary measures (i.e. speed limits, traffic signs, driver trainings) to prevent safety risks on local communities, engage with community representatives to plan the traffic by taking the daily life of the communities into account (i.e. selection of routes, school transportation hours, market days, etc.) and inform the communities about the construction schedule, activities to be conducted and safety measures taken, through appropriate means such as meetings and leaflets, notices, signs, etc. • Allow only drivers/operators with valid licenses specific to each construction phase vehicle to drive/operate vehicles. • Provide driving skills improvement trainings in consideration of the requirements of specific vehicles, machinery, etc. • Implement speed limits at all construction sites. • Conduct periodic medical checks for drivers/operators. • Conduct periodic vehicle maintenance. • Initiate construction only after relevant permits are obtained and all required measures such as signage, barriers, fencing, lighting, etc. are taken. • Prioritize selection of material borrow sites and quarries in the areas that does not interact with public. • Use only licensed firms for explosives delivery to ensure safety along the existing roads to be used for transport of explosives. • Provide information and awareness raising activities with stakeholders, communities including women, children and also disabled						

Emergency Preparedness and Response	• Develop and implement a program-specific Emergency Preparedness and Response Plan for the construction phase covering the risks on local communities. • Develop measures/systems for collaboration with the local communities and other external parties including local governmental agencies, media, etc. where necessary. • Notify local communities by using appropriate tools (e.g. telephone call lists, vehicle mounted speakers) in case of emergencies arising from the Program work/construction sites may pose risk on them. • Where necessary, communicate the details of the nature of the emergency, protection options, etc. through trained community liaison officer(s). • GDII will cooperate with related authorities both for prevention of emergencies and during emergency situations, where necessary. • Communicate to the media through qualified, trained persons and/or by using appropriate tools (i.e., press releases), where necessary. • Use strategies outlined in the Disaster Risk Management Plan and Emergency Response Plan Annexed to this instrument. Annex 8				Local artisans GDII		
Security Personnel	• Conduct legal inquiries during the hiring process of security personnel (or the company the security service is procured from) to check competency and existence of any former abuse incidents. • Provide trainings on code of conduct, gender sensitivities and local cultural sensitivities to security personnel or ensure that the company the security service is procured from provides its personnel with similar trainings. The trainings will ensure force is used only for preventive and defensive purposes and in proportion to the threat. • Provide necessary identification, communications devices, and any other equipment required for the job to the security personnel to ensure maximum efficiency. The security personnel will not be allowed to carry firearms. • Investigate any grievance from local communities regarding inappropriate conduct of security forces immediately.						

	• Ensure appropriate conduct of security personnel through document and incident report reviews, as well as review of grievances received. • Ensure all measures are included in contractual agreements.						
Community exposure to health problems	• In order to avoid the spread of diseases among the workforce of the program, air conditioning and ventilation will be provided in accordance with the current climate conditions, minimum space requirement, etc. ensuring compliance with the processes and standards related to the housing of workers involving issues. • Training of all staff on health and general hygiene and cleaning. • Conduct periodic medical checks of staff, provide vaccination and / or develop other mitigation measures developed, when required. • Carrying out health awareness raising activities involving local communities.						

Table 15 – Environmental and Social Mitigation Plan – Operation

Impact Description	Mitigation Measures	Performance Indicator	Target	Responsibility		Timeframe	Resources Required
Land Use, Soils and Geology, and climate Change				**Mitigation**	**Monitoring**		
Climate change and hazard risks	• Develop Local Adaptation Plans at a school level in all program schools for building resilience. • Develop Disaster Risk Management Plans in all schools guided by the National Disaster Risk Management Policy. • By carrying out periodic control and maintenance activities of school blocks, additional durability and structural measures will be developed and implemented in cuts and fills when necessary (Cracks, breaks, slips, deformations etc. of engineering structures that could happen especially after natural disasters). • Establish or empower school disaster and emergency management committees in all schools in the SEED. • Use strategies outlined in the Disaster Risk Management Plan and Emergency Response Plan Annexed to this instrument; annex 8.	Number of committees establishes. Number of individuals trained	56 committees 200 trained	PFT	PFT and SMCs	2025	USD 20,000.
Increase in noise levels	• Reducing the noise generated by vehicles if classroom blocks are close to the main road by planting trees around the school blocks. • Liaise with Traffic Police to Impose the average speed of trains by 50 km/ h if the classroom blocks are located near the tarmac road. • Developing vegetative barriers to create strong vegetative areas between the noise source and receptor (s), • Construction of noise shoulders using soil materials where applicable	Number of trees planted	10,000,000	SMCs	SMCs	2025	USD 12,000/School
Invasive alien species	• To avoid development of alien species around school premises, natural plants will be used as ornamental plants, and regular maintenance will continue throughout the operation phase. • To take necessary measures against the risk of invasive alien species being transferred by the material ferrying vehicles, there will be periodical controls and if identified, necessary measures will be taken in line with the Program standards to avoid spread of invasive alien species. • During the operation phase biodiversity monitoring by SMCs, potential for presence of invasive alien species in the area will also be monitored.	Number of Inspections/schools	56	SMCs	DEOs/PFT	2025	10,000.00
Indirect impacts (dust, air emissions, noise, waste, and impacts on water and soil quality)	• Use of chemicals for maintenance will be limited. • Wastes will be recycled and disposed on a regular basis to prevent pollution of receiving environment due to operational activities.	Number of Training Sessions	56	SMCs	DEOs/PFT		

Impact Description	Mitigation Measures	Performance Indicator	Target	Responsibility		Timeframe	Resources Required
	• Measures to minimize risk of erosion will be taken within the scope of school environmental management. • Necessary measures will be taken to minimize risk of erosion.						
Impacts on Labor and Working Conditions including OHS	• Preventing forced labor and child labor • All workers, direct, contracted and others in the supply chain should have the right to organize. In this regard, grievance mechanism has an important part. A secure grievance mechanism system should be established that workers of all levels can benefit form. A fair and transparent employment procedure should be adopted. Positive discrimination should be practiced for disadvantaged groups. In case all measures are taken, remaining impact would be negligible. • Development of a site specific OHS risk assessment and management plan. • Implementation of OHS Management Plan (Annex). • Suitability of the signalization system will be controlled in a daily manner. • No personnel will be working without having necessary trainings. • Zebra crossings will be controlled daily especially at the knock off time. • Operation will be stopped immediate if any factor that may lead accidents is reported.						No additional cost
Pedestrian safety	• Putting clear and clear warning signs at the entry points (e.g. stations and level crossings), • Installation of fences or other barriers at the ends of the station and other areas and preventing unauthorized access to the rails, • Ensuring that the specified route to the school blocks is safe, clearly determined and easy to use.						Included in annual maintenance cost
Emergency Preparedness and Response	• Develop and implement a program-specific Emergency Preparedness and Response Plan for the operation phase of the school blocks (See Appendix). • Cooperation with related authorities (for emergency prevention and during emergencies. • Use strategies outlined in the Disaster Risk Management Plan and Emergency Response Plan Annexed to this instrument; annex 8.						Included in annual maintenance cost
School operational safety	• Implement road operational safety procedures aimed at reducing the likelihood of learner accidents. • Regular inspection and maintenance of classrooms and facilities to operate in accordance with national and international safety and standards.						5,000.00/school

Impact Description	Mitigation Measures	Performance Indicator	Target	Responsibility		Timeframe	Resources Required
Zebra crossing Risks	• Facilitate installation of zebra crossing marks if blocks are adjacent main roads. • Regular inspection / maintenance to ensure visibility of zebra crossings.						10,000.00
	•	**TOTAL COST**					**USD157,000.00**

CHAPTER 6 – IMPLEMENTATION AND CAPACITY BUILDING

6.1. Implementation Arrangement

The Directorate of Education Planning (DEP) and Directorate of Basic Education (DBE) in the Ministry of Education which are the coordinating departments for the MERP will assume overall responsibility for management of workers in the program. However, implementation of the MERP will be done in collaboration with several other stakeholders at national, district and community levels. These stakeholders will also be expected to assist in management of program's workers within their areas of jurisdiction. Thus, successful management of program workers requires clear definition of roles and responsibilities of key players and stakeholders at community, district and national levels. The Environmental and Social Safeguard Specialists for MERP in liaison with the Clerk of Works in each district will be responsible for the management of these procedures to ensure that community artisans plan for, monitor and implement occupational safety, health and welfare issues. Community artisans with the help of SMC will be responsible for training of workers on activities to be implemented at work sites under the supervision of Clerk of Works.

National Level: The Environmental and Social Safeguard Specialists at the Program Facilitation Team (PFT), in collaboration with Ministry of Labor will be responsible for:

- Preparing necessary guidelines and all forms needed.
- Implementing Labour Management Procedures.
- Monitoring of approved Labour Management Procedures.
- Monitoring implementation of the Worker's Code of Conduct.
- Building capacity of district level staff in labour management issues including Labour Management Procedures (LMP);
- Provision of expert advice on labour management.
- Carrying out enforcement and monitoring role as stipulated by law.
- Carrying out periodical review of labour and working conditions.
- Providing funding for implementation of Labour Management Procedures at district level.
- Monitoring and supervision of contracted service providers to ensure that they manage their workers pursuant to the agreements in the contract.
- Handling grievances that have not been resolved by WGRMC; and
- Reporting to the World Bank on the progress of MERP on at least a quarterly basis.

District Level: The District Technical Support Committees (DTSCs) will be responsible for management of community workers, AECs and SMCs. The District Labour Officers who are also members to these committees will take the lead in coordination of labour management issues in the program at district level. Among other roles, the DTSCs' responsibilities will include:

- Training of AECs on labour management issues related to the program.

- Monitoring and supervising community workers to ensure compliance with occupational and community health and safety procedures for prevention of accidents and diseases.
- Preparation and administration of relevant monitoring tools: and
- Preparation of monthly monitoring reports.

Community Level: The artisans, Clerk of Works and the following committees will be responsible for management of civil works at community level in different capacities. The committees are the Area Executive Committee (AEC) which is comprised of extension workers from government and non-state actors, SMC and Village Development Committee (VDC).

The AEC will be responsible for:

- Training of SMCs, VDCs and other implementation committees on labour management procedures:
- Creating awareness on labour management practices and safety procedures amongst community workers:
- Monitoring and supervision of implementation of labour management procedures in program's construction sites: and
- Preparation and submission of monthly monitoring reports on labour management issues from their areas to the DTSC.

The SMC will be responsible for:

- Recruiting community artisans and Security Personnel in liaison with traditional leaders/ Community Block Leaders:
- Orientating artisans on Labour Management Procedures:
- Monitoring and supervision of implementation of Artisans' Code of Conduct:
- With the help of Community Police, train and equip the Security Personnel with appropriate tools for their work.
- Purchasing and distributing necessary PPE for community workers and for Security Personnel. These PPE would be kept by the SMC and be used by the next community members on duty.
- Monitoring compliance of health and safety issues by community workers and primary suppliers.
- Procuring of building materials:
- Coordinating VDCs on resource mobilization: and
- Assessing and certifying completion of construction works and settlement of all dues for workers before artisans are released.

Further the SMC and the PEA will be responsible for:

- Recruitment of Auxiliary Teachers:
- Orientation of Auxiliary Teachers: and
- Supervising and appraising Auxiliary Teachers.

The VDC will be responsible for:

- Resource mobilization (human and locally available materials for construction works e.g. sand):
- Creating awareness to community members on roles of community members in the program and on safety, health and environment issues:
- Monitoring compliance of health and safety issues by community workers; and
- Recording, processing and reporting grievances.

Local Artisan: The Artisans with the help of SMCs will be responsible for:

- Ensuring protection of workers in line with the labour laws:
- Creating awareness to contracted community workers on their roles and health and safety measures including provision of PPE Adopting and implementing the Artisan's Code of Conduct that will be developed by the program:
- Maintaining records of recruitment and employment of workers.
- Communicating terms and conditions of employment to all workers.
- Bringing awareness to workers-on-Workers GRM.
- Providing induction (including social induction) and regular training to employees on labour protection requirements, including training on their rights under Malawi labour laws, risks of their jobs and measures to reduce risks to acceptable levels.
- Ensuring that all workers understand and sign the Workers Code of Conduct prior to the commencement of works.
- Supervising workers' compliance with Workers' Code of Conduct:
- Recording, processing and reporting grievances: and
- Recording and reporting all occupational accidents to relevant authorities.

Clerk of Works: Clerks of Works will be employed by MERP, and these will be deployed to communities where the program will be implemented. These workers will work hand in hand with the available Clerks of Works that are employed by councils in the districts. These Clerks of Works will have the following roles.

- Supervising construction works in various construction sites.
- Providing training to artisans on technical construction matters
- Assessing and certifying completion of construction program before the artisan is provided with certificate of completion of work.
- Enforce compliance of occupational health and safety issues by artisans.
- Reporting progress of work to district councils and MERP.

Security Personnel: Security Personnel will be recruited by the SMC. Each construction site will employ at least two security guards to enable them to work in shifts. The SMCs will be required to (i) make reasonable inquiries to verify that the persons to be recruited are not implicated in past abuses or any criminal acts (ii) train them adequately (or determine that they are properly trained) in the use of force, and appropriate conduct toward workers and affected communities; and (iii) require them to act within the laws of Malawi. These Security Personnel will have the following roles:

- Protecting property and personnel by controlling access to construction site as well as to storage area of building materials,
- Restraining trespassers
- Performing security checks where necessary
- Informing violators of security policy and procedures
- Preventing losses and damage by reporting irregularities

6.2. Training

All employees of the Local artisans will be provided with basic training on environmental, social, occupational health and safety, labour and security issues. In addition, specialist training will be provided for key personnel based on their program-specific tasks. Those training programs will give an opportunity to all personnel to understand the following topics:

- Requirements of ESMP and how to implement them on the site, and
- Procedures to follow and mitigation measures to implement in case of any spill or other pollution incident.

In addition to the above-mentioned general training topics, Local artisans and PFT will also provide specific trainings to the personnel based on their Program specific tasks. Those trainings will include but not limited to the following topics:

- Environmental investigation,
- Control of hazardous materials (collection, reuse, recovery, storage and disposal of hazardous materials),
- Waste management (collection, reuse, recovery, storage and disposal of hazardous and non-hazardous wastes),
- Pollution prevention management,
- Spill response (especially spill response management for soil and water),
- Usage of spill response equipment,
- Prohibited materials,
- Vehicle maintenance requirements,
- Dust control,
- Noise control.

CHAPTER 7 - CONCLUSION AND RECOMMENDATIONS

Overall, the ESMP process establishes that Component 2 of the MERP has both positive and negative impacts. Guided by the World Bank Safeguards and National policy and legal frameworks, the ESMP has provided are sufficient measures to enhance the potential benefits and mitigate potential impacts. The MERP has the SEP, construction manuals and Program Implementation Manual which are also important and should be used to guide addressing most of the impacts identified during the screening process.

7.1. Implementation Plan and Monitoring

The implementation arrangement for the ESMP will partly use the existing decentralized government structures at district level. At national level, the implementation of the ESMP will be coordinated by Ministry of Education with support from the Program Facilitation Team (PFT). The Program has qualified and dedicated Environmental and Social Safeguards Specialist who will facilitate the implementation of the ESMP. Environmental monitoring will aim at monitoring the actual implementation of enhancement/ mitigation measures, at construction, demobilization, and operation phases (Ref Table 11). This will involve monitoring implementation of the ESMP as appropriate. Environmental and social monitoring includes:

- Measuring progress on environmental and social change or performance against scheduled actions and targets and performance indicators.
- Measuring effectiveness of the change and provide timely information about the success of the program to enable changes to be made to the system, if required; and determine whether the mitigation measures set out have been effective in enhancing, avoiding, minimizing or eliminating environmental and social impacts and make recommendations to address any constraints.
- Reviewing of the costs incurred and how they relate to the budgetary provisions in the ESMP.
- Verify compliance of program implementation against safeguards instruments

7.2. Key Recommendations

(i) PFT should constantly refer to the ESMP in liaison with the Local artisanss to ensure compliance and effective implementation.

(ii) Recommendation 2 – Develop capacity building plan for the local artisans and implement for quality construction works and community benefit through skill transfer.

(iii) Implement all safeguard tools such as the SEP, the GRM and the policies and procedures to ensure mitigation and enhancement measures for greater benefits of the program.

(iv) The ESMP will need both technical and financial support for effective implementation. Requirements have been provided in this ESMP.

(v) The construction works should commence early in the dry season and off school sessions.

APPENDICES

Annex 1 – World Bank ESF/Safeguards Covid-19 Interim Note

This note was issued on April 7, 2020, and includes links to the latest guidance as of this date (e.g. from WHO). Given the COVID-19 situation is rapidly evolving, when using this note it is important to check whether any updates to these external resources have been issued.

Introduction: The COVID-19 pandemic presents Governments with unprecedented challenges. Addressing COVID-19 related issues in both existing and new operations starts with recognizing that this is not business as usual and that circumstances require a highly adaptive responsive management design to avoid, minimize and manage what may be a rapidly evolving situation. In many cases, we will ask Borrowers to use reasonable efforts in the circumstances, recognizing that what may be possible today may be different next week (both positively, because more supplies and guidance may be available, and negatively, because the spread of the virus may have accelerated).

This interim note is intended to provide guidance to teams on how to support Borrowers in addressing key issues associated with COVID-19 and consolidates the advice that has already been provided over the past month. As such, it should be used in place of other guidance that has been provided to date. This note will be developed as the global situation and the Bank's learning (and that of others) develops. This is not a time when 'one size fits all'. More than ever, teams will need to work with Borrowers and programs to understand the activities being carried out and the risks that these activities may entail. Support will be needed in designing mitigation measures that are implementable in the context of the program. These measures will need to consider capacity of the Government agencies, availability of supplies and the practical challenges of operations on-the-ground, including stakeholder engagement, supervision and monitoring. In many circumstances, communication itself may be challenging, where face-to-face meetings are restricted or prohibited, and where IT solutions are limited or unreliable.

This note emphasizes the importance of careful scenario planning, clear procedures and protocols, management systems, effective communication and coordination, and the need for high levels of responsiveness in a changing environment. It recommends assessing the current situation of the program, putting in place mitigation measures to avoid or minimize the chance of infection, and planning what to do if either program workers become infected, or the work force includes workers from proximate communities affected by COVID-19. In many programs, measures to avoid or minimize will need to be implemented at the same time as dealing with sick workers and relations with the community, some of whom may also be ill or concerned about infection. Borrowers should understand the obligations that Local Artisans have under their existing contracts (see Section 3), require Local Artisans to put in place appropriate organizational structures (see Section 4) and develop procedures to address different aspects of COVID-19.

Challenges with Construction/Civil Works: Programs involving construction/civil works frequently involve a large work force, together with suppliers and supporting functions and services. The work force may comprise workers from international, national, regional, and local labor markets. They may need to live in on-site accommodation, lodge within communities close to work sites or return to their homes

after work. There may be different Local Artisans permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the program (including supplies essential to the program such as fuel, food, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-Local Artisans, brought in to deliver specific elements of the works.

Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in programs involving construction is extremely serious, as are the implications of such a spread. Programs may experience large numbers of the work force becoming ill, which will strain the program's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the program. Such impacts will be exacerbated where a work force is large and/or the program is in remote or under-serviced areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the program or are having to compete for scarce resources. The program must also exercise appropriate precautions against introducing the infection to local communities.

Does the Construction Contract Cover This Situation? Given the unprecedented nature of the COVID-19 pandemic, it is unlikely that the existing construction/civil works contracts will cover all the things that a prudent Local Artisan will need to do. Nevertheless, the first place for a Borrower to start is with the contract, determining what a Local Artisans' existing obligations are, and how these relate to the current situation.

The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main Local Artisans; between the main Local Artisans and the sub-Local Artisans). It will differ if the Borrower used the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017), which contains no 'ESF enhancements', states (in the General Conditions, clause 6.7) that the Local artisans will be required:

- to take all necessary precautions to maintain the health and safety of the Local Artisans' Personnel
- to appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents.
- to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sick bay, ambulance services and any other medical services specified are available at all times at the site and at any accommodation.
- to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

These requirements have been enhanced through the introduction of the ESF into the SPDs (edition dated July 2019). The general FIDIC clause referred to above has been strengthened to reflect the requirements of the ESF. Beyond FIDIC's general requirements discussed above, the Bank's Particular Conditions include several relevant requirements on the Local artisans, including:

- to provide health and safety training for Local Artisans Personnel (which include program workers and all personnel that the Local artisans uses on site, including staff and other employees of the Local artisans and Sub Local Artisans and any other personnel assisting the Local artisans in carrying out program activities)
- to put in place workplace processes for Local Artisans Personnel to report work situations that are not safe or healthy
- gives Local Artisans Personnel the right to report work situations which they believe are not safe or healthy, and to remove themselves from a work situation which they have a reasonable justification to believe presents an imminent and serious danger to their life or health (with no reprisal for reporting or removing themselves)
- requires measures to be in place to avoid or minimize the spread of diseases including measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent contract-related labor.
- to provide an easily accessible grievance mechanism to raise workplace concerns.

Where the contract form used is FIDIC, the Borrower (as the Employer) will be represented by the Engineer (also referred to in this note as the Supervising Engineer). The Engineer will be authorized to exercise authority specified in or necessarily implied from the construction contract. In such cases, the Engineer (through its staff on site) will be the interface between the PFT and the Local artisans. It is important therefore to understand the scope of the Engineer's responsibilities. It is also important to recognize that in the case of infectious diseases such as COVID-19, program management – through the Local artisans/sub-Local Artisans' hierarchy – is only as effective as the weakest link. A thorough review of management procedures/plans as they will be implemented through the entire Local Artisans hierarchy is important. Existing contracts provide the outline of this structure; they form the basis for the Borrower to understand how proposed mitigation measures will be designed and how adaptive management will be implemented, and to start a conversation with the Local artisans on measures to address COVID-19 in the program.

1. WHAT PLANNING SHOULD THE BORROWER BE DOING?

Task teams should work with Borrowers (PFTs) to confirm that programs (i) are taking adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak. Suggestions on how to do this are set out below:

- The PFT, either directly or through the Supervising Engineer, should request details in writing from the main Local artisans of the measures being taken to address the risks. As stated in Section 3, the construction contract should include

health and safety requirements, and these can be used as the basis for identification of, and requirements to implement, COVID-19 specific measures. The measures may be presented as a contingency plan, as an extension of the existing program emergency and preparedness plan or as standalone procedures. The measures may be reflected in revisions to the program's health and safety manual. This request should be made in writing (following any relevant procedure set out in the contract between the Borrower and the Local artisans).

- In making the request, it may be helpful for the PFT to specify the areas that should be covered. This should include the items set out in Section 5 below and take into account current and relevant guidance provided by national authorities, WHO and other organizations. See the list of references in the Annex to this note.

- The PFT should require the Local artisans to convene regular meetings with the program health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.

- Where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site and the local community. It is also advisable to designate at least one back-up person in case the focal point becomes ill; that person should be aware of the arrangements that are in place.

- On sites where there are several Local Artisans and therefore (in effect) different work forces, the request should emphasize the importance of coordination and communication between the different parties. Where necessary, the PFT should request the main Local artisans to put in place a protocol for regular meetings of the different Local Artisans, requiring each to appoint a designated staff member (with back up) to attend such meetings. If meetings cannot be held in person, they should be conducted using whatever IT is available. The effectiveness of mitigation measures will depend on the weakest implementation, and therefore it is important that all Local Artisans and sub-Local Artisans understand the risks and the procedure to be followed.

- The PFT, either directly or through the Supervising Engineer, may provide support to programs in identifying appropriate mitigation measures, particularly where these will involve interface with local services, in particular health and emergency services. In many cases, the PFT can play a valuable role in connecting program representatives with local Government agencies, and helping coordinate a strategic response, which considers the availability of resources. To be most effective, programs should consult and coordinate with relevant Government agencies and other programs in the vicinity.

- Workers should be encouraged to use the existing program grievance mechanism to report concerns relating to COVID-19, preparations being made by the program

to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

2. WHAT SHOULD THE LOCAL ARTISANS COVER?

The Local artisans should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the program: the location, existing program resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the program put in place the best measures possible to address the situation. As discussed above, measures to address COVID-19 may be presented in different ways (as a contingency plan, as an extension of the existing program emergency and preparedness plan or as standalone procedures). PFTs and the supervision firm should refer to guidance issued by relevant authorities, both national and international (e.g. WHO), which is regularly updated (see sample References and links provided in the Annex).

Addressing COVID-19 at a program site goes beyond occupational health and safety and is a broader program issue which will require the involvement of different members of a program management team. In many cases, the most effective approach will be to establish procedures to address the issues, and then to ensure that these procedures are implemented systematically. Where appropriate given the program context, a designated team should be established to address COVID-19 issues, including PFT representatives, the Supervising Engineer, management (e.g., the program manager) of the Local artisans and sub-Local Artisans, security, and medical and OHS professionals. Procedures should be clear and straightforward, improved as necessary, and supervised and monitored by the COVID-19 focal point(s). Procedures should be documented, distributed to all Local Artisans, and discussed at regular meetings to facilitate adaptive management. The issues set out below include a number that represent expected good workplace management but are especially pertinent in preparing the program response to COVID-19.

(a) ASSESSING WORKFORCE CHARACTERISTICS

All construction sites will have workers from the local communities but providing different services. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:

- The Local Artisans should prepare a detailed profile of the program work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).
- This should include a breakdown of workers who reside at home (i.e., workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.

- Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.
- Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
- Workers from local communities, who return home daily, weekly, or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

(b) ENTRY/EXIT TO THE WORK SITE AND CHECKS ON COMMENCEMENT OF WORK

Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:

- Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID 19 specific considerations.
- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
- Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.
- Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

(c) GENERAL HYGIENE

Requirements on general hygiene should be communicated and monitored, to include:

- Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
- Placing posters and signs around the site, with images and text in local languages.
- Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.
- Review worker accommodations, and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.
- Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

(d) CLEANING AND WASTE DISPOSAL

Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:

- Providing cleaning staff with adequate cleaning equipment, materials, and disinfectant.
- Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
- Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles, or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
- Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes is necessary, this should be for as limited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19).

(e) ADJUSTING WORK PRACTICES

Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the program schedule. Such measures could include:

- Decreasing the size of work teams.
- Limiting the number of workers on site at any one time.
- Changing to a 24-hour work rotation.
- Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
- Continuing with the usual safety trainings, adding COVID-19 specific considerations. Training should include proper use of normal PPE. While as of the date of this note, general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
- Reviewing work methods to reduce use of construction PPE, in case supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
- Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
- Consider changing canteen layouts and phasing mealtimes to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on site, including gyms.

  At some point, it may be necessary to review the overall program schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, considering Government advice and instructions.

(f) PROGRAM MEDICAL SERVICES

Consider whether existing program medical services are adequate, considering existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures and training. Where these are not adequate, consider upgrading services where possible, including:

- Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19). Isolation facilities should be located away from worker accommodation and ongoing work activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use common areas and facilities (e.g.

kitchens or canteens), they should only do so when unaffected workers are not present and the area/facilities should be cleaned prior to and after such use.

- Training medical staff, which should include current WHO advice on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on site should follow WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.
- Training medical staff in testing, if testing is available.
- Assessing the current stock of equipment, supplies and medicines on site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
- If PPE items are unavailable due to world-wide shortages, medical staff on the program should agree on alternatives and try to procure them. Alternatives that may commonly be found on constructions sites include dust masks, construction gloves and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.
- Ventilators will not normally be available on work sites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
- Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19, and WHO guidance on safe management of wastes from health-care activities).

(g) LOCAL MEDICAL AND OTHER SERVICES

Given the limited scope of program medical services, the program may need to refer sick workers to local medical services. Preparation for this includes:

- Obtaining information as to the resources and capacity of local medical services (e.g., number of beds, availability of trained staff and essential supplies).
- Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
- Considering ways in which the program may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
- Clarifying the way in which an ill worker will be transported to the medical facility and checking availability of such transportation.
- Establishing an agreed protocol for communications with local emergency/medical services.
- Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.

- A procedure should also be prepared so that program management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal program procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The program should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

(h) INSTANCES OR SPREAD OF THE VIRUS

WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The program should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community). These may include the following:

- If a worker has symptoms of COVID-19 (e.g., fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
- If testing is available on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).
- If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the program.
- Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
- Co-workers (i.e., workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms. Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
- If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
- If workers live at home and has a family member who has a confirmed or suspected case of COVID19, the worker should quarantine themselves and not be allowed on the program site for 14 days, even if they have no symptoms.
- Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.
- Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

(i) CONTINUITY OF SUPPLIES AND PROGRAM ACTIVITIES

Where COVID-19 occurs, either in the program site or the community, access to the program site may be restricted, and movement of supplies may be affected.

- Identify back-up individuals in case key people within the program management team (PFT, Supervising Engineer, Local artisans, sub-Local artisanss) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.
- Document procedures, so that people know what they are, and are not reliant on one person's knowledge.
- Understand the supply chain for necessary supplies of energy, water, food, medical supplies and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional and national supply chains, especially for those supplies that are critical for the program, is important (e.g., fuel, food, medical, cleaning and other essential supplies). Planning for a 1–2-month interruption of critical goods may be appropriate for programs in more remote areas.
- Place orders for/procure critical supplies. If not available, consider alternatives (where feasible).
- Consider existing security arrangements, and whether these will be adequate in the event of interruption to normal program operations.
- Consider at what point it may become necessary for the program to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to re-start work when it becomes possible or feasible.

(j) TRAINING AND COMMUNICATION WITH WORKERS

Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the program, and their own responsibilities in implementing them.

- It is important to be aware that in communities close to the site and amongst workers without access to program management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.
- Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
- Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
- Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, considering that work practices may have been adjusted.

- Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

(k) COMMUNICATION AND CONTACT WITH THE COMMUNITY

Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by local workers presence on the program site. The program should set out risk-based procedures to be followed , which may reflect WHO guidance (for further information see WHO Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response). The following good practice should be considered:

- Communications should be clear, regular, based on fact and designed to be easily understood by community members.
- Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used, posters, pamphlets, radio, text message, electronic meetings. The means used should consider the ability of different members of the community to access them, to make sure that communication reaches these groups.
- The community should be made aware of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers and the procedure that will be followed by the program if a worker becomes sick.
- If program representatives, Local artisanss or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).

6. EMERGENCY POWERS AND LEGISLATION

Many Borrowers are enacting emergency legislation. The scope of such legislation, and the way it interacts with other legal requirements, will vary from country to country. Such legislation can cover a range of issues, for example:

- Declaring a public health emergency

  Authorizing the use of police or military in certain activities (e.g. enforcing curfews or restrictions on movement)
- Ordering certain categories of employees to work longer hours, not to take holiday or not to leave their job (e.g. health workers)
- Ordering non-essential workers to stay at home, for reduced pay or compulsory holiday

Except in exceptional circumstances (after referral to the World Bank's Operations Environmental and Social Review Committee (OESRC)), programs will need to follow emergency legislation to the extent that these are mandatory or advisable. It is important that the Borrower understands how mandatory requirements of the legislation will impact the program. Teams should require Borrowers (and in turn, Borrowers should request Local Artisans) to consider how the emergency legislation will impact the obligations of the Borrower set out in the legal agreement and the obligations set out in the construction contracts. Where the legislation requires a material departure from existing contractual obligations, this should be documented, setting out the relevant provisions.

Annex 2 – Local Artisans Code Of Conduct

Local artisans are obliged to create and maintain an environment which prevents social risks. They have the responsibility to communicate clearly to all those engaged on the program the behaviours which guard against any form of abuse and exploitation. In order to prevent social risks, the following core principles and minimum standards of behaviour will apply to all employees without exception:

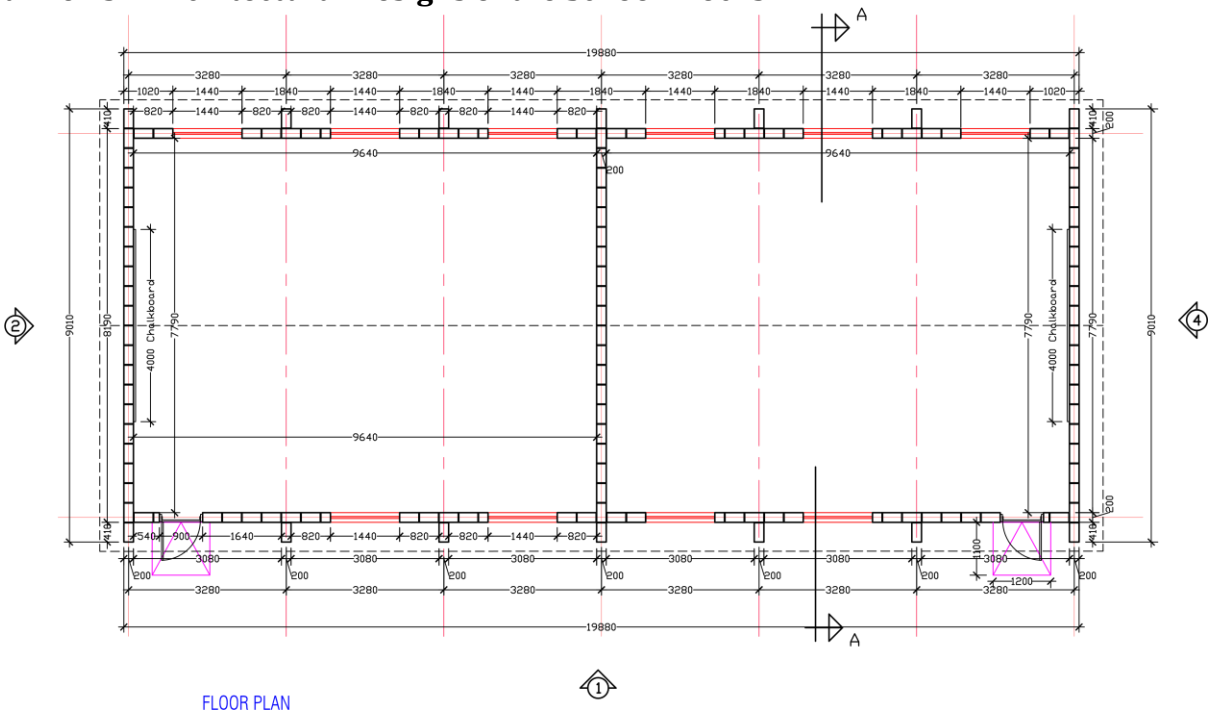
1. GBV or VAC constitutes acts of gross misconduct and are therefore grounds for sanctions, penalties and/or termination of employment and/or contract. All forms of social risks including grooming are unacceptable be it on the work site, the work site surroundings, or at worker's camps of those who commit GBV or VAC will be pursued.
2. Treat women, children (persons under the age of 18) and people with disability with respect regardless of race, colour, language, religion, political or other opinion, national, ethnic, cultural beliefs/practices, or other status.
3. Do not use language or behaviour towards men, women or children that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
4. Sexual activity with children/learners under 18 (including through digital media) is prohibited. Mistaken belief regarding the age of a child and consent from the child is not a defence.
5. Exchange of money, employment, goods, or services for sex, including sexual favours or other forms of humiliating, degrading or exploitative behaviour is prohibited.
6. Sexual interactions between Local artisans' employees and communities surrounding the workplaces that are not agreed to with full consent by all parties involved in the sexual act are prohibited (see definition of consent above). This includes relationships involving the withholding, promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex.
7. Where an employee develops concerns or suspicions regarding acts of GBV or VAC by a fellow worker, whether in the same contracting firm or not, he or she must report such concerns in accordance with established Grievance Redress Mechanism (GRM) that protects the identities of victims and whistle-blowers.
8. All Local artisans are required to attend an induction prior to commencing work on site to ensure they are familiar with the social risks and Codes of Conduct.
9. All employees must attend a mandatory training once a month for the duration of the contract starting from the first induction prior to commencement of work to reinforce the understanding of the institutional social risks and Code of Conduct.
10. The Local artisans shall ensure provision of financial resources and support compliance to occupation health and safety requirements for all workers.
11. The Local artisans shall ensure that workers dress appropriately i.e. dress in a way that: -
    - Is unlikely to be viewed as offensive, revealing, or sexually provocative.
    - Does not distract, cause embarrassment or give rise to misunderstanding.
    - Is absent of any political or otherwise contentious slogans.
    - Is not considered to be discriminatory and is culturally sensitive.
12. The Company shall ensure provision of financial resources and trainings to prevent spread of HIV and AIDS.

13. The company shall comply with all the applicable international and national legislation including giving terminal benefits to workers who have served for at least three months.
14. All Local artisans must ensure that their employees sign an individual Code of Conduct confirming their agreement to support prevention of social risks activities.
15. The Local artisans should ensure equitable access to limited natural resources (e.g., water points) to avoid conflicts with local communities.
16. Where possible, the Local artisans should ensure employment of local workforces especially where unskilled labour is required to mitigate social risks.

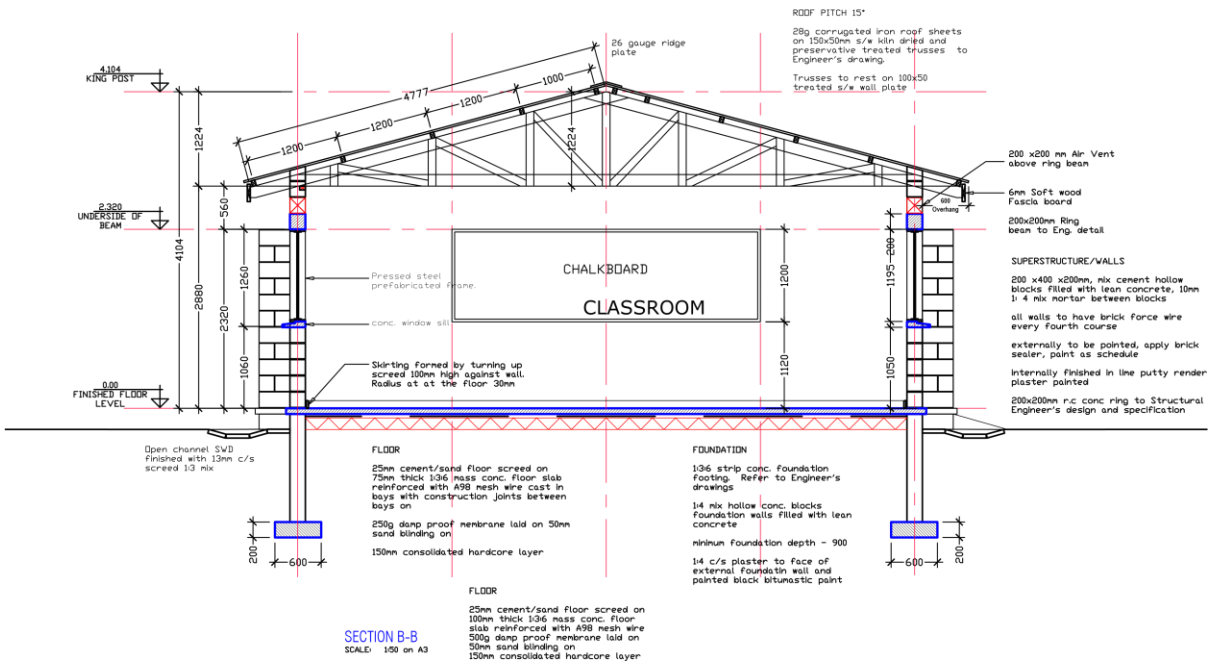
I do hereby acknowledge that I have read the foregoing Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities. I understand that any action inconsistent with this Code of Conduct or failure to act mandated by this Code of Conduct may result in termination of the contract.

FOR THE LOCAL ARTISANS
Signed by: _____
Signature: _____
Title: _____
Date: _____

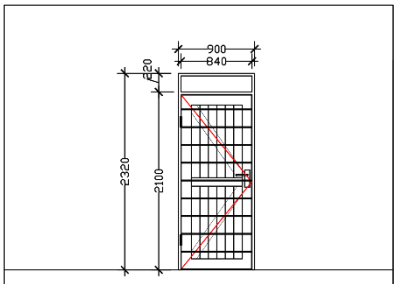
annex 3 – Architectural Designs of the School Blocks

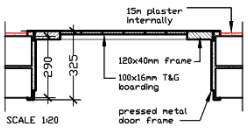


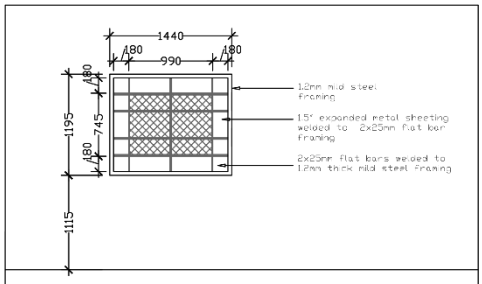
FLOOR PLAN



SECTION B-B
SCALE: 1:50 on A3



DOOR TYPE	D1
NO. REQ.	1
POSITION	ENTRY TO CLASSROOM 1
FRAME	PRESSED METAL FINISHED WITH 2 COATS GLOSS PAINT ON PRIMER FOR METALS
DOOR	H/W FLBB FINISHED WITH 2 COATS POLYURETHANE VARNISH 40X120MM FRAMING, 16X100MM T&G BOARDING, 24X100MM LEDGING & BRACING
HAND	RIGHT HAND
LOCKS	3 LEVER 'UNION' MORTICE LOCK
HINGES	1 PAIR 125MM NARROW BUTT HINGES FIXED WITH 9 NO. BRASS COUNTER SUNK SCREWS
FRAME SIZE /DETAIL	
STOPPER	WALL MOUNTED RUBBER STOPPER
GLASS	4mm glass
BULGLAR BARS	



WINDOW TYPE	WCR1
NO. REQ.	10
POSITION	CLASSROOM
FRAME	MILD STEEL SECTIONS FINISHED WITH 2 COATS GLOSS PAINT ON PRIMER FOR METALS
WINDOW	PURPOSE MADE WINDOW
INFILL	1.5" EXPANDED METAL SHEETING WELDED TO 2X25MM FLAT BAR FRAMING

Annex 4 – Various Guidelines On Occupational Health and Safety

- Environmental, Health, and Safety Guidelines for Railways 2007
- General Environmental, Health, and Safety Guidelines 2007
- Environmental, Health, and Safety Guidelines for Construction Materials Extraction 2007
- Environmental and Social Management System Implementation Manual: General 2015
- Environmental and Social Management System Implementation Manual: Construction 2014
- Local Artisans Environmental and Social Performance Management Good Practice Rating 2017
- Cumulative Impact Assessment and Management Good Practice Guide 2013
- Introduction to Health Impact Assessment 2009
- IFC and EBRD - Guide to Workers' Accommodation: Processes and Standards 2009
- Good Practice Handbook on Using Security Forces 2017
- Stakeholder Engagement Handbook 2007
- Handbook on Program Migration Problems 2009
- Good Practice Score on Complaints from Communities Affected by the Program 2009

Annex 5 – Terms of Reference for the Development of Environmental and Social Management Plan

Malawi Education Reform Program -MERP
Ministry of Education

Assignment Title: Consultancy for Environmental and Social Management Plans (ESMPs) for the construction activities under the Malawi Education Reform Program (MERP) in the Ministry of Education

1.0. INTRODUCTION

In an attempt to improve the learning environment in the education sector in particular the primary education, the Government of Malawi (GoM) through the Ministry of Education is embarking on the implementation of the Malawi Education Reform Program (MERP). The Programme is in tandem with the aspirations of Malawi's Vision 2063 of achieving an inclusively wealthy and self-reliant industrialized upper-middle-income country. It also aligns with the Sustainable Development Goal (SDG) number 4, which is to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." This also follows the goals, objectives and strategies of the Government of Malawi in the education sector as stipulated in the National Education Sector Investment Plan (NESIP 2020-2030). The goals and objectives focus on expansion of equitable access to education, improvement of quality and relevance of education and improved governance and management.

2.0. Context and Background

The Malawi Education Reform Program (MERP) which the Ministry of Education (MoE) is implementing with support from the World Bank, Global Partnership on Education (GPE) and the Government of Malawi is a successor of another program, the Malawi Education Sector Improvement Program (MESIP) which the MoE successfully implemented for another four years with funding from the World Bank. While MESIP was implemented in 8 districts in the country, MERP will be implemented in all the 34 Education Districts in Malawi.

The expected implementation period of the Malawi Education Reform Program is 4 years from December 2021 to December 2025. The Program Development Objective (PDO) is to improve learning environments for students in lower primary in the public schools. The program scope consists of five components which contribute to the PDO, and these are: Component 1: Expanding and Reforming Primary School Improvement Grants. Component 2: Improved Learning Environments in Lower Primary to Support Learning

Recovery after COVID-19. Component 3: Supporting Girls' Learning. Component 4: School Leadership Programme; and Component 5: Program Coordination and Capacity Building.

The following are the PDO level indicators for the Malawi Education Reform Program (MERP):

- Pupil – classroom ratios (PCRs) in lower primary, school-level average, and interquartile range
- Share of schools with pupil-qualified teacher rations in standards 1-2 in the acceptable range [Percent]Student dropout rate (total, male and female) Percent

The program, under component 2 subcomponent 2.1 will involve construction works of 10,900 classrooms and 1,000 sanitation blocks. In addition, the program under component 2, sub-component 2.2. and component 3, sub-component 3.1 will recruit 3,500 auxiliary teachers and 2,605 learner mentors. It is therefore required that the construction works follow principles of green building and social aspects of the lives of learners and other stakeholders within the construction sites. Furthermore, the social assessments should be extended to the auxiliary teachers and the learner mentors' interventions of the program. To facilitate this, it is required that a consultant is hired to prepare Environmental and Social Management Plans (ESMPs) to guide the construction of the classroom and sanitation blocks; and the implementation of auxiliary teachers and Learner Mentors related activities.

The selected consultant will prepare the Environmental and Social Management Plans (ESMPs) for construction of cost-effective classrooms and sanitation blocks, auxiliary teachers and learner mentor's interventions of the program.

3.0 OBJECTIVES OF THE ASSIGNMENT

The general objective of this assignment is to develop education division based ESMPs for Component 2 (subcomponents 2.1 and 2.2) and component 3 (subcomponent 3.1.) of the MERP Program in fulfilling the requirements for Environmental and Social Framework (ESF) of the World Bank and Environmental Management Act (2017) of the Government of Malawi. These subcomponents envisage the construction works of 10,900 classroom blocks and 1,000 sanitation blocks (2.1), the recruitment of 3,500 Auxiliary Teachers (2.2) and 2,605 Learner Mentors (3.1).

3. SCOPE OF ASSIGNEMENT

The scope of the assignment will be as follows:

3.1 General

The consultants shall appraise themselves on the requirements of the MERP and familiarize themselves to various MERP relevant documents and legislatures that will be associated with the implementation of the Program. These shall form a backbone to the ESMPs which are required to be developed under this assignment. Details on scope of work include, but are not limited to:

- Identify and assess key potential environmental and social impacts including those on gender, which may be caused by the proposed classroom and sanitation blocks construction, recruitment and engagement of auxiliary teachers and learner mentors and propose mitigation measures.

- Propose measures that would enhance the positive effects of the proposed constructions, recruitments and engagement of auxiliary teachers and learner mentors; and
- Propose measures that will mitigate the anticipated negative impacts of the proposed constructions; recruitment and engagement of auxiliary teachers and learner mentors; and operation activities on both the environment and social components, including gender concerns in specific sites.
- Conduct stakeholder consultative meetings which inform program key environment, social risks, and mitigation measures.
- Develop a costed ESMP monitoring plan with clear lines of responsibilities for key stakeholders.

Below is a list of Education Divisions and Districts in which the construction works of classroom and sanitation blocks will be done, and respective division based ESMPs be developed. The specific list of schools to be targeted for each Division will be provided to the identified consultant by the MERP Program Facilitation Team (PFT).

Table 1.1: Schools to be Assessed.

The classroom blocks will be constructed in about 3,553 schools and the sanitation blocks in about 1,000 schools in the following 34 Education Districts located in 6 Education Divisions:

Education Division	**Number of schools receiving classroom block(s)**	**Number of schools receiving Sanitation block**
Northern Education Division (NED) ChitipaKaronga, Rumphi Mzimba North, Mzimba South Mzuzu Urban, NkhataBay, Likoma	402	42
Central East Education Division (CEED) Kasungu, Nkhotakota Salima, Ntchisi, Dowa	687	163
Central West Education (CWED) Mchinji Lilongwe Rural East Lilongwe Rural West Lilongwe Urban, Dedza , Ntcheu	915	258
South East Education Division (SEED) Mangochi Machinga Balaka Zomba Rural Zomba Urban	704	243
Shire Highlands Education Division (SHED) Phalombe, Mulanje Thyolo , Chiradzulu	416	148

Southwest Education Division (SWED) Nsanje, Chikwawa Blantyre Urban, Blantyre Rural Mwanza, Neno	429	135
TOTAL	**3,553**	**989**

Note

Education Division	**No of Consultants**
Northern Education Division (NED)	1 (One)
Central East Education Division (CEED)	1 (One)
Central West Education (CWED)	1 (One)
Southeast Education Division (SEED)	1 (One)
Shire Highlands Education Division (SHED)	1 (One)
Southwest Education Division (SWED)	1 (One)

Specific scope of services, Tasks (components) and Expected Deliverables

The broad scope of the work (SoW) is to carry out an Environment and Social Management Plans (ESMPs) of the proposed subprograms based on the Government of Malawi regulations and the World Bank Environmental and Social Framework. ***The consultants will perform the scope of work while collaborating with Environmental District Officers from the Malawi Environmental Protection Authority (MEPA)***. Details on the specific scope of work include, but not limited to:

Task 1. Screening and Scoping of Environmental and Social Issues

The environmental and social assessment, screening and scoping study will determine and deliver the proposed physical limits for the study area, appropriate to the issues; proposed time frame for the ESA study; list of key stakeholders, initial consultation and analysis of findings; key potential impacts and the types and levels of impacts to be assessed in the ESA; review of works designs and its interaction with environment, social and cultural aspects, potential alternatives for consideration in the ESA; review of information on the existing environment, recommendations for appropriate methods of survey/data collection to establish environmental and social conditions; recommendations for appropriate methods for the prediction and assessment of impacts.

Task 2: Description of the Proposed Subprograms

The consultant will concisely describe the proposed subprograms' geographical, ecological and general layout maps including map sketches and annotated photographs at appropriate scale as necessary based on program information acquired from the client. The description shall also include activities to be undertaken in and around the proposed subprograms site including input materials, final products, by-products, waste generation where applicable shall be detailed and cost of the proposed subprograms shall also be provided. The consultant will be required to suggest the costs of implementing the environmental and social management measures.

Task 3: Description and Establishment of Environmental and Socioeconomic Baseline Conditions of the Subprograms

The consultant shall carry out a survey to collect, collate and present baseline information of the existing environmental and socioeconomic characteristics of, within and around the proposed subprogram sites.

Task 4: Public Participation and Consultations

The consultant will carry out a stakeholder analysis and prepare a stakeholder consultation plan for the inclusion and consultation of all the stakeholders throughout the assessment process. This entails consulting program-affected groups, public agencies/institutions and civil society organizations about the subprogram's environmental and social aspects and demonstrating how views were considered within the report. The consultations should commence shortly after the screening and continue throughout the process. Disclosure of the report shall be done in a manner, form and language that are understandable, accessible which enable the public full participation.

Task 5. Site specific map Provide a site-specific visible map of the area (scale I : 50,000) showing the proposed site and (I : 10,000) showing existing establishments in the area and surrounding areas including natural endowments like rivers and streams. A site plan for the program should be provided. All maps should be in color to portray the themes clearly and must be printed on A3 paper.

Task 6: Analysis and Determination of Potential Environmental and Social Impacts of the Subprograms

The consultant shall identify, analyze, and describe significant/core community, environment, occupational, health impacts that may be brought about by the proposed civil works. Such are the impacts of the proposed subprograms on the baseline environmental and socio-economic conditions as described in Task 3 (above) or impacts of the surrounding environment on the subprograms (externalities). The consultant will make a prioritization of all immediate and future concerns and differentiate between short, medium, and long-term impacts paying special attention to the significant impacts (both positive and negative).

Task 7: Measures to Mitigate Adverse Environmental and Social Impacts of the Subprograms

The objective of this task is to identify, propose and describe pragmatic, community, occupational, health and safety mitigation measures to enhance the benefits of environmental and social protection. The cost effectiveness of such mitigation and enhancement measures shall be analyzed against viable alternatives. Where no such suitable mitigation measures can be identified this will be clearly explained. Based on environmental and social assessment, mitigation / enhancement measures will be specified in the form of an environmental and social management plan.

Task 8 -Review of the legal framework pertaining to the program

Briefly review the legal framework pertaining to the proposed program and indicate their impacts on the program. Reference should at least be made to Environment Management Act, Education policy, Water Resources Act, National Water Policy, Public Health Act, Occupational Safety, Health and Welfare Act, and other policies and pieces of legislations.

Task 9: Development of an Environmental and Social Management Plan

Based on the outcome of tasks above, the consultant shall prepare an environmental and social management plan comprising of a programme of assessing and managing the impacts during implementation, operation and post operation phase including decommissioning. This will provide time frames and implementation mechanisms, reporting responsibilities, description and technical details of monitoring measures, assessment of the institutional needs, staffing requirements and cost outlay for implementation. The plan should show how management and mitigation methods are phased with program implementation. The plan shall also include measures to prevent health hazards and to ensure safety in the working environment for the employees and the communities adjacent to the program site and program affected people.

Task 10: Preparation of an Environmental and Social Management Monitoring Plan (ESMMP)

The consultant shall prepare an environmental management monitoring plan for performance monitoring of how well program construction, operation and implementation of auxiliary and learner mentor interventions including the implementation of key mitigation measures are carried out (including Environmental, Social, Gender, Health and Safety). He shall also propose outcome monitoring of key selected environmental and social indicators, such as gender-based violence (GBV), workers safety and camping sites. The Environmental and Social Monitoring Plan (ESMP) will focus on key impacts, specify the planned monitoring activities, key indicators, monitoring frequency and duration, budget and skilled personnel needs, institutional responsibility for each monitoring activity, and means of verification.

Task 11: ESMP Implementation Budget

Provide a clear statement of financial responsibilities, identify estimated summary of costs for the implementation of the proposed mitigation measures; provide detailed estimated budgets for all phases of the program including planning, implementation, monitoring and evaluation, with contingencies.

3.3 Reporting Requirements and Time schedule for deliverables

The consultant will report to the Director of Basic Education (DBE) in the MoE who the Coordinator of the Program is; The consultant will work with MoE sub-component 2.1, 2.2. and 3.1. Leads who will have an oversight role on the completion of the assignment. The consultant will also work with the MERP PFT especially the Environmental Specialist, the Social Safeguards Specialist and the Gender Specialist, who will share all the relevant information concerning the assignment.

4.0. EXPECTED OUTPUTS

All deliverables must meet industry standards and the requirements set forth in contractual documentation. A face-to-face "kick-off" meeting will be held with the Program Implementation Unit at the Ministry of Education within 3 calendar days of contract award to discuss requirements and milestones.

The main focus of the consultants is preparing the ESMPs but in the course of carrying out the assignment the consultants will be sharing the PFT with updates or process reports. A simple template will be shared with the consultants to provide updates while

carrying out the assignment. The consultant shall prepare progress reports in line with the timetable as detailed in Table 1.2:

Table 1.2: Submission of electronic copies and hard copies

S/N	Deliverable	Outputs	Timeline (days)
1	**Deliverable 0:** Face to Face Kick off Meeting		D+3
3	**Deliverable 1: Inception Report,** acceptable to the Client; that clearly illustrates how the assignment shall be executed by detailing the methodology for undertaking the assignment and a work plan, and proposals for presenting the assessment results in a concise manner. The inception report will be presented to the Ministry of Education before being signed off	• 2 printed copies of the Inception Report • 1 Flash Disk with soft copy of the Inception Report or *shared through email*	D+15
3	**Deliverable 2: (a) brief reports (**share updates in the course of carrying out the assignment), (b) draft ESMPs and Monitoring plans for the proposed schools/subprograms (c) Site specific map, The consultant shall produce one report per education division with site specific Environmental and Social Management Plans (ESMPs) and Environmental and Social Management Monitoring Plans (ESMPs) as attachments to that district report.	• 5 printed copies of Draft Final Report • 1 Flash Disk with soft copy *or shared through email*	D+30
4	**Deliverable 3: Final Report**, acceptable to the Client, covering Final ESMPs and Monitoring Plans that incorporate comments and feedback from the Client.	• 5 printed copies of Final Report • 1 Flash Disk with soft copy of Final Report *or shared through email*	D+45

Note: D equals days

Deadline provided is for submission of deliverables; in each case, MoE reserves the right to request alterations or additions before accepting a deliverable as complete. Unless otherwise specified, the Client will provide acceptance or requests for alterations within one week of receipt of deliverables; the consultant will then provide revised versions within one week.

The performance objectives shall include but not limited to:

Performance Indicators	Quality Assurance Criteria
a) Completeness	Deliverables will be 100% complete
b) Accuracy	Deliverables will be 100% accurate.
c) Effectiveness	All deliverables must contribute to the overall success of the assignment
d) Timeliness	All deliverables will be on time and within schedule
e) Communication	Communication is professional, courteous and accurate

PROFESSIONAL QUALIFICATIONS AND EXPERIENCE

The consultants will have the following qualifications.

- A minimum of a master's degree in environmental sciences, Environmental Management, Natural Resources Management or any related field.
- A minimum of five (5) years of relevant working experience in conducting Environmental and Social Assessments in Malawi.
- Adequate knowledge of World Bank Safeguards Operational Policies/Environmental and Social Framework (ESF);
- Knowledge and understanding of national environmental policies and laws of Malawi.
- Excellent oral and written communication skills with ability to dialogue and interface with grass roots, district and other sector players.

IMPLEMENTATION ARRANGEMENTS

MoE, through the directorate of Basic Education, will be the implementing agency; The consultant shall administratively be responsible to the Secretary for Education (SE) through the Program Coordinator, Malawi Education Reform Program (MERP) who shall be responsible for the day-to-day management of the program.

The consultant will work under the overall technical supervision of the subcomponent 2.1 Lead, and the PFT Environmental Specialist, Social Safeguards Specialist and Gender Specialist of the Malawi Education Reform Program (MERP).

PROGRAM TIME FRAME

The consulting services are expected to be done for a period of Forty-five (45) calendar days ***for all the construction sites for the program*** from the commencement date. This includes preparation time, field work, report writing, presentation/validation and submission of final documents.

OBLIGATION OF THE CLIENT

The Client shall assist the consultant in providing program documents that may be relevant to the assignment. Where necessary, the Client will assist in deciding for the consultant to meet relevant agencies, districts and other key stakeholders (including the Director for Education, Youth and Sports (DEYS) for the concerned Education District).

Client Input and Counterpart personnel

a. No facilities and property will be made available to the Consultant.

b. Documents to be shared with the Consultants include:
   - Program Appraisal Document (PAD);
   - Program Implementation Manual (PIM);
   - MERP Environmental and Social Framework, Labor Management Plan (LMP);
   - MERP Stakeholder Engagement Plan (SEP);
   - MERP Environmental and Social Framework (ESMF), which will include the screening tools adjusted to the program and the structure of the ESMPs;
   - the list of names of sampled schools to be visited and consulted for the development of the ESMPs (about 7-10% of total schools that will receive a classroom block and sanitation unit each);
   - School construction manual and approved classroom and sanitation block designs.

OBLIGATION OF THE CONSULTANT

The consultant is expected to be fully self- sufficient in terms of accommodation, office space, office supplies, office equipment and transport. The consultant will be paid a percentage of the lump-sum against specified deliverables and the client will agree on a contract price whose breakdown will include renumeration and reimbursable expenses (travel, accommodation and food). The data, documentation and assets from the consultancy will remain in the custody of the Client at the end of the consultancy. Except for purposes of this assignment, the information shall not be disclosed to the public nor used in whatever way or form without written permission of the MoE in line with Copyright Laws applicable.

Annex 6 – Zomba, Machinga and Mangochi Field Report

Introduction

The Malawi Education Reform Program (MERP) has proposed the construction of sanitation and classroom blocks in various schools throughout Malawi. The number of blocks built at each school will be based on a previous needs assessment. This program aims to improve the learning environment by reducing pressure on the existing classroom and sanitation facilities. However, before beginning the construction process, MERP intends to develop an Environmental and Social Management Plan (ESMP) that will outline guidelines for the implementation of the program to minimize its impact on the environment and society. To contribute to this broader goal, we conducted a study with the aim of generating knowledge and information that can be used to develop the ESMP. The study was conducted with the specific objective of identifying potential environmental and social effects of the construction program.

Methodology

The study was carried out in the south-east education division (SEED), with a focus on the Zomba and Machinga districts. A total of eight schools were visited, with four in Zomba (Msamba, Matiya, Chikala, and Chiperoni) and four in Machinga (Chabwera LEA, Nkasaulo, Nathendo, and St Theressa). At these schools we conducted focus group discussions which aimed at understanding the level of awareness of the program, benefits and potential environmental and social impacts of the programs. Participants of the focus group discussions included teachers, school management committee members, chiefs, and local community members. After the discussions, an inspection of the proposed construction sites was conducted to confirm some of the issues raised during the focus group discussions, such as whether the program would involve tree cutting. Apart from the focus group discussions, the study also conducted key informant interviews with members from the district education office.

Results and discussions

General awareness of the construction program

The study revealed that in some schools there was a general lack of awareness of the construction program among the school committee and community members. Where the communities were aware of the program, they could not provide details of some key elements of the program like the number of proposed classroom and sanitation blocks to be constructed. This lack of awareness was also apparent at the district level where members at the district level did not have adequate details of the program. Lack of awareness of the program highlighted some important communication challenges within the districts. Effective communication is the foundation of transparency in any program. Where programs are not transparent, they are likely not to achieve the desired outcomes. This suggest that there is a need to establish clear communication channels that are holistic to ensure that all relevant stakeholders are aware of the program.

Benefits of the proposed construction program

The school management committee and local communities acknowledged that the proposed construction program would reduce pressure on existing classrooms and sanitation facilities. Many of the schools were overcrowded, with high student-to-facility ratios. The number of classrooms at each school ranged from 8 to 12, while the number of toilets ranged from 8 to 30 (as shown in Table 1). These numbers are insufficient to accommodate the number of students, which ranged from 863 to 2900 (Table 1). As a result, some students attend classes in shifts, with one group attending in the morning

and another in the afternoon. In some schools, classes are held in temporary sheds, and in others, kitchen space is used for learning. During breaks, students must queue to access the restroom facilities. Hence it is apparent that the proposal to construct additional classrooms and sanitation blocks in these schools is justified.

Table 1: Distribution of classrooms and sanitation rooms across different schools in Zomba and Machinga districts

School name	No. of students	No. of class rooms	No. toilets	District
Chabwera	1268	8	10	Machinga
Nathendo	863	8	30	Machinga
Mkasaulo	1300	9	10	Machinga
St Theressa	2742	19	8	Machinga
Matiya	1828	12	16	Zomba
Chipironi	2900	18	16	Zomba
Chikala	2062	8	24	Zomba
Msamba	2160	12	10	Zomba

Moreover, the proposed construction program will provide financial benefits to the local communities, as it will employ local artisans for various tasks at the construction sites. This will result in a significant amount of money going to the local communities, thereby improving their livelihoods. In addition, even community members who are not employed at the construction site will have the opportunity to sell food items to those working on the site. Therefore, overall, the program will generate financial gains for the local community members.

Potential environmental and social impacts of the program

Loss of trees and soil erosion

The construction program will have minimal impact on trees around the school premises. This is because most of the areas that are proposed as construction sites are bare. Where the proposed construction sites have trees, most of these trees are exotic (especially Gmelina species) and they are few (< 6). Nevertheless, in some schools the construction program may have to cut very few indigenous trees. Overall, the field visit revealed that the construction program will have minimal impact on trees around the school premises. Since the program will have minimal impact on trees it is also anticipated that the program will have minor effects on soil erosion. However, in some schools there will be need to use heavy machinery, which may result in significant disturbance to the soil consequently resulting in soil erosion. Even though soil erosion is inevitable when building, the program will have minimum soil erosion rates because most of the buildings will be built on bare land. Thus, the placement of buildings on bare lands will provide cover to the soils consequently minimizing rates of soil erosion.

Noise and potential for disturbance of classes

The construction program is expected to generate significant noise to disturb learning. The school committee and local communities claimed that the program will not generate disturbances to classes. This was based on their experience with similar construction programs in the past. However, most of the construction sites are in the range of 5 – 12m from the classrooms that are actively used. Therefore, due to proximity of the

construction sites to the classrooms, it is expected that the program will generate noise that will have adverse effects on the learning environment. In addition, since the construction program is expected to use and bring different equipment within the school premises, the program may pose hazards to pupils and teachers. These hazards can be minimized by ensuring that students and are prevented from visiting the construction site.

Generation of solid wastes

The construction program is expected to generate a variety of waste materials such as plastic, metal, wood and steel among others. Proper disposal of these waste materials will largely depend on the waste disposal systems already in place at each school. Some of the construction workers may collect the waste for re use in their homes. However, given the heavy reliance on school waste management structures for disposal it is apparent that the program will generate a significant among of solid waste. Nevertheless, in conversations with study participants, the majority expressed that solid waste is not a significant concern, as the schools have effective methods for managing such waste. Additionally, they noted that based on their experiences working on similar programs, they have not encountered any difficulties in the handling and disposal of solid waste materials.

Dust emissions

During construction of classrooms and sanitation blocks, dust is inevitably produced due to excavation and clearing of the construction sites. If heavy machinery is used, the amount of dust emitted is substantial. This could have a significant negative effect on the learning environment for many students. In the case of the current construction program, the situation may be severe because much of the construction will take place near the currently used classrooms. Even though preliminary field observations suggested that commencement of the program could lead to dust emission issues, conversations with the participants in all schools suggested otherwise. The participants reported that construction of temporary fences around construction sites is generally adequate to minimize the negative effects of dust emissions. Furthermore, the participants mentioned that during all previous construction activities, they did not experience any significant problems caused by dust emissions.

Borrow pits and pools of stagnant water.

The construction program will involve digging the soil and using heavy machinery in some instances. As a result, there may be pits that are left behind after the completion of the program. If these pits are not filled, they could collect water and become breeding grounds for mosquitos. Additionally, they could make the school scenery appear ugly, and if left unattended, may pose a risk to the safety of the students. Fortunately, the majority of the schools have indicated plans to engage in post-construction landscaping activities, which would involve levelling the affected areas and filling any pits created by the construction work.

Girls and women vulnerability to harassment and abuse

The construction program will require individuals from neighboring communities to come to the schools and work. Unfortunately, some of these individuals may have ulterior motives, such as engaging in inappropriate relationships with female students. This situation is worrying, especially since these workers will have money from the construction work that they could use to lure young girls into satisfying their desires. As a result, the program has the potential to put female students at risk of sexual harassment and abuse. During program discussions, concerns were raised about this issue, but many

participants believed it was unlikely to occur. They suggested that since the workers would likely be from the local community, they would view the students as their own children and therefore not harass or abuse them. However, it is essential to recognize that victims of sexual harassment and abuse may be hesitant to come forward due to shame and stigma. It's vital to acknowledge that the construction program could make female students vulnerable to such abuse.

Special considerations before commencement of the construction works

The field visit and discussions with various relevant stakeholders suggested that before the construction activities begin, there are several issues that will need to be considered to ensure that the program produces desired outcomes. The following section discusses some of the issues that were raised by the respondents during field visits.

Unsuitable type of soils

During focus group discussions, participants, particularly those in schools located in Machinga district, reported that the predominant soil type in the area is clay, which is locally known as "*makande*". To ensure that the building does not develop cracks after completion, it is crucial to take special precautions during the foundation phase when constructing on this type of soil. According to respondents in Machinga district, failure to consider the soil type during construction leads to cracking and eventual collapse of the building. To prevent such tragic outcomes, respondents said it is recommended to construct deep foundations and use mesh wire when making the foundation.

Challenges in sourcing some construction materials

When engaging in construction activities, it is crucial to ensure that construction materials are easily accessible, and if possible, sourced from the nearest location to the construction site to minimize transportation costs. However, during our visits to schools in Machinga district, we found that quarry stone is scarce, and it is often sourced from the neighboring Balaka district, resulting in significant transport costs that need to be factored into the construction budget.

In addition, during this study, we observed that some schools in Zomba district, particularly in urban areas, have piped water within the school premises, and do not rely on wells or boreholes. This has cost implications for construction programs, as all water used for construction needs to be paid for. We found that the cost of water bills is often overlooked when developing program budgets for schools that require paid water services. Therefore, it is important to include these costs when developing program budgets.

Security of program equipment

During our visits to various schools, we found that most schools do not have dedicated storage rooms, and instead, most have turned classrooms into storage rooms. Although this may appear to be a practical solution, it reduces the available classroom space. Furthermore, the storage rooms may not be sufficient to accommodate all the construction materials required for the program. Additionally, the use of local artisans in the construction process increases the risk of theft of construction materials such as cement. Therefore, it is crucial to find a safer way to store and safeguard program equipment during the current construction program.

One possible solution to ensure proper storage of construction materials is to build dedicated storage rooms and employ temporary guards to protect program equipment. Relying on guards who are already overwhelmed with other responsibilities may not be

effective. Therefore, hiring temporary guards solely for this purpose would be a more reliable approach to safeguarding the construction materials.

Timely payments of workers

The success of a construction program is often determined by the level of motivation of the workers who strive to achieve the desired outcomes. Worker motivation is typically influenced by two factors: timely delivery of construction materials and prompt payment of wages. Our study participants highlighted that delayed payment of workers has been a significant impediment to previous construction programs. Therefore, it is crucial to ensure that adequate finances are available for the current program to facilitate timely payments to the workers and timely procurement of construction materials.

Conclusion and recommendations

The study has revealed that the construction program is relevant as it addresses key challenges encountered by various schools. However, even though the program will be beneficial it has potential to generate some negative social and environmental impacts. These negative impacts will vary in magnitude depending on location and the management at schools. Here we provide a list of recommendations that need to be considered to ensure that the negative impacts of the program are minimized.

a) Construction of temporary fences around the construction sites to minimize disturbances and hazards to students.
b) Commencing construction activities during periods when the students are on holiday to ensure that the construction activities cause least disturbances to learning.
c) Ensuring that schools have plant tree programs to replace trees and vegetation that may be cut during the construction activities.
d) Ensuring that program budgets are not uniform for all schools, this is important to ensure that site specific intricacies are considered. These intricacies may include additional cost of transportation and payments for water bills.
e) Developing strict rules and regulations against sexual harassment and abuse to deter potential would be offenders.
f) Increasing security at various schools by employing additional security personnel to safeguard construction equipment.
g) Develop clear communication channels to ensure that program activities are transparent to all relevant stakeholders.

Annex 7 – Details of participants in the focus group discussions

Name	Role	Phone number	School name	District
Kelvin Mupiha	Headteacher	0995067172	Matiya L.E.A	Zomba
Jane Kolovilo	Deputy headteacher	0999594791	Matiya L.E.A	Zomba
G. Mwepesa	Chair PTA	0995452468	Matiya L.E.A	Zomba
Chifundo Chipendo	PTA member	0999514064	Matiya L.E.A	Zomba
Emily Guguda	School committee member	0881695004	Matiya L.E.A	Zomba
Gladys Chikwanje	Committee member	0884434639	Matiya L.E.A	Zomba
Christina Tobias	PTA vice secrtetary	0881337738	Matiya L.E.A	Zomba
Godfrey Likoswe	Treasurer school management committee	0999111076	Matiya L.E.A	Zomba
Teddie Mvula	Chair- School management committee	0999681782	Matiya L.E.A	Zomba
Catherine Kathengule	Chief Chukinda representative	0999464991	Matiya L.E.A	Zomba
Chris Lubana	School committee	0888304936	Chipironi	Zomba
Leah C. Chiguwa	PTA-chair	0888926456	Chipironi	Zomba
Styfold Kausiwa	Vice chair PTA	0999251100	Chipironi	Zomba
Chatama Joseph	PTA- member	0996942114	Chipironi	Zomba
Idah Mawulana	Treasurer-PTA	0994691528	Chipironi	Zomba
Caroline Lunguzi	Member for mother group	0888847960	Chipironi	Zomba
Patricia Kabazale	Deputy head teacher	0888399922	Chipironi	Zomba
Esther Kanthinthi	Head teacher	0997663311	Chipironi	Zomba
Damax Chikwapula	Head techaer	099692839	Chikala	Zomba
Victor Kapula	PTA committee member	0995727301	Chikala	Zomba
Harvey Chinyama	Secretary-School mangement committee	0888311145	Chikala	Zomba
Lusungu Mzuza	Deputy head teacher	0881664931	Chikala	Zomba
Kabila Kandewu	Chair-school committee	0997926545	Chikala	Zomba
Ellad Rita	Chief	0997531743	Msamba	Zomba
Rose John	PTA-Treasurer	---	Msamba	Zomba
Linda Sumba	Villager	0997395260	Msamba	Zomba
Magret Mussa	Village member	---	Msamba	Zomba
Bonface Nyamponda	PTA-member	0991655380	Msamba	Zomba
Mark Joseph	Teacher	0994397614	Msamba	Zomba
Sellina Kapesi	PTA-chair	0998691318	Msamba	Zomba
Anne Chauluka	Deputy head teacher	0995115162	Msamba	Zomba
Maurice Chausi	Head teacher	0994827699	Msamba	Zomba
Clemence Kachala	Chair-School management committee	0995679215	St. Theresa	Machinga
Edward Ligomba	Chair-PTA	0994455266	St. Theresa	Machinga
Dalitso Kosam	Teacher and member PTA	0888942455	St. Theresa	Machinga
Benard Kaipa	Teacher and Vice secretary PTA	0984483354	St. Theresa	Machinga
Denis Chimame	Teacher	0881071667	St. Theresa	Machinga
Elita Banda	Mother group member	0997649159	St. Theresa	Machinga
Anastasia Silulu	Head teacher	0884248068/0999744073	St. Theresa	Machinga
Victor Kamwendo	Deputy head teacher	0999888441	Nathembo	Machinga

Bilalu Shaibu	School committee member	0993768409	Nathembo	Machinga
Priscilla Masi	Head teacher	0883828538	Nathembo	Machinga
Edward Dickson	Chair-School committee	0993352957	Nathembo	Machinga
Beatrice Mussa	School committee member	0995704883	Nathembo	Machinga
Rhoda Ntakula	Vice-chair School committee	0999697982	Nathembo	Machinga
Samuel Phe	Treasurer school committee	0998847334	Nathembo	Machinga
McPherson Kamowa	Vice secretary-school committee	0888963987	Nathembo	Machinga
Alice Matiki	Committee member	---	Nathembo	Machinga
Patuma Mussa	Committee member	0990602792	Nathembo	Machinga
Magret Limbanga	Secretary school committee	0881106980	Nathembo	Machinga
Tione Charles	School committee member	---	Nathembo	Machinga
Esnart Bauleni	Member ADC	0981776632	Nkasaulo	Machinga
John Nkhalamba	Member ADC	0998414543	Nkasaulo	Machinga
Dalitso Zotchinga	Teacher	0882199182	Nkasaulo	Machinga
Ellias Beula	School committee member	0883080451	Nkasaulo	Machinga
Kawina Boaz	Chair-School committee	----	Nkasaulo	Machinga
Grace Raphael	Treasurer-School committee	0995964813	Nkasaulo	Machinga
Mercy Lainot	Mother group member	----	Nkasaulo	Machinga
Margret Jonas	Vice-Chair-PTA	0992793246	Nkasaulo	Machinga
Mariam Mvakula	Vice-Chair-School committee	0993761714	Nkasaulo	Machinga
GVH Pongolani	GVH	0993099399	Nkasaulo	Machinga
Joyce Mauzeni	Secretary-School committee	0992793017	Nkasaulo	Machinga
Christina Jarves	PTA member	0993699101	Nkasaulo	Machinga
Jordan Mahata	Head teacher	0995225613	Nkasaulo	Machinga
George Mcheka	Head teacher	0888558617	Chabwera L.E.A	Machinga
Pemphero Mandalawe	Teacher	0882740021	Chabwera L.E.A	Machinga
Mable Dickson	Parent	0998081108	Chabwera L.E.A	Machinga
Mercy Labunya	Mother group member	0991280972	Chabwera L.E.A	Machinga
Regina Lemani	GVH	0888838953	Chabwera L.E.A	Machinga
Anold Jailosi	Vice-Chair-PTA	0990788921	Chabwera L.E.A	Machinga
Anusa Sosola	PTA Chair	0997646911	Chabwera L.E.A	Machinga
Rev. R. A. Limbikani	Chief	0888569320/0983937188	Chabwera L.E.A	Machinga
Martin Pemba	Teacher	0888819134/0888463325	Chabwera L.E.A	Machinga
Zione Matsa	---	0994671091	Chabwera L.E.A	Machinga
Lucy Gangata	School management committee member	0888524602	Chabwera L.E.A	Machinga

MATAMANDO F.P SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Wilson Kasyene	HIT		
2	Jasiya Issa	PPA Chair	J. Issa	
3	Matemba Kais	SMC Chair	M. Kaisi	
4	Magret Abeke	Local Co-odinated	M. Abeke	

5	Daud Kazembe	Builder	D. Kazembe	
6	Emma Asima	Local Co-odinator	E. Asima	
7	Nicks Kawisa	Builder	N. Kawisa	
8	Akibu Asedi	Local Co-odinator	A. Asedi	

BALAKA LEA SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	E. Banda	Teacher		0882367096/0992963124
2	J. Gowelo	Head Girl		
3	J. Mussah	Head Boy	M.J	
4	Malefula Daytoney	Head Teacher		0884530219
5	Symon Botomani	Treasure SDF		0888335368
6	Jabil Kalino	Teacher		0999946854

MPONDA

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Susan Kalemba	SMC		0998346736
2	Rabson Chigaru	V/ Chair SMC		0997165753
3	Gabriel Walama	V/Chair PTA		0888536309
4	Alessio Mpama	Secretary SMC		0884901895
5	Stella Maliro	Teacher		0881376264
6	Luke Tsekah	Teacher		0884447542
7	Mcdonald Chikwanje	Headteacher		0888180118
8	Esther Chinema	DH Teacher		0884100131
9	Fortunate Tsirani	Learner		
10	Hope Kuwani	Learner		
11	Mavuto Ngozo	PTA Chair		0995148605

NALISWE F. P SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Radismas mdzawira	Teacher		0993439491
2	Juma Jafali	Student representative		
3	Gideon Madulira	DHT		0888339759
4	George Kalulu	HT		0883607304
5	Anusa Sinoya	Artisan		0993942142
6	Joyce Makiyi	Chair		0883473155

MWANJE CCAP SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Thokozani Gunde	Deputy Head teacher		0888451943/0995851943
2	Elias Msuku	Head teacher		0999757112
3	Janet Kampira	Treasure		0999610950
4	Rashid Lifa	Adam Village		
5	Aida Baison	Chair		099193483
6	Hilda Mjalume	Vice Chair PTA		
7	Doreen Nkolola	Member		01404018
8	Mr. P Moyo	Builder		
9	Luke Sapangwa	PTA Chair		0995613044
10	James Mputa	Member		0883172283

THEMA F.P SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Ephraim Mvula	Headmaster		0888581003/0993454787
2	Biston Mtonga	VDC Chair Mvumba		0999796764
3	Yohane Mapiko	Break Layer		0995001089
4	Divason Makhuva	S.M.C		0998095850
5	Elifala Mwamtenga	Comm. Rep		0993437478
6	Joseph Gladwel	DHT		0995630652
7	Samson James	SMC		0990522015
8	John Kum'daka	Builder		0998223790

MBONECHELA F. P SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Florence Kumwenda	HT		0999692950
2	Anthony Ndefu	ARTISAN		0888950798
3	Francis Raphael	Chair MCS		0995332625
4	Symon Nyangwa	Chair PTA		0990475630

5	Matrida Balala	Community Member		0882207889
6	Filimon Devis	DHT		0999320802

CAPE MACLEAR F. P SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Peter Bula	DH Teacher		0884176514/0987766055
2	Atupere Kamwadi	Teacher		0997716024
3	Elliot Makwinja	SMC Chair		0991027314
4	Davie Bwanali	Secretary SMC		0995115215
5	Kennedy Bokola	Builder		0999372613
6	Emily Holland	Community Member		0995537845
7	Linda gelard	Community member		0992397454
8	L. Jimu	PTA Chair		0993233827

LWANGA F. P SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Protazio Ezekiel	Chair		0999742622/0881502116
2	Elizabeth Gwandali	Treasure		0885633440/0883454739
3	Febbie Mwenda	Secretary		0992857932
4	Goodwell Chinyamu	D. H. T		0999524324
5	Ellius Zuze	Section Head		0881248664

KOCHE MODEL PRIMARY SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Felix Masanjala	Teacher		0881772724
2	Tracy Ungapembe	Student		0881570274
3	Charles Kwembe	SMC Chair		0884344674
4	Hendrix Kamthemba	Deputy		0997747333

MASONGOLA 1

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	P. Kanyenda	SMC Chair		
2	Barton Saidi	C P W		
3	Martha Makalani	Teacher (ish)		
4	Dickson Seyani	H/ Teacher		
5	Fanuel Black	Student		

MANDIMBA F.P SCHOOL

NO	NAME	OCCUPATION	SIGNATURE	CONTACT
1	Luke Namaliya	Head Teacher		0996867829
2	Charles Nelson	PTA Chair		0992343688
3	Twaibu Petrol	Local artisans		0999078296
4	Amidu Maundala	Local artisans		0984837478
5	Whisckiey Twana	MSC Chair		0999420772
6	Annie Thomas	Representative		0999514462
7	Mercy Kaiwe	DHT		0996696833
9	Soft Msusa	Local Leader		0996867829

MANGALE F.P. SCHOOL

No	Name	Occupation	Contact
1	Isaini Pestoni	Village Police	0991749711
2	Agnes Lenadi	Member-School committee	0997226551
3	Mariam Yusufu	Member-School committee	0981805193
4	William Rajabu	VDC secretary	0994223402
5	Robert James	VDC member	0999399563
6	Table Mbwana	Member-School committee	0994285934
7	Arnold J. Lingwinjiri	Head teacher	0882214327
8	Priscilla Pota	Deputy Head teacher	0888052992

Annex 8 - **Disaster Risk Management and Emergency Response Plan**

MINISTRY OF EDUCATION
MALAWI EDUCATION REFORM PROGRAMME
DISASTER RISK MANAGEMENT AND EMERGENCY RESPONSE PLAN

Background Information

Climate change is a real development challenge and Malawi is among the ten most vulnerable countries in the world together with Mozambique and Zimbabwe[3]. For the past decades, persistent threats to the country include intense floods and cyclones, extreme temperatures and droughts that have been resulting into losses of hard-won economic gains and human lives. SEED schools are located in areas where the frequency of floods, dry spells and drought are common. Other potential impacts to consider include Landslides, disease outbreak and pest infestation; strong winds and stormy rains.

This Disaster Risk Management and Emergency Response Plan Guides Local Artisans, communities and School Management Committee to establish operational procedures for management and response to specific hazards based on risks identified.

Table 1: Possible mitigation measures for the potential risks

Potential Risks	***Mitigation/Response measures***
Risk of Flooding	• Design of classroom blocks and toilets should consider floods mainly in flood prone areas by raising the foundation of the classroom block and toilets. • Construct classrooms and toilets according to design • Integrate DRM topics including early warning systems in SMC and local artisans training programmes. • Enforce construction of classrooms blocks on safer places. • Enhance coordination between SMC and Village Civil Protection Committee (VCPC) • Install river line gauges to monitor water levels. • Put appropriate warning signs in areas with high risk of safety; and • Designate Evacuation centers • Plant trees to prevent excessive run off
Risk of Fire	• Provide at least two escaping ways for the buildings. • Install smoke detectors if possible • Provide First Aid kit at all times • Do not block exit ways with storage staff • Construct fire breaks in the school woodlots and forest areas • Designate fire assembly points and label them or place a sign post • Call the Fire Department

[3] In March 2019, the intense tropical Cyclone Idai hit Mozambique (1), Zimbabwe (2) and Malawi (5), causing catastrophic damage and a humanitarian crisis in all three countries. Quickly becoming the deadliest and costliest tropical cyclone in the South-West Indian Ocean, Idai was labelled as "one of the worst weather-related catastrophes in the history of Africa" by United Nations Secretary-General António Guterres.

Potential Risks	*Mitigation/Response measures*
Risk of Dry spells and drought	• The SMC should Collaborate with VCPC to develop Drought Management Plan for the school • Drill high yielding boreholes to augment available water supply sources
Risk of Land slides	• Improve the drainage system by removing debris. • Excavating to unload the top of the slope. • Plant trees to bind the lose soils. • Construct a protective berm or wall to buttress the bottom of the slope.
Disease outbreak; pest infestation;	• Promote good hygiene practices to learners and surrounding communities. • Engage learners and surrounding communities to report any strange diseases or pest
Strong winds and stormy rains	• Design the classroom blocks and toilets to withstand strong winds • Construct classrooms and toilets according to design • Plant trees to act as wind breaks and control excessive run off

Capacity Building

The local artisans and SMC should be encouraged to use the available resources and capacity of the area as it is sustainable than looking for external support. The Capacity is the combination of all strengths, attributes and resources available within a community, society or organization that can be used to achieve desired goals. Available resources may include oxcarts, bicycles and mobile phones. Strengths within a community include community social groups or structures such as Village Civil Protection Committee (VCPC) and Village Development Committee (VDC). A strong coping capacity that is, the combination of all the strengths and resources available within a community, will reduce its vulnerability. Coping capacity is the ability of people, organisations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.

Implementation Arrangement and Coordination

It should be noted that the success for implementation of this DRM and Emergency response plan requires concerted efforts by various stakeholders including school learners, School Management Committee (SMC), Local Artisans, Village Civil Protection Committee, District Council, MERP PFT and Ministry of Education among others. The stakeholders have various roles in DRM and there is a need for strong coordination among the key players.

Annex 9 – Occupational Health and Safety Plan

MERP will implement various safety management strategies to minimize workplace hazards and to ensure a safe working environment. Occupational health and safety issues include:

Physical Hazards

Artisans and workers are at risk of impacts associated with equipment, machinery, and vehicles accidents or exertion of work, which can be physically demanding and often compounded by the presence of repetitive motion. Exposure to the physical hazard (rotating and moving equipment, vibration, manual handling etc.) can lead to a range of injuries: near miss/ close call, medical treatment injuries, property damages or fatality. Prevention and control of exposure to physical hazards include the following:

- Hazard and Risk Identification, reporting, assessment, and control.
- Communication of safety information.
- Provide continuous access to safety information.
- Toolbox Meetings.
- Start Up Meetings.
- Safety Alerts and Bulletins; and
- Issuing of Work Permits where applicable.

Chemical Hazards

Exposure to pesticides like those for other hazardous substances; potential exposures can be either acute or chronic. The effect may be increased by climatic conditions, such as the wind, which may increase the chance of unintended drift, or high temperatures, which may be a deterrent to the use of personal protective equipment (PPE).

Prevention and control of exposure to pesticides include the following:

- Training of personnel in the application of pesticides and ensuring that personnel receive the necessary certifications or equivalent where such certifications are not required.
- Respect routine treatment intervals for chemical application. This will reduce the exposure of operators.
- Ensure hygiene practices are followed to avoid exposure of family members to pesticides residues.

Community Health and Safety

Pesticides may affect the community in the same way as it does affect individual operators, through dermal contact or through inhalation of such chemicals because of the application. The potential for community exposure to pesticides in the environment may be considerably influenced by climatic conditions, such as wind velocity, while the potential for exposure to residual levels in post-harvest products may depend on adherence to pesticide use instructions. There may also be a risk to the community caused by dermal contact with residues in containers, packaging, etc. While odors from manure, especially during application, are not generally hazardous, they can be a serious source of discomfort to the community. Open burning of residual organic crop waste can create harmful air emissions for surrounding communities.

Specific recommendations include the following:

- Ensure that animals and unauthorized people are not present in the areas where pesticides are handled or applied.
- Clean (e.g., a triple rinse or pressure technique) and dispose of pesticide packaging and containers to ensure that they are not subsequently used as containers for food or drinking water.

Risk Assessment and Evaluation

The following risks are typical to an industrial program and need to be mitigated to minimize the risks associated with the operation. All work carried out will comply with:

Manual Handling

Supervisors are required to identify manual handling hazards and do what is reasonably practicable to prevent injuries occurring.

PPE

PPE will be made available to artisans and other workers to limit exposure to chemicals used in planting activities, guard against dangerous animals such as snakes, etc. Where required, the following will be provided:

- Chemical resistant gloves (not leather or cloth)
- Rubber boots
- Overalls
- Appropriate respiratory mask

First Aid Facilities

Adequate first aid facilities will be maintained in appropriate locations for the treatment of injuries. Qualified nurses who are appointed to operate the First Aid facilities shall keep adequate records of all treatment and medication supplied.

Traffic Management

The program will involve the rehabilitation of roads and expansion of existing footpaths into access roads to facilitate movements within the program area. This will result in increased movement of vehicles and machinery which poses a safety risk to community inhabitants unaccustomed to such conditions.

Traffic safety sensitization talks will be organised for communities to alert them to the dangers and educate them on basic road safety rules. Drivers will also be trained regularly on observing the rules of the road. Signs on speed limits will also be set up within the concession indicating maximum allowable speeds of 25Km/h.

Dust Management

Dust is expected to be generated during site preparation and through the movement of vehicles along program roads. Site watering will be implemented to minimize dust levels when necessary.

Machinery Guarding

No electrical, mechanical, and pneumatic machinery are to be operated unless all guards and/or barricades are in good condition and secured in the correct location and the equipment is in good working order.

Effective Organization and Management Responsibilities

It is important to delegate Environmental and Occupational Health and Safety (EHS) issues to qualified personnel who will be responsible for ensuring not only adherence but motivating the workers to actively engage in their work in a safe manner. Assigning a member of staff or committee of workers to EHS issues, marks the first step in managing risks inherent with the expansion of the program and creates a mechanism by which management can monitor improvements.

Environment Health and Safety Officer

The EHS Officer is the appointed individual responsible for ensuring the on-going improvement of health and safety in the workplace. He will ensure that all reasonable measures are taken to make provision for equipment and resources to be at the disposal of workers across the plantations. Where resources are inadequate, he will be responsible for ensuring that senior management is made aware of this.

Specific responsibilities include but are not limited to the following:

- Ensure the on-going improvement of health and safety standards by ensuring regular inspections are undertaken and participating in Occupational Health and Safety (OHS) meetings and training as required.
- Review OHS policies and plans as required.
- Ensure compliance with legislation, company standards and internal procedures.
- Ensure that employees and their representatives are consulted during development and review of policies and procedures or when changes to work practice may impact on their OHS.
- Act to immediately rectify any unsafe situations or acts and undertake appropriate disciplinary action against persons who fail to comply with reasonable expectations.
- Prepare a list of emergencies contacts.
- Maintain the inventory of safety equipment and supplies.
- Arrange for the replacement of used or obsolete safety supplies and equipment.
- Organize and train personnel in first aid.
- Oversee first response programs.
- Maintain records on emergencies or fatalities.
- Report to regulatory agencies and stakeholders.

Medical Assistance

First aid kits will be made available on site to handle all cases of minor accidents and incidents. Referrals will be made to hospitals for severe cases needing the attention of a medical doctor. The First Aider assists with upgrading first aid programs drawn up by the EHS Officer, training employees in basic first aid procedures and in responding in the unlikely event of a critical or life-threatening emergency.

Training and Communications

Supervisors will be responsible for determining the overall training and information that is required for staff working on the plantations. Effective communication systems are critical to minimizing risks and taking a proactive lead in the event of an emergency during the operation of the program.

Hazard Recognition
Employees will undergo formal safety training and task training on techniques in hazard identification and recognition. The training will also identify potential hazards associated with their daily activities. Rapid recognition of potentially hazardous situations can avert an emergency. Periodic safety meetings will be held among elected staff members to discuss a broad range of health and safety topics.

Emergency Response Training
The EHS Officer will coordinate emergency response training. Training for all staff can take the form of toolbox talks, safety, and environmental inductions or first aid training programs, and will include training on handling of chemicals, first response and first aid techniques. All staff will participate in annual training to ensure that all members are trained in equipment use and emergency response methods.

Artisans/Local Artisans Responsibility
All employees are obliged and empowered to identify, report and where appropriate, manage potential hazards. Also, employees are responsible for ensuring they do not adversely affect their own health or the health and safety of others through any act or omission. They are obliged to:

- Report all incidents and hazards.
- Wear and maintain provided PPE.
- Operate & maintain machinery in a safe and practical manner.
- Follow all reasonable work instructions and procedures; and
- Comply with company policies & procedures.

Annex 10 – Waste Management Plan

Introduction

The WMP describes MOE's commitment to taking all necessary steps to ensure that the generation, collection, separation, storage, transportation, and disposal of all wastes generated during all phases of program operations will be conducted in a safe, efficient, and environmentally responsible manner. The WMP detailed in this document considers: Proposed disposal methods; and Equipment and staff.

Objectives of the Waste Management Plan

The objectives of the WMP are to:

- Generate the least possible amount of waste through reduction, reuse and recycling practices, and review/approve all orders for materials, chemicals, and supplies to limit the environmental and social impacts.
- Protect the health and safety of people.
- Avoid or mitigate any potential negative impacts on all elements of the environment – including, but not limited to, people, flora, fauna, air, surface and groundwater resources, and the sea.
- In compliance with Good Agricultural practices, process the waste through treatment and disposal.
- Ensure due diligence is followed by all program personnel.
- Track waste generation, handling, and disposal to assess whether waste management is being carried out as per the WMP and its associated directives.
- Avoid costly clean-up through prevention.
- Ensure a logical and efficient plan for waste collection, sorting and disposal that reduces the number of times the waste is handled and that produces income for local people through sales of recycled waste.

Waste Identification/Type of Wastes

Various waste streams that would be generated during site preparation and clearing include the following:

- Site clearing and excavation waste (rock pebbles, shrubs, stumps, vegetation etc.)
- Domestic waste (paper, empty cartoon/boxes, food, packaging, plastic bottles etc.).
- Biodegradable waste (agricultural waste);
- Hazardous Waste (waste oil, oil filters etc. from machinery, medical waste, batteries,).
- Sewage/Human waste (Faeces, urine, tissues etc.)
- Liquid waste (oil filters, waste oil, engine oil, petroleum products)

Waste Handling and Disposal

The following handling procedures, developed based on IFC's guidelines for Waste Management Facilities (2007), will be adopted as part of the Program's waste management program.

Waste collection, handling, and transport guidelines include, but are not necessarily limited to, the following:

- A routine schedule will be established for domestic waste collection and disposal.
- Waste generators will be provided with appropriate waste disposal containers.

- Wastes will be segregated at source to simplify the disposal process, using colour coded and labelled bins.
- Enclosed refuse vehicles or vehicles equipped with tarps will be used for the domestic waste collection.
- Waste handling will be minimized during operations; and
- Waste containment will be maximized during operations.

Odours and the loss of wastes will be monitored, evaluated, and reduced at all waste loading and unloading facilities. Fugitive refuse (for example, plastic bags and paper) around the waste facility will be picked up, disposed of in the waste facility, and properly covered.

Reuse, Recycling and Minimization of Waste Generation

- The School Management Committees will establish programs for material recycling and reuse to reduce the volume of materials generated and requiring disposal.
- Materials that can be safely reused or recycled will be donated to members of staff or community residents, such as scrap materials, wood, and steel, used tires, used vehicle parts, empty containers and other materials, which are no longer required or capable of repair for reuse in the operation. These materials will be carefully screened and cleaned and determined by the EHS Officer to be fit for safe and beneficially use by residents.

The following steps are involved in carrying out these donations:

- Identification of wastes to be recycled/reused.
- Provision of cleaning and treatment as needed to make wastes suitable for recycling.
- Designation of a storage area for recyclable materials, segregated from other waste materials, and located for easy access; and
- Identification of residents who have been authorized to collect, recycle and salvage materials.

Housekeeping:

- All work areas (offices and plantations) will be maintained in a tidy state, free of debris and rubbish.
- In cases where an inadequate standard of housekeeping has developed and compromised safety and cleanliness, the EHS Officer shall notify the relevant supervisor to halt work until the area has been tidied up and made safe;
- The EHS Officer, supervisors and site safety officers shall carry out regular scheduled health and safety/ housekeeping inspections to ensure maintenance of satisfactory standards; and
- All employees shall be sensitized in waste management methods.

Types of Waste

Domestic Waste

A variety of domestic waste will be generated during this development phase of the program. These materials may include, but are not limited to aluminium, glass, plastic, paper, cardboard etc. Provision will be made on-site of sealed and labelled waste receptacles for the storage of these wastes. The receptacles will be emptied on a scheduled routine, e.g., daily, weekly, and will be collected or disposed of by a licenced waste management company.

Alternatively, a landfill area could be identified within the concession for the disposal of domestic and inert wastes.

Hazardous Wastes

Hazardous wastes are materials considered reactive, flammable, radioactive, corrosive and/or toxic. Hazardous wastes which may possibly be generated by this program include some or all of the following:

i. Liquid Waste-waste/used oil from machinery.
ii. Fuel and oil filters from machinery.
iii. Medical or First Aid wastes.
iv. Pesticides and chemicals.
v. Electronics and fluorescent bulbs

If the generation of hazardous waste cannot be prevented, Management should focus on the prevention of harm to health, safety, and the environment, according to the following additional principles:

- Understanding potential impacts and risks associated with the management of any generated hazardous waste.
- Hazardous waste storage activities should also be subject to special management actions, conducted by employees who have received specific training in handling and storage of hazardous wastes.

As MOE will not in this initial phase have the facilities to treat hazardous wastes, it will be ensured that all such wastes are disposed of in labelled waste bins and kept separate from non-hazardous wastes.

Hazardous waste will be stored to prevent or control accidental releases to air, soil, and water resources in locations where:

- Waste is stored in a manner that prevents the commingling or contact between incompatible wastes and allows for inspection between containers to monitor leaks or spills. Examples include sufficient space between incompatibles or physical separation such as walls or containment curbs.
- Store in closed containers away from direct sunlight, wind and rain. Secondary containment systems should be constructed with materials appropriate for the wastes being contained and adequate to prevent loss to the environment Provide adequate ventilation where volatile wastes are stored.

Hazardous waste storage activities will also be subject to special management actions, conducted by employees who have received specific training in handling and storage of hazardous wastes:

- Provision of readily available information on chemical compatibility to employees, including labelling each container to identify its contents.
- Limiting access to hazardous waste storage areas to employees who have received proper training and wearing appropriate PPE.
- Conducting periodic inspections of waste storage areas and documenting the findings

Preparing and implementing spill response and emergency plans to address their accidental release.

Some specific categories of hazardous waste are listed in the following sections:

Wastes, Used Oils, Fuels and Solvents

Used oils and spent solvents will be generated by maintenance activities performed on various machinery. Waste oils and solvents will be stored in collection tanks and carted

to the main facility for safe storage. Used oil can also be re-used in chainsaws and old machinery. A storage tank will be used to collect the oil spillage from the machinery and other equipment.

The EHS Officer's responsibilities include ensuring that oil, fuel, and solvent wastes generated are recycled or stored in an appropriate manner until it can be safely disposed of. The company will reuse as many materials as possible to reduce wastes; incineration will be considered in the later stages of the program. His other responsibilities include the following:

- Explain procedures on proper management, handling, and disposal of waste oils and solvents.
- Explain what is and is not acceptable disposal of waste oils and solvents; Put personnel in charge of monitoring the waste oil storage areas.

Fuel and Oil Filters

Waste fuel and oil filters from machinery and equipment will be generated throughout the Program life and will be disposed of by:

- Puncturing the filters and allowing them to drain for 8 hours.
- Collecting the drained fuel or waste oil;
- Properly storing for later removal from the site.

Recycling is the preferred method for the recovered fuels and oils. Once puncturing and draining of the filter itself is completed, it will be disposed of in the hazardous waste storage container.

Petroleum-Contaminated Soils

Petroleum contaminated soils, if they occur, will be removed, and placed in the hazardous waste storage. Treatment of the spill area will involve mopping the spill and the contaminated soil stored in the hazardous storage area for collection and proper disposal.

Medical or First Aid Wastes

The onsite first aid station will handle minor accidents or emergencies, in the process generating wastes which would need to be disposed of effectively. Medical items which may be generated and need to be disposed of may include the following:

i. Needles and syringes.
ii. Used cotton wool.
iii. Used gauze and plasters.
iv. Empty bottles and vials; and
v. Test kits.

These wastes will be carefully bagged and labelled for collection and disposal by a licenced and qualified waste Local artisans.