ENVIRONMENTAL AND SOCIAL IMPACT STATEMENT
FOR
THE PROPOSED ESTABLISHMENT OF REGIONAL GIRLS SECONDARY SCHOOL AT PLOT NO.235, BLOCK A MAWASILIANO VILLAGE, GARARAGUA WARD, SIHA DISTRICT IN KILIMANJARO REGION

PROPONENT	
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EXECUTIVE SUMMARY

Introduction

The Government of United Republic of Tanzania (URT) in collaboration with the World Bank has prepared the Secondary Education Quality Improvement Project (SEQUIP). The objectives of SEQUIP are to increase access to secondary education, provide responsive learning environments for girls and improve completion of quality secondary education for girls and boys. In summary, activities under SEQUIP are structured into four main components:

Component 1: Empowering Girls through Secondary Education and Life Skills

1.1 Creating Safe Schools: Implementation of the Safe Schools Program including:

i. Trained school guidance and counselling teachers;
ii. Students' life skills training through girls' and boys' clubs by the guidance and counselling teachers; In-service training of secondary school teachers on the teacher code of conduct and gender sensitive pedagogical approaches;
iii. Training of school heads and School Boards on GBV, safe school issues etc.;
iv. School and classroom monitoring system for early identification of and intervention on girls at risk of drop out; and
v. Community-based mechanism for safe passage to school.

1.2 Promoting Girls' Completion of Secondary Education through Quality Alternative Education Pathways including:

i. Setting up an ICT-enabled system for tracking girls dropping out at national and district level to provide key information for AEP planning and implementation.
ii. Alternative Education Centers and LGAs undertaking local outreach activities to out-of-school girls in the community which will include activities such as AEP center-organized community meetings, information via local radio, flyers and brochures.
iii. Enhancing access to Alternative Education Pathways through (i) expansion of the network of AEP centers; and (ii) tuition fee subsidies for vulnerable girls.
iv. A quality package for strengthening student learning in Alternative Education Pathways will also be implemented
v. Environmental and Social Management Framework –Tanzania - Secondary Education Quality Improvement Project (SEQUIP)

Component 2: Digitally-Enabled Effective Teaching and Learning

2.1 Effective Teaching and Learning

i. Minimum package of critical teaching and learning resources for all schools: This package consists of an adequate number of textbooks and teacher guides in core subjects (English, Math and Sciences).

ii. Equitable, gender-balanced teacher deployment to schools
iii. In-service teacher training/continuous professional development (CPD) to improve classroom teaching practice for secondary English, Mathematics and Science teachers
iv. Evaluate student learning in lower secondary to provide opportunities for remedial use: to allow for targeted early intervention to prevent girl dropout due to learning difficulties

2.2 Digitally-enabled Teaching of Math Sciences and English:

i. Development of an ICT in Education Strategy and plan for secondary education.
ii. Digital content and connectivity package to facilitate the teaching of English, Mathematics and Science in phases.

Component 3: Reducing Barriers to Girls' Education through Facilitating Access to Secondary Schools
Expansion of the secondary school network to substantially reduce the distance to secondary schools through an expansion of the secondary school network, especially in rural areas. SEQUIP will disburse project funding on the basis of the number of schools in each LGA meeting minimum infrastructure standards

Support upgrading existing secondary schools with the minimum infrastructure package (number of classrooms/students, adequate WASH facilities; multi-purpose science labs, electricity, etc) with the objective is that at least 50 percent of all existing schools in all LGAs will meet the minimum standards set.

Component 4: Technical Assistance, Impact Evaluation and Project Coordination Environmental and Social Management Framework –Tanzania - Secondary Education Quality Improvement Project (SEQUIP)

SEQUIP will be jointly implemented by the Ministry of Education, Science and Technology (MoEST) and the President's Office, Regional Administration and Local Government (PO-RALG).

Project Description,

The Project will apply the new Environmental and Social Standards (ESS's), as a requirement for the Bank financing. The Government has prepared this Environmental and Social Management Framework (ESMF) for the application of the following Environmental and Social Standards: Assessment and Management of Environmental and Social Risks and Impacts

Location and accessibility

The proposed project site is administratively located at Mawasiliano village, Gararagua ward in Siha District- Kilimanjaro region is bordered to the north and east by Kenya, to the south by the Tanga Region, to the southwest by the Manyara Region, and to the west by the Arusha Region.

Proposed site can easily be accessed but it needs a little bit improvement as it is nearby Mawasiliano Primary School and Ease home, farm and Campsite at 500m away.

Project Planning and Design

The school construction and design will consist of a required infrastructure package based on the school construction and maintenance strategy (e.g. number of classrooms/students, adequate WASH facilities, especially important for girls; multi-purpose science labs, electricity, etc.). The construction package will involves the following buildings

No	Buildings	No. of Buildings	No. of rooms
	First construction phase		
1	Building with 2 classrooms	2	4
2	Building with 2 classrooms and one office	3	6
3	Building with 2 classrooms and 2 toilets	1	2
4	Building with Physics laboratory and Geography room	1	2
5	Building with Chemistry and Biology laboratory	1	2
6	Administration Building	1	1
7	Toilet building for students (girls)	1	16
8	Generator Room	1	1
9	Dining Hall	1	1
10	Teacher's house (3 rooms)	1	5
11	Teacher's house (2 in 1)	1	4
12	Dormitories @ 120	5	Cubicle 15
	Surrounding activities		
1	Water Tunnel (1050m)	1	1
2	Waste incinerators	1	1
3	Fence (chain link)- 350m	2	2
4	Underground water storage tanks (32,000 liters)	2	2
5	Water tank (hippo) and its pillars)	2	2
6	Manhole and gully trap	1	

No	Buildings	No. of Buildings	No. of rooms
7	Walkway & Paving		
	Second construction phase		
1	building with 2 classrooms	2	4
2	Building with 2 classrooms and 1 office 3 6	3	6
3	ICT Room	1	1
4	Library	1	1
5	Master's Houses (3 Rooms)	4	
6	Dormitories @ 120 Students	4	

Project activities

Main activities of the project include preconstruction, Construction, Operations, and decommissioning.

Mobilization/Pre-Construction Activities

The mobilization phase of the project, which is estimated to take average of maximum three months, will entail the following activities:

- Establishment of construction of camps, material and equipment storage areas, materials processing yards, including sanitation facilities. The following activities will be involved during establishment of the camp.
  - Bush clearing.
  - Construction of Material and equipment storage areas
  - Construction of sanitation facilities
  - Installation of electrical infrastructure
  - Installation of water and wastewater infrastructure
- Identification of naturally-occurring material borrow sites (sand, fill, gravel borrow and quarry sites),

Identification of sources of water for domestic and construction works

Construction Phase

The construction phase of the project, which is estimates to take 12 month for each of the phase one and will encompass following major activities:

- Earth works to facilitate widening and re-alignment of the road. Earth works will entail the following activities: Clearing and grubbing (clearing of vegetation, including trees).
- Extraction of naturally-occurring construction materials. This will include:
  a) Excavation and transport of natural sand, gravel, and sub-base materials to construction sites
  b) Stone quarrying (including blasting), crushing and transport of crushed aggregates to construction sites
  c) Transport and handling of fuel, lubricants etc. from their sources to the project site
- Transport of construction materials from source to site such as roof, steel, woods, nails, rope

Operation phase

The maintenance activities of the Overall, SEQUIP will contribute to increasing total enrolment in secondary school by 1.8 million students and increase the number of girls graduating from both secondary schools and alternative secondary education pathways.

Decommissioning Phase

After completion of construction, all the utilities which were used shall be reverted to the Municipal

Director who will decide on their future use. The main activities during demobilization phase, will engross the following:

- Collection and disposal of storage facilities such as pallets, packing, boxes
- Collection and disposal of construction materials and wastes such as waste oil, sewage, solid wastes (plastics, wood, metal, papers, etc.) at the workshop, site office etc. to authorized dumpsite

Restoration of material borrows areas to safer condition

Environmental and Social Management Framework

The ESF instruments that have been prepared for SEQUIP incorporate measures for project site Selection and to ensure designs and school construction align with the ESF requirements. It has been agreed that civil works will follow building standards acceptable to the World Bank and required under the ESF; taking into account structural safety, universal access, changes in the standard drawings, water source availability and quality, efficient use of materials (wood) to reduce pressure on natural resources, Water and Sanitation for Health (WASH) and solid waste management at the schools, among other risks identified as part of the due diligence process. Site selection for school construction is very important to avoid possible direct and indirect environmental and social impacts and lack of water sources for construction and during operation.

Project Cost

Total Project Cost is four billion Tanzanian shillings

National Legislation

Tanzania has ample legislation for the protection of the environment, health, safety and social welfare which is relevant for the application of the World Bank Environmental and Social Standards included in the ESF.

The main environmental, biodiversity, water, health, cultural resources, social and labour, policies and regulations relevant to SEQUIP and its commitment to this legislation during implementation has been discussed in this report, relevant legislation that applies to the project has been discussed too,

Baseline

In order to gauge the extent of impact, it is crucial to establish the status quo. The consulting team conducted the baseline study of the current level of impacts. This involved a study on flora and fauna, air, soil and water. It also covered socioeconomic issues, noise, and vibration etc. The aim of ascertaining the baseline it to appreciate to what extent the proposed project can alleviate or exacerbate the current situation and Issues from Key Stakeholders.

Assessment of Impacts (Both Good and Negative)

This critically reviews and analyses interaction between the proposed project and the existing environment. In this analysis, the consultant distinguished between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts.

Impacts, which are unavoidable or irreversible, are also identified. Wherever possible, impacts are described quantitatively in terms of environmental costs and benefits.

Consideration of Alternatives

This environmental assessment also involved an analysis of reasonable alternatives to meet the ultimate project objective. This analysis included any alternatives examined while developing the proposed project, and that from an environmental, socio-cultural or economic point of view may be sounder than the proposed project. This also includes the 'no action' alternative, which assesses environmental conditions without project. It is described how the alternatives compare in terms of

potential impacts, costs, suitability under local conditions, as well as institutional, training, and monitoring requirements.

To the extent possible, costs and benefits of each alternative are quantified, incorporating the estimated costs of any associated mitigating measures. Finally, this report described the reasons for selecting the proposed project over the other alternatives.

Developing an Environmental Management Plan

This report recommends feasible and cost-effective measures to prevent or reduce any significant negative impacts to levels that are acceptable. This involves:

- Estimating the impacts and costs of those measures, and of the institutional and training requirements to implement them.
- Preparing a management plan including proposed work programs, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures.
- A management plan also covering the decommissioning phase of the project.

Developing an Environmental Monitoring Plan

This report contains a detailed plan to monitor the implementation of mitigation measures and the impacts of the project during its execution. This plan includes a cost estimate for carrying out the proposed monitoring plan

Decommissioning

Decommissioning is the last phase of project life. It involves terminating project activities and operations and rehabilitating site to or close to its original state. It is anticipated that the project shall continue if there is a demand for a project, however, individual components of the plant shall be decommissioned as need be.

Conclusion and recommendations

The project will have both positive and negative impact to the environment and the local communities along it. Measures have been proposed to enhance impacts which are positive to the environment and the local people.

For those impacts that are negative, mitigation measures have been proposed to avoid or abate them to the extent possible for the purpose of maximizing benefits of the road project and minimizing detriments of the project intervention to the communities.

ACKNOWLEDGEMENT

PO-RALG extends its heartfelt appreciation to the World Bank group for their positive support in creating an enabling environment for young girls to pursue their education in every possible way.

Additionally, we would like to thank and express our gratitude to the officials of Kilimanjaro Region, Siha Municipal Council, and the Ward Executive Officer for Gararagua Ward, the Village Chairperson for Mawasiliano Village, and all community members for their significant opinions and contributions during the preparation of this study.

Lastly, we would like to acknowledge and sincerely appreciate the hard work and dedication of the staff at Tansheq Limited, without whom this project would not have been possible.

ACRONYMS AND ABBREVIATIONS

ADB	African Development Bank
AEP	Alternative Education Program
AIDS	Acquired Immune Deficiency Syndrome
ARAP	Abbreviated Resettlement Action Plan
CBOs	Community Based Organisations
CDP	Community Development Program
CO	Carbon Monoxide
CO_2	Carbon Dioxide
dB	Decibels
DC	District Commissioner
DED	District Executive Director
DEMO	District Environment Management Officer
DEO	District Education Officer
DOE	Director Of Environment
DP	Development Partner
DRC	Democratic Republic of Congo
EBRD	European Bank for Reconstruction and Development
EIA	Environment Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
EPFIs	Equator Principle Financial Institutions
ESCP	Environmental and Social Commitment Plan
ESDP	Education Sector Development Plan
ESF	Environment and Social Framework
ESIA	Environment and Social Impact Assessment
ESMP	Environment and Social Management Plant
ESS	Environment and Social Standards
FI	Financial Intermediaries
FYDP	Five Year Development Plan
GBV	Gender Based Violence

GCA	Game Controlled Areas
GCLA	Government Chemistry Laboratory Authority
GCS	Geographic Coordinate System
GDP	Gross Domestic Product
GIIP	Good International Industry Practices
GS Pipe	Galvanized steel
HIPC	Heavily Indebted Poor Country
HIV	Human Immunodeficiency Virus
ICT	Information and Communications Technology
IFC	International Finance Institution
IPF	Investment Project Financing
ISO	International Organization for Standardization
IST	Implementing Supporting Team
IUCN	International Union for Conservation of Nature
LGAs	Local Government Authorities
LPG	Liquefied Petroleum Gas
MoEST	Ministry of Education, Science and Technology
NAPA	National Adaptation Programme Of Action
NEMC	National Environment Management Council
NEP	National Environment Policy
NGOs	Non-Governmental Organisations
NOx	Oxides of Nitrogen
NSGRP	National Strategy For Growth and Reduction of Poverty
O	Oxygen
OHS	Occupational Health and Safety
OIP	Other Interested Parties
OP	Operational Policy
OPC	Ordinary Portland Cement
OSHA	Occupational Safety and Health Authority
OSPAR	Oil Spill Prevention Administration And Response
PAP	Project Affected People
PDO	Project Development Objectives
pH	Potential of Hydrogen

PLONOR	Pose Little Or No Risk
PM	Particulate Matters
PoRALG	President office, Regional Administration and Local Government
PPE	Personal Protective Equipment
PVC	Polyvinyl Chloride
RAO	Region Academic Officer
RAP	Resettlement Action Plan
RAS	Region Administrative Secretary
RC	Region Commissioner
REMO	Region Management Officer
REO	Region Education Officer
RUWASA	Rural Water Supply And Sanitation Agency.
SEA	Sexual Exploitation And Abuse
SEP	Stakeholder Engagement Plan
SEQUIP	Secondary Education Quality Improvement Project
SO_2	Sulfur dioxide
TANESCO	Tanzania Electric Supply Company Limited
TDV	Tanzania Development Vision
ToR	Terms of Reference
URT	United Republic of Tanzania
VEC	Valued Environmental Component
VOCs	Volatile Organic Compounds
WB	World Bank
WBMS	World Bureau of Metal Statistics
WEO	Ward Executive Officer
WHO	World Health Organization

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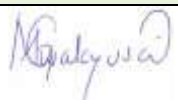
1.	Eng. Gwakisa Mwakyusa	Team Leader	
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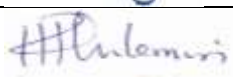
3.	Eng. Anamary Philemon	Monitoring and Waste Management Expert	
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1 INTRODUCTION

1.1 Background

The Government of the United Republic of Tanzania (URT) in co-operation with the World Bank developed the Secondary Education Quality Improvement Project (SEQUIP). The objectives of SEQUIP are to increase access to secondary education, provide responsive learning environments for girls and in result, improve completion of quality secondary education for girls and boys.

Although access to and completion of primary education has improved over the last decade and substantial progress has been made in secondary education, secondary student enrolment rates of girls and boys are still very low in Tanzania compared to other East African countries.

The share of secondary students of the relevant school age population enrolled was only 28 percent in 2018, compared to 68 percent in Kenya, despite the recent enrolment surge. Secondary school attendance was 28 percent for girls and 27 percent for boys.

The three main challenges in secondary education are:

(i) Access to and completion of quality secondary education for girls and boys;
(ii) A safe, supportive learning environment to keep girls in school longer and delay early marriage; and
(iii) Effective and clear Alternative Education Pathways (AEP) to enable girls and boys who drop out of lower secondary school, for various reasons including early pregnancy, to finish the lower secondary education cycle and enter upper secondary schools

The proposed project intends at enhancing the secondary education through delivery point's improvement by increasing access to secondary education, provide responsive learning environments for girls and improve completion of quality secondary education for girls and boys

The implementing Government Agencies are Ministry of Education, Science and Technology (MoEST) and the President's Office – Regional Administration and Local Government (PO-RALG). Both Ministries are responsible for implementation of school-level education activities through the Local Government Authority (LGA). One of the key components to be implemented through SEQUIP is facilitating access to secondary schools and bringing schools closer to communities. The project plans to support construction of 1000 new schools and rehabilitation of additional facilities at existing secondary schools.

The project has the following components.

- Component 1: Empowering Girls Through Secondary Education and Life Skills
- Component 2: Digitally-Enabled Effective Teaching and Learning
- Component 3: Reducing Barriers to Girls' Education through Facilitating Access to Secondary Schools
- Component 4: Project Coordination, Monitoring and Evaluation

The Secondary Education Quality Improvement Project (SEQUIP) will focus on enabling young girls to continue their secondary education despite social and economic barriers. More generally, SEQUIP will improve the completion of quality, learner-friendly secondary education for girls and boys. In 2018, 1,025,629 girls and 965,242 boys attended lower secondary school.

However, in the same year, a further 134,000 children, half of whom were girls, qualified to continue their schooling but were unable to because of lack of spaces in government secondary schools. Drop-out rates are high for both boys and girls with a quarter of students leaving before they complete their lower secondary schooling. In 2017, about 5,500 girls were not able to continue with their secondary education due to adolescent pregnancy and early motherhood. SEQUIP will contribute to addressing these key challenges by:

(i) Creating a gender sensitive, learner-friendly school environment through investing in supportive structures in the school and community including trained school guidance counsellors, stronger links with the community through Parent Teacher Associations and life skills training.
(ii) Supporting female students to avoid dropping out of secondary school due to pregnancy through measures that include:
    (a) Encouraging community awareness of risks for girls;

(b) Supporting safe passage and reducing the distance to schools to lower the risks of gender-based violence on the way to and from school; and supporting girls who become pregnant to access recognized, quality Alternative Education Pathways (AEPs) to obtain lower secondary certification and continue with upper secondary education or post-secondary education.
(c) Improving the quality of secondary school teaching and learning environments through the hiring of additional qualified teachers in core subjects and providing textbooks in core subjects.
(d) Increasing the number of secondary school spaces through the construction of new classrooms that meet minimum infrastructure standards and supporting the expansion of the school network to bring schools closer to communities.
(e) Using innovative digital technology to facilitate mathematics and science teaching and improve learning.

These SEQUIP interventions are aligned with the Government's Education Sector Development Plan (ESDP) (2016/17–2020/21) and related strategies. SEQUIP design also draws on lessons learned from previous and ongoing World Bank and Development Partner (DP) support to education in Tanzania. Overall, SEQUIP will contribute to increasing total enrolment in secondary school by 1.8 million students and increase the number of girls graduating from both secondary schools and alternative secondary education pathways.

Over its lifetime, the Project will directly benefit about 6.5 million new and existing secondary school students, including 3.2 million girls. 1 SEQUIP will help more girls' transition from lower to upper secondary education, including girls who had to leave lower secondary government schools due to pregnancy

1.2 Project Objectives

The Program's objective is to increase access to secondary education, provide responsive learning environments for girls and improve completion of quality secondary education for girls and boys. The project interventions will:

(i) Create a safe, gender sensitive and learner-friendly school environment,
(ii) Provide good quality alternative education opportunities for secondary school drop-outs including young mothers;
(iii) Improve the quality of secondary education by improving teacher skills, reducing class sizes and providing adequate teaching and learning materials;
(iv) Use innovative digital technology to improve mathematics and science teaching and;
(v) Increase access to secondary education by providing more schools closer to the homes of children. Over the project's lifetime, 6.5 million children (3.1 million girls) will benefit from project interventions and an additional 900,000 children are expected to successfully complete their secondary education.

A need and evidence-based approach will be used in identification and selecting locations and schools that will benefit

1.3 Scope of the Study

The ESIA was conducted in accordance to the guidelines laid down by the Environment Management Act of 2004, and its regulations as well as the World Bank requirements as provided in the Environmental and Social Framework which goes down to the ten environmental and social standards. In its undertaking, the key consideration among others included the following:

- To ensure that environmental considerations are explicitly addressed and incorporated into the decision-making process, with the aim to anticipate and avoid, minimize, or offset the adverse significant biophysical and social effects of the proposed project; and to protect the capacity of natural systems and ecological processes to maintain their functions.
- To promote development that is sustainable and optimizes resources use and management opportunities.

1.4 Land requirement for the project

The construction of new schools in Gararagua required enough land. Site selection was important in minimizing the extent of resettlement, including that of informal land owners and/or users who were present in an area prior to the selection of a site for a school.

The proposed land in Gararagua was previously owned by NARCO up until 2013, when it was transferred to the village, and the Village transferred it to the government for community activities, specifically the construction of a school. As per construction directives from PO-RALG, the specific land size requirement is 25. But Kilimanjaro, like other regions, has put aside about 20.724 Hectares for the construction.

Due to the nature of this project, PO-RALG is the central organization in charge of setting the direction and giving advice for its implementation across the entire nation. On the other side, Siha District Council is solely in charge of carrying out the project within its administrative boundaries. This implies that Siha District Council is in charge of locating and providing suitable places for school development within their area.

1.5 Study Approach and Methodology

The approach to this exercise was structured such as to cover the requirements under the Environment Impact Assessment and Audit Regulations, 2005. It involved largely an understanding of the project background, the preliminary designs and the implementation plan as well as commissioning.

In addition, baseline information was obtained through physical investigation of the project site areas, desktop studies, and public consultations with members of the community in the project areas, survey, photography, and discussions with the project proponent.

The methodology used in this study follows specific procedures and guidelines set by the EIA & Audit Regulations of 2005. The study adopted the following approach. The process for conducting the Impact Assessment is closely related to the flowchart in Figure 1-1.

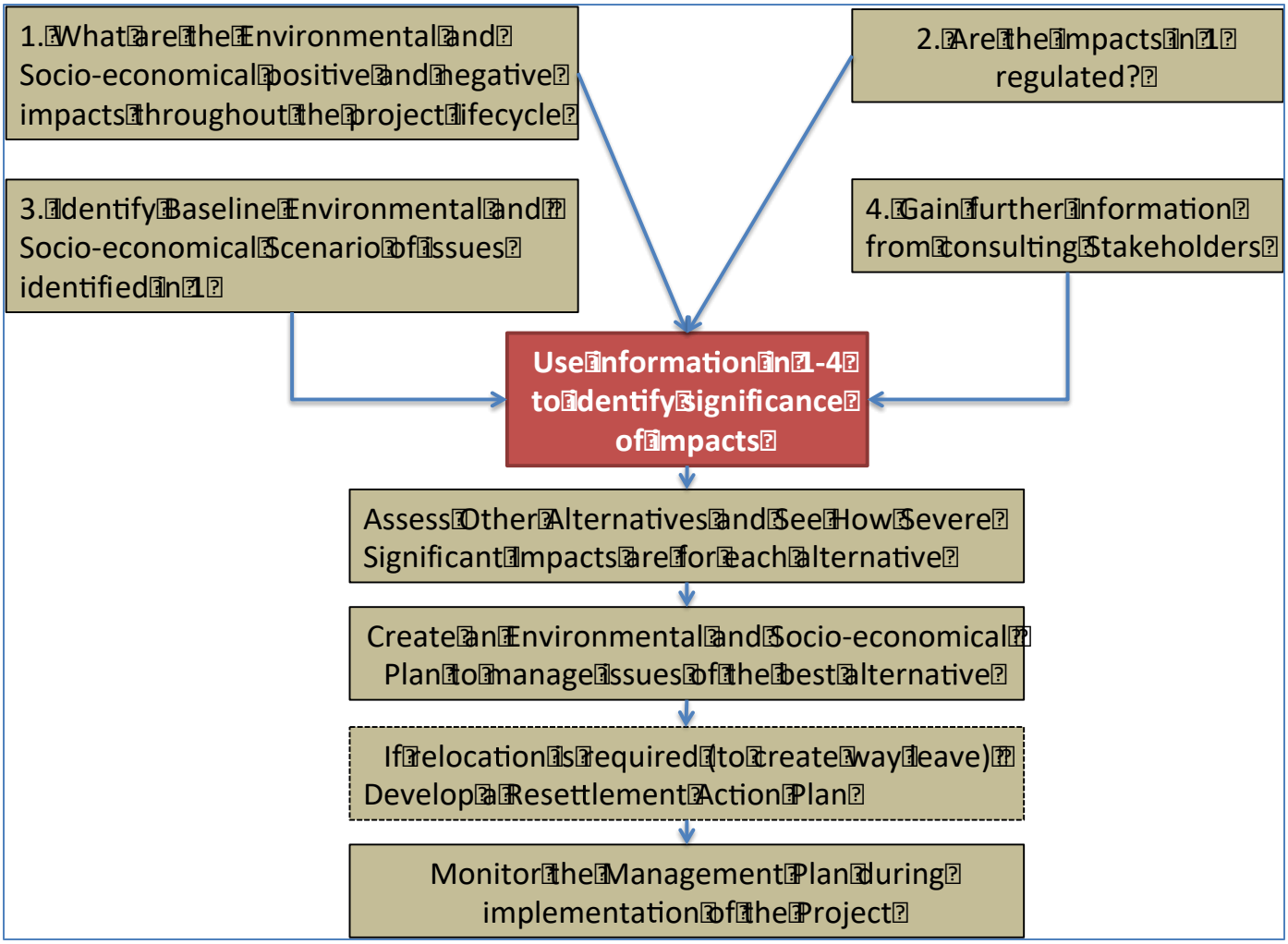


Figure 1-1: Impact Assessment Process

1.5.1 Issues Associated with the Proposed Project

Environmental and social Issues associated with school construction activities were identified based on previous history and detailed project activities. These are detailed in Chapter 2.

1.5.2 Regulatory Framework with Associated Issues

Description the relevant regulations and standards governing environmental quality, health and safety, protection of sensitive areas, sitting, land use control as detailed in CHAPTER THREE .

1.5.3 How the Situation is Currently (Baseline Situation)

In order to gauge the extent of impact, it is crucial to establish the status. The consulting team conducted the baseline study of the current level of impacts. This involved a specialized study on flora and fauna, air, soil and water. It also covered socioeconomic issues, noise, and vibration etc.

The aim of ascertaining the baseline it to appreciate to what extent the proposed project can alleviate or exacerbate the current situation.

1.5.4 Issues from Key Stakeholders

This EISA also reports on the following:

- A list of stakeholders consulted together with a stakeholder analysis.
- The method used to get their views and issues of concern raised.
- Issues raised by the stakeholders and the way they were addressed.
- Records of stakeholder meetings, communications, and comments.

1.5.5 Assessment of Impacts (Both Good and Negative)

This critically reviews and analyses interaction between the proposed project and the existing environment. In this analysis, the consultant distinguished between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts. Impacts, which are unavoidable or irreversible, are also identified. Wherever possible, impacts are described quantitatively in terms of environmental costs and benefits.

1.5.6 Consideration of Alternatives

This environmental assessment also involved an analysis of reasonable alternatives to meet the ultimate project objective. This analysis included any alternatives examined while developing the proposed project, and that from an environmental, socio-cultural or economic point of view may be sounder than the proposed project.

This also includes the 'no action' alternative, which assesses environmental conditions without project. It is described how the alternatives compare in terms of potential impacts, costs, suitability under local conditions, as well as institutional, training, and monitoring requirements.

To the extent possible, costs and benefits of each alternative are quantified, incorporating the estimated costs of any associated mitigating measures. Finally, this report described the reasons for selecting the proposed project over the other alternatives.

1.5.7 Developing an Environmental Management Plan

This report recommends feasible and cost-effective measures to prevent or reduce any significant negative impacts to levels that are acceptable. This involves:

- Estimating the impacts and costs of those measures, and of the institutional and training requirements to implement them.
- Preparing a management plan including proposed work programs, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures.
- A management plan also covering the decommissioning phase of the project.

1.5.8 Developing an Environmental Monitoring Plan

This report contains a detailed plan to monitor the implementation of mitigation measures and the impacts of the project during its execution. This plan includes a cost estimate for carrying out the proposed monitoring plan.

1.6 Content of the Report

This report is designed to meet the requirements of Regulation 18 of Environmental Impact Assessment and Audit Regulations (United Republic of Tanzania, 2005) and as per the process of conducting ESIA. This introductory chapter is followed by the subsequent chapters as detailed in Table 1-1.

Table 1-1: Content of the Report

Chapter	Description
1. Introduction	Overview and objective of the study, methodology and outline of the report
2. Project Background and Description;	This chapter describes: • The executing entities of the project and their respective roles in the project • The project's geographic location, preferably illustrated with appropriate maps • Summary of the project (project objective(s), expected results/outcomes, outputs and main activities • Implementation arrangements.
3. Policy, Administrative and Legal Framework;	Describe the policy, legal and administrative framework within which the project takes place and identify any laws and regulations that pertain to environmental and social matters relevant to the project. This includes regulations about environmental and/or social impact assessments to which the project must adhere as well as laws implementing host country obligations under international law. If applicable. Where pertinent, consider legal frameworks for promoting gender equality. Flag any areas where the project might fall short on compliance.
4. Baseline or Existing Conditions;	The main purpose of this section of the ESIA report is to provide an understanding of current environmental and social conditions that form the baseline against which project impacts can be predicted and measured during project implementation. For moderate-risk projects that require only a partial ESIA and no scoping study, this section also provides an opportunity to substantiate the results of the ESMS screening by confirming potential impacts and/or identifying other potential impacts.
5. Stakeholder Identification and Analysis	The purpose of the stakeholder identification and analysis is to understand potential impacts on stakeholders and to clarify who should be involved in the ESIA process and how. This should be able to elaborate: • stakeholders' interests in and expectations from the project; • how they might influence the project (positively or negatively; • a first appraisal or estimation of how their livelihoods could be impacted by the project (positively or negatively); and • How they should be involved in the ESIA based on the information in the three items above.
6. Assessment of Impacts and Identification of Alternatives	This step is the heart of the ESIA; it itemizes and describes the identified impacts, makes predictions in terms of their probability, and assesses their significance. When analyzing the risks not only direct impacts should be taken into consideration but also indirect impacts such as inadvertent knock-on effects or cumulative effects that materialize through interaction with other developments, impacts occurring at the project site or within the project's wider area of influence and impacts triggered over time The purpose of the analysis of alternatives is to identify other options, including not implementing the project, to achieve the project objectives and compare their impacts with the original proposal. This step is required only for high-risk projects where the identified impacts are very significant.
7. Impacts Management or Environmental Mitigation Measures	A main output of the ESIA process is a strategy for managing risks and mitigating impacts. The identification of mitigation measures is done in consultation with affected groups and is guided by the mitigation hierarchy. The mitigation hierarchy implies that all reasonable attempts must first be made to avoid negative social or

Chapter	Description
	environmental impacts. If avoidance is not possible without challenging the conservation objective of the project, measures should be taken to minimize the impacts to acceptable levels and address remaining residual impacts with adequate and fair compensation measures.
8. Environmental and Social Management Plan	This is a risk management strategy is documented in an Environmental and Social Management Plan (ESMP) that describes: the mitigation measures developed during the ESIA, an implementation schedule and required resources and responsibilities. The technical and operational feasibility, cultural adequacy and sustainability of proposed measures must be demonstrated as well as requirements for capacity building and institutional strengthening, where relevant.
9. Environmental and Social Monitoring Plan	The ESMP should also indicate how the measures designed to avoid impacts will be monitored for effectiveness.
10. Resource Evaluation or Cost Benefit Analysis	This chapters intends to internalize all costs associated with management of environmental and social impacts while comparing with the benefits which could be derived from implementation of the project
11. Decommissioning;	How decommissioning of the project shall be affected and restoration of the site
12. Summary and Conclusions	An overview of the study as well as conclusion from experts regarding the findings
13. References	List of all sources of information used in the report
14. Appendices	Detailed descriptions which are important for the study but cannot be included in the main body

2 PROJECT BACKGROUND DESCRIPTION

2.1 Overview

The Project Development Objectives (PDOs) to increase access to secondary education, provide responsive learning environments for girls and improve completion of quality secondary education for girls and boys. SEQUIP will contribute to addressing key challenges to girls and boys accessing education and this school will definitely target girls for their studying excel. The project aims to reduce distance to government target: 3km (or 45 minutes)

The project will contribute to increasing the total number of students in secondary education including Alternative Education Pathways (AEP) by 250,000. It will directly benefit about 1.8 million secondary school students, including 920,000 girls, 95% of whom are enrolled in lower secondary. SEQUIP will help more girls' transition from lower to upper secondary education, as girls are underrepresented at this level

2.2 Project Location and Accessibility

The proposed project site is administratively located at Mawasiliano village, Gararagua ward in Siha District-Kilimanjaro region is bordered to the north and east by Kenya, to the south by the Tanga Region, to the southwest by the Manyara Region, and to the west by the Arusha Region.

Proposed site can easily be accessed but it needs a little bit improvement as it is nearby Mawasiliano Primary School and Ease home, farm and Campsite at 500m away as shown in Figure 2-1 and Figure 2-2

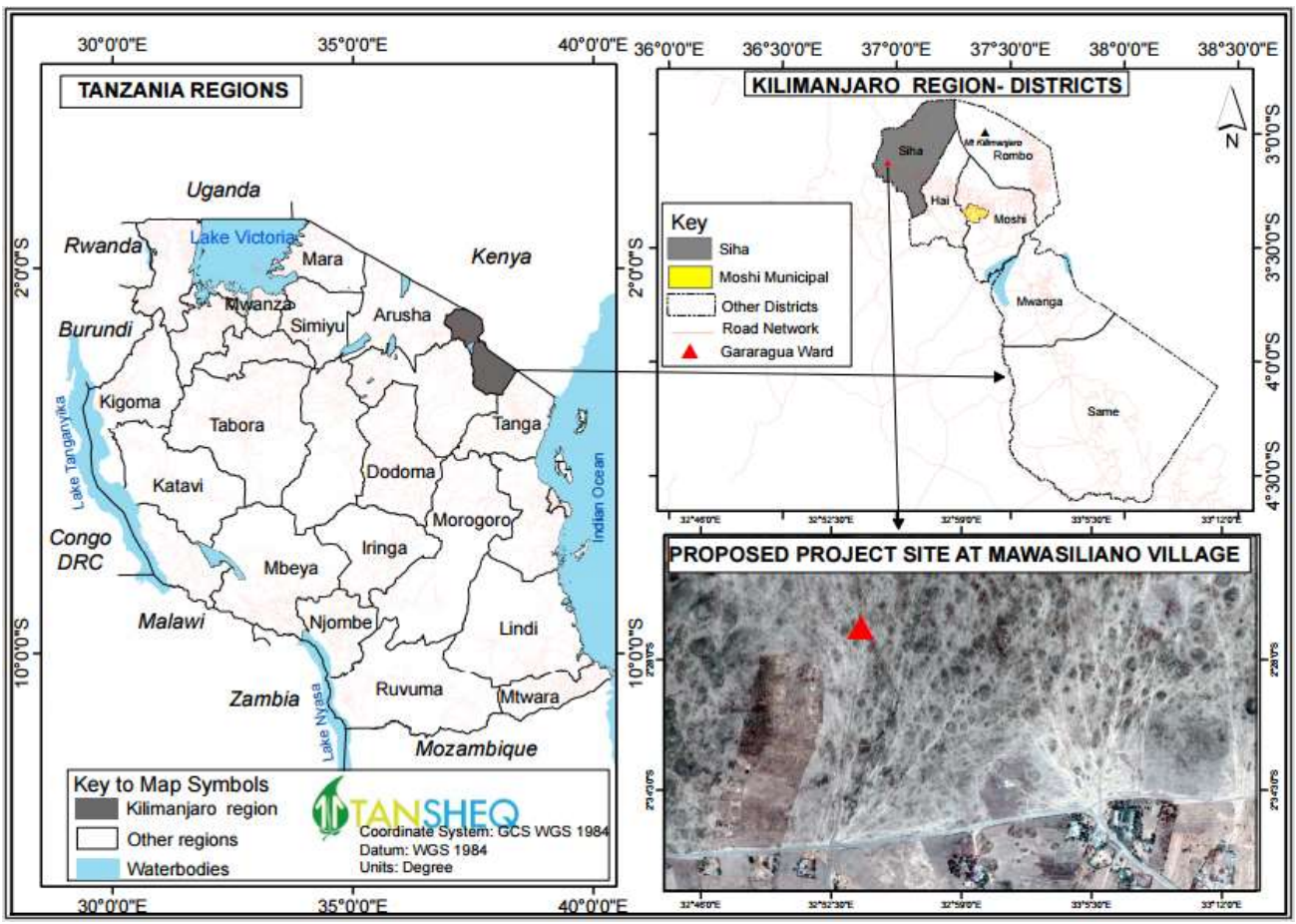


Figure 2-1: Project location within Kilimanjaro Region (Source: Tansheq, 2022)

Figure 2-2: Proposed site in relation to the nearby famous place/facility

2.3 Current Situation in vicinity proposed site.

2.3.1 Proposed site

The proposed site is within a mixed agricultural and sparsely populated settlement and it is the Greenfield site as it is not disturbed and no any development within the site as shown in Figure 2-3

Figure 2-3: Scenery of the project site

2.4 Project Planning and Design

2.4.1 Overview

Project planning and all designs are prepared as per SEQUIP design and the overall objective for the development is specified in the Environmental and Social Management Framework (ESMF). The design of the Girls' Regional School consists of required infrastructure package based on the school construction and maintenance strategy (e.g. number of classrooms/students, adequate WASH facilities, multi-purpose science labs, electricity, etc.).

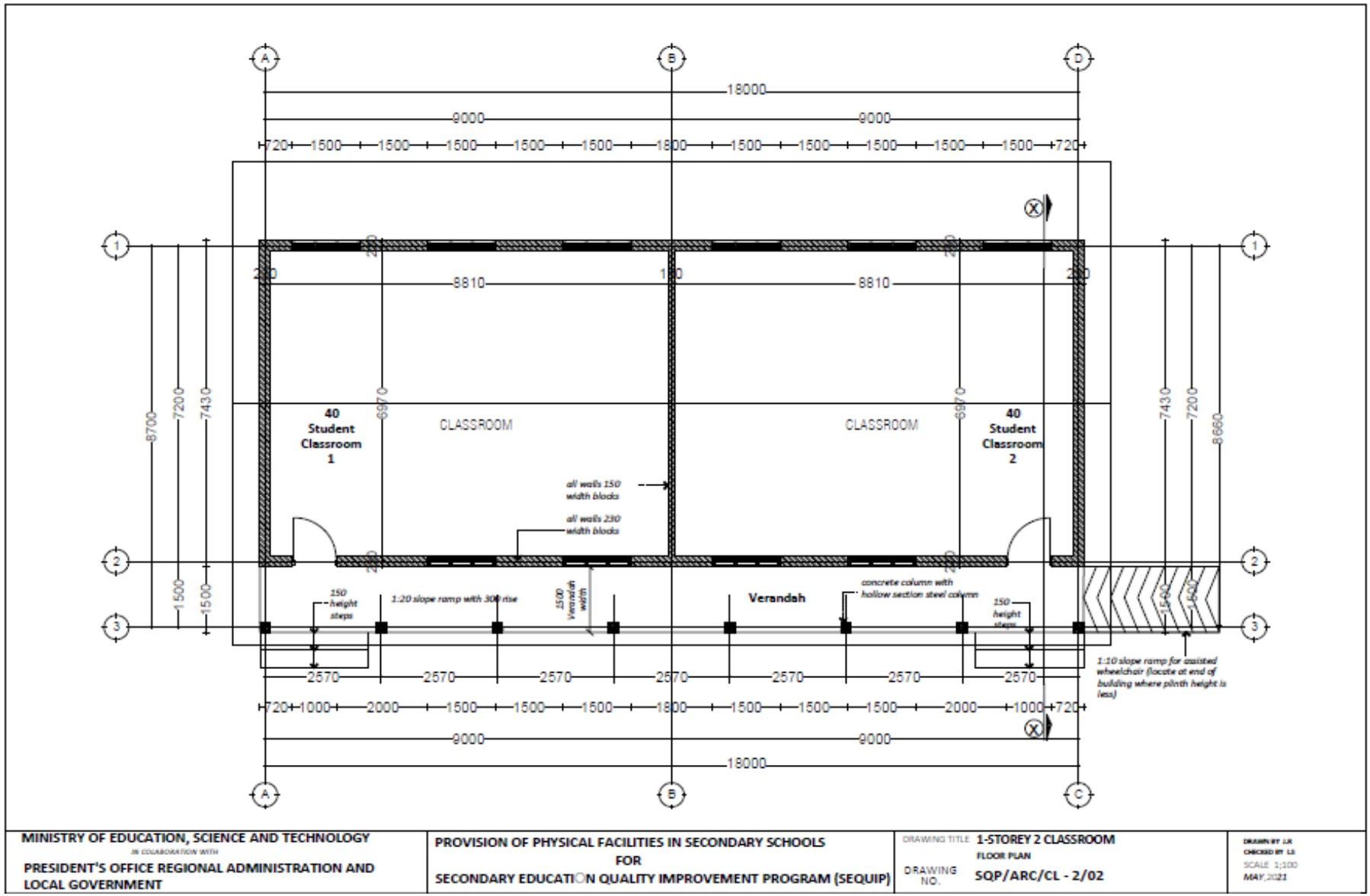
The proposed construction of the school will be having both ordinary and advanced level with capacity of accommodating students between 1000 and 1100 students. The construction package will involve the following facilities:

2.4.2 Classrooms

The classrooms are designed following Education Bulletin number 1 of 2007 which directs capacity of each classroom level, 30 students for advance and 40 students for ordinary level. However, schedule of materials indicating each classroom will be having capacity of 40 students.

Construction will be undertaken in two phases. The first phase will involve construction of 12 classrooms within six blocks followed by the second phase which will involve the construction of six classrooms. The proposed project development will adhere to the fire and rescue force directives for public premises.

The Education Global Practice Africa Region report prepared by World Bank provides the following directives; Student classroom ratios of 50:1 or less, student to functioning latrine ratio of 25:1 for girls and 30:1 for boys, at least one multipurpose science laboratory, student textbook ratios in mathematics and science subjects of 1:1, teacher: teacher guide availability of 2:1. Figure 2-4 showing the proposed classroom design.



MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY IN COLABORATION WITH PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT	PROVISION OF PHYSICAL FACILITIES IN SECONDARY SCHOOLS FOR SECONDARY EDUCATION QUALITY IMPROVEMENT PROGRAM (SEQUIP)	DRAWING TITLE 1-STOREY 2 CLASSROOM FLOOR PLAN DRAWING NO. SQP/ARC/CL - 2/02	DRAWN BY LR CHECKED BY LS SCALE 1:100 MAY,2021

Figure 2-4: Classroom Design

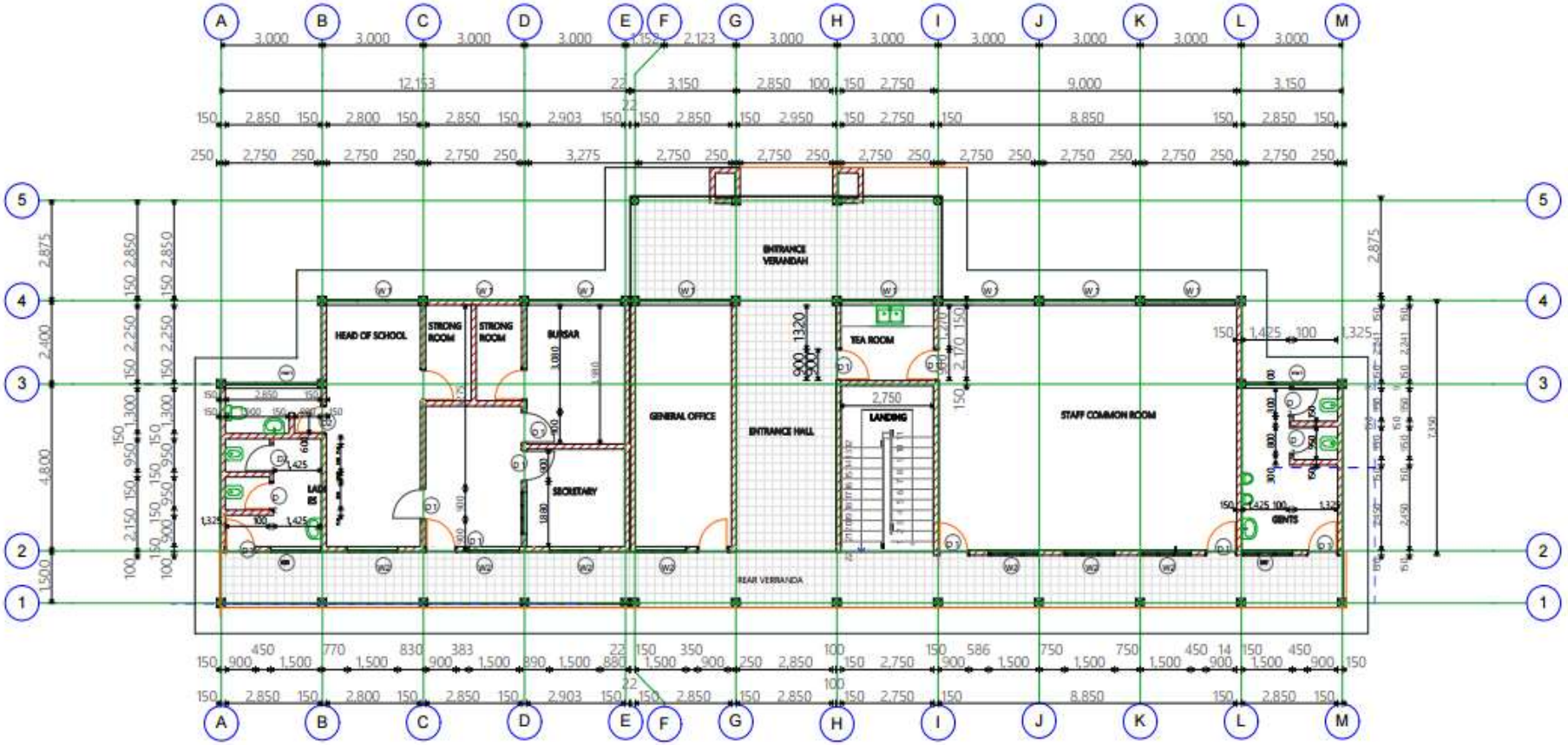


Figure 2-5: Proposed Design for School Administration block

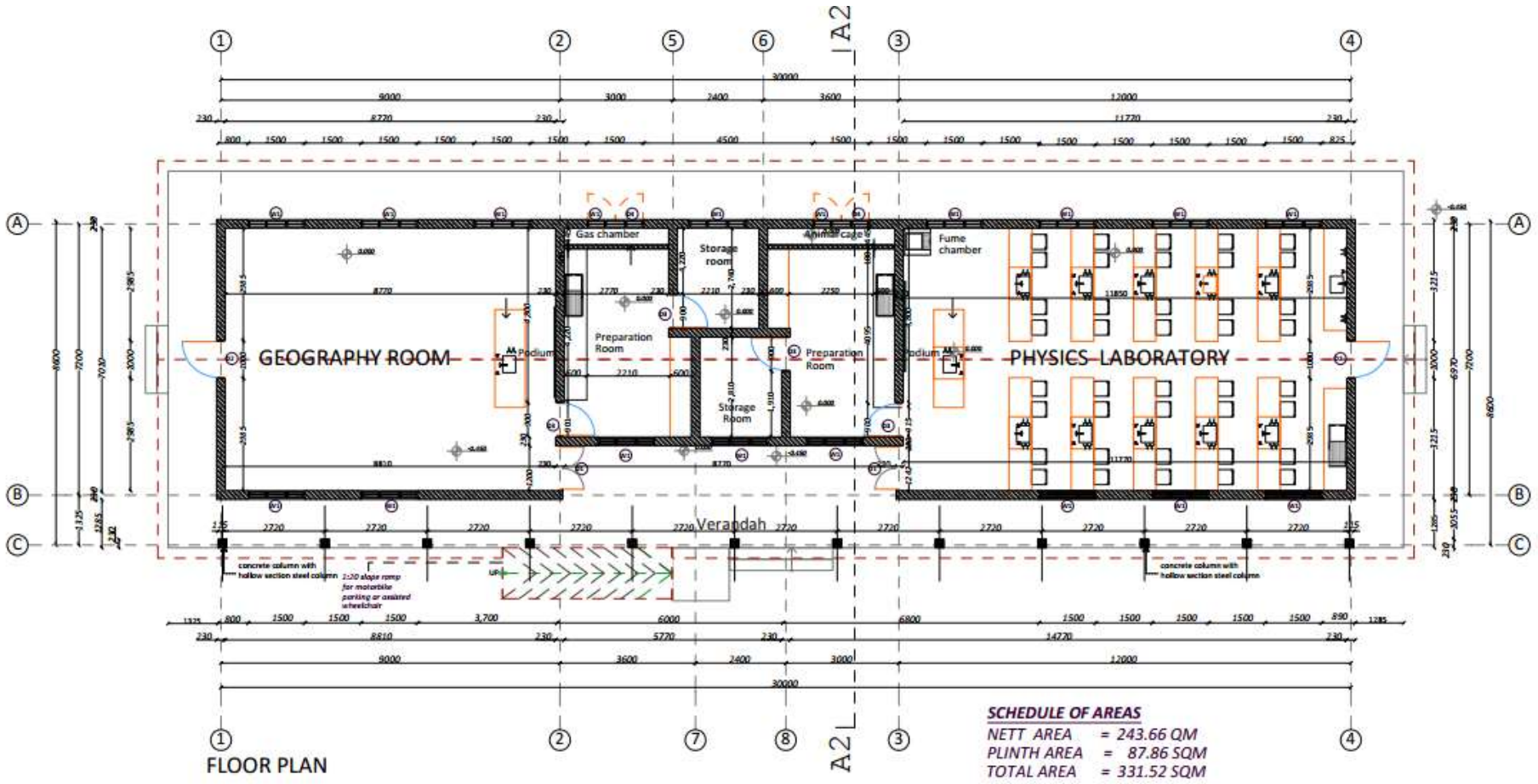


Figure 2-6: Proposed layout of the Laboratory room to be constructed

2.4.3 Laboratories

Education Bulletin number 1 of 2007 explain the capacity and set up of laboratory building for each level is 40 students, The scheduling of materials will adhere the bulletin as required the following laboratory rooms will be constructed

- Physics and geography lab
- Chemistry and biology lab,

Details on design of the laboratory can be accessed through https://www.tamisemi.go.tz/michoro-ya-ujenzi and the design layout is shown in Figure 2-6.

2.4.4 Administration blocks

The bulletin indicates for the school having capacity of 1000 student plus need to have not less than 40 teachers excluding other staffs such as school bursar, secretary etc. Figure 2-5 indicate the administration layout

2.4.5 Toilets

The proposed toilet facility will comprise of one block with 16 holes to be constructed standalone as scheduling shows, nevertheless, some of classrooms will be having sanitary rooms as designed, dormitory, and dining hall will be having sanitary also.

2.4.6 Generator room

This will be alternative source of power at school and the incorporated premises such as staff quarters. One generator room will be constructed.

2.4.7 Dining hall

The Dining Hall is a pivotal gathering space on School's campus and is emblematic of The Family Boarding School ideal. The school will be having enough dinning space to all students since it is boarding school, meal will be served. According the designs of the dining hall, it has the capacity of accommodating 2000 students at once.

2.4.8 Teachers' house

The teachers' houses were designed to attract teachers out to the countryside, as well as to increase teachers morally to perform their duties unlike if they are coming far from the school. The design consider the staff house to have two (2) bedrooms, one (1) master bedroom with Public toilet; Sitting room/dining, Kitchen and Store.

2.4.9 Dormitories

These dormitories are the place where students stay. The student housing must also aim to provide healthy and acoustically pleasant environments for the protection, comfort, and productivity of the students. The

dormitories will be designed as per provided to meeting the SEQUIP objectives. The number of dormitories will be 5, and in each dormitory there will be 120 students.

2.4.10 Library

The library is important because it affects cultures, it affects innovation and it affects individuals. Because of all this, library architecture has the responsibility to enhance these effects by providing a knowledge center that is inspirational and conducive to good communication and teaching interactions.

According to designs, the Library to be constructed will accommodate 52 students for readings and the Computer learning room will accommodate 8 students.

2.4.11 Incinerator

Sanitary Waste: Schools typically have restroom facilities where sanitary waste, such as used sanitary pads, tampons, and diapers, is disposed of. Incineration can be a suitable method for managing this waste, ensuring proper hygiene and privacy for students.

Also Laboratory Waste: Science labs often generate various types of hazardous waste, including chemicals, expired reagents, and broken glassware. Some of this waste may require specialized incineration methods to ensure safe disposal. In order to manage any solid and liquid trash that requires this type of management, an incinerator might be used.

Other components that will be constructed within school compounds area Water tunnel, Waste incinerators, Water tank (hippo) and its pillars), Manhole and gully trap, Walkway & Paving. Table 2-1 show the summary of buildings will be constructed

2.4.12 Sick bay

This will provide a dedicated space for students who may feel unwell or require immediate medical attention. It will serve as a primary point of care within the school premises, allowing for timely assessment and treatment of minor illness or injuries.

Table 2-1: Summary of buildings to be constructed.

	CONSTRUCTION		
No	**Buildings**	**No. of Buildings**	**No. of rooms**
First construction phase			
1	Building with 2 classrooms	2	4
2	Building with 2 classrooms and one office	3	6
3	Building with 2 classrooms and 2 toilets	1	2
4	Building with Physics laboratory and Geography room	1	2
5	Building with Chemistry and Biology laboratory	1	2
6	Administration Building	1	1
7	Toilet building for students (girls)	1	16
8	Generator Room	1	1
9	Dining Hall	1	1
10	Teacher's house (3 rooms)	1	5

	CONSTRUCTION		
No	**Buildings**	**No. of Buildings**	**No. of rooms**
11	Teacher's house (2 in 1)	1	4
12	Dormitories @ 120	5	Cubicle 15
Surrounding activities			
1	Water Tunnel (1050m)	1	1
2	Waste incinerators	1	1
3	Waste incinerators	2	2
4	Underground water storage tanks (32,000 liters)	2	2
5	Water tank (hippo) and its pillars)	2	2
6	Manhole and gully trap	1	
7	Walkway & Paving		
Second construction phase			
1	building with 2 classrooms	2	4
2	Building with 2 classrooms and 1 office,	3	6
3	ICT Room	1	1
4	Library	1	1
5	Master's Houses (3 Rooms)	4	
6	Dormitories @ 120 Students	4	

The various facilities designed for the school are in 3 dimensions in Figure 2-7

Figure 2-7: Various Facilities to be constructed with the General layout in 3D

2.5 Project Activities

The envisaged project activities can be broadly categorized in three phases as listed in Table 2-2

- Mobilization and Construction
- Operational phase
- Decommissioning phase

Table 2-2 Project activities

Project Phase	Activities
Mobilization Phase	• Bush clearing. • Site levelling • Site marking • Temporary camp/shed for office
Construction phase	• Excavation of trenches for foundation • Alignment of blocks for Foundation • Concrete mixing • Setting up main door frame and other room door frames • Wall construction until window frame base • Setup ventilators for exhaust fans, bathroom ventilators if needed • Slabs formworks for Floors • Bar bending work for beams and roof • Electric pipes setup inside roof • Clear any blockage in the roof pipes • Laying electric pipes in the walls and setup electric boxes • Tiles laying on the floors and bathroom walls • Plastering of roof and walls indoors and outdoors • Finishing outside and plumbing work and tank • Painting • Electric wiring and switches setup • Compound wall/fence • Firefighting system installation • Water drainage system • Air cooling system installation
Operation phase	• Teaching services • Movement within dormitories, classrooms, dinning, laboratory, offices and washrooms • Meeting and Conferences • Health. Safety and security as well as social issues.
Decommissioning phase	• Expansion and maintenance

2.5.1 Mobilization phase

The mobilization phase of the project, which is estimated to take average of one month and maximum three months, will entail the following activities:

- Establishment of construction of camps, material and equipment storage areas, materials processing yards, including sanitation facilities. The following activities will be involved during establishment of the camp.
  - ✓ Bush clearing.
  - ✓ Construction of Material and equipment storage areas
  - ✓ Construction of sanitation facilities
  - ✓ Installation of electrical infrastructure
  - ✓ Installation of water and wastewater infrastructure
- Identification of sources of construction material (borrow pits and quarry sites),

- Identification of sources of water for domestic and construction works

2.5.1.1 Materials required

The following materials will be required during mobilization phase of the project:

- Cement, sand, and aggregates for block and concrete works
- Water for general construction works and dust abatement
- Timber, galvanized iron sheets, paints, nails, etc. for roofing.
- Electrical works: conduits, cables, fittings
- Cement, galvanized iron sheets, nails, fence wire, electrical and plumbing utilities will mainly be obtained from either Dar es Salaam, while sand, aggregates, and timber will be obtained locally.

2.5.1.2 Equipment Required During Mobilization Phase

The major equipment which will be required during mobilization phase of the project will include:

- Bull dozers/motor graders, excavators for site clearing, excavation, and grading of the storage facilities construction at site
- Light duty vehicles and trucks for the transport of construction materials, small machines and staff
- Water pumps, block making machines, stationery concrete mixers and trans mixers, etc. for making of blocks and concrete mixes for concrete works
- Electric power generator(s)

2.5.1.3 Wastes Generated During Mobilization Phase

Mobilization phase of the project will generate the wastes shown in Table 2-3

Table 2-3: Wastes likely to be generated During Mobilization Phase

Aspect	Solid Waste	Liquid Waste	Gaseous Waste
Site clearing and excavation	Earth, green cutting	None	Generation of air pollutants (dust)
Construction of foundation(s): block/concrete works	Concrete, blocks, hessian cement bags	Water slurry, wash-down water	None
Construction of the main Storage room	Cement bags, mortar, steel reinforcements, nails, timber, iron sheet wastes, etc.	Concrete slurry	Paint
Installation of electrical infrastructure	conduit pipes, cables, electronic waste	None	None
Installation of water infrastructure	PVC and GS pipes	None	None
Labour force	Plastic bottles/ bags, food wastes	Sanitary wastes	None
Servicing of construction equipment	Used batteries, used tyres, used metals parts, used oil and fuel filters, empty oil drums.	Waste oil	None

2.5.1.4 Treatment and Disposal of Wastes Generated

The treatment methods for the wastes generated during mobilization phase shall be based on re- using, re-cycling, burying, or burning, and on-site treatment:

- During site clearing, topsoil and green cutting shall disposed of in old borrow pits or other areas approved by the Engineer
- Concrete and cement blocks wastes shall be disposed of in borrow pits during their reinstatement as approved by the Engineer.
- Metal wastes such as GS pipes, nails, reinforcement bars, and used equipment parts shall be disposed of by recycling. They will be collected and stored; until enough quantities are obtained before being disposed of by the Contractor. The metal scraps disposing companies shall be approved by the Engineer.
- Degradable materials such as paper cement bags and paper boxes shall be treated on site by either controlled burning.
- Non degradable wastes such as plastic, PVC pipes, and plastic bottles shall be collected and transported and given freely to plastic factories where they will be recycled.
- Used batteries, empty metals drums, used oil filters shall be disposed of through approved disposing companies.
- Temporary pit latrines shall be constructed at active mobilization sites (camp sites) for the disposal of sanitary wastes.
- The electrical and electronic waste will be collected by registered electrical waste dealers in Siha District Council for proper disposal.

2.5.2 Construction Phase

The construction phase of the project, which is estimates to take 12 month for each of the phase one and will encompass following major activities:

- Earth works to facilitate widening and re-alignment of the road. Earth works will entail the following activities:
  - ✓ Clearing and grubbing (clearing of vegetation, including trees).
- Extraction of naturally-occurring construction materials. This will include:
  - ✓ Excavation and transport of natural sand, gravel, and sub-base materials to construction sites
  - ✓ Stone quarrying (including blasting), crushing and transport of crushed aggregates to construction sites
  - ✓ Transport and handling of fuel, lubricants etc. from their sources to the project site
  - ✓ Transport of construction materials from source to site such as roof, steel, woods, nails, rope.

2.5.2.1 Materials Required During Construction Phase

During the project construction, the following materials (Table 2-4) will be required:

Table 2-4: Materials required During Construction Phase

No	Material	Usage	Possible Source
1.	Ordinary Portland Cement (OPC) and Pozollana Portland Cement (PPC)	For construction purposes.	Twiga cement (Dar es salaam), Tanga cement (Tanga), and Mbeya cement (Mbeya)
2.	Sand	Production of mortar and general concrete works	Stone crusher dust and sand pits (to be established by Contractors)
3.	Crushed aggregate	Concrete works (Structural works) and construction	Local available
4.	Steel reinforcement bars	Reinforced concrete works construction of structures,	Dar /imported
5.	Steel shutters and form works	Concrete works	Dar
6.	Soft timber	Production of timber formworks and shutters	Locally
7.	Nails	Nails for fixing timber form	Dar es salaam
8	Water	Drinking, concrete works, dust suppression	RUWASA

2.5.2.2 Wastes Generated During Construction Phase

The wastes generated during construction phase of the project will result from operation of construction and equipment maintenance. The wastes which will be generated during construction phase of the project are shown in Table 2-5.

Table 2-5: Wastes likely to be generated during Construction Phase

Aspect	Solid Waste	Liquid Waste	Gaseous Waste	Hazardous Waste
Operations of Campsite				
	Paper	Sanitary waste	-	-
	Litter	-	-	-
	Toner, cartridges	-	-	-
	Paper litter	Sanitary waste	-	-
	Plastic bottles/bags	-	-	-
	Aluminum cans	-	-	-
	Food wastes	-		
				Biohazard wastes (medical wastes)
Machinery and equipment Maintenance				
	Plastic and glass (containers), used tyre, metal (used parts), plastic and cable parts, used lead-acid batteries,	Waste oil and grease, battery acid (dilute sulphuric acid)	-	Gases that are compressed, liquefied, or dissolved under pressure may be hazardous. Flammable liquids including oil, grease and petroleum compounds are also hazardous. Used lead-acid

Aspect	Solid Waste	Liquid Waste	Gaseous Waste	Hazardous Waste
	Electrical and Electronic waste -	Lubricant, coolants (radiator fluid), hydraulic fluid, waste water)	-	Lubricants, hydraulic fluid

2.5.2.3 Treatment and Disposal of Wastes Generated During Construction Phase

The treatment methods for the wastes generated during construction phase will depend on whether they are degradable, non-degradable, hazardous, or non-hazardous. Depending on the nature of the wastes, the wastes will either be re-used, re-cycles, buried, or burnt.

The electrical and electronic equipment waste will be collected by registered electrical waste dealers in Siha District Council for proper disposal.

2.5.3 Operation phase

The operation activities of the Overall, SEQUIP will contribute to increasing total enrolment in secondary school by 1.8 million students and increase the number of girls graduating from both secondary schools and alternative secondary education pathways.

2.5.3.1 Material required during operation phase

Material required during the operation phase will include books, chalk, a printing and photocopy machine, laboratory equipment and specimens, and water.

2.5.3.2 Labour requirement during operation phase

Both skilled and unskilled labor are required in the operation phase of the project, which will include:

- Teachers
- Librarians
- Laboratory technician
- Security officer

2.5.3.2.1 Employees/Labourers and gender consideration

During the operation phase when employing, there will be gender consideration; although the number of employees cannot be estimated until the project begins, both women and men will have an equal chance of getting the opportunity to work since the World Bank's ESS 10 (Labor and Working Conditions) recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. And therefore, both genders will be considered equal during and after this project.

2.5.3.3 Wastes generated during operation phase

The waste generated during the operation phase of the project is a result of different activities taking place during the operational phase of the project. The waste generated during the project's operation phase are

- solid waste from the dining hall, kitchen, classroom, office,
- liquid waste from sanitary facilities, canteens, and kitchens
- Hazardous waste such as sanitary pads
- Electrical and electronic waste

Solid waste will be managed within the school premises by making use of the incinerator while for the liquid waste will be managed by septic tanks and soak away pits that will be designed and constructed by the respective municipal council.

For electrical and electronic equipment waste will be collected by registered electrical waste dealers in Siha District Council for proper disposal.

2.5.4 Decommissioning Phase

After completion of construction, all the utilities which were used shall be reverted to the Municipal Director who will decide on their future use. The main activities during demobilization phase, will engross the following:

- Collection and disposal of storage facilities such as pallets, packing, boxes
- Collection and disposal of construction materials and wastes such as waste oil, sewage, solid wastes (plastics, wood, metal, papers, etc.) at the workshop, site office etc. to authorized dumpsite
- Restoration of material borrows areas to safer condition.

2.5.4.1 Materials required During Demobilization Phase

Materials required during demobilization phase will include fuel for the operation of equipment, soils and tree seedlings for reinstatement of borrow pits. During this phase, labour, water, and energy will also be required.

2.5.4.2 Equipment Required During Demobilization Phase

The equipment required during demobilization phase will include vehicles and trucks for transport of waste and remaining materials to be transported,

2.5.4.3 Waste Generated During Demobilization Phase

The following waste will be generated during demobilization phase of the project:

- Hazardous waste such as used lubricants (oil and grease), used lead-acid batteries, empty plastic bottles, etc.
- Plastic and paper packing
- Used equipment parts

2.5.4.4 Treatment and Disposal of Wastes Generated During Demobilization Phase

The treatment methods for the waste generated during construction phase will depend on whether they are degradable, non-degradable, hazardous, or non-hazardous. Depending on the nature of the waste, the waste will either be re-used, re-cycles, buried, or burnt.

2.5.4.5 Lifespan of the project

The Project Lifecycle is the sequence of phases through which a project progresses. It includes initiation, planning, execution, and closure therefore this project will take 12 months

2.5.4.6 Decommissioning of Individual Components of the Project

Individual components of the project may be rendered redundant due to wear and tear or become obsolete due to technological advancement.

These shall be removed after an environmental audit is conducted and a device appropriate environmentally friendly way (Environmental Management Plan, EMP) to deal with them. Emphasis shall be on repairing so that parts can be reused or recycled of materials from defunct components to salvage important metals.

2.5.5 Project Associated Facilities

The ESF define associated facilities as facilities that are not funded as part of the project and that would not have been constructed or expanded if the project did not exist and without which the project would not be viable. The SEQUIP project in schools construction has identified the following as associated facilities;

- Water connection
- Energy (electricity, gas or charcoal)
- Personal protective equipment
- Access roads

2.5.5.1 Water supply system

The project will require water for different activities for the project Water will be required for construction activities such as concrete works, earthworks, lying of some of the pavement layers, dust suppression, as well as for domestic purposes at the camps. The amount of water required during construction of the project estimated to be 17,500 litres per day.

During operation phase, Water will be used for domestic uses, cleaning and for sanitation which will depend on the number of the student to be admitted to school at the specific time. Water for construction works will be obtained from RUWASA and boreholes.

2.5.5.2 Power supply

The proposed project will source the electricity from the National grid (TANESCO). Also a standby generator will be installed. This will be used in case of main electricity interruption. Emission level of generation will be considered during installation to make sure the generator of low emission

It will necessitate Contractor to install dedicated diesel driven generators to supply power to site and for the operation of electrically operated equipment at work sites. Generator room will be constructed as source of power during project operation.

2.5.5.3 Access Roads

The development of access roads is necessary providing access to staff and students within the school during operation due to the landscape of the area. Access route design must consider several factors, including existing ground strength, expected weather condition and the area's landscape since the site area is in a hilly environment.

2.5.5.4 Water channels for storm water

The development of water channels for storm water is necessary preventing water accumulation within the school compounds and easier movement and prevent water accumulation within the school premises due to the landscape of the site area. The water channels will be directed to the wetland that exists within the site area.

2.5.5.5 Parking area

The development of parking areas is necessary for the project implementation to avoid congestion problems for inhabitants of neighboring properties and ensure safety issues for visitors and staff.

2.5.6 Environmental and Social Management Framework

The ESF instruments that have been prepared for SEQUIP incorporate measures for project site Selection and to ensure designs and school construction align with the ESF requirements.

It has been agreed that civil works will follow building standards acceptable to the World Bank and required under the ESF; taking into account structural safety, universal access, changes in the standard drawings, water source availability and quality, efficient use of materials (wood) to reduce pressure on natural resources, Water and Sanitation for Health (WASH) and solid waste management at the schools, among other risks identified as part of the due diligence process.

Site selection for school construction is very important to avoid possible direct and indirect environmental and social impacts and lack of water sources for construction and during operation.

2.5.7 Health and Safety

As the ESMF directives, the campaign has been conducted with the utmost regards for occupational health and safety requirements of local authorities, management system, and of recognized industry standards. As a rule, all activities that present a risk to employees, contractors, and or neighboring communities are planned, and controls are implemented to limit exposure.

In addition, a Permit to Work system is in effect for risk-specific activities that is working at height. All EHS incidents, observations, near misses, etc. will be reported and investigated to prevent recurrence during construction phase and the proper way of reporting and registration during the operation phase will be employed as well. Regular emergency evacuation drills will be connected to test the training and response capacity of the workforce at the site during all phases of the project.
Occupational health and safety issues for further consideration in multi-storey office building construction and operation phases includes Fire and collapse and Slippery

2.5.7.1 Fire Protection System

Fire protection system shall be established as per local code and regulation. Firefighting power pump, emergency lamp, automatic fire detector, emergency broadcasting system and other related systems will be equipped. Design will follow local regulations and building characteristics.

The fire hydrant shall be in five locations: the kitchen, administration and restaurant area, the rooms, warehouse/storage area and the waste storage facility.

2.5.7.2 Collapse

The result analysis showed that the major factors responsible for building collapse are usage of substandard building materials, non-involvement of relevant and qualified professionals, defective design, and poor maintenance culture Poor Workmanship/Supervision Natural Occurrences.

The remedies to mitigate the problems are but not limited to the professional bodies through their government regulatory bodies need to ensure effective monitoring to control quackery and ensure violators are punished, building and construction permit should be adhered, ensure the use of professional people during construction etc.

2.6 Project Cost

Total Project Cost is four billion Tanzanian shillings

3 POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

3.1 Introduction

The objective of this chapter is to describe the policy, legal and administrative framework within which the project takes place and identify any laws and regulations that pertain to environmental and social matters relevant to the project.

This includes regulations about environmental and/or social impact assessments to which the project must adhere as well as laws implementing host country obligations under international law.

Explain the requirements of any co-financing partners, if applicable. Where pertinent, take into account legal frameworks for promoting gender equality. Flag any areas where the project might fall short on compliance.

3.2 The Constitution of Tanzania, 1977-1995 (as revised)

The Constitution of the United Republic of Tanzania 1977 - 1995 (revised 1997) recognizes the basic rights and equality entitled, without any discrimination, protection, and equality of all persons before the law. The United Republic of Tanzania is committed to the conservation of the country's natural environment as is evident through the Constitution and various Mission Statements.

Article 21 of the Constitution reads:

- "Take part in matters related to governance of the country, every citizen of the United Republic is entitled to take part in matters pertaining to the governance of the country, either directly or through representatives freely elected by the people, in conformity with the procedures laid down by, or in accordance with, the law.
- "Every citizen has the right and the freedom to participate fully in the process leading to the decision on matters affecting him, his well-being or the nation."
- Article 24 of the Constitution reads:
- "Subject to the provisions of the relevant laws of the land, every person is entitled to own property, and has a right to the protection of his property held in accordance with law."
- Article 27 of the Constitution reads:
- "Every person has the duty to protect the natural resources of the United Republic, the property of the state authority, all property collectively owned by the people, and also to respect another person's property."
- "All persons shall be required by law to safeguard the property of the state authority and all property collectively owned by the people, to combat all forms of waste and squander, and to manage the national economy assiduously with the attitude of people who are masters of the destiny of their nation."

3.3 National Development Vision 2025

A Tanzanian who is born today will be fully grown up, will have joined the working population and will probably be a young parent by the year 2025. Similarly, a Tanzanian who has just joined the labour force will be preparing to retire by the year 2025.
What kind of society will have been created by such Tanzanians in the year 2025? What is envisioned is that the society these Tanzanians will be living in by then will be a substantially developed one with a high quality livelihood.
Abject poverty will be a thing of the past. In other words, it is envisioned that Tanzanians will have graduated from a least developed country to a middle income country by the year 2025 with a high level of human development. The economy will have been transformed from a low productivity agricultural economy to a semi-industrialized one led by modernized and highly productive agricultural activities which are effectively

integrated and buttressed by supportive industrial and service activities in the rural and urban areas. A solid foundation for a competitive and dynamic economy with high productivity will have been laid. Consistent with this vision, Tanzania of 2025 should be a nation imbued with five main attributes;

- High quality livelihood. • Peace, stability and unity.
- Good governance,
- A well-educated and learning society;
- A competitive economy capable of producing sustainable growth and shared benefits.

3.4 National Five-Year Development Plan 2021/22–2025/26

This third national five-year development plan (FYDP III) for the period 2021/2026 is a nationwide multisector document aiming at achieving the goals set in the national development vision 2025.

To increase the resilience of livelihoods to disasters, main interventions shall be:

(i) strengthen environmental conservation and protection to mitigate adverse effects of climate change
(ii) social development, including health and education, human settlements, clean and safe water, and environment, paying attention to equitable access, gender and people with disabilities
(iii) strengthen sustainable use and management of oil and natural gas
(iv) develop renewable energy sources for cooking to mitigate climate change
(v) conserve marine and freshwater fisheries protected areas
(vi) develop and implement strategies to combat poaching, illegal trade and illegal harvesting of wildlife, forest, bee and antiquities resources in the country
(vii) promote biodiversity conservation;
(viii) develop climate change adaptation and impacts mitigation measures and reduce land degradation;
(ix) minimize environmental pollution and resultant adverse effects on the environment and human health;
(x) establish programs and mechanisms for management, monitoring and assessment of water and wastewater quality
(xi) Strengthen conservation and protection programs of water resources and water sources.

3.5 Relevant Policies

3.5.1 National Environmental Policy (2021)

The overarching governing Tanzania's environmental management are the National Environmental Policy (NEP) of 2021 and the Environmental Management Act (EMA) of 2004.

This Policy is a supreme national framework for environmental management in the country. It recognizes the role of sectoral policies in pursuit of effective environmental conservation and sustainable socio-economic development. In view of that, the envisioned achievements of this Policy depend on mainstreaming and implementation of relevant environmental measures in the respective sectoral policies.

The Overall Objective of this policy is to provide a national framework for guiding harmonized and coordinated environmental management for the improvement of the welfare of present and future generations

3.5.2 Education and Training Policy 2014

This Education and Training Policy of 2014 is the result of the revitalization and finally the cancellation of the Education and Training Policy (1995), Policy on Vocational Education and Training (1996), Policy on National Higher Education (1999) and Information Technology Policy and Communication for Primary Education (2007). The vision of this policy is having an educated Tanzanian with knowledge, skills, competencies, abilities and positive attitudes to be able to contribute in bringing about the development of the Nation.

The specific objectives of the Policy are to have:

- System, structures and flexible procedures to enable Tanzanians develop themselves in various ways in academic and professional streams;
- Education and training with quality standards recognized nationally, regionally and internationally;
- Availability of various educational opportunities and training in the country;
- Increase of human resources according to priorities of the Nation;
- Effective management and operation of education and training in the country;
- Sustainable education funding system and training in the country; and
- Education and training system based on issues cross

3.5.3 The National Research and Development Policy of 2010

These policies focused on the promotion of the private sector as a major contributor to the national economy, singly or through public-private partnership. The increasingly globalized world requires nations to create an enabling environment that will facilitate active participation of the private sector in improving their respective economies.

3.5.4 ICT Policy for Basic Education 2007

The achievement of the objectives of Tanzania's education policies and education development programs. As stated in the education policy of 1995, the overall aims of education in Tanzania are, among other things:

"*To promote the acquisition and appropriate use of literary, social, scientific, vocational, technological, professional and other forms of knowledge, skills and understanding for the development and improvement of man and society*."

In 2001, the education sector development program (ESDP) was launched, to realize the objectives of education policies by addressing critical issues, including ICT. The main objectives of this program include: to decentralize management of educational institutions; to improve the quality of education, both formal and non-formal; to promote access and equity to basic education; and to promote science and technology.

Special mention is made of the need to improve and expand girls' education, to ensure access to education by special social and cultural groups, to give appropriate education to children with disabilities, and to provide education facilities to disadvantaged areas.

3.5.5 National Biotechnology Policy, 2010

The general objective of this policy is to ensure that Tanzania has the capacity and capability to capture the proven benefits arising from health, agriculture, industry and environmental applications of bio technology while protecting and sustaining the safety of the community and the environment

3.5.6 Cultural Policy, 1997

Section of the 3.2.1 of the Cultural Policy stipulates that "all land development shall be preceded by Cultural Resource Impact studies. Furthermore, Section 3.1.5 states that "mechanisms shall be established to enable the nation to identify, own and preserve national treasurers e.g. art, objects, natural resources minerals as well as archaeological, paleontological and botanical remains".

3.5.7 The Wildlife Policy of Tanzania, 2007

The Ministry of Natural Resources and Tourism is charged with formulating a wildlife policy, overseeing its administration and coordinating the development of the wildlife sector in Tanzania. The vision of the wildlife sector for the next twenty (20) years conforms to the Development Vision 2025 for Tanzania on environmental sustainability and socio-economic transformation. The vision for the wildlife sector is to:

- Promote conservation of biological diversity,
- administer, regulate and develop wildlife resources,
- involve all stakeholders in wildlife conservation and sustainable utilization, as well as in fair and equitable sharing of benefits,
- promote sustainable utilization of wildlife resources,
- raise the contribution of the wildlife sector in country's Gross Domestic Product (GDP) from about 2% to 5%,
- contribute to poverty alleviation and improve the quality of life of the people of Tanzania, and,
- promote exchange of relevant information and expertise nationally, regionally and internationally,

3.5.8 Antiquities Policy of 2008

Antiquities Policy 2008 section defines Physical Cultural Resources as any tangible material that represent contemporary, historic, and pre-historic human life ways. Section 2. 1 of the Antiquities Policy points out that already discovered Physical Cultural Resources shall be preserved and conserved in the National Museum of Tanzania as stipulated in Museum Act of 1980. Furthermore, the Antiquities Policy of 2008 sections 4.2.1 to 6 elaborates on how stakeholders including government institutions, private sectors and the public should be involved in all activities of conservation and management of Physical Cultural Resources.

3.5.9 National Forest Policy, 1998

The overall goal of the National Forest Policy (1998) is to enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of her natural resources for the benefit of present and future generations.

The Policy, among other aspects, recognizes the high value of forests due to the high potential for royalty collection, export, and tourism earnings as well as the recycling and sequestering of carbon and conservation of globally important biodiversity.

Furthermore, the policy emphasizes on biodiversity conservation; describes the importance of forest ecosystems for maintaining biodiversity and the threats to biodiversity. One of the main objectives envisaged in the policy focuses on ensured ecosystem stability through conservation of forest biodiversity, water catchments, and soil fertility.

3.5.10 National Water Policy, 2002

The main objective of the Policy is to develop a comprehensive framework for sustainable development and management of the nation's water resources. Specifically, on the environment the objective is to have a water management system that protects the environment, ecological system, and biodiversity.
The policy emphasizes that water related activities will have to be planned to enhance or to cause least detrimental effects on the environment. To protect ecological systems and biodiversity which, together, are important part of sustainable water resources system the policy provides a guide for determining water for the environment, in terms of quantity and quality, and levels, for both surface and groundwater resource.
The policy emphasizes the use of best available scientific information for both temporal and spatial water requirements to maintain the health and viability of riverine and estuary ecosystems, and associated flora and fauna. Public awareness on good land-use practices is insisted to contain the erosion problem.

3.5.11 Sustainable Industrial Development Policy, 1996 (SIDP)

The Policy provides for sound environmental management to ensure promotion of environmentally friendly and ecologically sustainable industrial development. The Policy insists that environmental audit and appropriate mitigation measures should be enforced for all industrial projects at pre-implementation stage.

To ensure industrial development activities that are environmentally sound and ecologically sustainable, this policy stipulates the following conditions:

- The government will ensure adequate awareness among the public of environmental issues, which includes the right of people to a safe environment, land and wildlife conservation.
- The Tanzania Investment Act (1997), No. 7 will provide clear mechanisms for promoting investments that embody antipollution initiatives.
- EIA and appropriate mitigation measures will be incorporated and enforced for all projects.

Sustainable Industrial Development Policy focus on creating a conducive environment for economic growth while minimizing negative environmental and social impacts. The construction of girl's secondary school, could be seen as a way to promote local development and education, aligning with the broader goals of sustainable industrial development.

3.5.12 Construction Industry Policy, 2003

The Construction Industry Policy is a deliberate and managed process to improve the capacity and effectiveness of the construction industry to meet the national economic demand for buildings and other physical infrastructure facilities. The Policy is aimed at meeting the goals of the National Development Vision 2025.

The objectives of the Policy include:

a. To improve the capacity and competitiveness of the local construction enterprises (Contractors, consultants and informal sector);
b. To develop an efficient and self-sustaining roads network that is capable of meeting the diverse needs for construction, rehabilitation and maintenance of civil works for trunk, regional, district and feeder roads network;
c. To improve the capacity and performance of the public sector and private sector clients so as to ensure efficient, transparent and effective implementation and management of construction projects; and

To ensure application of practices, technologies and products which are not harmful to both the environment and human health also the policy emphasizes the importance of education infrastructure, and this might

indirectly support the construction of girls' secondary schools by providing a framework for their planning, design, and implementation.

3.5.13 National Health Policy, 2007

The overall objective of the National Health Policy, 2007 is to improve the health and well-being of all Tanzanians. In line with environmental health, Policy seeks to protect community health by enhancing sustainable environmental health.

The Policy emphasizes on community adherence to environmental health standards; Improvement of waste management systems including disposal of hospital wastes; educating health service providers on the importance of environmental health in their working areas; and putting in place laws and procedures for conservation and protection of the environment in the health sector.

3.5.14 National Water Policy, 2002

The main objective of the Policy is to develop a comprehensive framework for sustainable development and management of the nation's water resources. Specifically, on the environment the objective is to have a water management system that protects the environment, ecological system, and biodiversity.

The policy emphasizes that water related activities will have to be planned to enhance or to cause least detrimental effects on the environment. To protect ecological systems and biodiversity which, together, are important part of sustainable water resources system the policy provides a guide for determining water for the environment, in terms of quantity and quality, and levels, for both surface and groundwater resource.

The policy emphasizes the use of best available scientific information for both temporal and spatial water requirements to maintain the health and viability of riverine and estuary ecosystems, and associated flora and fauna. Public awareness on good land-use practices is insisted to contain the erosion problem.

3.5.15 National Land Policy, 1995

The National Land Policy of 1995 aims at developing a coherent and comprehensive framework that defines land tenure and enables proper management and allocation of land in urban and rural areas. Among other things, the Policy advocates the protection of land resources from degradation, for sustainable development.

The policy addresses several environmental issues such as land use planning, which take into consideration the land capability, ensures proper management of land resources, promotes resource sharing and multiple land use techniques in areas of conflicting land use, and involve community in resource management, land use and conflict resolution.

3.5.16 The Land use Planning Act, Cap 116

The Act requirements are to ensure compliance with the approved land use plan and to perform such other functions as may be assigned to it under this Act. In the implementation of this project, this must be followed to ensure that the construction is of schools and nothing else, so as to comply with the requirement.

3.5.17 National Human Settlements Development Policy, 2000

The Policy stresses on the need for ensuring that human settlements are kept clean and pollution effects of solid and liquid wastes do not endanger the health of residents. The policy advocates for a set of environmental quality standards of gaseous emissions from industries and vehicles

3.5.18 The Construction Industry Policy (2003)

This policy promotes among other things, application of cost effective and innovative technologies and practices to support socio-economic development including utilities and ensure application of practices, technologies and products which are not harmful to both the environment and human health. Siha District Council must use technologies and products not harmful to both the environmental and human health by providing feasible alternatives and appropriate mitigation measures.

3.5.19 The National HIV/AIDS Policy (2001)

The overall goal of this policy is to provide for a framework for leadership and coordination of the national multi-sectorial response to the HIV/AIDS pandemic. This includes the formulation by all sectors of appropriate interventions which will be effective in preventing transmission of HIV/AIDS and other sexually transmitted infections, protecting and supporting vulnerable groups, and mitigating the social and economic impacts of HIV/AIDS. For project sustainability the project proponent will have to closely observe the above policy.

3.5.20 The National Employment Policy, 2008

The major aim of this policy is to promote employment mainly of Tanzania Nationals. Relevant sections of this policy are (i) 10, which lays down strategies for promoting employment and section 10.1 is particularly focusing on industry and trade sectors (ii) 10.6 which deals with employment of special groups i.e. women, youth, persons with disabilities and (iii) 10.8 which deals with the tendencies of private industries to employ expatriates even where there are equally competent nationals.

3.5.21 National Population Policy, 2006

The Policy recognizes the impacts of population growth on natural resources and environment. The policy goal is to prepare and implement coordinated urban, rural and regional development plans for rapid development in the country and to reduce the rate of rural-urban migration.

3.5.22 National Transport Policy, 2003

The main objective of this Policy is to enhance transport systems and promote environmental protection. The mission is to develop safe, reliable, effective, efficient and fully integrated transport infrastructure and operations that was to meet the needs of travel and transport by improving levels of services at lower costs. Ultimately, the development of a reliable transport network should drive human development in a manner that is economically and environmentally sustainable.

3.5.23 National Women and Gender Policy, 2000

The key objective of the Policy is to provide guidelines that will ensure that gender sensitive plans and strategies in all sectors and institutions are developed. While the Policy aims at establishing strategies to eradicate poverty, it emphasizes gender equality and equal opportunity for both men and women to participate in development undertakings and to value the role played by each member of society.

Specifically, this Policy advocates for opportunities for both men and women in projects including construction works and related activities, and for women to be involved at all levels of the project from planning to implementation.

On employment strategies for women, Section 30 of the Policy requires presence of equal employment opportunities between men and women depending on required qualifications at all level. In addition, there should be records of exact number of women and men at levels in order to assist monitoring and follow-ups, less bureaucratic special system in the provision of business licenses especially to women working in the informal sector.

The Client must adopt such an approach during all stages of the implementation of this project that is in line with the aims of this Policy.

3.5.24 The National Research and Development Policy, 2010

These policies focused on the promotion of the private sector as a major contributor to the national economy, singly or through public-private partnership. The increasingly globalized world requires nations to create an enabling environment that will facilitate active participation of the private sector in improving their respective economies.

3.5.25 Education and Training Policy 2014

This Education and Training Policy of 2014 is the result of the revitalization and finally the cancellation of the Education and Training Policy (1995), Policy on Vocational Education and Training (1996), Policy on National Higher Education (1999) and Information Technology Policy and Communication for Primary Education (2007). The vision of this policy is having an educated Tanzanian with knowledge, skills, competencies, abilities and positive attitudes to be able to contribute in bringing about the development of the Nation.

The specific objectives of the Policy are to have:

- System, structures and flexible procedures to enable Tanzanians develop themselves in various ways in academic and professional streams;
- Education and training with quality standards recognized nationally, regionally and internationally;
- Availability of various educational opportunities and training in the country;
- Increase of human resources according to priorities of the Nation;
- Effective management and operation of education and training in the country;
- Sustainable education funding system and training in the country; and
- Education and training system based on issues cross

3.6 Legal Framework

3.6.1 Environmental Management Act, Cap 191

The Environmental Management Act No. 20 of 2004 is the principal legislation governing environmental management in the country. The Environmental Management Act (EMA) recognizes "…the right of every citizen to a clean, safe and healthy environment, and the right of access to environmental resources for recreational, educational, health, spiritual, cultural and economic purposes."

Thus, the EMA "provides a legal framework for coordinating harmonious and conflicting activities by integrating those activities into overall sustainable environmental management systems by providing key technical support to Sector Ministries."

Section 81, subsection 1 in Part VI of the EMA requires a project proponent or developer to undertake an Environmental Impact Assessment (EIA) at his/her own cost prior to commencement or financing of a project or undertaking. The EMA prohibits any development to be initiated without an Environmental Impact Assessment (EIA) Certificate. PO-RALG through undertaking this study complies with the requirement of the law.

Cap 191. Any person who commits an offence against any provision of this Act for which no other penalty is specifically provided for shall, on conviction be liable to a fine of not less than fifty thousand shillings but not exceeding fifty million shillings or to imprisonment for a term of not less than three months but not exceeding seven years or to both.

3.6.2 The Educational Act, (Cap 353) 1995

This Act amended the Education Act, 1978 that establish the Higher Education Accreditation Council, to provide the procedure for accreditation and other related matters. Among other functions, the council accredits higher education institutions; approve admissions into state institutions of higher education, to examine and approve proposals for courses of study and course regulations submitted to it by institutions of higher education; make regulations in respect of admission of persons seeking to enrol in state institutions of higher education and to provide a central admission service to higher education institutions; and make visitations and inspection of higher institutions

3.6.3 Water Resource Management Act, (Cap 272) 2009

The Water Resource Management Act 2009 is a new principal legislation dealing with the protection of water resources and control of water extraction for different uses. According to section 39 (1) of this act, owner or occupier of land on which any activity or process is or was performed or undertaken, or any other situation exists which causes has caused or is likely to cause pollution of a water source, shall take all reasonable measures to prevent any such pollution from occurring, continuing or recurring.

It is stated under section 39 (2) that a Basin Water Board may direct any person who fails to take the measures required under subsection (1) to:

(a) Commence taking measures before a given date;
(b) Diligently continue with those measures; and
(c) Complete the measures before a given date.

Section 40 (1) states that where a person fails to comply or comply inadequately with a directive given under Section 39 (2), the Basin Water Board may take measures as it considers necessary to remedy the situation.

Section 40 (2) provide that a Basin Water Board may recover all reasonable and justifiable costs incurred because of the Board acting under subsection (1) jointly and severally from the following persons:

(a) Any person who is or was responsible for, or who directly or indirectly contributed to, the pollution or the potential pollution.
(b) The owner and or occupier of the land at the time when the pollution or potential for pollution occurred; and
(c) Any person who negligently failed to prevent the activity or process being performed or undertaken or the pollution or potential for pollution occurring.

Section (3) gives that where more than one person is liable in terms of subsection (2), the Basin Water Board shall, at the request of any of those persons, and after giving the opportunity to be heard, apportion the liability, but such apportionment shall not relieve any of them of their joint and several liabilities for the full amount of the costs.

Section (2) provide more that the responsible person, any other person involved in the incident or any person with knowledge of the incident must, as soon as is practicable after obtaining knowledge of the incident, report the incident to the Basin Water Board or any public officer and a responsible person shall:

(a) Take all reasonable measures to contain and minimize the effects of the incident.
(b) Undertake clean-up procedures; and
(c) Take such measures as the Basin Water Board may verbally or in writing direct, and any verbal directions shall be confirmed in writing within fourteen days to have effect under this subsection.

3.6.4 **The Land Act, [Cap. 113 R. E. 2019]**.

The Land Act, provides basic legal requirements in relation to land other than village land (see Village Land Act, 1999 below), the management of land, settlement of disputes and related matters.

The following are some of the main principals of the Land Act:

- To recognize that all land in Tanzania is public land vested in the President as trustee on behalf of all citizens;
- To ensure that existing rights in and recognized long standing occupation or use of land are clarified and secured by the law;
- To facilitate an equitable distribution of and access to land by all citizens;
- To regulate the amount of land that any one person or corporate body may occupy or use;
- To ensure that land is used productively and that any such use complies with the principles of sustainable development;
- To consider that an interest in land has value and that value is taken into consideration in any transaction affecting that interest; and
- To pay full, fair and prompt compensation to any person whose right of occupancy or recognized long-standing occupation or customary use of land is revoked or otherwise interfered with to their detriment by the state under this Act or is acquired under the Land Acquisition Act;

Importantly, provided that in assessing compensation for land acquired in the manner provided for in this Act, the compensation shall be based on the following:

- Market value of the real property;
- Disturbance allowance;
- Transport allowance;
- Loss of profits or accommodation;
- Any other cost, loss or capital expenditure incurred with respect to the development of the subject land; and
- Interest at market rate.

Section 156 of the Act, which applies to non-governmental corporate bodies, institutions or groups of persons, requires compensation to be paid to any person for the use of land of which they are in lawful or actual occupation. These include:

- Any damage suffered in respect of trees, crops, and buildings as result of the creation of a way leave; and
- Damage due to preliminary work undertaken in connection with surveying or determining the route of that way leave.

It is the duty of the Government Department or the Ministry, local or public authority or corporate body that applied for the way leave to pay the compensation.

3.6.5 The Village Land Act, [Cap 114 R. E. 2019]

The Village Land Act, of 2019 provides for the management and administration of land and matters related thereto in specifically villages. The Village Land Act (in addition to the Land Act) have set clear procedures for compensation while acquiring Land from citizens.

3.6.6 Forest Act, (Cap 323) R.E 2022

The Act provides for management of forests and requires carrying out of Environmental Impact Assessment (EIA) for certain development projects. The Act obliges establishment of forest management plan for all types of forest to ensure sustainable management in the long-term. The Act provides for designation of Community Forest Reserves, Mangrove Forest Reserves and encourages community based management.

3.6.7 The Land Acquisition Act [Cap 118 R. E.2019]

The Land Acquisition Act, of 1967 (as amended in 1968) stipulates matters pertaining to compensation under part two division b, Section 11 and Section 12. Section 13 address disputes that might arise due to land acquisition.

3.6.8 The Electricity Act, (Cap 131) 2008

This Act main objective is to provide for the facilitation and regulation of generation, transmission, transformation, distribution, supply and use of electric energy, to provide for cross-border trade in electricity and the planning and regulation of rural electrification and to provide for related matters.

3.6.9 The Local Government (Urban Authorities) Act, [Cap 288 R. E 2002].

The Local Government Acts of 2002 form an important legal basis for rural councils and rural authorities, which were reintroduced in the early 1980 and consist of Act No. 7 relating to District Authorities and Act No.8 relating to Urban Authorities. These Acts establish and regulate district councils, township authorities and village authorities. Important provisions are the subdivision of districts into divisions and wards and the establishment of ward development committees along with procedures for implementation of schemes and programs at ward level.

3.6.10 The Local Government (district Authorities) Act, [Cap 288 R. E. 2002]

Section 118 deals with protection and management of the environment in addition to the First Schedule (Section 118 (4)) of Act No. 7. The District Councils are hereby required to take necessary measures to control soil erosion and desertification; to regulate the use of poisonous and noxious plants, drugs or poisons, regulate and control the number of livestock; maintain forests, manage wildlife, ensure public health, and provide effective solid and liquid refuse management.

If construction commences it will be the Developers responsibility to obtain permission from the District Councils for the disposal of solid and liquid waste. In addition, District council will also oversee and regulate the use and prevent the misuse or waste of, or any interference with, water.

3.6.11 The Occupational Health And Safety Act, Cap 297

The Occupational Health and Safety Act of 2003 deals with the regulation of health, safety, and welfare of workers. Some of the provisions of this Act are relevant to the project. The Act covers economic activities in constructions, agriculture, commerce, and offices. In case of occupational accidents/illness, it is the responsibility of the labour department in the ministry to ensure the victim get compensated by the insurer of the employer. Moreover, the victim may also claim for work-injury benefit should he/she be a member of a social security scheme.

The OSHA is of particular importance for contractors that construct the proposed facility, and they should be aware of their obligations regarding the workforce health and safety measures stipulated in this Act. There are specific Safety procedures and guidelines to be followed by both workers and their respective employers to ensure a Safe and conducive working environment.

3.6.12 Wildlife Conservation Act, Act (Cap 283) R.E 2022 of 2009

The Act provides for the conservation of wildlife and ensures protection, management and sustainable utilization of wildlife resources, habitats, ecosystems and the non-living environment supporting such resources, habitats or ecosystems with actual or potential use or value.

3.6.13 The HIV and AIDS (Prevention and Control) Act, Cap 431

The HIV/AIDS prevention and control Act (Act No. 28/08) Cap 431, calls for prevention, treatment, care, support and control of HIV and AIDS for promotion of public health in general. It also calls for appropriate treatment, care and support by using available resources to people living with or at risk of HIV and AIDS and to provide for related matters.

3.6.14 The Public Health Act Cap: 242, No 1 of 2009

The Act serves as a comprehensive legal framework that addresses a wide range of public health concerns, with the goal of protecting and improving the health and well-being of the population it covers.

The Act also includes provisions for public health education and awareness programs, aiming to promote healthy behaviors and preventive measures among the public. It emphasizes the importance of collaboration between various stakeholders, including healthcare professionals, government bodies, and communities, to achieve optimal public health outcomes.

3.6.15 Industrial and Consumer Chemicals (Management and Control) Act,

Comprehensive legislation on management and control of industrial and consumer chemicals. Divided into 6 parts. Part 1 contains preliminary provisions. Part 2 deals with administration. Part 3 regulates control of production, importation, exportation, transportation, storage and dealing in chemicals. Part 4 provides for management of industrial and consumer chemicals. Part 5 contains financial, and Part 6 miscellaneous provisions.

Provisions for management of industrial and consumer chemicals which are of relevance to APT include

- Labelling and safe handling
- Chemical and chemical waste
- Disposal of chemical wastes

- Prevention and management of accidents
- Decommissioning of plants

3.6.16 The Employment and Labour Relationship Act, (Cap 366) R.E 2009

The act mandates that employers:

- Promote equal opportunity in employment and strive to eliminate discrimination in any employment policy or practice"
- Prohibits direct or indirect discrimination by employers, trade unions and employers' associations on several grounds, including gender, pregnancy, marital status or family responsibility, disability, HIV and AIDS, and age
- Requires employers to take "positive steps" to guarantee women and men the right to a safe and healthy environment.

The project will employ skilled and unskilled labour

3.6.17 The Fire and Rescue Force Act, Cap 427 of 2007

An Act to provide for the better organization, administration, discipline and operation of Fire and Rescue Force, the project will be subjected to fire and rescue act compliance

3.6.18 Water Supply and Sanitation Act No. 5 of 2019:

It has provisions to ensure water quality by protecting water works and storage facilities against pollution. It gives mandate to LGA to enact by-laws of water supply and sanitation.

3.6.19 Disaster Management Act No. 7 of 2015

The Act establishes the Disaster Management Department (DMD), disaster risk management, and coordination mechanism for disaster prevention, mitigation, preparedness, response and recovery. The primary function of DMD is to coordinate of disaster management activities in the country. It seeks to ensure that appropriate response systems, procedures and resources are in place to assist those afflicted in times of disaster. DMD is also in charge to coordinate disaster preparedness efforts and activities in order to minimize the adverse effects of hazards through effective precautionary measures and to ensure timely appropriate and efficient organization and delivery of emergency.

3.6.20 The Land Use Planning Act (2007)

The Act provides for the procedures for preparation, administration and enforcement of land use plans; to repeal the National Land Use Planning Commission and to provide for related matters. Clearly the Act has distinctive authorities of land use planning in Tanzania laid down with their functions and powers. The power vested to authorities which give them teeth to bite is to enforce approved land use plans including taking defaulters to court of law.

Appropriate local Community Societies will plan the project surrounding areas as per the requirement of the Act and regulations.

3.6.21 The Standards Act, Cap 130

This Act aims at the promotion of specifications of commodities and services, re-establish the Tanzania Bureau of Standards (TBS), the designated national standards authority established under the TBS Act 1975 and repealed by this act. TBS is responsible for developing all kinds of national standards, including environmental standards.

The Standards Act has established National Environmental Standards Compendium (NESC) which is a collection of various standards prepared at different times and recognized by EMA 2004. NESC is divided into three parts. Part 1 comprises of standards that require compulsory compliance. Compulsory standards are categorized as generic or specific. Specific standards cover those industries with peculiar effects to the environment while other industries without a specific standard for Tolerance Limits of Emissions discharge including water quality, discharge of effluent into water, air quality, control of noise and vibration pollution, sub-sonic vibrations, soil quality, control of noxious smells, light pollution, and electromagnetic waves and microwaves

Part 2 of NESC contains those standards that may be implemented on voluntary basis. These include guideline standards, codes of practice, and other such standards that may not necessarily be directly enforced, but whose results are implied in some legal requirements. One of such standards include the Environmental Management Systems (EMS) standards, like TZS 701/ISO 14001 whose compliance specifications include the relevant legal requirements. Part 2 thus has important requirements for companies and developers who wish to demonstrate their commitment to sustainable development by way of self-regulation mechanism. On the other hand, some companies or developers may be compelled to follow these standards because of requirements from mother companies and for other various reasons like certification requirements by environment friendly banks or tenders. Part 2 also includes standards used in evaluating environmental performance.

Part 3 has the requisite test methods that should be followed when testing for compliance. The test methods included are referred to in at least one of the specification standards appearing under Part 1. Although it is not stated in the Act, in the absence of national standards, project proponents are encouraged to use international standards such as those of the World Health Organisation (WHO), World Bank, British Standards (BS), European Union (EU), American Public Health Association (APHA), United States Environmental Protection Agency (US EPA) etc. Standards set by the relevant sectors, which also make use of the international standards, are also applicable. Such standards include the environmental standards set under the Mining (Environmental Management and Control) Regulations, 1999. Relevant national environmental standards include:

- TZS 860: 2005 Municipal and Industrial Wastewaters – General Tolerance Limits for Municipal and Industrial Wastewaters: This standard provides permissible limits of important environmental parameters such as BOD, COD, pH, colour, temperature range, total suspended solids and turbidity. It also gives permissible limits of a range of inorganic and organic components. All effluents discharged from the project will need to comply with these specifications.

- TZS 845:2005 Air Quality – Specification: This standard gives permissible emission limits of sulphur oxides, carbon monoxide, hydrocarbons (as total organic carbon), dust, nitrogen oxides and lead. The emissions from earth moving equipment, power generation plant and other will include SO_2, CO, dust and NO_x; as such the project will have to observe these limits.

- TZS 983:2007 Air Quality - Vehicular Exhaust Emissions Limits: This standard is mainly derived from EU Directives 96/69/EC, 91/542/EEC and 97/24/EC. This Tanzania Standard gives permissible limits of some common substances found in exhaust emissions of motor vehicles, namely carbon monoxides, suspended particulate matter (PM), oxides of nitrogen, and

hydrocarbons. The standard covers all types of vehicles namely, passenger cars, light commercial vehicles, heavy-duty vehicles, and two and four strokes motorcycles and scooters. In order to carry out quarrying activities and processing operations, the project will operate a fleet of heavy duty and light vehicles in addition to hiring other vehicular equipment. As such, the project will need to observe the provisions of these standards.

- TZS 932:2006: Acoustics - General Tolerance Limits for Environmental Noise: This standard focuses on urban environmental noise, and does not cover occupation environment. In the absence of other standards, it may be used to give indication of permissible noise levels in factory/workshop environment.

- TZS 789:2003 - Drinking (potable) water – Specification: This standard prescribes the quality requirements for drinking water other than packaged drinking water. It does not cover the requirements for natural mineral water. It prescribes the quality requirements for drinking water distributed in the food industry, domestic and catering purposes. It applies to bacteriological, biological, virological, physical, chemical and radiological quality criteria. It is intended also to community piped water supplies i.e. those water systems serving cities, municipalities and townships, community standpipes and wells and drinking water distributed by tankers.

3.6.22 The Law of the child act, cap 13 R.E 2019

This act aims to protect and promote the rights and welfare of children in Tanzania. By establishing a girls' secondary school, the project contributes directly to the realization of the act's objectives.

The National Child Act recognizes the importance of education in the development of children. The construction of a girls' secondary school aligns with this principle by providing a safe and conducive learning environment specifically tailored to the needs of girls. It ensures that girls in the Kilimanjaro region have access to quality education, empowering them to achieve their full potential.

Furthermore, the act emphasizes the elimination of gender disparities and discrimination against girls. The project addresses this objective by focusing on girls' education, bridging the gender gap and promoting gender equality. By providing equal opportunities for education, the construction of the school contributes to breaking down barriers and creating a more inclusive society.

Additionally, the National Child Act emphasizes the protection of children's rights, including their right to safety, health, and well-being. The construction of a dedicated girls' secondary school ensures that girls have a secure and protected learning environment. It takes into account the specific needs and vulnerabilities of girls, creating a space where they can thrive academically, socially, and emotionally.

The project involving the construction of a girls' secondary school in the Kilimanjaro region aligns with the National Child Act, Cap. 13 R.E of 2019. It promotes the rights and welfare of children by providing quality education, addressing gender disparities, and ensuring the safety and well-being of girls. By implementing this project, Tanzania takes a significant step towards realizing the objectives set forth in the National Child Act.

3.6.23 The Contractors Registration Act, Cap 235

This act governs the registration and regulation of contractors in Tanzania. The project, being a construction endeavor, falls within the purview of this act, and adherence to its provisions is crucial for the successful

execution of the project, The Act mandates that all contractors involved in public construction projects must be registered and licensed.

This requirement ensures that qualified and competent contractors undertake the construction work. When implementing the project to build a girls' secondary school, it is essential to engage contractors who are duly registered under the act. This ensures that the construction work is carried out by professionals who meet the necessary standards, thereby enhancing the quality and safety of the school's infrastructure.

3.6.24 The Workers Compensation Act, Cap 263

The Act requires employers to provide compensation and benefits to workers who suffer injuries or occupational diseases arising from their employment. This act provides a legal framework for compensating workers in the event of work-related injuries or illnesses. As the construction project involves employing workers, it is essential to consider the provisions of the Workers Compensation Act to ensure the welfare and protection of the workforce.

Compliance with this act ensures that the project team prioritizes worker safety, provides appropriate insurance coverage, and follows the procedures for reporting and compensating work-related injuries or illnesses. By incorporating the provisions of the act into the project, the welfare and rights of the workers are protected, promoting a safe and secure working environment.

3.6.25 The Persons with Disabilities Act, Cap 183

This legislation aims to promote inclusivity and equal opportunities for individuals with disabilities in Tanzania, in implementing this project it becomes crucial to consider the accessibility and accommodation needs of students and staff with disabilities.

The Act ensures that the school's design and infrastructure comply with accessibility standards, providing features like ramps, handrails, wheelchair-accessible entrances, and appropriate restroom facilities. Moreover, the Act mandates the provision of special educational services, assistive devices, and reasonable accommodations for students with disabilities, allowing them to fully participate in the educational experience.

The project should comply with the principles of the Persons With Disabilities Act into the construction of the girls' secondary school in order to promote inclusivity, enables equal access to education, and fosters a supportive environment for all students, including those with disabilities.

3.6.26 The Occupier Liability Act, Cap 64

The Occupier Liability Act establishes the legal framework for determining the duty of care that an occupier owes to individuals who enter their premises. In the context of the school construction project, the act would be relevant in establishing the liability and responsibility of the parties involved in ensuring the safety of the premises.

Under the Occupier Liability Act, the organization or individuals responsible for the construction project would be considered occupiers of the premises during the construction phase. As occupiers, they have a legal duty to ensure that the construction site is reasonably safe for anyone who enters or may be affected by it. This includes the duty to take appropriate measures to prevent potential hazards, provide warnings where necessary, and maintain proper safety standards.

SEQUIP aligns with the Occupier Liability Act, Cap 64, as it emphasizes the legal responsibility of the occupiers to ensure the safety of the premises during construction and operation. Adhering to the provisions of the act will help mitigate risks and safeguard the well-being of all individuals associated with the school

Once the project is completed and operational, the act will continue to be applicable. The school administration will become the occupiers of the premises, and they will have a duty of care towards the students, staff, and visitors. This duty involves maintaining the premises in a safe condition, addressing any potential hazards promptly, and implementing necessary safety protocols.

3.7 National Regulations

3.7.1 Environmental Impact Assessment and Audit Regulations, 2005 amended in 2018

The EIA process is described under the Environmental Impact Assessment and Audit Regulations No. 349 of 2005 ('the EIA Regulations') promulgated in terms of the EMA Sections 82(1) and 230(2) (h) and (q). The objectives of the NEMC are to undertake the enforcement, compliance, review and monitoring of EIA in terms of the EMA, including the facilitation of the public participation process in environmental decision-making.

The regulations provide the basis for undertaking EIAs and Environmental Audits for various activities, which require mandatory EIAs, but also activities that require registration and may or may not require EIA. Part three of the EIA and Audit Regulation, deals with project registration and screening procedures, part four deals with the EIA and part five deals with the Environmental Impacts Statement. If the EIA is found to be satisfactory and the residual environmental impacts of the proposed project acceptable according to part six of the EIA and Audit regulations, NEMC recommends the Minister for Environment to issue an Environmental Certificate for the Project as annotated in part 7 of the EIA and Audit regulations.

Referring to Environmental Management Act (EMA) 2004, and the first schedule of The Environmental Management (Environmental Impact Assessment and Audit) (Amendment) Regulations (United Republic of Tanzania, 2018) which details types of projects requiring and not requiring EIA, this project falls in Type A which are requiring a mandatory EIA.

Type A Projects are likely to have significant adverse environmental impacts and that in-depth study is required to determine the scale, extent and significance of the impacts and to identify appropriate mitigation.

It should be noted that this assessment will also include a substantial social component and therefore is termed an Environmental and Social Impact Assessment (ESIA). The EMA guides environmental management and is administrated by the National Environmental Advisory Committee, the Directorate of Environment and the NEMC. At the end of the ESIA process an environmental impact statement (EIS) is produced in accordance with the requirements of section 86 of the EMA and Part IV of the EIA Regulations. The Ministers decision regarding the project was informed by NEMC's recommendations based on the information emerging from this Environmental and Social Impact Assessment (ESIA) process and EIS provided in the final ESIA report

3.7.2 The Environmental Management (Hazardous Waste Control and Management) Regulations 2021

These regulations are specifically designed to control and manage hazardous waste to protect human health and the environment, The regulations require adherence to proper handling, storage, transportation, treatment, and disposal methods for hazardous materials such as chemicals, paints, solvents, and other potentially harmful substances.

The regulations promotes the responsible management of hazardous waste, including the use of eco-friendly alternatives, proper labeling and storage, and appropriate training for staff involved in handling these materials.

Contractor should comply with the regulations to ensure the implementation of appropriate measures to prevent pollution, minimize risks to human health, and safeguard the local ecosystem which will contributes to a safe and sustainable educational environment.

3.7.3 Environmental Management (Solid Waste Management) Regulation, 2009 Amended 2016

These regulations aim to establish guidelines for the effective management and disposal of solid waste to protect public health and the environment.

The regulations emphasize the adoption of sustainable waste management practices, including waste reduction, recycling, and proper disposal methods. The project should incorporate waste management infrastructure such as waste bins, recycling facilities, and composting areas within the school premises.

It also necessitates raising awareness among students, staff, and the community about the importance of responsible waste disposal and the benefits of recycling.

The contractor and PIT must comply with the regulations so as to promote a clean and healthy environment, reduces environmental pollution, and encourages a culture of waste reduction and recycling.

3.7.4 The Environmental Management (Control and Management of Electrical and Electronic Equipment Waste) Regulations, 2021

These regulations are put in place to address the proper handling, disposal, and management of electrical and electronic waste (e-waste) to protect the environment and public health.

The regulations require adherence to environmentally responsible practices, including the proper disposal and recycling of electrical and electronic equipment. This ensures that any obsolete or damaged equipment, such as computers, printers, and other electronic devices, is managed in an environmentally friendly manner, minimizing the negative impact on the ecosystem.

Contractor should comply with regulations to ensure that the project promotes sustainable practices, reduces e-waste pollution, and contributes to the overall environmental well-being.

3.7.5 The Fire and Rescue Force (Fire Precautions in Buildings) Regulations, 2015

These regulations are designed to ensure the safety of occupants in buildings by establishing fire safety measures and standards. In the context of the school project, adherence to these regulations becomes imperative to create a secure learning environment.

The construction process must incorporate fire safety features such as fire-resistant materials, adequate emergency exits, fire alarm systems, and fire extinguishers in strategic locations throughout the school building, also the regulations emphasize the need for proper fire escape routes, clear signage, and training on evacuation procedures for students and staff.

Contractor should comply with the requirements and be equipped with the necessary fire safety measures, reducing the risk of fire-related incidents and safeguarding the well-being of all occupants.

3.7.6 The Fire and Rescue Force (Safety Inspection and Certificates) Regulations, 2008 As Amended In 2017

These regulations establish the legal framework for ensuring fire safety standards in buildings, including educational institutions, According to the regulations, a safety inspection must be conducted during the construction phase to assess compliance with fire safety standards.

This inspection verifies that the building materials, electrical systems, fire protection measures, and emergency exits meet the required safety codes. The project management team and contractors must ensure that all construction activities adhere to these regulations to minimize the risk of fire incidents.

Upon completion of the construction, the school will need to obtain a fire safety certificate, which is issued after a final inspection by the Fire and Rescue Force. This certificate serves as confirmation that the school's premises comply with the necessary fire safety standards and have adequate fire prevention and protection measures in place. It signifies that the building is safe for occupancy and that appropriate fire safety protocols have been implemented.

The regulations also require periodic inspections and renewal of the fire safety certificate to ensure ongoing compliance with fire safety standards. The school administration will be responsible for regularly reviewing and updating their fire safety measures to maintain a safe environment for students, staff, and visitors.

Contractor and PIT should comply with these regulations ensures that the construction and operation of the school prioritize fire safety and provide a secure environment for all occupants.
Regenerate response.

3.7.7 Other Environmental Regulations

Other environmental regulations, which are enshrining environmental standards and crucial for implementation of environmental management plans, include:

- Environmental Management (Air Quality Standards) Regulation, 2007: gives permissible emission limits of sulphur oxides, carbon monoxide, hydrocarbons (as total organic carbon), dust, nitrogen oxides and lead. The standard is used as criteria in evaluation of impact significance
- Environmental Management (Soil Quality Standards) Regulation, 2007;
- Environmental Management (Water Quality Standards) Regulation, 2007; provides general tolerance limits for municipal/industrial wastewaters.
- Environmental Management (Control of Ozone Depleting Substances) Regulation, 2007;
- Environmental Management (Biosafety) Regulation, 2009;
- Environmental Management (Hazardous Waste Management) Regulation, 2009;
- Environmental Management (Solid Waste Management) Regulation, 2009; and
- Environmental Management (Quality Standards for Controlling ds Pollution) Regulation, 2007: focuses on urban environmental noise, and does not cover occupation environment. In the absence of other standards it may be used to give indication of permissible noise levels in factory/workshop environment.

3.8 International Agreements, Conventions and Treaties

Tanzania has ratified or acceded to a large number of international treaties and conventions. Among those the following are relevant to the project.

3.8.1 UNFCCC/Kyoto Protocol

The Kyoto Protocol is an international treaty, which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits parties to reduce greenhouse gases emissions, based on the premise that

(a) Global warming exists; and
(b) Man-made CO_2 emissions have caused it.

Tanzania has implemented the UNFCCC since 1996 and has been undertaking climate change studies (implemented by the Division of Environment under the Vice President's Office) since 1992. Tanzania recognized the need for greater awareness of climate change and stated that a comprehensive awareness programme was planned.

The main challenge facing the country is a need to balance accelerated economic growth with a more efficient management of the environment and use of natural resources to ensure sustainability and address the climate change issue. In 2007 the Tanzania Vice President's Office, Division of Environment, produced the National Adaptation Programme of Action (NAPA).

3.8.2 The 1991 Bamako Convention

On the ban of the Import in Africa and Control of Trans boundary Movement and Management of Hazardous wastes within Africa was ratified in 1993.

3.8.3 The 1989 Basel Convention

On Control of Trans-Boundary Movements of Hazardous Wastes and their Disposal. The project shall adhere to both Bamako and Basel conventions to ensure that the ships do not bring into the country hazardous wastes by strictly abiding to the cargo declaration formalities.

3.8.4 1996 Convention on Biological Diversity,

Developer must cooperate with other related contracting parties for the conservation and sustainable use of biological diversity. Article 14 of the Convention concerns impact assessments and minimizing adverse impacts.

3.8.5 ILO Minimum Age Convention (C138), 1973.

The Convention is concerned with minimum age for admission to employment. The minimum age stated in Article 2 (3) of the Convention is not less than 15 years or 18 years' dependent on the nature of the work. The Convention prohibits child labor with a view to achieving the total abolition of child labour worldwide. Members of the Convention are committed to pursuing national policies that have been designed to ensure effective abolition of child labour and to increase progressively the minimum age for admission to employment or work to a level consistent with the fullest physical and mental development of young persons. During construction and implementation of SEQUIP project the Contractor will abide by the provisions of this Convention.

3.8.6 Convention against Discrimination in Education (1960) ratified by United Republic of Tanzania in 1978-12-08

Article 2 (a) of convention stated the establishment or maintenance of separate educational systems or institutions for pupils of the two sexes, if these systems or institutions offer equivalent access to education, provide a teaching staff with qualifications of the same standard as well as school premises and equipment of the same quality, and afford the opportunity to take the same or equivalent courses of study.

3.8.7 International Covenant on Economic, Social and Cultural Rights, 1966

Article 13 (2)(a) of this convention emphasizes that ”Primary education shall be compulsory and available free to all; and (2)(b) Secondary education in its different forms, including technical and vocational secondary education, shall be made generally available and accessible to all by every appropriate means, and in particular by the progressive introduction of free education”.

3.8.8 Universal Declaration of Human Rights, 1948

Article 26 of this declaration states that “Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit”.

3.8.9 Convention on the Rights of the Child, 1989

The Convention recognize the right of the child to education and with a view to achieving this right progressively and on the basis of equal opportunity. Where in Article 28(1) (a) of the convention stated that “Make primary education compulsory and available free to all”.

Also this convention emphasizes in international cooperation in education sector stated in Article 28 (3) promote and encourage international cooperation in matters relating to education, in particular with a view to contributing to the elimination of ignorance and illiteracy throughout the world and facilitating access to scientific and technical knowledge and modern teaching methods.

3.8.10 Convention on the Rights of Persons with Disabilities, 2006

Article 28 (2) (a) of the convention emphasizes the right of persons with disabilities to education which stated “Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability”.

3.9 World Bank Environmental and Social Framework

3.9.1 World Bank Environmental and Social Standards

The World Bank’s Environmental and Social Framework sets out the Bank’s commitment to sustainable development, through a Bank Policy and a set of Environmental and Social standards that are designed to support Borrowers’ projects, with the aim of ending extreme poverty and promoting shared prosperity.

The E&S Framework comprises of: (1) Vision for Sustainable Development, which sets out the Bank’s aspirations regarding environmental and social sustainability; (2) The World Bank Environmental and Social Policy for Investment Project Financing, which sets out the mandatory requirements that apply to the Bank; and (3) The Environmental and Social Standards, together with their Annexes, which set out the mandatory requirements that apply to the Borrower and projects.

The World Bank Environmental and Social Policy for Investment Project Financing sets out the requirements that the Bank must follow regarding projects it supports through Investment Project Financing. The Environmental and Social Standards set out the requirements for Borrowers relating to the identification and

assessment of environmental and social risks and impacts and mitigation measures associated with projects supported by the Bank through Investment Project Financing.

The E&S standards are expected to: (a) support Borrowers in achieving good international practice relating to environmental and social sustainability, (b) assist Borrowers in fulfilling their national and international environmental and social obligations; (c) enhance non-discrimination, transparency, participation, accountability and governance; and (d) enhance the sustainable development outcomes of projects through ongoing stakeholder engagement.

The ten ESSs as per the WB ESF are: ESS 1: Assessment and Management of Environmental and Social Risks and Impacts; ESS 2: Labor and Working Conditions; ESS 3: Resource Efficiency and Pollution Prevention and Management; ESS 4: Community Health and Safety; ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement; ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities; ESS 8: Cultural Heritage; ESS 9: Financial Intermediaries; and ESS 10: Stakeholder Engagement and Information Disclosure. Given the nature of activities of this project, with the exception of ESS 9: Financial Intermediaries almost all the ESSs will be relevant.

3.9.2 Project Classification According to the World Bank ESF

According to the WB ESF, The Bank will classify all projects (including projects involving Financial Intermediaries (FIs)) into one of four classifications: **High Risk, Substantial Risk, Moderate Risk or Low Risk.** In determining the appropriate risk classification, the Bank takes into account relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential environmental and social risks and impacts; and the capacity and commitment of the Borrower (including any other entity responsible for the implementation of the project) to manage the environmental and social risks and impacts in a manner consistent with the ESSs.

Other areas of risk may also be relevant to the delivery of environmental and social mitigation measures and outcomes, depending on the specific project and the context in which it is being developed. These could include legal and institutional considerations; the nature of the mitigation and technology being proposed; governance structures and legislation; and considerations relating to stability, conflict or security. The Bank will disclose the project's classification and the basis for that classification on the Bank's website and in project documents.

The Bank will review the risk classification assigned to the project on a regular basis, including during implementation, and will change the classification where necessary, to ensure that it continues to be appropriate. Any change to the classification will be disclosed on the Bank's website.

3.9.3 Other World Bank Instruments

Table 3-1 summarizes the Environmental and Social Standards (ESSs) that project entities responsible for the project implementation will apply during entire project cycle.

Table 3-1: World Bank Environmental and Social Standards (ESS) Applicable to Project and Associated Instruments

S/N	Instrument for project implementation	The Environmental and Social Standards (ESS)	Purpose/Objectives	Reason for its Application in the Project
1.	Environmental and Social Management Framework (ESMF)	**ESS1**: Assessment and Management of Environmental and Social Risks and Impacts	Identification of adverse impacts and respective mitigation measures Enable screen and follow-up of remedies achieved through application of prevention, mitigation and compensation measures Enable allocation of responsibilities and resources to implement required mitigation measures	Sets out the Region's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing (IPF), in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs).
2		**ESS2:** Labour and Working Conditions	Ensure the healthy and safe working environment during projects implementation. Ensure the provision of fair working conditions.	Recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Developer can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions.
3		ESS3: Resource Efficiency and Pollution Prevention and Management	To promote the sustainable use of resources including energy, water and raw materials. To avoid or minimize generation of hazardous and non-hazardous wastes.	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 project life cycle.
4		ESS4: Community Health and Safety	To manage potential risks to the community during construction and operation of school infrastructures.	Addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of the developer to avoid or minimize such risks and impacts, with particular attention to people who, because of their circumstances, may be vulnerable

S/N	Instrument for project implementation	The Environmental and Social Standards (ESS)	Purpose/Objectives	Reason for its Application in the Project
5	Resettlement Policy Framework (RPF)	ESS5: Land Acquisition, Restriction on Land Use and Involuntary Resettlement	To promote good environmental and social management practices in the subprojects the FI finances. To avoid or minimize involuntary resettlement and to avoid forced eviction To mitigate unavoidable adverse impacts from land acquisition and restrictions on land use.	Involuntary resettlement should be avoided. Where involuntary resettlement is unavoidable, it was minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) was carefully planned and implemented.
6		ESS6: Biodiversity Conservation and Sustainable Management of Living Resources	The SEQUIP project will avoid adverse impacts on biodiversity, habitats and ecosystem services. When avoidance of adverse impacts is not possible, the Borrower will implement measures to minimize adverse impacts and restore biodiversity in accordance with the mitigation hierarchy provided in ESS1 and with the requirements of the ESS6.	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 project-affected parties, including Indigenous Peoples, who's access to, or use of, biodiversity or living natural resources may be affected by implementation of the project.
7		ESS 7: Sub-Saharan Historically Underserved Traditional Local Communities	To enable VGs to participate in project activities while taking care of their sociocultural interests and hindrances	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 projects 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.

S/N	Instrument for project implementation	The Environmental and Social Standards (ESS)	Purpose/Objectives	Reason for its Application in the Project
8		ESS8: Cultural Heritage	To enhance conservation of cultural heritage in both forms; tangible and intangible cultural heritage. To conserve ecological and socially sensitive places from possible impacts of project implementation.	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 project life cycle.
9		ESS9: Financial Intermediaries	To set out how the FI will assess and manage environmental and social risks and impacts associated with the subprojects it finances	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 subprojects, 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.
10	Stakeholder Engagement Plan	ESS10: Stakeholder Engagement and Information Disclosure	To develop a systematic approach to stakeholder engagement to develop good relationships and gather their views on issues that could affect them. To provide stakeholders with a mechanisms through which to raise grievances.	Recognizes the importance of open and transparent engagement between developer and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

3.10 Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) are a set of global goals for fair and sustainable health at every level from planetary biosphere to local community.

The aim is to end poverty, protect the planet and ensure that all people enjoy peace and prosperity, now and in the future. Table 3-2 shows the Sustainable development goals which are relevant to this project

Table 3-2: Sustainable Development Goals (SDGs)

Goal	Target
Goal 1: End poverty in all its form everywhere	Target 1.1 By 2030, eradicate extremely poverty to all people everywhere, currently measured as people living on less than $ 1.25 a day Target 1.4 By 2030, ensure that all women and men, in a particular the poor and the vulnerable have equal rights to economic resources, as well as access to basic services, ownership and control over land and other form of property, inheritance natural resources, appropriate new technology and financial services include microfinance
Goal 3: Ensure health lives and promote for all at all stage	Target 3.5. Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunity for all	Target 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes Target 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
Goal 5 : Achieve gender equality and empower all women and girls	Target 5.1 End all forms of discrimination against all women and girls everywhere Target 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
Goal 6: Ensure access to water and sanitation to all	Target 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all Target 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.	Target 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
Goal 13: Take urgent to combat climate change and its impact	Target 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

Goal	Target
	Target 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Goal 14: Conserve and sustainably use of oceans, seas and marine resources	Target 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
Goal 15: Sustainable manage forest, combat, desertification, halt reserve land degradation, halt biodiversity loss	Target 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally Target 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

3.11 Institutional Framework

Authorities, institutions and sectors directly or indirectly related to the project development have been identified geographically by political boundaries as well as through regulations, institutional mandates and structures. These entities are adequately consulted in the ESIA process as prescribed through the institutional framework for environmental management.

The relevant institution for handling EIA requirements is the NEMC with input from the District Environment Management Committees; Ward Committees and Street Committees.
According to the EMA of 2004 the institutional set-up for environmental management from a national level to village level includes:

- Minister Responsible for Environment;
- Director of Environment (DOE);
- National Environmental Management Council (NEMC);
- Sector Ministries;
- Regional Secretariats;
- Local Government Authorities, District, and Town Councils;
- Township, Village, Ward; Neighborhood (Kitongoji); and
- Street (Mtaa).

The DOE and NEMC are the main regulatory bodies for environmental management in Tanzania whilst the other sector ministries and agencies, play an important role in implementing and enforcing environmental decree. The environmental management functions of each institution are outlined in the Environmental Management Act.

3.11.1 Minister Responsible for Environment

The Minister is overall responsible for matters relating to environment and in that respect be responsible for articulation of policy guidelines necessary for the promotion, protection and sustainable management of environment in Tanzania.

The Minister may issue general guidelines to the Sector Ministries, Government Departments, the Council, National Environment Advisory Committee, City, Municipal or District Environmental Management

Committee, agency or any other public or private institution necessary for the purposes of implementation of or giving effect to the provisions of EMA.

The Minister may designate and shall, where appropriate, direct any of the before mentioned institutions and within specified time, to perform any function or do any activity or desist from performing any function or doing any activity as a result of which the environment or part of it is or may be seriously endangered or detrimentally affected.

3.11.2 Director of Environment (DOE)

The DOE heads the Office of the Division (Directorate) of Environment under the Office of the Vice President and is responsible for coordination, monitoring and assessment of various environmental activities.

The DOE is responsible to coordinate various environment management activities being undertaken by other agencies and promote the integration of environment considerations into development policies, plans, programs, strategies, projects and undertake strategic environmental assessment with a view to ensuring the proper management and rational utilization of environmental resources on a sustainable basis for the improvement of the quality of human life in Tanzania.

3.11.3 National Environment Management Council (NEMC)

The object and purpose for which the Council is established is to undertake enforcement, compliance, review and monitoring of environmental impact assessment and in that regard, shall facilitate public participation in environmental decision making, exercise general supervision and coordination over all matters relating to the environment assigned to the Council, under the EMA or any other written law.

The Director General of NEMC is appointed by the President. The Council and the Board of Directors consist of:

- A Chairperson appointed by the President;
- The Director of Environment;
- Seven members appointed by the Minister; and
- The Secretary to the Council (Director General).

3.11.4 Sector Ministries

An environmental sector sits within each Ministry. The duties of the sector include:

- Responsibility for ensuring compliance by the sector Ministry with the requirements of this Act;
- Responsibility for ensuring all environmental matters contained in other written law falling under sector ministry are implemented and report of their implementation is submitted to the Director of Environment; and
- Liaising with the Director of Environment and the Council on matters involving environment and all matters with respect to which cooperation or shared responsibility is desirable or required under this Act.

3.11.5 Regional Secretariats

The Regional Secretariat is responsible for co-ordination of all advice on environmental management in their respective regions and liaison with the Director of Environment and the Director- General on the

implementation and enforcement of this Act. The Regional Secretariats are headed by a Regional Environment Management Expert.

The expert is responsible for advising the local authorities on matters related to the implementation and enforcement of the EMA. Furthermore, the expert links the region with the Director of Environment and Director General of NEMC.

3.11.6 Local Government Authorities

A local government Environmental Management Officers are designated or appointed at each City, Municipal, District and Town Council. The responsibilities of the Environmental Management Officers among others, include:

- Ensuring enforcement of EMA;
- Advising the Environment Management Committee on all matters relating to environment;
- Promoting environmental awareness relating to protection of the environment and the conservation of natural resources;
- Gathering and managing information on the environment and the utilization of natural resources;
- Preparing periodic reports on the state of the environment;
- The preparation, review and approval of environmental impact assessments for local investment by-laws on environmental management and on sector specific activities related to environment; and reporting to the Director of Environment and the Director General on the implementation of the EMA.
- The Environment Management Committee is responsible for functions set out under the Local Government Act. In addition, they perform functions as prescribed by the EMA and they may be assigned by the Minister to carry out directives related to the promotion and enhancement of sustainable management of the environment.

The Township Environment Management Committees are responsible for:
The proper management of the environment in respect of the area in which they are established;

- Performing duties as assigned under EMA or by the Minister or Council;
- Carrying out directives given by the Minister to promote and enhance sustainable management of the environment; and
- Performing any functions as set out under the Local Government (District) Authorities Act.

3.11.7 Ward/Mtaa/Kitongoji Level

The District Council designates an Environment Management Officer for each administrative area of a township, ward, village, kitongoji (neighborhood/hamlet) and mtaa (street). The Environmental Management Officers are responsible for coordinating all functions and activities related to the protection of environment within their designated areas.

4 BASELINE CONDITIONS

4.1 Introduction

The purpose of this Chapter is to provide a brief description of the environment in the project site which could potentially be affected by positive and negative impacts of the project discussed in Chapter 2. Impacts of lesser importance were screened out during scoping phase to ensure that the ESIA is focused on the potentially significant impacts.

The process of environmental baseline investigations included the combination of some/all the following tasks:

- An appropriate combination and balance of desktop studies, field surveys, site information collection and technical consultation.
- Consideration of all available documentary records, research papers and other relevant information.
- Use of recognized survey and analysis techniques.
- Identification and provision of appropriate (preferably quantitative) descriptions of the baseline environmental conditions.
- Identification of key environmental features that may enhance, constrain, or limit the direction and rate of environmental change.
- Explanation of links, interactions, and dependencies between environmental components.
- Verification of desktop and other information by systematic field surveys.
- Acknowledgement of the implications of gaps and limitations in information and data.

4.2 Project Core Area and Accessibility

This project will be implemented in Kilimanjaro region, Siha District in Gararagua ward, Mawasiliano village. Kilimanjaro Region is one of Tanzania's 31 administrative regions. The regional capital and largest city is the municipality of Moshi. With a HDI of 0.613, Kilimanjaro is one among the most developed regions of Tanzania.

The region forms part of the Northern Tourism Circuit in Tanzania. It is home to the Kilimanjaro National Park (which contains Mount Kilimanjaro). Kilimanjaro Region is divided into one city and seven districts, each administered by a council, except Moshi District which has two, one of which serves as the capital of the region.

Siha District is one of the seven administrative districts of Kilimanjaro Region. The district covers approximately 1,217 square kilometers (470 sq. mi). It is bordered to the west by Meru District in Arusha Region and to the northeast by Rombo District and the southeast Hai District. The western part of Mount Kilimanjaro is located within the district's boundaries.

According to the 2012 Tanzania National Census, the population of Siha District was 116,313

4.3 General Conditions

4.3.1 Current Uses and Activities at the Proposed Project Site

The proposed land site is located in Gararagua village which was originally owned by NARCO until 2013, when it was transferred to the village council, who then gave it to the government for construction of the proposed school

4.4 Socio-Eeconomic Baseline

4.4.1 Background

A development envelope (Area of Interest - AOI) is situated at Mawasiliano Village, Gararagua Ward, Siha District, and Kilimanjaro Region. Details of the study area for the Social Impact Assessment (SIA) is in Table 4-1. The Siha District Council was officially established on 01.07.2007 by law No. 7 of 1982.

It is one of the Six Districts of Kilimanjaro Region, the other districts are Rombo, Same, Mwanga, Hai and Moshi. Siha district has one electoral district, 5 divisions are Siha West, Siha Central, Siha East, Siha South and Siha North. The district also has 17 Wards, 60 Villages and 169 Townships.

Table 4-1: Study Areas for the SIA

Study Area	Definition	Areas included for this project
Site-specific study area	Area likely to experience impacts associated with project infrastructure and activities	The project footprint, excluding the access roads, drainage system line etc.
Local study area	Areas likely to experience impacts related to population influx, etc.	The neighboring settlements in Gararagua and Mawasiliano Village
Regional study area	Area likely to experience economic impacts of the project	Siha (since most of the development envelope falls within this district). This is set against the backdrop of Kilimanjaro Region and Tanzania as a whole

4.4.2 Administrative Set up

Siha District Council is the one of District of Kilimanjaro Region and The District of Siha has been created for Administration starting from the central government level, the Office of the District Head and the District Council.

On the part of the Council, the administration is organized starting from the council of councilors, the Executive Director, Heads of Departments and Units, Officers and other government employees from the level of the Headquarters to the existing staff at the level of Villages and Wards.

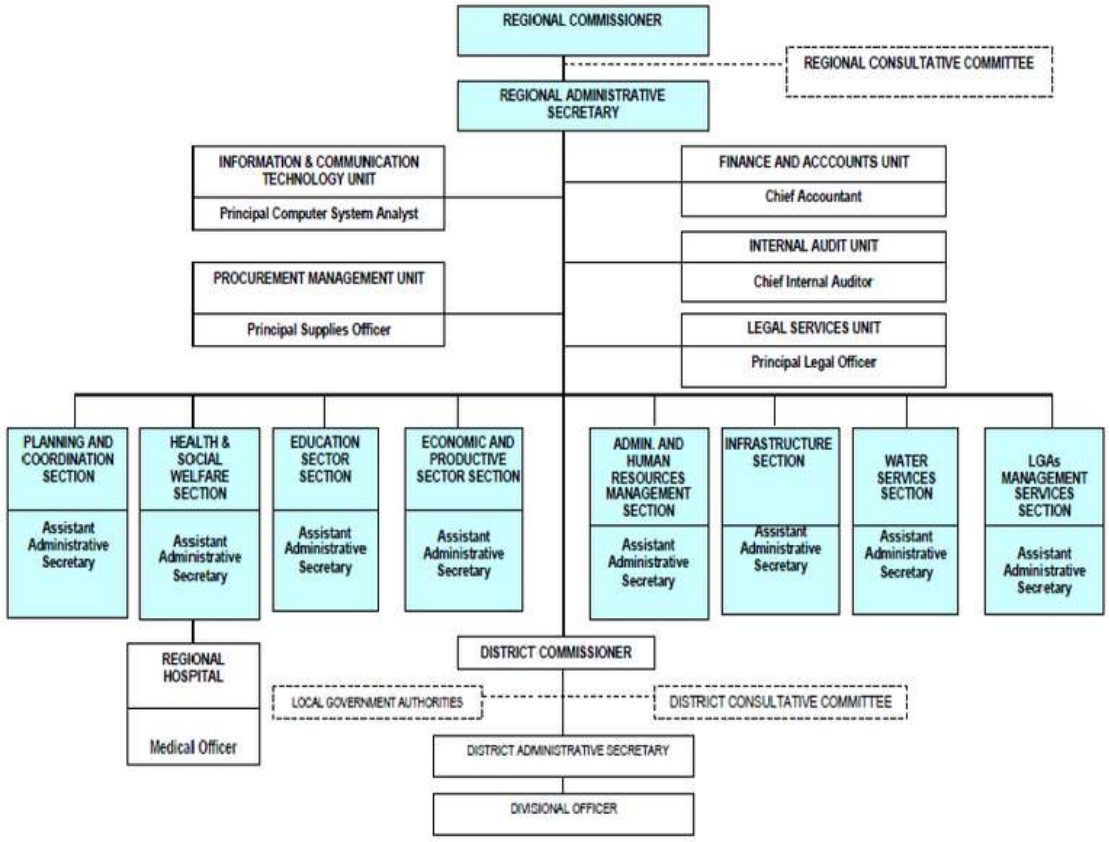


Figure 4-1: Kilimanjaro Region Organization Structure (Source: Kilimanjaro Socio economic profile, 2022)

4.4.3 Demographic Condition

The Proposed school is the Regional school in Kilimanjaro with that respect the population of Kilimanjaro will Siha District has a population of 139,019 people, with 67,293 men and 71,726 women. The table below displays the total population of Ward according to the 2022 census. be affected accordingly. In accordance of Tanzania National Census of 2022, Kilimanjaro has the Population of 1,861,934 while 907,636 people are Male and 954,298 people are Female.
Siha District has a population of 139,019 people, with 67,293 male and 71,726 female. The table below shows the total population of the District according to the 2022 census.

Table 4-2: Population distribution in Siha District census 2022

Siha District Council total population				
No.	**Council/Ward**	**Both Sexes**	**Male**	**Female**
		139,019	**67,293**	**71,726**
1.	MitiMirefu	1,989	982	1,007
2.	Ndumeti	12,345	6,171	6,174
3.	Ngarenairobi	13,794	6,810	6,984
4.	Karansi	13,816	6,593	7J.23
5.	Gararagua	11,815	5,629	6,186

6.	Sanya Juu	14,293	6,819	7,474
7.	Livishi	5,198	2,561	2,637
8.	Nasai	8,594	4,096	4,498
9.	Kirua	6,626	3,169	3,457
10.	Ivaeny	3,611	1,781	1,830
11.	Kashashi	5,573	2,762	2,811
12.	Ormelili	7,174	3,393	3,781
13.	Olkolili	5,100	2,377	2,723
14.	Donyomurwak	9,840	4,724	5,116
15.	Songu	2,644	1,371	1J.73
16.	Biriri	5,179	2,542	2,637
17.	Makiwaru	11,428	5,513	5,915

4.4.4 Ethnic Composition

There are two main ethnic groups in Kilimanjaro region. These are Chagga, who are the majority, and Pare. There are other small ethnic groups who reside in the region, like Wakahe and Wakwavi. Within these two main ethnic groups there are sub ethnic groups sometimes identified by their different dialects.

For example, Wagweno among the Pare who speak Kipare and Kigweno reside in the northen part of Pare. The different dialects among the Chagga which are identified according to the geographical identity. For example, Kichagga Kimachame may be differentiated From Kichagga Kibosho through their way of speaking and other linguistic characteristics.

However, Kiswahili is the main language for communication among the various groups. Socially there is little separation between the two main tribes and inter marriage is a common phenomenon. Invariably both tribes are energetic, industrious, thrifty and enterprising.

4.4.5 Economic Activities

Agriculture (crops, livestock and fisheries) is the main economic activity contributing about 60 percent to the region's GDP and over 75 percent of employment to the rural population.

4.4.5.1 Agriculture.

Agriculture (crops, livestock and fisheries) is the main economic activity contributing about 60 percent to the region's GDP and over 75 percent of employment to the rural population. The Highland and Intermediate zones are the most fertile, with good reliable rains, moderate temperatures and thus viewed as most agricultural high potential areas in the region.

Crops: The high and intermediate zones are capable of producing a variety of food and cash crops. Both tropical and temperate zones are much suited for dairy farming. Irrigation farming is popular in the low land zone. River water is the main source for irrigation. Main cash crops in the region includes coffee which is grown in plantations as well as smallholder farmers.

Wheat and barley are grown in large farms. Cardamoms, sisal, cotton, sunflower and groundnuts are gaining ground for expansion. The region is among the major coffee producers in the country. Horticulture is coming up quite well and does not use a lot of land so its potential is quite high

4.4.5.2 Irrigation Farming

In Kilimanjaro Region, water plays a very crucial role. Three sources of irrigation water may be considered: surface water, underground water and dams. Water resources in Moshi, Hai and Rombo districts originate primarily from rain in the mountain area and from the melting snow on the mountain slopes, forming numerous streams flowing down the mountain.

Increasing number of people are gradually being forced by population pressure to move downhill and settle in lowland areas thus using increasingly large amount of water for irrigation in paddy and vegetables.

4.4.5.3 Livestock

About 15.3 percent of the total area of the region is under livestock farming. Despite scarcity of grazing land, livestock keeping could still be ranked second predominant economic activity after crop farming. Households living in the highlands and intermediate zones practice modern dairy farming under zero grazing system or stall feeding; whereas those in the lowlands are engaged in what may be termed as "Traditional Ranching". Most of the cattle reared under this system are mainly local zebu. The other types of livestock are evenly distributed in both zones.

4.4.5.4 Feed Resources

Farmers in Kilimanjaro areas have developed a keen interest in dairy farming. However, due to land scarcity, livestock feed resources are very limited. The major resources can be grouped into natural grasslands, established pastures, crop residues, agro-industrial by products, and others. As most of the smallholder dairy farmers in Kilimanjaro live in the densely populated highland areas, there are hardly any areas which can be reserved for herding cattle. All the cattle in the highland areas are stall-fed and feed has to be brought in from long distances.

Kilimanjaro is one of the few areas in Tanzania where established pastures do play a significant role in livestock feeding. Nearly every small dairy farmer in Kilimanjaro has at least two grass species in his/her pasture plots. Due to scarcity of land these grasses are grown mostly in rows and terraces between the coffee and banana plants, on farmstead boundaries and along road sides

4.4.5.5 Crop residues

Two main crop residues are utilized as livestock feeds in Kilimanjaro. These are maize Stover and bean haulms. Unlike other areas KILIMANJARO REGION INVESTMENT GUIDE | 11 in the country where these crop residues are produced in the vicinity of livestock dwellings, in Kilimanjaro the crop residues have to be transported from the lowland areas to the highland homesteads. Transport is the main factor limiting the quantities utilized per year.

Despite availability of these feed types, there is more opportunity to produce agro-industrial by-products as animal feed. These can be divided into two main categories: the milling by-products of cereals and the byproducts of oil seed industries. The milling by-products commonly used in Kilimanjaro are: maize bran, wheat pollard, and wheat bran and rice husks. The production of these cereals in the region is not sufficient to meet demand for feed production, but imports can be made from neighboring regions of Arusha and Manyara.

4.4.5.6 Wildlife.

Wildlife, the national park harbors a wide range of animals including **forest elephants, grey duikers, bushbucks, cape buffaloes, tree hyrax, primates like blue monkeys, bush babies, baboons, black faced monkeys** among others which can be viewed during the guided nature walks or hiking mount Kilimanjaro

4.4.5.7 Tourism

The region has abundant tourist attractions and potentials attracting more than 45,000 foreign tourists and 2,000 local tourists per year. Some of these attractions are:

Mount Kilimanjaro; the highest mountain in Africa called ''The Roof of Africa'' is famous for being the mountain with all world climatic conditions and the only snow-capped mountain in the tropics;

Figure 4-2: Mount Kilimanjaro the highest mountain and National Park

Kilimanjaro National Park is located in Tanzania along the northern border shared with Kenya. It covers an area of 652 square miles (1,688 sq km) which includes the montane forest that surrounds Mount Kilimanjaro. Mount Kilimanjaro is one of the 7 Natural Wonders of Africa and a UNESCO World Heritage site.

Kilimanjaro National Park is home to Mount Kilimanjaro which is the tallest mountain in Africa and the tallest free-standing mountain in the world. It reaches a maximum height of 19,341 feet (5,895 m) at Uhuru Peak. Uhuru peak is part of the Kibo cone, which is one of three volcanic cones found on the mountain.

4.4.5.8 Mining

The Region is endowed with minerals like gypsum, limestone, bauxite, copper, aquamarine, red garnet, pozzolana and ceramics. Some of these minerals are being extracted: 292,800 tonnes of pozzolana per year; 29,146 tonnes of bauxite per year and; 39,725 tonnes of gypsum per year. Most of these are all in very accessible locations.

The Region invites investors and joint ventures of local and international actors in the industry to develop and expand production in this sector.

4.4.5.9 Industry and Trade

Investment in appropriate agro-based and service oriented small scale industries is greatly encouraged for job creation opportunities in the region. The existence of a network of electricity power supply in the rural areas (30.3 percent of all villages in the region are supplied with this form of energy) encourages the idea of further investment into appropriate industries in the region.

The manufacturing industry is growing fast and is increasingly contributing more to regional GDP. The main industrial activities are food manufacturing, textiles and leather, wood products, paper and paper products, chemicals and machinery.

4.4.6 Economic infrastructure

Kilimanjaro region is well connected by a network of roads which link the rural population clusters and also provides easy communication with the surrounding areas. Roads also connect Kilimanjaro with neighboring regions of Arusha and Tanga, both of which are important market destinations.

In addition, there is a railway line from Dar es Salaam to Moshi (Municipality of the region) via Tanga, ending up in Arusha Town. Another railway line extends from Moshi to Voi in Kenya at the border.

4.4.7 Cultural Heritage

Most of the districts in the region practice cultural tourism, ecotourism, and sports. Kilimanjaro is one of the areas rich in wildlife. The Kilimanjaro National Park is home to a variety of insects and high-altitude wildlife.

Mkomazi National Park is an important Savannah wildlife sanctuary, home to the rare Black Rhinos, bovines, and a few carnivores. Crocodiles, for example, are common in the Pangani River, Nyumba ya Mungu dam, and Lake Jipe.

4.4.8 Health Status

The vision of the health sector is to raise the health and well-being of the people, especially those who are more at risk of being affected by diseases by promoting and strengthening the system of providing health services that will meet the needs of the people.

4.4.9 Sources of Energy

Siha utilizes major sources of energy in its daily operations, TANESCO's national grid. The project may cause the increase in energy demand due to number of people will be accommodated.

4.4.10 Sanitation and water supply

Sanitation conditions in Kilimanjaro region is satisfactory. This could be attributed to the efforts, made by the Ministry of Water and Energy in funding a low cost sanitation program in the region. UNICEF also supported sanitation in Hai district as a vital component of Child Survival and Development Project. In Rombo district GTZ is also funding Health Program aiming at improving sanitation in the area.

Kilimanjaro is one of the regions in the country which is fairly endowed with plenty of surface and ground water sources. About 90% of all water schemes in the region obtain their waters from surface sources

mainly from rivers, springs and surface dams and almost all water intakes in the region originate from major streams around Mount Kilimanjaro and Pare Mountains.

Rombo, Moshi rural and Hai districts get their water 154 from these sources. Some parts of Same and Mwanga districts obtain their water supply from the Pare Mountains. The region has several dams which are in use in different districts.

The larger ones being Nyumba ya Mungu, Kalimawe, Ndungu and Jipe. Water from these dams is used for domestic purposes, fishing, industries, irrigation, and generation of electricity. About 10% of all water supply in the region is obtained from ground water sources, that is, from Bore-holes and shallow-wells mainly in the lower areas of same and Mwanga districts

4.4.10.1 Waste Management

Residents are encouraged through public education to keep the environment clean by collecting waste properly. Sub-ward (or 'Mtaa') units collect the waste with designated trucks. Residents and businesses pay for the service and an invoice is issued.

The money collected pays environmental officers/casual workers, who are on 3 month contracts. On average (depending on the size of a ward), there are 20 people working on the waste collection; the initiative thus contributes to revolving job creation. The money collected is also spent on the fuel and maintenance of trucks and other office running costs such as stationery. The target is 45 000 million Tanzanian shillings per year (about 19.5 million US$); but this is more because of the expansion of businesses and households.

A monthly allowance is paid to the sub-ward (Mtaa) chairpersons, the collectors (estimated at 10 per ward) and environmental officers, who are paid 20 percent of the money collected. There are 8 people that are the enforcers of the by-law, they issue fines and do inspections.

50 percent of the fine goes to the collectors & the other to the office; there is a book that keeps a record of the offenders. The focus in not only on enforcement and regulation but on education and behavior change as there are constant reminders for people not to litter and in the event that they do and are issued a fine, they have an opportunity to appeal.

"Waste management is not considered as a revenue stream but rather a service. – The reason Moshi is so clean is because it is the people's culture, the cooperation they offer to the municipality and the fact that they are educated contributes to their behavior. The modalities we use to run the whole process are taken very seriously by the whole municipality we have been number one for many years so we are obliged to keep that number one place."

4.4.10.2 Liquid Waste Management

The existing sewerage services covers about 2% of sewerage disposal facilities. The sewerage system mainly serves educational institutions and several commercial.

4.5 Physical Geographical Environment

The largest part of the region is mountainous, surrounded by Pare Mountains that range from the base of Mount Kilimanjaro. This zone has increasingly become, and has always been, the most densely populated – even up to an altitude of 2,400 m above sea level. Due to the steep hills, land has become very scarce in the region, and forced out-migration to other regions in Tanzania.

4.5.1 Climate and meteorological conditions

The seasonal rainfall distribution in particular greatly influences agricultural practices. In the Kilimanjaro region the year can be divided into four periods with respect to the amount of rainfall:

There are two rainy seasons - a major one in April - May and a minor one in September - November, and two dry seasons, a major one in December - January and a minor one in July - August. There is marked variation in the amount of rainfall according to altitude and the direction of the slope in the mountainous areas. The mean annual rainfall varies from 500 mm in the lowlands to over 2,000mm in the mountainous areas (over 1,600 meters above sea level).

Temperatures are closely related 22 to altitude. During the rains, extra cloud cover and evaporative cooling tend to reduce maximum temperatures. Cloud cover also tend to raise minimum temperatures. The hot season lasts from October - March with high humidity; temperatures going up as far as 400C. In the lowlands. In the mountainous areas temperature ranges from about 150 - 300C. The soils of the region vary, there are alluvial soils which are potential agriculturally through irrigation farming due to unreliability of rainfall in those areas.

4.5.2 Geological Conditions

4.5.2.1 Landscape

Kilimanjaro Region is located in the north-eastern part of Tanzania and borders with Kenya to the north
The areas in Kilimanjaro Region fall into two extremes. One part of the area is located in the lee ward side of the mountain hence it is dry and semi–arid. The lowlands are warm, dry and less densely populated. They receive an annual rainfall of less than 800mm deep.

The largest part of the region is mountainous, surrounded by Pare Mountains that range from the base of Mount Kilimanjaro, which is the highest mountain in Africa. This zone has increasingly become, and has always been, the most densely populated – even up to an altitude of 2,400m. Due to the steep hills, land has become very scarce in the region, and forced out-migration to other regions in Tanzania.

A smaller part of the lowlands in the west comprises of marshland, which goes along Pangani River. Contrary to the dry Maasai plains, this part of the lowlands can be cultivated. Thanks to water irrigation, many crops can be grown, namely maize, onions, tomatoes, rice, watermelons and cucumbers.

4.6 Biological Environment

4.6.1 Flora and Fauna

4.6.1.1 Flora

There are five distinct ecological zones on Kilimanjaro and each about 1000m in ‘height’. At 800m to 1800m you will find bush land with villages, farms and grassland. The next ‘level’ of vegetation is the dense rainforest at 1800m – 2800m, lush green zone receives 1000 to 2000mm of rain yearly.
The semi-alpine heath and moorland zone is found at 2800m to 4000m. Here there is see the strange giant groundsel, Senecio trees, Lobelias and the colorful red hot pokers. The main source of the indirect precipitation in this zone comes in the form of mist which can envelope you without warning. Temperatures here can drop to 0°C.

Above 4000m you will enter the other-worldly alpine desert zone with little rainfall and extreme temperature variations from night to day. You will not find a wide variety of plants in this arid and desolate landscape, but you might see some everlastings and a few yellow daisies.

From 5000m you will enter the frozen moonscape of the arctic zone. With only rock and ice, nights are very cold and the sun's radiation is extreme. Virtually no life is found here and the lichens that do survive, grow about 0.5mm a year.

4.6.1.2 Fauna

In the lower-lying areas such as the forest zone there are a multitude of birds ranging from tropical Boubous, Hartlaub Turacos, Green Wood Hoopoes, Silvery cheeked Hornbills and more. Look up into the trees you might see (but definitely hear) primates such as blue monkeys, colobus monkeys and olive baboons. Civets, leopards, mongooses, the bush pig, dik-dik, elephants and Abbott's duikers also live in the mountain's forest, but sightings are extremely rare.

Just as plants struggle in the higher heath and moorland zone, so do animals. If you are lucky you will spot the four-striped grass mouse, red eyed doves, white necked ravens and Malachite sunbirds. Mole rats and the harsh-furred and climbing mouse are more difficult to spot.

In terms of birdlife, there are plenty of ravens around, and you might also see the extremely rare bearded vulture with its vast wingspan. The alpine and arctic zones are too harsh for any animals to survive comfortably.

4.7 Air Quality within the Project Area

4.7.1 Ambient air quality data

The consulting team conducted the actual monitoring of air quality at the project site using an Aeroqual Outdoor Air Quality Test Kit. This is a complete outdoor air monitoring kit for the measurement of criteria air pollutants and VOCs.

Features Aeroqual's proven Series 500 portable monitor with interchangeable sensor heads, measuring particulate matter ($PM_{2.5}$, PM_{10}), four gas pollutant gas sensors (NO_2, O_3, CO, VOCs), and a combined temperature and relative humidity sensor.

Suitable for use during wide area air quality surveys, personal exposure monitoring, and as part of a short-term fixed monitoring network. The equipment and collected data are shown in Figure 4-3 respectively.

4.7.1.1 Description of Sources and levels of project emission

Heavy construction is a source of dust emissions that may have substantial temporary impact on local air quality.

Emissions during the construction of a building are associated with land clearing, cut and fill operations (i.e., earth moving), and construction of a particular facility itself. Table 4-3 shows the emission generating activities;

Table 4-3: Emission generating activities

ACTIVITIES	EMISSIONS
Site clearance and site levelling	Dust ($PM_{2.5}$,PM_{10}), CO_2,NO_2
Vehicle movement	Dust ($PM_{2.5}$,PM_{10}), CO_2, NO_2

ACTIVITIES	EMISSIONS
Excavation of trenches for foundation	Dust ($PM_{2.5}$,PM_{10})
Waste (liquid and solid)	CH_4, CO_2
Painting of buildings	Volatile organic compounds (VOCs)

Figure 4-3: Ambient Air Quality Monitoring equipment used at the project

4.7.1.2 Monitoring data within the project site

The most noted sources of gaseous emissions within the sites were from operating automobiles. Referring to the results summarized in Table 4-4 , all locations were recorded with carbon monoxide (CO) gaseous emission levels ranging from 0 to 0 ppm at all measured locations and analysis of the data is shown in Figure 4-3

Table 4-4: Ambient Air Quality data measured from different station in the vicinity of the project site

LOCATION	CO ppm	NO_2 ppm	O3 ppm	VOC ppm	SO_2 ppm	$PM_{2.5}$ ppm	PM_{10} ppm
Project Site	0	0.021	0.004	0.1	0	0.014	0.006
Air quality-AQ 1	0	0.02	0.006	0	0	0.012	0.006
Air quality-AQ 2	0	0.019	0.008	0.3	0	0.011	0.005
Air quality-AQ 3	0	0.021	0.005	0	0	0.012	0.005
Air quality-AQ 4	0	0.021	0	1	0	0.013	0.006
Tanzania Standard [TZS 845:2005]	**20**	**0.1**	**0.0**	**10**	**0.05**	**0.05-0.08**	**0.05-0.116**

Also locations were recorded with nitrogen dioxide (NO_2) gaseous emission levels ranging from 0.0 to 0.021 ppm at all measured locations and other locations was recorded with NO_2 emissions levels within limits. Furthermore maximum NO_2 emissions levels of (0.021 ppm) was recorded.

The low level of dust recorded within the site this is due to the fact that during monitoring of the sites, no dusty activities were being executed. The Local Standard: EMR (AQS), 2007] states that, the ambient particulate matter guideline for PM10 size shall not exceed 60–90 µg/Nm^3 (0.05–0.116 mg/kg).

On the other hand, the World Health Organization (WHO: 2005) Air Quality Guideline states that, the ambient dust emission levels for $PM_{2.5}$ and PM_{10} should not exceed 25 µg/m^3 and 50 µg/m^3 respectively for 24–hour mean.

By comparing the results with the standard, it is evident that the assessed locations were recorded with $PM_{2.5}$ and PM_{10} ambient particulate matters are within the ceiling limit as the detailed findings of dust levels measured at all locations.

Furthermore, comparing the averaged results summarized in Table 4-4 with national EMR [(AQS), 2007] standards and International standards WHO [2005], it is evident that, the results are below the ceiling limits was not mentioned as detailed findings of ambient gaseous levels measured are presented accordingly.

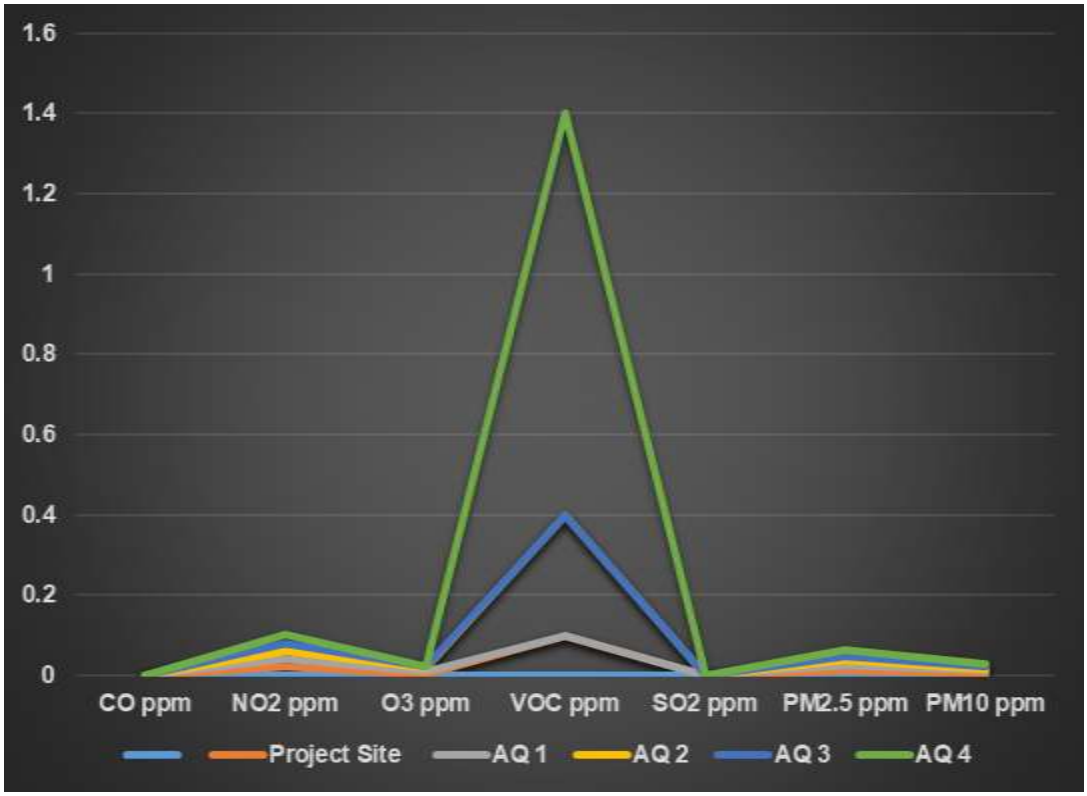


Figure 4-4: Air quality data analysis

Therefore, all data monitored were below standards with low detectable level so are of no significant. However, the data measured will be used for monitoring project intrusion during project implementation so as to trace how the project has affected the air quality.

4.7.2 Noise and Vibration

The noise and vibration survey was conducted in terms of the provisions of International Finance Corporate Guidelines of 2007 (The measurement and rating of environmental noise with respect to annoyance and to

speech communication) as well as Environmental Management (Noise and Vibration Standards) Regulations of 2015.

The following instruments were used in the noise and vibration survey as they are displayed in

- Sound Level meter – Lutron SL 4023SD;
- Free field microphone – Electric Condenser Microphone; and
- Sound Calibrator (94/114dB) – SC – 942.
- Vibration meter – VB8206SD

On taking measurements, the meter was set to the "A" weighed measurement scale, which enables the meter to respond in the same manner as the human ear. The "A" scale is applicable for workplace compliance testing, environmental measurement, and workplace design and law enforcement.

For, noise measurement the meter was held approximately 1.5 m above the ground surface and at least 0.5 m away from hard reflecting surfaces such as walls. A set of four readings were taken per point for averaging. The equipment used and data collected are shown Figure 4-5.

Figure 4-5: Noise and vibration level meters were used to collect data on the project site

Table 4-5: Noise and Vibration data

Location	Noise Level [dBA]	Vibration [mm/s]
Project Site	44.1	0.6
Air quality-AQ 1	49.3	1.2
Air quality-AQ 2	46.5	1.6
Air quality-AQ 3	53.1	1.1
Air quality-AQ 4	46.8	0.8

Tanzanian Standards TZS: [1471: 2015]	**45**	**5**

The noise and vibration level survey was executed during the day on the 13th September 2022 at 1300hrs. In this survey, 06:00 to 22:00 represented the daytime period and 22:00 to 06:00 the night time.

The Noise level was measured over a representative sampling period, exceeding 30 minutes at a point for different location in the vicinity of the proposed site as the result is presented in Table 4-5.

5 STAKEHOLDERS IDENTIFICATION AND INVOLVEMENT

5.1 Introduction

This chapter describes the main stakeholders that have been identified and contacted to date as well as their main concerns regarding the proposed development.

Stakeholders are identified as "those people and institutions that have an interest in the successful design, implementation and sustainability of the project and will either be negatively, positively or not at all impacted by the proposed development". Section 89 of the Environmental Management Act (EMA, 2004) provides directives on public participation and its importance to ESIA.

Furthermore, section 17 of the EIA Regulations provides details and procedures for public participation in the ESIA process. Also this process followed directives as per the ESS10 which entail the stakeholder Engagement and Information Disclosure by pinpointing the involvement of stakeholder for the project sustainability

Stakeholder participation aims to involve processes whereby all those with a stake in the outcome of a project actively participate in decisions on planning and management. Stakeholders may share information and knowledge, and contribute to the project, to enhance the success of the project and hence ultimately their own interest.

5.2 Stakeholder Engagement Process

The Constitution of United Republic of Tanzania recognizes the sovereignty of the people and that people possess the power to guide development within their areas either directly or indirectly. The public should therefore be involved in the evaluation process because the Environment Management Act (2004) and ESS10 demands it to be so.

The main objectives of the stakeholder engagement process are to:

- Inform the stakeholders about the proposed project and provide opportunities for influencing/amending the plans;
- Collect stakeholders' views on the proposed project including potential positive/negative impacts the stakeholders may associate with the project
- Get an idea of Stakeholders' preferred approaches to implementation of the project;
- Get local knowledge on any sensitive areas within the project area of influence (physical, environmental, cultural or proposed facilities); and
- Get expert advice on land use/ area zoning, water availability and supply, power and road infrastructure

Stakeholder consultation is initiated mainly during the scoping phase as various stakeholders are identified and then proceed throughout the EIA process.

There are different levels of public participation. Table 5-1 shows the categories of public participation according to the goals.

Table 5-1: Levels of Public Participation

LEVELS OF PUBLIC PARTICIPATION GOALS	
Inform	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.
Consult	To obtain public feedback for decision-makers on analysis, alternatives and/or decisions.

LEVELS OF PUBLIC PARTICIPATION GOALS	
Involve	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered in decision-making processes.
Collaborate	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.
Empower	Inclusion of the public in the decision-making processes.

The team put in place a stakeholder engagement process, which helps to:

- Identify and involve all potentially affected stakeholders
- Generate a good understanding of the project amongst those that was affected
- Identify issues early in the project cycle that may pose a risk to the environment, project or its stakeholders
- Ensure that mitigation measures are appropriate (implementable, effective, and efficient)
- Establish a system for long-term communication between the project and communities that is of benefit to all parties.

The primary goal of the Stakeholder Engagement Process is to ensure **transparency and involvement** of individuals, groups and organizations affected by and/or interested in the project (to be called as stakeholders) in assessing and managing the potential environmental and social impacts of the project, and to provide relevant, timely and accessible information in an appropriate and understandable format (e.g., Project Information Document).

We discuss the different steps to be taken in the next sections. The process was reported in the stakeholder engagement plan.

The **Stakeholder Engagement Plan** is the public document, which presents plans for stakeholder engagement, consultation, and disclosure, and is to be updated for each phase of the project. Parts of the report need to be published through ESIA (public involvement and disclosure). The main purpose of this document is to:

- Define the consultation approach for stakeholders,
- set up a process to address public views and/or concerns,
- Identify resources and responsibilities for implementation and monitoring of the consultation program, and
- Set up a grievance mechanism for local stakeholders.

It consists of the following information:

- Introduction (project information, project program, summary of potential environmental and social impacts);
- National and international requirements;
- Consultation undertaken to date;
- Stakeholders;
- Disclosure of information and public consultation;
- Grievance management;
- Resources and responsibilities;
- Reporting; and
- Annexes: comment/complaint form; complaint action form

The purpose of the **SEP** is to engage with organisations and people who may be affected by the project(s) or who may be interested in the Project, as mentioned above. Each stakeholder will need a different level of engagement. Throughout the process, we will make clear the level for the respective stakeholder and take the necessary steps.

5.3 Stakeholder

Stakeholders are individuals or groups who are affected or likely to be affected by the project (project affected parties PAP) and who may have an interest in the project and/or the ability to influence its outcome, either positively or negatively (other interested parties OIPs).

The identification of stakeholders under project will be based on (a) their roles and responsibilities; (b) possible influence/interest on the project; and (c) their particular circumstances they may be disadvantaged or vulnerable in different ways from each other. Stakeholders' analysis involves identifying the stakeholder groups that are likely to affect or be affected by proposed project components and sorting them according to the potential impact the activities will have on them.

The preliminary stakeholder analysis has identified the various interests of stakeholder groups and the influence these groups may have on the project. The analysis also shaped the design of stakeholder consultation events and how to engage them. Stakeholders' interest is determined based on the extent to which they may be involved in implementing elements of the project, likelihood in being impacted (positively or negatively) or in which they may benefit from components

5.4 Stakeholder Identification and Consultation

Tansheq team started with stakeholder consultations in September 2022. The below bullets capture the process undertaken to date:

- Region Education Officer, (REO), REMO,(Region Environment Management Officer)
- District Executive Director (DED) in Siha, DEO, DEMO
- Initial meeting with village government, Ward officials including WEO at Mawasiliano village, Gararagua ward
- Meeting with communities around the proposed project area.
- Fire Force and Rescue unit-Kilimanjaro Region
- Arusha, Zonal Manager-OSHA

Each representative had an opportunity to state their understanding of what is proposed, and they fully support the project and said that they welcomed the team to undertake the requisite study.

5.4.1 Institutional Stakeholders

Institutional stakeholders were identified based on their involvement in decisions that might affect the proposed development or the stakeholder.

The Institutional stakeholders include:

- Ministry of Home Affairs (Tanzania Fire and Rescue Force- Kilimanjaro Office)
- Ministry of Labour and Employment (Occupational Safety and Health Authority, OSHA- Kilimanjaro Office)
- Regional Government Regional Commissioner (RC- Kilimanjaro) RAS, (Region administrative Secretary) and District Commissioner (DC-Siha); and
- Local Government (Gararagua Ward/ Mawasiliano Villages).

5.4.2 Vulnerable group

Means a group of people who, due to their characteristics and circumstances, are likely to suffer more adverse impacts of natural disasters than other groups in the community.

Vulnerable Person means any person who by reason of age, infirmity, illness, disability or any other circumstance is in need of care or attention. Vulnerable groups associated to SEQUIP include:

- Age group (children & elders)
- Indigenous
- Physical challenged group
- Women/Sexuality (Gender issue)

5.4.3 Other Stakeholders

Individual stakeholders refer to those occupying, owning, living, or working within the AOI and surroundings that may be impacted upon resulting from project implementation.
They include the community members around proposed area

5.4.4 Main Concerns and Comments of Stakeholders

The comprehensive list of all stakeholders consulted is in appendix I. Main concerns and comments from the consultation process raised by stakeholder to date are in Table 5-2.

Table 5-2 Stakeholder consultation views, comments and concern

Name of Stakeholders	Place	Dates	Comments, views and concerns from the stakeholders
Marco Maswe (Ag DED)	Siha	30/09/2022	• The project is very good and he is calling the project coordinators to allocate fund for implementation because it has been long time, • All district officials need collective comprehensive on all project components and stages, • They got the area from the villagers of Mawasiliano village council willingly. • On behalf of the Kilimanjaro officials they only wait the project to start.
Joel Mgagula (Ag DSEO)	Siha	30/09/2022	• On behalf of the Siha officials they only wait the project to start. • All officials should participate fully for a successfully project
Mathias Maskini (DEMO)	Siha	30/09/2022	• They know about the project and they are already for implementation, • All region officials need collective comprehensive on all project components and stages
Deogratias M. Kissima (ENG RUWASA)	Siha	30/09/2022	• RUWASA will be able to cover the whole population • They are curious waiting for the project because it will boost village and district development in general
Greyson Tuvana (Surveyor)	Siha	30/09/2022	• They are aware about the project and they are ready for implementation
Zachari Lazaro Lukumai (Ward councilor)	Mawasiliano/Siha	30/09/2022	• This project will have positive impact to our community, it will motivated both parents and children to love school

Name of Stakeholders	Place	Dates	Comments, views and concerns from the stakeholders
Jeremiah Thadeus Masawe (Ward executive councilor)	Mawasiliano/Gararagua/Siha	30/09/2022	• This project will have positive impact to our community, it will motivated both parents and children to love school then before, • People from different places of the country will some here for studying and working, therefore we will economically and socially develop.
Jackson Joham Moye (village Chairman)	Gararagua /Mawasiliano /Siha	30/09/2022	• He sat with community to discuss about the project and everyone was interested • They are curious waiting for the project because it will boost village development, growth of small business and large business such as renting house and other opportunities.
Mawasiliano community	Gararagua /Mawasiliano/Siha	30/09/2022	• This project will have positive impact to our community, it will motivated both parents and children to love school then before, • Their children will be motivated with this school and they love studying. • People from different places of the country will some here for studying and working, therefore we will economically and socially develop.
Jimmy D. Nkwabi (REO)	Siha	04/07/2023	• He is aware about the project. • The project is nice and they real wait for the project implementation.
Jeremiah Mkomagi (Fire officer)	Kilimanjaro Fire Office	01/07/2023	• Before execution of the Project, Siha District Council should inform Fire and visit the project site so as they can advise on the Fire Protection System to be installed

Figure 5-1: Consultation and site visit in Mawasiliano village

5.5 Way Forward

Issues raised by stakeholders shall be assessed on their veracity and included in environmental and social impacts assessment. During the Environmental and Social Impact Assessment process, all stakeholders

including public and community participated accordingly. All issues raised during consultation will be detailed responded in the stakeholder engagement plan.

From the consultations, it can be concluded that people are positive about the project as it will generate more employment, enhance business opportunities, education development and social development. Stakeholder Engagement Plan shall be prepared and implemented through all phases of the project

6 ASSESSMENT OF IMPACTS AND IDENTIFICATION OF ALTERNATIVES

6.1 Introduction

This section includes expected environmental and social impact assessment during the entire lifecycle of the school construction project. Methods used for impact assessment, as well as quantitative and qualitative criteria were developed to unify and standardize the assessment system, which ensures the objectivity of the assessment. Impact assessment methodology preparation was based on the recommendations of the World Bank and other International Financial Institutions (EBRD, IFC, and ADB).
The following scheme will be used for environmental and social impact assessment of the planned activities:

Step I: Determination of basic impact types
Determination of the impact is based on general analysis of activities, which may be important for these types of projects. This is incorporated in Chapter 2 in Page.

Step II: Study of the environmental baseline – search and analysis of the existing information
Analysis of the socioeconomic and environmental status quo of the project affected. This shall also involve identification of the receptors, which are expected to be affected by the planned activities, determination of sensitivity of the receptors

Step III: Characterization and assessment of the impact
Impact character, probability, significance other characteristic determination by considering the sensitive receptors, description of the expected changes in the environment and assessment of their significance. This is covered in this Chapter.

Step IV: Determination of the mitigation measures
Significant impact mitigation, prevention, or compensating measure determination. This is detailed in subsequent Chapter 7.

Step V: Residual impact assessment
Determination of the expected value of change in the environment after implementation of the mitigation measures

Step VI: Monitoring and management strategy development
Monitoring the effectiveness of the mitigation measures is needed to ensure, that the impact must not exceed the predetermined values, effectiveness of the mitigation measures must be confirmed, or the necessity of the corrective measures must be identified.

Table 6-1: Sources, Receptors and Magnitude of Environmental Impact all Planned Phases

Phase / Receptor	Construction	Operation	Maintenance	Decommissioning
Air				
Soil				
Water				
Flora				
Fauna				
Protected area				
Landscape & visual impact				
Land ownership				
Infrastructure				
Traffic flow				
Cultural heritage				
Socioeconomic				

Key

Negative	Positive

Table above gives information about sources, receptors and magnitude of environmental impact for construction and operation phase of the proposed school structures.

6.2 Impact Receptors and their Sensitivity

Implementation of the works may cause such qualitative and quantitative characteristic changes of socioeconomic, physical and biological resources in the impact area, such as:

- Socioeconomic baseline
- Air quality and acoustic background of the environment.
- Soil stability and quality.
- Capacity and quality of surface and groundwater.
- Visual changes of the landscapes.
- Flora and fauna baseline.

The population, which may be impacted by the planned activity, includes people living, working, or involved in other activities (e.g., vocation, travel) nearby the designed facility. Facility staff is considered as a potential sensitive receptor.

Receptor sensitivity is related to the impact volume and ability of the receptor to counteract the change or restore after the change, as well as with its relative ecological, social, or economic value.

6.2.1 Impact Characterization

To estimate environmental impact major impact factors are identified for mobilization, commissioning, decommissioning, and demobilization phases. Anticipated impact is assessed according to the following classification:

- **Character** – positive or negative, direct, or indirect.
- **Magnitude** - insignificant, low, medium, high or very high.
- **Likelihood** – low, medium, or high risk.
- **Impact area** – working site, project area or region.
- **Duration** – short, mid, or long-term.
- **Reversibility** – reversible or irreversible.

That is, for both project phases and for each potential impact has been determined anticipated alteration of environment and its character, area and duration of impact, reversibility, and likelihood of occurrence; based on this information has been defined significance.

Some impact types were estimated quantitatively. Assessment of impact on environmental elements is based on relevant environmental quality standards, whenever appropriate. If qualitative assessment was impossible impact was estimated based on its characteristics and elaborated criteria

The criteria applied for environmental and social impact assessment is given in the below table. They are developed only for those receptors, which may experience significant changes.

6.3 Impact Assessment Methodology

The purpose of conducting an environmental impact assessment is to identify and assess the significant effects that are expected to happen compared to the current baseline conditions (as shown in Figure 6.1). This evaluation concentrates on the most important issues that are likely to have an impact, while disregarding concerns that are considered insignificant. The effects can be either beneficial or detrimental to the environment.

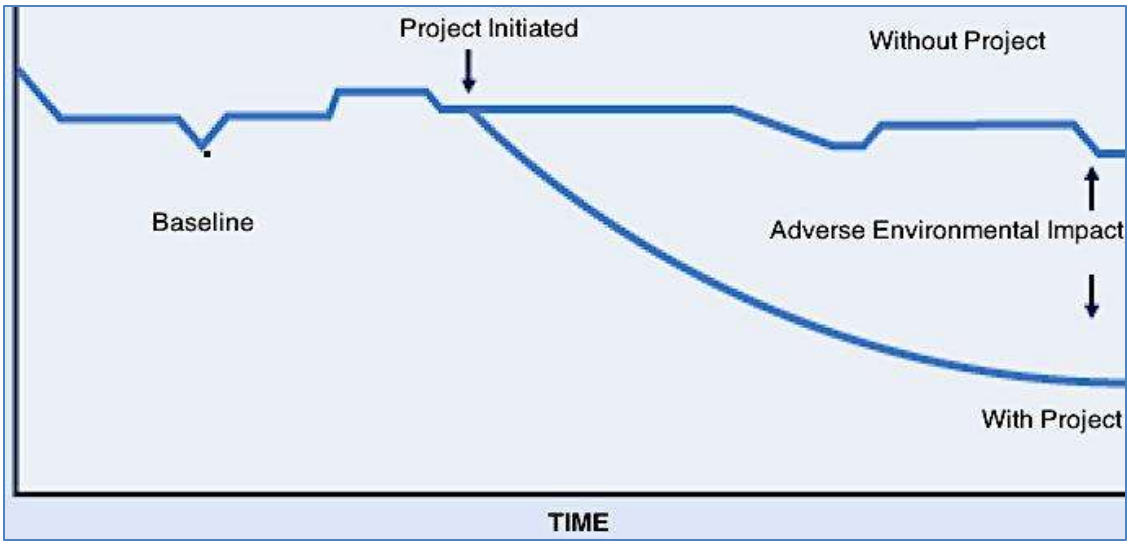


Figure 6-1: An Environmental Impact

The general method for assessing environmental impacts shall be developed based on the criteria in of the **Annex III of EU-EIA Directive (2014/52/EU).** The primary goal of using this method is to ensure that assessments are conducted using precise and well-defined terms, and to enhance transparency in the process. The aim is to suggest potential measures to mitigate the impacts and determine any remaining effects to assist in decision-making describes when mitigation measures are expected with a view to reducing a given environmental impact.

Table 6-2: Degree of Remedial Measures (Annex III of EU-EIA Directive, 2014/52/EU)

Magnitude of impact	Mitigation Measure
Major impact	Impact considered of sufficient importance to consider whether the project should be changed or whether mitigation measures should be made to reduce this impact
Moderate impact	Impact of a magnitude where mitigation measures are considered
Minor impact	Impact of a magnitude where it is not likely that mitigation initiatives are necessary.
Negligible impact and no impact	Impacts considered so negligible that they are not relevant to take into consideration when implementing the project

A few criteria forms parts of the assessment of environmental impacts. Table below lists the most significant criteria. The likelihood of occurrence or the risk of an environmental impact-taking place has been divided

into three groupings; however, as is most often the case in respect of impacts on the natural environment, this division will be more varied and detailed.

Table 6-3: List of Criteria for Assessment of Environmental Impacts (Annex III of EU-EIA Directive (2014/52/EU)

Criteria	Factor
Importance of the issue	• Importance to international interests • Importance to national interests • Importance to regional interests • Importance to local interests • Importance in respect of the area with direct impact • Negligible or not important
Persistence	• Permanent impact (non-reversible) in the life of the project • Temporary for >5 years • Temporary for 1-5 years • Temporary for <1 year
Likelihood of occurrence	• High (>75 %) • Medium (25-75 %) • Low (<25 %)

Furthermore, it is important to consider whether the impact is caused directly by the project or indirectly as a derived effect of a direct impact. **Cumulative impacts** must also be assessed; determining the impact from combined activities or other projects locally or regionally. The process of assessing the magnitude of individual environmental impacts relating to a project. The following is a description of the Table:
Column 1 states the degree of disturbance: The extent of the disturbance is assessed as high, medium or low. The determination of this is based on the potentially severity of the impact, looking at the impact on some specific issues (e.g. a species), not considering the Importance of the issue, the likelihood of occurrence, or the persistence.

Column 2 assesses whether the issues (e.g. species, habitat, etc.) is important to international, national/regional or entirely local nature conservation interests.

Column 3 indicates the likelihood that the assessed disturbance occurs.

Column 4 shows the persistence of the impact. By combining these four factors the magnitude of impact is found in **Column 5**.

Table 6-4: Assessment of Degree of Impact (High Degree of Disturbance) (Based on Annex III of EU-EIA Directive, 2014/52/EU)

Degree of Disturbance	Importance	Likelihood of Occurrence	Persistence	Magnitude of Impact
High	International Interest	High (>75%)	Permanent (>5 years)	Major
			Temporary (1-5 years)	Major
			Short Term (0-1 years)	Moderate
		Medium (25-75%)	Permanent (>5 years)	Major
			Temporary (1-5 years)	Major
			Short Term (0-1 years)	Moderate
		Low (<25%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Moderate
			Short Term (0-1 years)	Minor
	National or Regional Interest	High (>75%)	Permanent (>5 years)	Major
			Temporary (1-5 years)	Moderate
			Short Term (0-1 years)	Moderate
		Medium (25-75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Moderate
			Short Term (0-1 years)	Minor
		Low (<25%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Minor
	Local Interest (important for the area directly affected or for the immediate surrounding)	High (>75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Moderate
			Short Term (0-1 years)	Minor
		Medium (25-75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Negligible
		Low (<25%)	Permanent (>5 years)	Minor
			Temporary (1-5 years)	Negligible
			Short Term (0-1 years)	Negligible
	Negligible/Not Important	High (>75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Medium (25-75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Low (<25%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none

Table 6-5: Assessment of Degree of Impact (Medium Degree of Disturbance) (Based on Annex III of EU-EIA Directive, 2014/52/EU)

Degree of Disturbance	Importance	Likelihood of Occurrence	Persistence	Magnitude of Impact
Medium	International Interest	High (>75%)	Permanent (>5 years)	Major
			Temporary (1-5 years)	Moderate
			Short Term (0-1 years)	Moderate
		Medium (25-75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Moderate
			Short Term (0-1 years)	Minor
		Low (<25%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Minor
	National or Regional Interest	High (>75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Moderate
			Short Term (0-1 years)	Minor
		Medium (25-75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Minor
		Low (<25%)	Permanent (>5 years)	Minor
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Negligible
	Local Interest (important for the area directly affected or for the immediate surrounding)	High (>75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Minor
		Medium (25-75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Negligible or none
		Low (<25%)	Permanent (>5 years)	Minor
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Negligible or none
	Negligible/Not Important	High (>75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Medium (25-75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Low (<25%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none

Table 6-6: Assessment of Degree of Impact (Low Degree of Disturbance) (Based on Annex III of EU-EIA Directive, 2014/52/EU)

Degree of Disturbance	Importance	Likelihood of Occurrence	Persistence	Magnitude of Impact
Low	International Interest	High (>75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Minor
		Medium (25-75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Negligible
		Low (<25%)	Permanent (>5 years)	Minor
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Negligible
	National or Regional Interest	High (>75%)	Permanent (>5 years)	Moderate
			Temporary (1-5 years)	Minor
			Short Term (0-1 years)	Negligible
		Medium (25-75%)	Permanent (>5 years)	Minor
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Low (<25%)	Permanent (>5 years)	Minor
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
	Local Interest (important for the area directly affected or for the immediate surrounding)	High (>75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Medium (25-75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Low (<25%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
	Negligible/Not Important	High (>75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Medium (25-75%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none
		Low (<25%)	Permanent (>5 years)	Negligible or none
			Temporary (1-5 years)	Negligible or none
			Short Term (0-1 years)	Negligible or none

6.4 Potential Environmental and Social Impacts

6.4.1 Mobilization/ Pre Construction phase

6.4.1.1 Loss of biodiversity (Fauna and Flora)

During the mobilization phase of a girl's school construction project in the Siha District, there can be potential impacts on biodiversity and the natural environment. The clearing of land, excavation, and construction activities may result in the direct loss or alteration of habitats for various plant and animal species.

The destruction or fragmentation of natural habitats can lead to the displacement or loss of indigenous flora and fauna. This can disrupt ecological processes and negatively impact the local biodiversity. Additionally, the use of heavy machinery, noise, and dust generated during construction activities can further disturb and displace species.

This is **major negative** impact High magnitude with a site-specific extent and long-term duration with significant risk.

6.4.1.2 *Atmospheric air pollution due to emissions of exhaust and fugitive gases*

Emissions from combustion of diesel in machineries and equipment during the mobilization/pre construction phase. The major pollutants will be CO, NOx, CH_4, NO_2, O_3 and SO_2 and these will be monitored accordingly for which various points will be identified and the measurement will be taken by S500 Aeroqual Air Quality Monitor.

The construction facilities and materials will be transported to the proposed project site using trucks from various places. Transportation of these facilities and materials have the potential to emit pollutants such as CO2, NOx, SOx, and particulate matters which may have an impact on the ambient air quality resulting to an impact on global warming and effect on human health to workers on duty. Considering the size of the project being small it is assumed that at least 3 trucks will be used to mobilize construction facilities and materials.

This is a **direct, moderately negative** impact of very low magnitude with a site-specific extent and long-term duration with low risk.

6.4.1.3 *Climate change due to vehicle movement, bush clearance*

When bushes and forests are cleared, the carbon stored in vegetation and soil is released into the atmosphere as carbon dioxide (CO2), a greenhouse gas. Trees and vegetation absorb CO2 during photosynthesis, helping to regulate atmospheric CO2 levels. Clearing large areas of bushes at the proposed site disrupts this natural carbon cycle and leads to increased CO2 concentrations, contributing to the greenhouse effect and global warming.

Also bushes act as carbon sinks by absorbing CO2 from the atmosphere and storing it in their biomass and soils. When they are cleared, these carbon sinks are diminished or lost entirely. This reduction in natural carbon storage capacity exacerbates the buildup of CO2 in the atmosphere, accelerating climate change.

This is an in**direct, minor negative** impact of very low magnitude with a site-specific extent and long-term duration with low risk

6.4.1.4 *Employment Opportunity*

During the mobilization phase of the project in the Siha district, there are potential employment opportunities that can arise. Construction projects typically requires a diverse workforce, including skilled and unskilled labor, engineers, architects, and other professionals. The project can contribute to the local economy by creating employment opportunities for individuals in the surrounding communities.

By engaging local labor, the project can provide job opportunities and income generation for the local population. This can help alleviate unemployment rates and improve the economic well-being of individuals and families in the Siha district. Additionally, the project can enhance skills and capacity development within the construction sector, empowering workers with valuable experience and expertise.

This is a **direct, major positive impact** of very high magnitude with long-term duration.

6.4.2 Construction phase

6.4.2.1 *Atmospheric Air Pollution due to emissions of exhaust and fugitive gases*

Emissions from combustion of diesel in machineries and equipment during the construction phase. The major pollutants will be CO, NOx, CH_4, NO_2, O_3 and SO_2 and these will be monitored accordingly for which various points will be identified and the measurement will be taken by S500 Aeroqual Air Quality Monitor.

Construction facilities and materials will be transported to the proposed project site using trucks from various places. Transportation of these facilities and materials have the potential to emit pollutants such as CO2, NOx, SOx, and particulate matters which may have an impact on the ambient air quality resulting to an impact on global warming and effect on human health to workers on duty. Considering the size of the project being small it is assumed that at least 3 trucks will be used to mobilize construction facilities and materials.

This is a **direct, moderately negative** impact of very low magnitude with a site-specific extent and long-term duration with low risk.

6.4.2.2 *Hearing impairment due to increased noise levels from construction vehicles and machinery*

During the construction phase of a Regional girl's secondary school construction project in the Siha District, there may be potential noise impacts. The activities involved in the construction process, such as excavation, foundation work, heavy machinery operation, and transportation of construction materials, can generate significant noise levels.

The mentioned noise impacts can affect both the immediate vicinity of the construction site and surrounding areas. Nearby residents may experience increased noise levels, leading to potential disturbances and inconvenience.

Any unwanted sound (“noise”) produced as a result of construction activities is expected to be intermittent and of relatively short duration, and will be limited to those periods during which construction activities are occurring. The contractor shall ensure that the vehicles and machinery undergo routine maintenance and outsourced vehicles and machinery shall be checked for compliance with applicable regulations. Vehicles shall be controlled by ensuring that they all have functioning mufflers.

This is a **direct, minor negative impact** of low magnitude with short-term duration and Low Risk

6.4.2.3 *Public Health*

During the construction phase of girl's Secondary school in the Siha District Council, there may be potential public health impacts. These impacts can arise from various factors associated with the construction activities and the surrounding environment.

One of the primary concerns is the potential for air pollution. Construction activities often generate dust and emissions from machinery, vehicles, and construction materials. The release of particulate matter and harmful gases can contribute to poor air quality in the vicinity of the construction site. This can have negative health effects, particularly for vulnerable individuals such as children, the elderly, and those with respiratory conditions.

Additionally, noise pollution from the construction activities can also impact public health. Prolonged exposure to excessive noise levels can lead to stress, sleep disturbances, and other adverse health effects, including cardiovascular issues.

This is an **indirect, moderately negative** impact of very low magnitude with a site-specific extent and medium term duration with low risk.

6.4.2.4 Injuries and fatal accidents due to occupational health and safety issues

During the construction phase of the project in the Siha District, there are potential occupational health and safety impacts that need to be considered. The construction industry carries inherent risks, and it is essential to prioritize the well-being and safety of the workers involved in the project.

Construction activities involve various tasks, such as excavation, heavy machinery operation, lifting and handling of materials, and working at heights. These activities can expose workers to hazards such as falls, accidents, electrical risks, and exposure to harmful substances. It is crucial for the project to adhere to occupational health and safety regulations and guidelines to minimize these risks and ensure a safe working environment.

This is a **direct, major negative impact** with high magnitude, long-term duration and significant risk.

6.4.2.5 Degradation of natural beauty, outbreak of diseases and injuries due to improper management of surrounding waste materials (Solid and Liquid Waste)

During construction phase of the project, there may be potential impacts related to solid and liquid waste. Construction activities often generate various types of waste, including construction debris, packaging materials, and wastewater.

Solid waste can accumulate from excavation, and general construction activities. Without proper waste management practices in place, this waste can contribute to environmental pollution and pose health and safety risks. It is important for the project to implement appropriate waste management strategies, such as segregating waste, recycling materials when feasible, and disposing of non-recyclable waste at authorized waste disposal facilities.

Liquid waste can be generated from activities such as concrete mixing, equipment cleaning, and site dewatering. If not properly managed, liquid waste can contaminate soil and water bodies, leading to adverse environmental and health effects. The project should establish measures to collect, treat, and dispose of liquid waste in accordance with local regulations and best practices.

This a **direct, major negative impact** with short term duration and significant risk

6.4.2.6 Road accidents from moving trucks

During the construction phase of a girl's school in Siha District Council, there can be potential risks of road accidents. The increased movement of heavy construction vehicles, equipment, and materials can pose hazards to both construction workers and the general public.

The transportation of construction materials and equipment to the project site may involve the use of large trucks and other vehicles, which can increase traffic congestion and the likelihood of accidents. The presence of construction vehicles on the roads, combined with the disruption caused by ongoing construction activities, can create unsafe conditions for motorists, pedestrians, and workers.

This is an **indirect negative impact,** medium magnitude with short term duration and low risk

6.4.2.7 Employment Opportunity

During the construction phase of the project, there are potential employment opportunities that can arise. Construction projects typically requires a diverse workforce, including skilled and unskilled labor, engineers, architects, and other professionals. The project can contribute to the local economy by creating employment opportunities for individuals in the surrounding communities.

By engaging local labor, the project can provide job opportunities and income generation for the local population. This can help alleviate unemployment rates and improve the economic well-being of individuals and families in the Siha District Council and national wise. Additionally, the project can enhance skills and capacity development within the construction sector, empowering workers with valuable experience and expertise.

This is a **direct, major positive impact** of very high magnitude with short-term duration.

6.4.3 Operation Phase

6.4.3.1 Atmospheric air pollution and effect on human health due to emissions of exhaust and fugitive gases

During the operation there can be potential air pollution impacts. These impacts are primarily associated with the transportation activities and energy consumption within the school premises.

Transportation-related air pollution can result from the daily commute of teachers, and staff to and from the school. Depending on the mode of transportation chosen, emissions from vehicles can contribute to air pollution and have adverse effects on air quality.

Another significant source of air pollution during the operation phase is the energy consumption within the school premises. Traditional energy sources, such as fossil fuels, can contribute to air pollution through the emission of greenhouse gases and particulate matter.

The impact of air pollution is considered to be minor indirect negative of long-term duration and of moderate significance

6.4.3.2 Disturbance of surrounding community due to increased noise levels

During the operation phase of the project in the Siha District Council, there can be potential noise pollution impacts. These impacts are primarily associated with the activities and operations within the school premises.

The operation of a school involves various sources of noise, including student activities, teaching and learning activities, playgrounds, and transportation. The increased presence of students and staff within the school can contribute to an overall increase in noise levels, which can potentially disturb the surrounding community.

This impact is considered to be indirect negative of long term duration and of moderate significance.

6.4.3.3 Aesthetic degradation, environmental pollution and outbreak of diseases and injuries due to improper management of surrounding hazardous and non- hazardous solid waste materials

During the operation phase of a girl's school construction project in the Siha District Council, there can be potential solid waste impacts. These impacts are primarily associated with the daily activities and operations within the school premises.

The operation of a school generates various types of solid waste, including food waste, paper and cardboard, plastic packaging, and other non-biodegradable materials such as sanitary pads. Improper management of these waste can lead to environmental pollution, health hazards, and aesthetic degradation.

Hazardous waste can include materials such as laboratory chemicals, electronic waste, batteries, fluorescent bulbs, and other substances that can pose a risk to human health to both the students, staff and surrounding community and the environment if not properly managed.

This impact is considered to be direct negative of long term duration and of high significance.

6.4.3.4 Aesthetic degradation, environmental pollution and outbreak of diseases and injuries due to improper management of surrounding liquid waste

During the operation phase of a girl's school construction project in the Siha District Council, there can be significant impacts associated with liquid waste. Liquid waste includes wastewater generated from various sources such as kitchen, toilets, cleaning activities, and other daily operations within the school.

If not properly managed, liquid waste can have adverse effects on the environment and public health. Improper disposal or untreated wastewater can contaminate water bodies, including rivers, lakes, and groundwater sources, leading to pollution and the spread of waterborne diseases. It can also negatively impact aquatic ecosystems and the biodiversity they support such as the present in the project site area.

This impact is considered to be direct negative of long term duration and of high significance.

6.4.3.5 General health and safety impacts

During the operation phase of a girl's school construction project in the Siha District Council, there can be significant impacts associated with general health and safety.

One significant health concern is indoor air quality, which can be affected by poor ventilation, the presence of dust and allergens. Inadequate ventilation and the accumulation of pollutants can lead to respiratory issues and allergies among students and staff. Another important aspect is sanitation and hygiene. Insufficient access to clean toilets, hand washing facilities, and proper waste management can contribute to the spread of diseases and compromise personal hygiene practices.

Accidents and injuries are also potential hazards in schools. Slippery floors, unsafe playground equipment, and inadequate safety measures can increase the risk of accidents, resulting in injuries among students. Fire safety is another crucial consideration, as the lack of proper fire prevention and emergency response plans can jeopardize the safety of individuals within the school premises.

Furthermore, the ergonomics of the learning environment should be addressed. Poorly designed furniture, improper workstation setups, and lack of ergonomic considerations can lead to musculoskeletal issues and

discomfort among students and staff. Security is also a concern, with the potential for unauthorized access, bullying, or other safety threats that can affect the overall well-being of students.

This impact is considered to be indirect negative of long term duration and of high significance.

6.4.3.6 Loss of School Resources due to fire out break

When a fire happens while school is in operation, it can cause the school to lose important resources. These resources include things like textbooks, computers, science equipment, classroom supplies, library books, and even administrative documents. The fire can damage or destroy these items, making it difficult for students to continue their education and for teachers to carry out their lessons. It can also disrupt extracurricular activities like sports and arts programs. Replacing these resources can be expensive and take time, which can disrupt the normal operation of the school. It's important for schools to have fire safety measures in place to prevent these incidents and to have insurance to help cover the costs of recovery.
This impact is considered to be indirect negative of long term duration and of high significance.

6.4.3.7 Benefit to the Government

The operation of the school generates economic benefits for the government. The presence of a well-functioning educational institution attracts students from the local community and neighboring areas. This results in increased enrollment, which can lead to the generation of revenue through school fees and other related income sources. These financial resources can be utilized by the government to further improve the quality of education, invest in educational infrastructure, and enhance the overall educational system in the region.

Therefore, this impact is considered direct positive of long term duration and of high significance.

6.4.3.8 Employment Opportunities

During the operation phase of a girl's school project in the Siha District Council, there can be significant employment opportunities. Once the school is completed and operational, it requires a diverse range of staff to facilitate its day-to-day functioning. These employment opportunities can benefit the local community by providing jobs and contributing to the local economy.

The operation of a girl's school involves various positions, including teaching staff, administrative personnel, support staff, security personnel, and maintenance workers. These roles offer employment opportunities for individuals with different skills and qualifications, including teachers, administrators, cleaners, and security personnel. By hiring local residents for these positions, the project can provide job opportunities and contribute to the livelihoods of individuals in the Siha District Council.

Moreover, the school's operation can create indirect employment opportunities in related sectors. Local businesses may benefit from supplying goods and services to the school, such as food, stationery, uniforms, and maintenance materials. This can stimulate economic activity and foster the growth of small businesses within the community.

This impact of employment and training is considered direct positive of long term duration and of high significance.

6.4.3.9 Impacts associated with demographic change

During the operation phase of a girl's school construction project in the Siha District Council, there are several impacts associated with demographic change. Firstly, the establishment of a new school attracts

students from the surrounding areas, which can lead to an increase in the local population. Families may choose to move closer to the school to ensure easy access to education for their children. This influx of families can result in changes in the demographic composition of the region, such as increased population density and changes in age distribution.

Also, the presence of a girl's school can contribute to empowering young girls and women, leading to changes in their social and economic roles within the community. Education plays a crucial role in promoting gender equality and empowering women to participate actively in society. By providing access to education for girls, the school project can result in increased female participation in various sectors, including employment, leadership positions, and decision-making processes. This can lead to a more balanced and diverse demographic landscape, with improved gender representation and opportunities for women in the region.

Furthermore, the operation of the girl's school can have long-term impacts on the overall development and growth of the region. Access to quality education has the potential to enhance the skills and capabilities of individuals, leading to improved job prospects and economic opportunities. As a result, the region may experience positive demographic changes, such as a decrease in unemployment rates, an increase in income levels, and a more educated workforce. These changes can contribute to the overall development and prosperity of the community.

This impact is considered direct positive of long term duration and of high significance

6.4.4 Decommissioning Phase

In case of decommissioning the following impacts may happen;

6.4.4.1 Degradation of the urban landscape, health hazards and danger to the public as illegal activities are attracted as a result of abandoned infrastructures

During the demolition phase of a girl's school construction project in the Siha District Council, there may be impacts associated with abandoned infrastructures. These abandoned infrastructures, if not properly managed and repurposed, can have negative consequences for the surrounding environment and community.

One of the main impacts is the visual blight caused by abandoned structures. These abandoned buildings can create an unsightly appearance in the area, affecting the aesthetic value of the surroundings.

Also, abandoned infrastructures can become safety hazards. Without proper maintenance and security measures, these structures may deteriorate over time, leading to structural instability and potential risks such as collapsing walls or roofs. These hazards pose a threat to public safety, especially if the abandoned infrastructures are accessible to unauthorized individuals, including children.

Furthermore, the presence of abandoned infrastructures can attract illegal activities and contribute to social issues. Such structures may become hotspots for vandalism, squatting, or illicit activities, which can further degrade the surrounding environment and pose risks to the community's well-being.

This impact is considered indirect negative of long term duration of high significance

6.4.4.2 Loss of revenue to the government

This phase can result in the temporary cessation of economic activities and revenue generation in the affected area.

Businesses operating in the demolished structures may experience disruptions or even closure during this phase, leading to a decline in their revenue. This, in turn, can result in a decrease in tax contributions to the government. Additionally, the demolition phase itself may involve the displacement of informal businesses or street vendors who rely on the affected area for their livelihoods. As a result, these individuals may experience income loss, which affects their ability to pay taxes and contribute to the government's revenue stream.

The impact is considered to be direct negative of long-term duration and of high significance.

6.4.4.3 Unemployment

During the demolition phase of a girl's school construction project in the Siha District Council, there may be impacts associated with unemployment. The demolition process often leads to the displacement of workers who were employed in the buildings or structures being demolished. This displacement can result in temporary or even long-term unemployment for these individuals.

This is a direct minor negative impact with low magnitude, long-term duration and significant risk

6.4.4.4 Injuries and fatal accidents

During the demolition phase of a girl's school construction project in the Siha District Council, there may be impacts associated with injuries and fatal accidents. Demolition work involves the dismantling, removal, and disposal of existing structures, which can be inherently hazardous if not managed properly. The presence of heavy machinery, falling debris, and unstable structures can increase the risk of accidents and injuries for both workers and nearby individuals.

This is an **indirect moderately negative impact, medium magnitude** with long term duration and significant risk of high significance

6.4.5 Residual Impact

The impacts that remain once mitigation has been put in place will be described as residual impacts adversely effects one or more environmental and social receptors. The identified residual negative impacts were subjected to a critical assessment and review and ensure that they meet the residual impacts acceptability threshold.

The assessment of impacts was conducted in the identified categories these categories were subjected to all stages of project development from mobilisation, construction, operation, and decommissioning (where applicable).

The identified residual impacts are presented with respect to the specific development stage as derived from the interaction matrices. Table 6-7 presents the identified residual impacts.

Table 6-7: Identified Residual Impacts

SN	Stage	Nature	
		Positive	**Negative**
1	Mobilization		• Biodiversity loss • Habitat loss and/or alteration • Habitat fragmentation

2	Construction		• Change in landscape and aesthetics
3	Operation	• Employment creation • Provision of education • Minimization of vulnerability to girls	
4	Decommissioning		• Loss of employment

6.4.6 Cumulative Impact(s)

Cumulative residual environmental effects are defined as the sum of residual environmental and social effects from all past, current, and reasonably foreseeable projects and/or activities on the physical, biological, and socio-economic components of the environment. These include not only residua risks and impacts associated with this project but also arising from other projects implemented or planned to be implemented in the Project Area of Influence.

The Project will implement mitigation measures to limit incremental environmental effects that might occur however, as noted above, implementation of mitigation measures is expected to result in minor changes to the biophysical and socio-economic environments from the Project relative to baseline conditions.

Therefore, the Project implementation arrangement should consider collaboration with other projects in the area to reduce the effect of the residual impacts in ways that are possible and feasible. Focusing on the development of a site-specific mitigation measures that will result to further reduce the potential cumulative residual risks and impacts.

SEQUIP project is implemented under series of works and in phases therefore cumulative impacts will occur, these cumulative impacts include:

- Loss and creation of job opportunity
- Creating expectation in the community
- Generating tax revenue
- Increase of pressure on the provision of public services
- Changes in land value and increase in the collection of property taxes
- Changes in noise level,
- Changes in air quality

6.5 Activity Risk Assessment.

Risk Assessments are elaborated for all tasks performed at the work fronts, detailing the steps and frequency of the task, the known hazards and the appropriate precautionary measures, procedures/work releases, controls, environmental and industrial hygiene methods, collective and personal protective equipment to minimize or eliminate hazards.

The purpose of the Risk Assessment is to make it a routine to verify the safety items before the start of any activities, assisting with the detection and prevention of risks of accidents and with task planning. Table 6.17 show the risk assessment criteria

Table 6-8: Risk Assessment for school construction at Kilimanjaro Region

S/N	Impact &Aspect Description	Nature	Magnitude	Extension	Duration	Significance of Impact	Probability of Occurrence	Risk
	Mobilization/Construction phase							
1	Loss of biodiversity due to bush clearing	Direct	High	DIA	Long-term	Major	Definite	Significant Risk
2	Effect on human health due to change in ambient air quality caused by emissions from exhaust gases and dust from vehicles and earth works	Direct	Very low	IIA	Long-term	Moderate	Probable	Low Risk
4	Soil erosion due to bush clearance	Direct	Very low	RIIA	Short-term	Minor	Probable	Low Risk
5	Climate change (global warming) due to emissions from vehicle movement, bush clearance	Indirect	Very low	NIA	Long-term	Minor	Probable	Low Risk
6	Degradation of natural beauty, greenhouse emissions and outbreak of diseases due to mismanagement of waste generated (solid and liquid waste) from construction materials, bush clearance and sanitary facilities	Direct	High	DIA	Short-term	Major	Definite	Significant Risk
7	Employment Opportunities (activities will require man power)	Direct	High	NIA	Short-term	Major	Definite	Negligible Risk
8	Conflicts due to landownership as each region has to acquire land for school construction	Indirect	Very low	DIA	Short-term	Minor	Probable	Low Risk
9	Injuries and fatal accidents to workers due to heavy duties taking place	Direct	Medium	DIA	Long-term	Major	Probable	Significant Risk
10	Public health and hazard (due to emission of dust and performance of heavy duties	Direct	Medium	NIA	Long-term	Major	Probable	Significant Risk
11	Hearing impairment, stress, headaches, fatigue due to noise and vibration pollution from transportation of material and equipment	Direct	Low	DIA	Short-term	Minor	Probable	Low Risk
	Construction Phase							
1	Loss of biodiversity due to site clearing	Direct	Medium	IIA	Long-term	Major	Definite	Significant Risk
2	Effect on human health due to change in ambient air quality caused by emissions from exhaust gases and dust from vehicles and earth works	Direct	High	DIA	Short-term	Major	Probable	Low Risk

S/N	Impact &Aspect Description	Nature	Magnitude	Extension	Duration	Significance of Impact	Probability of Occurrence	Risk
3	Hearing impairment, stress, headaches, fatigue due to noise and vibration from vehicle movement, equipment and material used during construction	Direct	Low	DIA	Short-term	Minor	Probable	Low Risk
4	Injuries and fatal accidents to workers due to heavy duties	Direct	High	DIA	Long-term	Major	Definite	Significant Risk
5	Public health and hazard (due to emission of dust and performance of heavy duties)	Direct	Medium	IIA	Short-term	Moderate	Probable	Low Risk
6	Employment Opportunities (activities will require man power)	Direct	High	NIA	Long-term	Major	Definite	Negligible Risk
7	Degradation of natural beauty, greenhouse emissions and outbreak of diseases due to mismanagement of waste generated (solid and liquid waste) from construction materials, bush clearance and sanitary facilities	Direct	High	DIA	Short-term	Major	Definite	Significant Risk
8	Unemployment due to decommissioning of construction activities	Indirect	Medium	NIA	Short-term	Moderate	Definite	Low Risk
	Operation Phase							
1	Employment Opportunities due to recruiting of teachers and other staff for school operation	Direct	High	NIA	Long-term	Major	Definite	Negligible Risk
2	Degradation of natural beauty, greenhouse emissions and outbreak of diseases due to mismanagement of waste generated (solid and liquid waste) from sanitary facilities, classrooms, offices, Dormitories, dining area and other areas within the school compound	Direct	High	IIA	Long-term	Major	Definite	Significant Risk
3	Health and safety (due to fire outbreak and poor housekeeping within the school compounds)	Direct	Medium	DIA	Long-term	Moderate	Probable	Significant Risk
5	Benefit to the government through taxes from the employed staff (economically and man power)	Indirect	High	NIA	Long-term	Major	Very low	Negligible Risk
	Decommissioning Phase							
1	Degradation of the urban landscape and danger to the public as illegal activities are attracted due to abandoned infrastructure as a result of the project decommissioning	Indirect	Medium	DIA	Medium-term	Minor	Probable	Low Risk
2	Unemployment due to decommissioning of the project	Direct	High	NIA	Short-term	Minor	Definite	Negligible Risk

S/N	Impact &Aspect Description	Nature	Magnitude	Extension	Duration	Significance of Impact	Probability of Occurrence	Risk
3	Degradation of natural beauty, injuries due to solid waste from dismantling of buildings	Direct	Low	DIA	Long-term	Minor	Very low	Low Risk

7 IDENTIFICATION OF ALTERNATIVES

7.1 Introduction

The EMA EIA regulations of 2005 requires that alternatives be identified during the scoping process. An important function of the Scoping Phase is to screen alternatives to derive a list of feasible alternatives that need to be assessed in further detail in the ESIA Phase. The environmental impact statement shall contain an assessment of impacts of the identified alternatives.

According to the EMA EIA regulations, analysis of alternatives includes project site, design and technologies and reasons for preferring the proposed site, design, and technologies. An alternative can be defined as a possible course of action, in place of another, that would meet the same purpose and need.

7.2 Project Site Alternative

The selection criteria for the location depends on the availability/ease access and ownership of the proposed land parcel for Kilimanjaro region. In that regards various economic considerations which include the feasibility of the project in terms of financial and technical perspectives have been considered to select the project location.

Furthermore, the location shall not require demolition of property (houses and other infrastructure) to pave way for the construction and accessibility of the project site. In that regards, alternative location shall not be further considered in the EIS.

7.2.1 No-Go alternative

The assessment of alternatives must always include the “no-go” option as a baseline against which all other alternatives must be measured. The option of not implementing the activity must always be assessed and to the same level of detail as the other feasible and reasonable alternatives.

The no-go will see the status quo activities persist without the construction on the proposed site. The “no-go” option is taken to be the existing rights on the property, and this includes all the duty of care and other legal responsibilities that apply to the owner of the property.

7.2.2 Alternative Water Source

As a water source for the proposed school construction, the original plan was to obtain water from the RUWASA. However, considering an alternative, the availability of water for the school will now be determined by rainwater harvesting, which has been identified as a viable water source for the construction project. The responsible authority will ensure the construction of rainwater harvesting infrastructure within the school compound.

7.2.3 Design and technological consideration

The schools design will consider several aspects which were previously not part of the school design system. The current design which will be implemented will utilize the standardized updated design from the MoE which will be customized when implemented.

The designed prepared so far are prototypes to be utilized in specific site in this case the Regional Girls Secondary schools the utilization of prototype will involve the fit in exercise to include all experts in the respective district.

7.2.4 Location

The selection of project location was conducted prior to conducting ESIA this has been identified as a limitation in this study however the same was conducted utilizing a checklist developed the clients safeguard team in the same line for projects which were not developed the consulting has a chance of raising issues for alternation of the selected site. The site selection was conducted while considering the following:

- Location of the site
- School character such as **Estimated number of students, estimated number of classrooms Estimated number of teachers needed, Will the school have**
- Environmental character such as water, vegetation, terrain fauna
- Social character Land Tenure, Land Use, who are the neighbors of this plot of land, Vulnerable Groups
- Type of community Urban
- Geographical location
- Demand of water per total estimated number of students: (l/s/day)
- Materials Use and Need

The site is located within a protected area, designated by government (national park, natural reserve, world heritage site etc.)?

8 ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES

8.1 Introduction

This chapter describe measures that shall be followed by the contractor/ project implementing team to ensure that the anticipated environmental and social impacts are avoided, abated, or remediated.

This layout the systematic plans packaged as the environmental management plan (EMP). The goal of the EMP developed is to address the key impacts identified in the preceding Chapter as well as setting the relevant policies and actions plans needed to achieve an environmentally sound and sustainable project venture.

8.2 Pre-Construction/Mobilization phase

8.2.1 Impact on Air Quality

- Combustion of solid waste on the territories of site and camps is prohibited;
- A speed limit for trucks should be observed
- Bush clearance through burning should be avoided.

8.2.2 Loss of Biodiversity both Fauna and Flora

- Remove, without destroying, large Plants and ground cover where possible
- Replant recovered Plants and other flora from local ecosystem after construction
- The project proponent shall consult the experts for advice and for potential flora and stocks for re generation of disturbed vegetation in plant areas

8.2.3 Land Disturbance

- Close monitoring of all movement of equipment, site personnel and workers will be carried out so as to minimize unauthorized activities in any part of the project area.
- Minimum vegetation clearance will be ensured by clearing only those areas that are utilized for construction activities.
- All topsoil within areas where clearance will take place will be stripped and stockpiled for future use during rehabilitation. The depth of stripping will be determined on site and will be a function of both chemical and physical fertility of the soils present.

8.3 Construction phase

8.3.1 Impact on Air Quality

- Combustion of solid waste on the territories of site and camps is prohibited;
- A speed limit for trucks should be observed
- Haul roads should be routinely maintained in good condition
- The project proponent shall plant indigenous trees and grasses over a period of time on area. This will prevent fine dust entering ambient area.
- The project proponent shall observe the standards for air quality throughout the operations and comply accordingly.
- Person Protective Equipment should be well observed

8.3.2 Noise and Vibration from construction vehicles and machineries

- Noise will be limited to restricted times agreed to in the permit
- Machinery and equipment undergo regular inspection/maintenance; fitted with silencers and mufflers, use of noise insulation.
- Personal Protective Equipment: provide and enforce use by all personnel working in noisy zones;
- Provide education to crew about noise-sensitive aquatic life;
- Limit noise generating activities,

8.3.3 Waste and Hazardous materials

- Waste collection and disposal pathways and sites will be identified for all major waste types expected from all activities
- Prepare site waste management plan prior to commencement of construction works
- The records of waste disposal will be maintained as proof for proper management as designed.
- Hazardous waste must be removed from project site by the contractor having corresponding permission for the mentioned activity;

8.3.4 Health hazards and Safety

- Through Contractor shall ensure that all authorized personnel are aware of the relevant safety issues and will obtain training where appropriate
- The contractor will have documented procedures for the control of substances hazardous to health
- The contractor shall provide protective gear and ensure that they are used during construction

8.4 Operation Phase

8.4.1 Impact on Air Quality

- Combustion of solid waste on the territories of site and camps is prohibited;
- A speed limit for trucks should be observed
- Haul roads should be routinely maintained in good condition
- The project proponent shall plant indigenous trees and grasses over a period of time on area. This will prevent fine dust entering ambient area.
- The project proponent shall observe the standards for air quality throughout the operations and comply accordingly.
- Person Protective Equipment should be well observed

8.4.2 Noise and Vibration

- Noise will be limited to restricted times agreed to in the permit
- Avoid noise for classroom
- Personal Protective Equipment: provide and enforce use by all personnel working in noisy zones;
- Provide education to crew about noise-sensitive aquatic life;
- Limit noise generating activities,

8.4.3 Waste Management (Liquid and Solid waste)

- Waste collection and disposal pathways and sites will be identified for all major waste types expected from all activities
- Prepare site waste management plan prior to commencement of construction works
- The records of waste disposal will be maintained as proof for proper management as designed.
- Hazardous waste must be removed from project site by the contractor having corresponding permission for the mentioned activity;

8.4.4 Occupational Health and Safety (health hazards, accident)

- Prepare emergency response plan for all kind of emergencies such as well blowout; fire and explosions, hazardous gas etc.;
- Corresponding warning, prohibiting and directing signboards must be arranged at the operational areas for personnel and local population, for health and safety purpose;
- While working on height personnel must be secured with special ropes and locking carabineers;
- Roads, passing through settlements, must be restricted during transport operations as much as possible;
- HIV/AIDS Awareness Training;
- Personnel medical insurance;
- Procedures and guidelines: operations, certified operation equipment, work procedures. Inspections and Maintenance system;
- Use trained/qualified and competent personnel: operators, mechanics, supervisors;
- Personal Protective Equipment (PPE), reasonable working hours, safe working conditions and facilities;
- In-house health and safety manual /guidelines;
- Emergency Response Equipment and Procedures (especially for fire, drowning and snake bites);
- First unit should be established so as to give first aid to the injury.

8.4.5 Surface water pollution

- Maintenance/repair work, change of oil or lubricant: carried out at approved workshop (service station)
- Inspection and preventive maintenance of equipment: undertaken regularly.
- Discharged of wastewater to the nearby water sources should be avoid

8.5 Decommissioning

8.5.1 Unemployment

- Preparing the workers to be employed anywhere else in the processing industry through provision of extensive training.
- Preparing the workers for forced retirement by providing skills for self-employment, wise investment.
- Ensuring that all employees are members of the National Social Security Fund and the employees should ensure that the developer's contributions are made.

9 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

9.1 Introduction

The Environmental and Social Impact Assessment for the proposed project operation in has identified a number of impacts that are likely to arise during the site preparation and operation stage of the proposed project. The EIA has examined bio-physical, socio-economic and cultural effects of the proposed activity from mobilization, construction and operations/maintenance.

On evaluation of environmental impact, it is observed that the real benefits of proposed project can result only if the risks of the identified adverse impacts are minimized. This can be accomplished through implementation of adequate preventive and mitigation measures outlined in this report.

Where adverse impacts have been identified, the Environmental and Social Impact Assessment has examined the intensity, extent, duration and probability to which these impacts would be mitigated through the adoption of industry standard practice and guidelines and following local legislative requirements.

The Environmental and Social Management Plan (ESMP) presented in this report describes both generic good practice measures and site specific measures, the implementation of which is aimed at mitigating potential impacts associated with the proposed project activities.

The EMP provides the means of assessing the accuracy of the predicted project impacts and the monitoring of the effectiveness of the proposed mitigation measures contained in the EIA study report.

The ESMP should therefore indicate how the environmental concerns highlighted in the EIA would be managed. Proposed Project implementation team will monitor the implementation of key contractor parties and assess compliance with the provisions of the ESMP through its contractual mechanisms and management.

9.2 Objectives of the ESMP

The objectives of the ESMP are to:

- Adhere to and address necessary legal frameworks and other requirements;
- Promote environmental management and communicate the aims and goals of the project ESMP to all stakeholders;
- Incorporate environmental management into project design and operating procedures;
- Ensure all workers, contractors, sub-contractors and others involved in the project meet all legal and institutional requirements with regard to environmental management;
- Address issues and concerns raised in the project stakeholders' consultation process;
- Serve as an action plan for environmental management;
- Provide a framework for implementing commitments of the project (i.e. mitigation measures identified in the EIA);
- Prepare and maintain records of project environmental performance (i.e. monitoring, audits and compliance tracking); and
- Prepare an environmental monitoring plan whose aim is to ensure that the negative environmental impacts identified of this EIA are effectively mitigated by way of design, construction, operational and decommissioning stages of the project

The EMPs for port rehabilitation project consists of the following:

- Management Policies;
- Management Plans; and

- Decommissioning Plan

9.3 Management Policies

Project proponent shall develop and document management policies that guide operations of the Project. The policies are vital in that:

- They enable management to develop and maintain sound relations with stakeholders;
- They enable management to put in place measures and structures that care for the safety, health and welfare of all Proposed Project users;
- They ensure that management plan for, and put in place, monitoring programmes that ensure Project activities confirm to stipulated environmental standards; and
- They ensure that management assumes its corporate responsibility for its activities regarding conservation of the environment as well as for the wellbeing of the neighboring community.

The following policies are going to be in place:

- Environmental Management Policy;
- Occupational Health and Safety Policy; and
- Community Relations Policy.

9.4 Environmental Management Policy

The environmental policy developed should be one that enables the Project management and staffs to carry out their activities with the highest regard to the natural environment and sustainable utilization of environmental resources therein. The policy should therefore cover the following, among other issues:

- Ensure that all project activities operate within legal requirements of all relevant national legislation covered in Chapter Four;
- That there are continuous environmental improvement and performance through monitoring of Project activities;
- Ensure that utilization of natural resources is optimal with measures in place to ensure resource availability for future generation;
- Awareness creation to the surrounding community regarding sustainable utilization of natural resources, protection of sensitive ecosystems and bio-diversity maintenance for communal livelihood; and
- Balancing between natural resource use, environmental conservation and economic development.

9.5 Occupational Health and Safety Policy

The Occupational Safety and Health Policy developed should enable establishment of appropriate measures that ensure that the health, safety and welfare of all users is cared for as well as the health requirements of the local community in which the project is located. The policy should highlight on the following, among others:

- Medical examination of workers;
- Sanitation in the project area;
- Proper liquid and solid waste management and disposal;
- Emergency preparedness;
- Fire safety;
- Necessity and availability of personal protective equipment
- Safety measures for cold storage equipment;

- Appropriate safety and rescue equipment are availed to Project users;
- Risk minimization of accidental damage to the community and environment; and
- Training in safety.

Preventive and protective measures should be introduced according to the following order of priority:

- Eliminating the hazard by removing the activity from the work process. Examples include substitution with less hazardous chemicals, using different manufacturing processes, etc.;
- Controlling the hazard at its source through use of engineering controls. Examples include local exhaust ventilation, isolation rooms, machine guarding, acoustic insulating, etc.;
- Minimizing the hazard through design of safe work-systems and administrative or institutional control measures. Examples include job rotation, training safe work procedures, lock-out and tag-out, workplace monitoring, limiting exposure or work duration, etc.
- Providing appropriate personal protective equipment (PPE) in conjunction with training, use, and maintenance of the PPE.

9.6 Community Relations Policy

The Local Community Policy are developed by management to ensure that the management of the project develops and maintains sound relations with all stakeholders on mutual respect and active partnership. The policy should highlight on ways the management should:

- Work with the local community and relevant government departments and agencies to achieve sustainability of the project;
- Come up with ways of enhancing information flow from management to the community and stakeholders, and vice versa;
- Community capacity building; and
- Active engagement of the local community in all project activities that impact on the local community.

9.7 Organizational Structure and Responsibilities

The overall organizational structure for environmental management on the project identifies and defines the responsibilities and authority of the various organizations and individuals involved in the project. The project structure and associated personnel shall be sufficient to ensure the required standard of environmental performance.

For the purposes of this document there shall be no distinction between developer and contracted companies and they shall be referred to collectively as the project management team

With regard to environmental management during the mobilization, construction, operation and decommissioning phase of the project, the principal responsibilities of each party within this structure will be detailed in the ESIA

For certain aspects of the programme, assistance will be needed from the Local Government Authorities and the NEMC (mainly in the form of guidance and advice and in project monitoring).

9.8 Coordination and Review of the EMP

The ESMP forms the basis for environmental management on site. Based on the results of the performance assessment and review process, the ESMP may be modified as the project progresses. Modifications will only be permitted by the Project Environmental Manager Changes to the ESMP will only be allowed:

a) If alternative measures with equal or improved outcomes have been identified subsequent to the compilation of the report.
b) Prior to non-compliance, therefore requiring pro-active evaluation.

The Environmental Manager shall ensure that any modifications are communicated, explained to and discussed with all affected parties (i.e. the authorities, subcontractors, Managers and any directly affected party who requests this information). All changes to the ESMP shall be submitted to NEMC for approval.

9.9 Reporting

In addition to all reporting requirements identified in the ESMP, records shall be kept by the Environmental Management office of all monitoring results, monitoring reports, incident records, audit reports and management reviews. Minutes of all environmental project meetings shall be submitted by the Contractors.

9.10 Stakeholders

The presence and involvement of several other stakeholders develop as the project begins and during implementation of the ESMP. Mindful that most project activities will take place at or around the project site, it will be the responsibility of Proponent to coordinate involvement of relevant government authorities and service providers to maintain the project schedules.

The roles and responsibilities of some of these key stakeholders are included in the ESMP, However the detailed and described responsibilities will be illustrated in the Environmental Impact Assessment Report

Table 9-1: Summary of Environmental and Socioeconomic Management Plan

Phase	Potential Impacts	Management/Mitigation Measures	Target Level/Standard	Responsibility	Estimated Costs [TZS]
Pre-Construction	*Atmospheric air pollution* due to emissions of exhaust and fugitive gases	• Combustion of solid waste on the territories of site and camps is prohibited; • A speed limit for trucks should be observed • Bush clearance through burning should be avoided	CO-4.5g/kWh NOx-1.1 g/kWh HC-8.0 g/kWh PM-0.612 g/kWh Smoke 0.15g/m	Siha District Council	1,000,000
	Loss of biodiversity (both Flora and Fauna)	• Remove, without destroying, large Plants and ground cover where possible • Replant recovered Plants and other flora from local ecosystem after construction • The project proponent shall consult the experts for advice and for potential flora and stocks for re generation of disturbed vegetation in plant areas	As minimum disturbance as possible	Siha District Council	
	Climate change due to vehicle movement, bush clearance	• **Transition to Low-Emission Vehicles**: Promote the adoption of low-emission vehicles, such as electric vehicles (EVs) or hybrid vehicles, which have lower or zero tailpipe emissions. Encourage incentives for purchasing EVs and develop charging infrastructure. • **Improve Fuel Efficiency**: Encourage regular vehicle maintenance, proper tire inflation, and efficient driving practices to improve fuel efficiency and reduce emissions. Promote the use of cleaner fuels, such as biodiesel or renewable natural gas, where available. • **Restoration and Conservation:** Support initiatives for the restoration and conservation of natural habitats and ecosystems, as intact ecosystems	As minimum emission of greenhouse gases into the atmosphere	Siha District Council	Parts of Project cost

Phase	Potential Impacts	Management/Mitigation Measures	Target Level/Standard	Responsibility	Estimated Costs [TZS]
		contribute to carbon sequestration and climate regulation			
Construction Phase	*Atmospheric Air Pollution* due to emissions of exhaust and fugitive gases	• Combustion of solid waste on the territories of site and camps is prohibited; • A speed limit for trucks should be observed • Haul roads should be routinely maintained in good condition • The project proponent shall plant indigenous trees and grasses over a period of time on area. This will prevent fine dust entering ambient area. • The project proponent shall observe the standards for air quality throughout the operations and comply accordingly. • Person Protective Equipment should be well observed •	CO-4.5g/kWh NOx-1.1 g/kWh HC-8.0 g/kWh PM-0.612 g/kWh Smoke 0.15g/m	Siha District Council	20,000,000
	Hearing impairment due to increased noise levels from construction vehicles and machinery	• Machinery and equipment undergo regular inspection/maintenance; fitted with silencers and mufflers, use of noise insulation. • Personal Protective Equipment: provide and enforce use by all personnel working in noisy zones; • The contractor should adhere to relevant noise regulations and guidelines set by the authorities. • Limiting the duration and intensity of noisy activities during sensitive hours.	As minimum emission as possible	Siha District Council	1,000,000

Phase	Potential Impacts	Management/Mitigation Measures	Target Level/Standard	Responsibility	Estimated Costs [TZS]
		• The contractor should also consider scheduling noisy activities during periods when they would cause the least disruption to nearby residents and businesses. •			
	Injuries and fatal accidents due to occupational health and safety issues	• Noise will be limited to restricted times agreed to in the permit • Machinery and equipment undergo regular inspection/maintenance; fitted with silencers and mufflers, use of noise insulation. • Personal Protective Equipment: provide and enforce use by all personnel working in noisy zones; • Provide education to crew about noise-sensitive aquatic life; • Limit noise generating activities	As minimum emission as possible	Siha District Council	1,000,000 (for PPEs)
	Waste generation	• Prepare site waste management plan prior to commencement of construction works • Designate appropriate waste storage areas, • Develop collection and removal schedule, • Unusable construction waste will be disposed of at an approved dumpsite	Environmental Management (Solid Waste Management) Regulations, 2009 as amended in 2016	Siha District Council	Part of Project cost
	Employment Opportunity	• Employ locals for most of unspecialized labour • Procure local for most consumables available within the District • Manage local expectations by not overpromising • Registering of discontent/complaints from the local community, if any, and proper response	Local procurement and Local employment	Siha District Council	Part of project cost

Phase	Potential Impacts	Management/Mitigation Measures	Target Level/Standard	Responsibility	Estimated Costs [TZS]
Operation Phase	Disruption of air quality and effect on human health due to emissions of exhaust and fugitive gases	• The school can adopt renewable energy sources, such as solar panels and gas to meet the energy needs of the school such as lighting and cooking. • The school should prioritize energy-efficient designs and equipment within the school. This can involve the use of energy-efficient lighting systems, insulation materials, and energy-saving appliances. • The school can promote sustainable transportation options such as organizing carpooling initiatives for their staffs. • Develop a comprehensive cleaning program that includes regular dusting, vacuuming, and cleaning of surfaces to minimize dust, allergens, and contaminants. Use environmentally friendly and non-toxic cleaning products. • Regular monitoring of air quality and implementation of appropriate air pollution control measures should also be undertaken.	TZS 845:2005 Air Quality – Specification; TZS 983:2007 Air Quality - Vehicular Exhaust Emissions Limits	Siha District Council	5,000,000
	Noise emissions	• Installation of soundproofing materials in classrooms and common areas to reduce internal noise transmission. • Strategic planning of school facilities, such as locating noisy areas away from residential areas or utilizing buffer zones, can help minimize the impact on nearby communities. • Proper maintenance of equipment and facilities within the school premises can also contribute to noise reduction. • Regular monitoring of noise levels and compliance with relevant noise regulations and standards should be prioritized. This can involve periodic assessments and	**45dBA** during a day and **35dBA** during night	Siha District Council	5,000,000

Phase	Potential Impacts	Management/Mitigation Measures	Target Level/Standard	Responsibility	Estimated Costs [TZS]
		inspections to ensure that noise pollution levels remain within acceptable limits			
	Waste Generation	• Establishment of waste segregation systems, encouraging composting initiatives for the kitchen waste, and providing sufficient waste bins and collection points throughout the school premises. • The school should establish dedicated storage areas for hazardous waste such as laboratory chemicals, faulty electrical appliances, ensuring they are secure, properly labeled, and equipped with appropriate safety measures. • The school should also establish partnerships with authorized entities to ensure the waste is handled and disposed of in compliance with environmental regulations. • Designate bins specifically for the disposal of sanitary pads. These bins should be placed in female restrooms and other private areas, and they should have lids to maintain hygiene and provide privacy. • Construction of an incinerator for the management of the sanitary pads.	Environmental Management (Hazardous Waste Control and Management) Regulations, 2021.	School Administration	15,000,000
	Employment Opportunity	• Employ locals for most of unspecialized labour • Procure local for most consumables available within the District • Manage local expectations by not overpromising • Registering of discontent/complaints from the local community, if any,	Local procurement and Local employment	Siha District Council	20,000,000

Phase	Potential Impacts	Management/Mitigation Measures	Target Level/Standard	Responsibility	Estimated Costs [TZS]
	General Health and Safety hazards	• Establishment of a comprehensive health and safety policy. • Conducting regular inspections to identify and mitigate any potential hazards, such as faulty electrical systems, structural weaknesses, or unsafe equipment within the school premises. • Adequate emergency preparedness plans should be in place, including fire safety measures, first aid provisions, and clear evacuation procedures. • The school should prioritize maintaining a clean and hygienic environment to prevent the spread of diseases and ensure the availability of adequate sanitation facilities. • Promoting health and wellness among students should also be a focus, with initiatives like health education programs, access to clean drinking water, and appropriate waste management practices. • Implement security measures such as fencing of the school premises. Establish anti-bullying policies and procedures to address and prevent bullying incidents. •	Zero incidents and accidents	Siha District Council	1,000,000
Decommissioning	Injuries and fatal accident	• Effective communication and coordination among project stakeholders, including contractors, workers, and relevant authorities, are	Zero accident	Siha District Council	1,000,000

Phase	Potential Impacts	Management/Mitigation Measures	Target Level/Standard	Responsibility	Estimated Costs [TZS]
		vital for maintaining a safe working environment. • It is crucial for the contractor to prioritize safety measures and adhere to strict guidelines and regulations by implementing comprehensive safety protocols, providing appropriate personal protective equipment (PPE), conducting thorough risk assessments, and ensuring proper training for workers to significantly reduce the likelihood of accidents and injuries during the demolition activities. •			
	Unemployment	• Preparing the workers to be employed anywhere else in the different sectors through provision of extensive training. • Preparing the workers for forced retirement by providing skills for self-employment, wise investment. • Ensuring that all employees are members of the National Social Security Fund and the employees should ensure that the Proponent contributions are made.	All employees	Siha District Council	N/A

10 ENVIRONMENTAL AND SOCIAL MONITORING PLAN

10.1 Introduction

Environmental Management Plan (EMP) intends to set forth "environmental and social conditions" that are to be abided by the proponent. It aims at ensuring effective implementation of the proposed mitigation measures

The Project requires regular monitoring and auditing of key environmental, health and safety indicators to:

- assess the overall performance of the project;
- to comply with local environmental, health and safety legislation; and
- Benchmark its project with other similar projects for improved management.

Key environmental parameters of concern with the operation of such a project are:

- water consumption,
- energy consumption; and
- solid and liquid waste handling;

Additionally, the following social parameters need to be keenly monitored to ensure benefits to the community and its sustainability:

- Health status of workers;
- Employment opportunities to local community; and
- Corporate Social responsibility programs.

With these factors in mind, there are a need to put in place elaborate and sound environmental management system and mechanisms of monitoring on a continuous basis the environmental performance of the Project. Undertaking monitoring and auditing of key environmental parameters and putting in place of all approved recommendation of the environmental management plan and conditions of the EIA license achieved, this Monitoring undertaken are both active and reactive.

With increased urban development come the challenges of waste handling and disposal. The monitoring program developed must consider possible impacts of solid waste disposal. All wastes emanating from the Project and its disposal must be monitored to ensure no environmental nuisance or degradation arises.

10.2 Parameters are Monitored

Monitoring involves measuring, observing, recording and evaluation of physical, socioeconomic and ecological variables within the project area and the neighborhood. This may include the following:

Table 10-1: Recommended Environmental and Social Monitoring Plan

Monitoring Parameter	Target Level	**Parameter to be monitored**	**Monitoring Frequency**	**Monitoring Area**	Target Level/ Performance indicator
Air Quality	EMA Regulation on Air Quality (United Republic of Tanzania, 2007) PM 10 of 90 Ug/Nm^3	SO2, NOx, CO2, CO, Particulate matter (TSP, PM10, PM2.5	Monthly	Established Monitoring stations	Standard limit
Noise Levels	Noise and Vibration Levels Regulations (United Republic of Tanzania, 2011) 45 dBA (Leq) Day and 35 dBA (Leq) Night and baseline of 50dBA (Leq)	Noise level	Monthly	Established Monitoring stations	<85, (>85=PPE)
Visual Impacts	As minimum visual/aesthetic impacts as possible	Numbers	Monthly	Project area	Zero incident
Soil Quality	Soil Quality Standards Regulations (United Republic of Tanzania, 2007) Hydrocarbons	Eroded area	Monthly	Established Monitoring stations	No eroded area / the disturbed areas reinstated
Water Quality.	Water Quality Regulations (United Republic of Tanzania, 2007) and baseline Turbidity of 5NTU, pH of 7)	Redox potential Conductivity pH	Quarterly	nearby water body	Accepted standard
Terrestrial Ecology	No disturbance on ecology	Biodiversity	Monthly	Cleared area	No cleared areas other than defined area. All affected areas are replanted.
Waste management	No hazardous waste and No haphazard disposal of waste. Regulation on Waste Management (United Republic of Tanzania, 2009) and Regulation on Hazardous Waste Management (United Republic of Tanzania, 2009)	Solid wastes/litter	Weekly inspection	Project area & in vicinity	Zero litter/No observed wastes
Socioeconomic Impacts (Health and Safety)	Zero incidents and accidents Zero new cases of HIV and Zero discrimination	Incidents	Monthly	Project area	Zero incidents and accidents

Monitoring Parameter	Target Level	**Parameter to be monitored**	**Monitoring Frequency**	**Monitoring Area**	Target Level/ Performance indicator
					Zero new cases of HIV and Zero discrimination
Socioeconomic Impacts (Infrastructure)	• Infrastructure in same or better condition as before the project • No accidents or incidents from vehicles	Incidence	Weekly inspection	Project area	Infrastructure in same or better condition as before the project No accidents or incidents from vehicles
Socioeconomic Impacts (Employment)	Local procurement and Local employment	Numbers	Regularly	Project area	Local procurement and Local employment
Ground water pollution	Zero oil spilled area	Hydrocarbons/ Oil & Grease / area affected	Quarterly	Project area / nearby water body	Zero oil spilled area
Ergonomic impacts	Zero incidence	Numbers	Frequency	Project area	Zero incidence
Creating community awareness on project's activities	Representatives of PAPs or entities involved within first month.	Numbers	Monthly	construction site/Working area	Zero accident

10.3 Environmental Health and Safety Auditing

Annual Environmental Health and Safety Audits should be carried out as provided for in the Environmental (Impact Assessment and Audit) Regulations of 2005. The Audits serve to confirm the efficacy and adequacy of the Environmental Management Plan. The audits should include but not limited to the following:

- Air, soil, and water pollution
- Waste generation, management and disposal;
- Resources utilization
- Occupational Health and Safety
- Traffic Safety;
- Monitoring and

Views and comments from neighbors and progress in implementation of Environmental Health and Safety Management Plan.

10.4 Awareness and Education

The project proponent with collaboration with contractor or local workers shall encourage environmental awareness among his foremen before and during implementation of the project. The education will include:

- Provide copies of the EMP and discuss its contents with all construction foremen and workers
- Discuss techniques and answer questions about erosion and pollution control at regular site safety meetings
- Demonstrate proper housekeeping methods
- Inform the workers of actions to take in the event of spill of hazardous materials (oil, fuel, bitumen, concrete, etc.)
- Post sign at key locations reminding workers how to properly store construction materials, handle and dispose of toxic wastes, wash water, and similar instructions
- Remind workers of fines, penalties that may be levied against the project by the local permitting agencies control environmental destruction is not adhered to

11 RESOURCE EVALUATION/COST BENEFIT ANALYSIS

11.1 Introduction

Chapter 7 and 8 of this EIS report have documented the cost/impacts of the project to Kilimanjaro region and the degree to which they can be substantially mitigated. Cost-benefit analysis is normally done in the framework of feasibility study of an activity.

The aim of cost-benefit analysis is to inform the project developer to make a decision on: whether it makes economic sense to continue with the project; whether the chosen option is a cost-effective alternative; and the estimate of the size of a project. For this project, the costs will include: capital expenditures; operating and maintenance costs; staff costs; materials; research and development; and environment, health and other social costs.

Benefits may include: build on the achievements of previous projects in the education sector which have supported quality improvements. It will support the expansion of the secondary school network in order to substantially reduce travel distances by bringing secondary schools closer to children's homes through an expansion of the secondary school network.

Construction will be guided by a minimum infrastructure package based on the School Construction and Maintenance Strategy and minimum construction standards aligned with the Projects Environmental and Social Framework.

11.2 Environmental Cost and Benefit Analysis

Environmental cost benefit analysis is assessed in terms of the negative and positive impacts. Furthermore, the analysis is considering whether the impacts are mitigatable and the costs of mitigating the impacts are reasonable. As it has been mentioned in Chapters 7 and 8, the potential benefits of the project, in terms of economic advancement and social benefit are substantial.

Total project investment cost is TZS 4 billion in this regards monitoring costs which are less are more less than project costs, therefore this project is resourceful viable.

The environmental impacts are reasonably mitigatable. So to mitigate negative impacts, when compared to the required data are relatively small.

11.3 Effect on the Local Community

The benefits from project development can be judged in terms of employment, social welfare, education development, and the local economy (wages, goods and services). Thus, there will be a substantial spread of the benefit within the community through the provision of food, accommodation and other regular services to the employees and students.

11.4 Infrastructure Development

The upgrading, development and maintenance of local infrastructure are benefits that will extend far beyond the project's scope and lifetime.

Also, during operation of the project there will camps that will be constructed with engineering standards at the site especially at Mawasiliano Village nearby or within project camps

11.5 Advantages for the Broader Community and Country

The earnings of the project will in the final analysis it will contribute the following:

- Creating a gender sensitive, learner-friendly school environment through investing in supportive structures in the school and community including trained school guidance counselors, stronger links with the community through Parent Teacher Associations and life skills training.

- Supporting female students to avoid getting pregnant and dropping out of secondary school through measures that include
    - Encouraging community awareness of risks for girls; and
    - Supporting safe passage and reducing the distance to schools to reduce the risks of gender-based violence on the way to school.
    - Supporting girls who become pregnant to access recognized, quality Alternative Education Pathways (AEPs)
- To obtain lower secondary certification and continue with upper secondary education or post-secondary education.
- Improving the quality of secondary school teaching and learning environments through the hiring of additional qualified teachers in core subjects and providing textbooks in core subjects.
- Increasing the number of secondary school spaces through the construction of new classrooms that meet minimum infrastructure standards and supporting the expansion of the school network to bring schools closer to communities.
- Using innovative digital technology to facilitate mathematics and science teaching and improve learning

12 DECOMMISSIONING PLAN

12.1 Introduction

Decommissioning is the last phase of project life. It involves terminating project activities and operations and rehabilitating site to or close to its original state. It is anticipated that the project shall continue as long as there is a demand for a project, however, individual components of the project shall be decommissioned as need be.

12.2 Components

This decommissioning plan presents a conceptual framework on how the Project can be demolished if need. The plan takes into consideration on how materials and equipment, support infrastructure and land on which the buildings are standing on can be handled.

12.3 Disposal/Demolition of Project Storage Buildings

Decommissioning of project shall only involve dismantling of the temporary office and store room that will be constructed during construction phase.

12.4 Considerations

- All employees involved in the decommissioning and demobilization exercises must have proper protective gear throughout;
- Decommissioning and demobilization activities should be done during day time only unless it's an emergency;
- Waste resulting must be disposed at designated waste disposal sites;
- All relevant lead agencies must be involved in the exercise; and
- Emergency services such as first aid and ambulance services must be on standby in case of any eventualities.

13 CONCLUSION AND RECOMMENDATIONS

13.1 Conclusion

This ESIA report provide description of the proposed project, presents a concept project description and has acknowledged a number of issues pertaining to the operation of Project. The issues/ impacts have been assessed and described in some detail to gain an adequate understanding of possible environmental effects of the project in order to formulate mitigation measures in response to negative aspects, which have emerged.

The project shall have massive benefit to the scientific community and human race as a whole as it shall enable development of a deterministic model of climate change.

Given the nature and location of the development, the conclusion is that the potential impacts associated with the proposed development are of a nature and extent that can be reduced, limited and eliminated by the application of appropriate mitigation measures.

The key findings of the ESIA study conducted by Tansheq Limited are as follows:

- The Project Development Objectives (PDOs) are to increase access to secondary education, provide responsive learning environments for girls and improve completion of quality secondary education for girls and boys. SEQUIP will contribute to addressing key challenges to girls and boys accessing education and this school will definitely target girls for their studying excel. The project aims to reduce distance to government target: 3km (or 45 minutes)
- The project will contribute to increasing the total number of students in secondary education including Alternative Education Pathways (AEP) by 250,000. It will directly benefit about 1.8 million secondary school students, including 920,000 girls, 95% of whom are enrolled in lower secondary. SEQUIP will help more girls' transition from lower to upper secondary education, as girls are underrepresented at this level

13.2 Recommendations

To ensure sustainability and achievement of the project's overall goal, the project should manage environmental, health, and safety issues in a systematic manner. This can only be accomplished if the ESMP and the Monitoring Plan developed herein are properly followed and improved upon whenever flaws are discovered.

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United Republic of Tanzania, SEQUIP Environmental and Social Management Framework (2020)

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APPENDICES

APPENDIX I: LIST OF THE STAKEHOLDERS CONSULTED

TANSHEQ

TANZANIA SENSA 23 Agosti 2022 Jiandae Kuhesabiwa

TAMISEMI

SEQUIP – ENVIRONMENTAL AND SOCIAL IMPACT ASESSMENT

Location ~~Arusha~~/SIHA KILIMANJARO Date 30/09/2022

S/N	Name/ Jina	Title/ Cheo	Contacts/ Mawasiliano	Signature/ Sahihi
1	MAIMAYO P. LUKUMAY	MKITI KIJIJI	0657233463	
2.	BAHATI P MASSALE	M/MKUU MAWASILIANO	0766517004	
3.	CONSTANTINO C. LUOGA	AFUA ELIMU KATA	0766 937439	
4.	ABRAHAM LOGOLIE MOKEL	M/KITI KIJIJI	0719320231	
5	EDWARD LOISHIYE MOLLEL	M/KITI KIJIJI	0719491389	
6	MERIKIZITI LEKISHON LUKUMAI	MJUMBE	0766189576	
7	ROZI R. MINJA	MJUMBE	0766283569	
8	NEEMA J MOLLEL	MJUMBE	0768680098	
9	Neema William	Mjumbe	—	Neema
10				
11				

TANSHEQ

TAMISEMI

SEQUIP – ENVIRONMENTAL AND SOCIAL IMPACT ASESSMENT

Location: SIHA / KILIMANJARO Date: 30/9/2022

S/N	Name/ Jina	Title/ Cheo	Contacts/ Mawasiliano	Signature/ Sahihi
1	MARCO MASUE	Kny DED	0656.270130	
2	JOEL MGALULA	Ag DSEO	0787886308	
3	Mathias A. Maskini	DEMO	0572164979	
4	PETER H. MCAKA	DSWO	0757-135048	
5	ALFRED R. MWITUMBA	DE	0712-267738	
6	GREYSON TWANA	SURVEYOR	0754850412	

30/09/2022

AFISA UGANI MTENDAJI (W)

SIHA

TANSHEQ

TAMISEMI

SEQUIP – ENVIRONMENTAL AND SOCIAL IMPACT ASESSMENT

Location: RUWASA - SIHA Date: 30/09/2022.

S/N	Name/ Jina	Title/ Cheo	Contacts/ Mawasiliano	Signature/ Sahihi
1	DEOGRATIUS M KISSIMA	ENG I	0786331953	

www.tansheq.com

TANSHEQ

TANZANIA SENSA 23 Agosti 2022 Jiandae Kuhesabiwa

TAMISEMI

SEQUIP – ENVIRONMENTAL AND SOCIAL IMPACT ASESSMENT

Location: SIHA (MAWASILIANO) Date: 30/09/2022

S/N	Name/ Jina	Title/ Cheo	Contacts/ Mawasiliano	Signature/ Sahihi
1	ZACHARIA LAZARO LUKUMAY.	DIWANI	0767562150	
2.	JEREMIAH THADEUS MANAWE	WEO- GARAGUA	0765532831	
3	JACKSON JOHNHAM MOYO	VEO MAWASILIANO	0713571665	

TANSHEQ TAMISEMI

SEQUIP – ENVIRONMENTAL AND SOCIAL IMPACT ASESSMENT

Stakeholder consultation

Name: Nkwamanyi G.D Title: REO

Signature: .... Date: 04th July, 2023

TANSHEQ TAMISEMI

SEQUIP – ENVIRONMENTAL AND SOCIAL IMPACT ASESSMENT

Stakeholder consultation

Name: MATHAI A. MASKINI Title: DEMO

Signature: .... Date: 01/07/2023

TANSHEQ TAMISEMI

SEQUIP – ENVIRONMENTAL AND SOCIAL IMPACT ASESSMENT

S/N	Name/Jina	Tittle/Jina	Contacts/Mawasiliano	Date/Tarehe	Signature/Sahihi
1.	JIMMY D MKUATT	REO	0785886444	04/07/2023	
2.	MAJIHAI - A MASKIN	DEMO	0672-164979	07/07/2023	
3.	JEREMIAH MKONAGI	KLM FIRE OFFICER	0713704172	04/07/2023	
4.					

APPENDIX II: APPROVED TERMS OF REFERENCE

THE UNITED REPUBLIC OF TANZANIA

VICE PRESIDENT'S OFFICE
UNION AND ENVIRONMENT

NATIONAL ENVIRONMENT MANAGEMENT COUNCIL

In reply please quote:

Ref: HE.88/145/83/2 **Date:** 13/03/2023

The Permanent Secretary,
President's Office Regional Administration
and Local Government (PORALG),
P.O Box 1923,
DODOMA.

RE: APPROVAL OF TERMS OF REFERENCE FOR THE ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF REGIONAL GIRLS SECONDARY SCHOOL ON PLOT NO. 235, BLOCK A, MAWASILIANO VILLAGE, GARARAGUA WARD, SIHA DISTRICT IN KILIMANJARO REGION

The above captioned subject refers.

2. The National Environment Management Council (NEMC) acknowledges receipt of the Scoping report and draft Terms of Reference (ToR) for undertaking an Environmental Impact Assessment (EIA) study for the above-mentioned project.

3. The Council has reviewed the submitted documents and found to be adequate thus can be used to guide Environmental Impact Assessment (EIA) study of the named project. Therefore, the Council is emphasizing that you undertake EIA study as required by the Environmental Management (Environmental Impact Assessment and Audit) (Amendment) Regulations, 2018 that is read as one with the Environmental Impact Assessment and Audit Regulation, 2005 which hereinafter referred to as the "Principal Regulations." In this regard you will be required to submit to the Council the Environmental Impact Assessment report accompanied by Non-Technical Summary both in Kiswahili and English for review process. The report should cover but not limited the following aspects:

i. The location of the project including at least four corner points for geographical coordinates and the physical area that are affected by the project operations, this should be supported by maps;
ii. Detailed description of project activities of the proposed project;
iii. Consultations of all key stakeholders such as Regional Administrative Secretary (RAS) – Education Section; Rural Water Supply and Sanitation Agency (RUWASA); Tanzania Building Agency (TBA); Tanzania Electric Supply

Northern Zone Office, 6th Floor, Ngorongoro Tourism Center, P.O. Box 1041 Arusha,
Phone: 0738064666, Email Address: nemcarusha@nemc.or.tz, Website: www.nemc.or.tz

Company Limited (TANESCO); Regional Fire and Rescue Force; Occupational Safety and Health Authority (OSHA) - Zonal Office; Tanzania Rural and Urban Roads Agency (TARURA); Ministry of Lands, Housing and Human Settlement Development (MLHHSD); respective Local Government Authority and neighbouring community and the addressed views and concerns. Consultation forms should bear **date** and each consulted stakeholders and **signed** against his / her **name** as the law requires;

iv. Nature, quantity and source of all construction materials;
v. Explanation of types and amount of waste produced and its management mechanisms during all phases of the project implementation;
vi. A site layout plan showing proposed project components;
vii. Detailed architectural and engineering designs as approved by the relevant authority;
viii. Findings on the Geotechnical study for the proposed project;
ix. Land ownership document indicating land size and land use of the area;
x. Necessary safety measures at the site throughout the project life span;
xi. Compliance status of all applicable Legal and Policy frameworks and their respective requirements;
xii. Appended all relevant permits / licences /certificates for the proposed project;
xiii. The original signatures of registered EIA experts and acknowledgement for unregistered experts; and
xiv. The approved Terms of Reference.

4. The Council will inform you to organize the site verification visit to the proposed project area before the review meeting of which transport to and from the proposed project site will be provided by the proponent.

5. In case you need any clarification on this matter do not hesitate to contact us through Telephone No. +255 753 395 158.

Lewis Nzali
For: Director General

Northern Zone Office, 6th Floor, Ngorongoro Tourism Center, P.O. Box: 1041 Arusha,
Phone: 0738064966, Email Address: nemcarusha@nemc.or.tz, Website: www.nemc.or.tz

APPENDIX III: CERTIFICATE OF OCCUPANCY

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF LANDS, HOUSING AND HUMAN SETTLEMENTS DEVELOPMENT

Telegrams: LANDS
Telephone: 2121241-9
In reply please quote:
Ref. No. LR/T 68913

LAND REGISTRY,
P.O Box 1191,
Dar es salaam.
Date: 06 Oct, 2023

SIHA DISTRICT COUNCIL
P.O Box 129
SANYA JUU

Sir/Gentlemen/Madam,

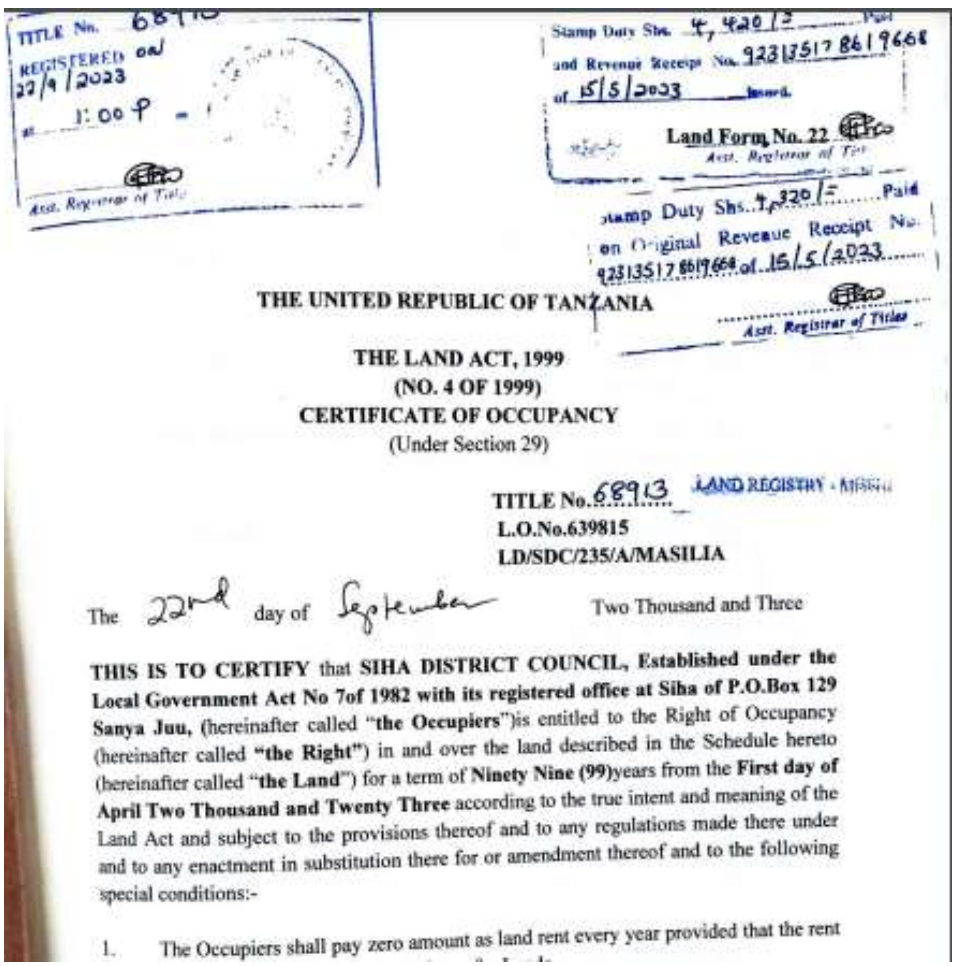
RE: TITLE NO: 68913 LAND OFFICE NO: 639815
PLOT NO. 235 BLOCK A AT mawaliano

I have the honour to enclose herewith duplicate of the Certificate of Title Numbered as above please.

REGISTRAR OF TITLES

Asst. Registrar of Titles
Ministry of Lands and Human Settlements Development
P. O. Box 190

Copy to: Commisioner for Lands
Your LD File No: LD/SCD/235/A/Mawasiliano refers



TITLE No. 68913
REGISTERED on 22/9/2023 at 1:00 P
Asst. Registrar of Titles

Stamp Duty Shs. 4,420/= Paid
and Revenue Receipt No. 92313517 8619668
of 15/5/2023 issued.
Land Form No. 22
Asst. Registrar of Titles

Stamp Duty Shs. 4,320/= Paid
on Original Revenue Receipt No.
92313517 8619668 of 15/5/2023
Asst. Registrar of Titles

THE UNITED REPUBLIC OF TANZANIA

THE LAND ACT, 1999
(NO. 4 OF 1999)
CERTIFICATE OF OCCUPANCY
(Under Section 29)

TITLE No. 68913 LAND REGISTRY - MISSU
L.O.No.639815
LD/SDC/235/A/MASILIA

The 22nd day of September Two Thousand and Three

THIS IS TO CERTIFY that **SIHA DISTRICT COUNCIL, Established under the Local Government Act No 7of 1982 with its registered office at Siha of P.O.Box 129 Sanya Juu,** (hereinafter called "**the Occupiers**")is entitled to the Right of Occupancy (hereinafter called **"the Right"**) in and over the land described in the Schedule hereto (hereinafter called "**the Land**") for a term of **Ninety Nine (99)**years from the **First day of April Two Thousand and Twenty Three** according to the true intent and meaning of the Land Act and subject to the provisions thereof and to any regulations made there under and to any enactment in substitution there for or amendment thereof and to the following special conditions:-

1. The Occupiers shall pay zero amount as land rent every year provided that the rent

2. **The Occupier shall: -**

(i) Be responsible for the protection of all beacons on the land throughout the term of the Right. Missing beacons will have to be re-established at any time at the Occupier's expenses as assessed by the **Director** responsible for **Surveys** and **Mapping.**

(ii) Do everything necessary to preserve the environment and protect the soil and prevent soil erosion on the land and do all things which may be required by the authorities responsible for environment and to achieve such objective.

(iii) Erect on the land buildings in permanent materials designed for use in accordance with the conditions of the Right and which conform to the building line (if any) decided by **The Siha District Council** (hereinafter called "the Authority).

(iv) Submit building plans to the Authority within six months from the date of **The Right.**

(v) Begin building construction within the **first six months** after the approval of the building plans by **The Authority**.

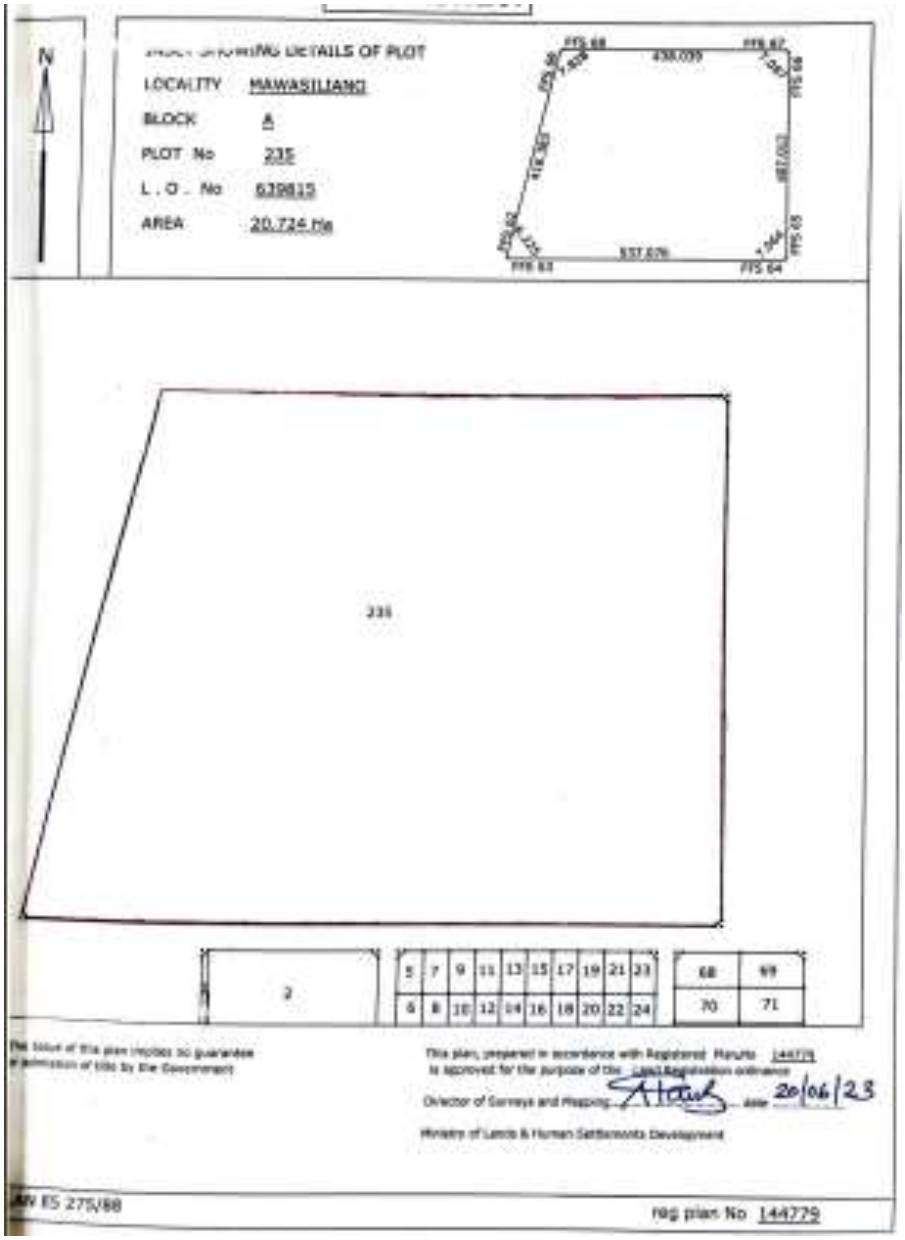
(vi) Completed building construction within **thirty six months** from the day of commencement of **The Right**.

3. **USER:** The Land shall be used for **EDUCATIONAL BUILDINGS. Use Group "K" Use Classes (b) as** defined in The Urban Planning **(Use Groups and Use class)** Regulations **2018 Government Notice No.91 Published on 9/3/2018.**

4. The Occupiers shall not assign the Right within three years of the date hereof without the prior approval of the Commissioner.

5. The Occupiers shall deliver to the Commissioner notification of disposition in prescribed form before or at the time the disposition is carried out together with the payment of all premia, taxes and dues prescribed in connection with that disposition.

6. The **President** may revoke the right for **good cause** and in **public interest.**


N
LOCALITY MAWASILIANO
BLOCK A
PLOT No 235
L.O. No 639815
AREA 20.724 Ha
235
2
5 7 9 11 13 15 17 19 21 23
6 8 10 12 14 16 18 20 22 24
68 69
70 71
20/06/23
reg plan No 144779

Schedule

All that Land known as Plot **No 235 block 'A'** situated at **Mawasiliano in Siha District** Containing **Twenty Decimal Point Seven Two Four (20.724) Hacters** shown for identification only edge red on the plan attached to this Certificate and defined on the registered survey Plan number **144779** deposited at the office of the Director Survey and Mapping at Dar-es-salaam.

Given under my hand and my official seal the day and your first above written.

ASSISTANT COMMISSIONER: FOR LANDS

We, the within named **SIHA DISTRICT COUNCIL** hereby accept the terms and conditions contained in the foregoing Certificate of Occupancy.

SEALED with the common seal of the **SIHA DISTRICT COUNCIL**

And DELIVERED in the presences of us this 31st day of JULY 2023

Signature .....
Name DR HAJI MUSA MMASI
Postal addresses Box 129 SAMYA JW
Qualification DISTRICT EXECUTIVE DIRECTOR (DED)

Signature .....
Name DILLAN BENJAMIN KRASIA
Postal addresses P.O. BOX 124-SAMYA JULI
Qualification DISTRICT COUNCIL CHAIRMAN

APPENDIX IV: MINUTES FOR THE VILLAGE MEETINGS SHOWING THAT THE VILLAGERS HAVE WILLINGLY CONSENTED TO GIVE THE LAND OF 50 ACRES WITHOUT ANY COMPENSATION.

HALMASHAURI YA WILAYA YA SIHA

OFISI YA AFISA MTENDAJI
KIJIJI CHA MAWASILIANO
SLP 104 S/JUU
13/04/2021

OFISI YA MKURUGENZI (W)
SLP. 129
SIHA

YAH: KUWASILISHA MIHTASARI YA VIKAO VILIVYORIDHIA KUTOA ENEO LA UJENZI WA SEKONDARI YA BWENI YA WASICHANA

Somo tajwa hapo juu lahusika.
Napenda kuwasilisha kwako mihtasari ya vikao vilivyoridhia kutoa eneo la ujenzi wa Sekondari ya Bweni ya Wasichana kiasi cha ekari hamsini (50).
Halmashauri ya Kijiji pamoja na Mkutano Mkuu wameridhia kutoa eneo hilo la ujenzi wa Shule mradi.
Nimeambatanisha mihtasari.

Asante

Noted 14/04/2021

13/4/2021

Jackson Moyo
Afisa Mtendaji

MUHTASARI WA KIKAO CHA HALMASHAURI YA KIJIJI CHA MAWASILIANO TAR 27/03/2021

AGENDA
1. KUFUNGUA
2. KUSOMA KIKAO KILICHOPITA
3. YATOKANAYO
4. MCHANGO WA UJENZI WA ZAHANATI
5. KUMPITISHA FUNDI WA UJENZI
6. ENEO LA UJENZI WA SEKONDARI MPYA
7. TAREHE YA UZINDUZI WA UJENZI WA ZAHANATI
8. MENGINEYO
9. KUFUNGA KIKAO

AGENDA NAMBA 1 KUFUNGUA Kikao kilifunguliwa na Mwenyekiti wa Kijiji Saa 6:03 mchana

AGENDA NAMBA 2 KUSOMA KIKAO KILICHOPITA.
Wajumbe wa Kikao waliomba kikao hicho kisisomwe waendelee na agenda nyingine zinazofuata ili wapate kuyadili kwa kina.

AGENDA NAMBA 3. YATOKANAYO – Hapakuwa na yatokanayo

AGENDA NAMBA 04 MCHANGO WA UJENZI WA ZAHANATI
Afisa Mtendaji alifafanua agenda hii ya ujenzi wa Zahanati kwa kuwaeleza faida zitokanazo na kuwa na huduma ya afya karibu itawezesha kupata tiba yenye uhakika kupunguza mwendo mrefu unaofanywa kufuata huduma mbali Wajumbe walikubaliana ili kufanikisha

Waliuliza idadi ya kaya zilizopo na zenye uwezo wa kuchangia mi mzapi. Kila mwenyekiti alitoa idadi ya kaya zake na jumla zilifikia kaya Kitongoji cha Kleemu kaya 150.
Kitongoji cha Mawasiliano kaya 171 Jumla ya kaya zote ni 121 zenye uwezo wa kuchangia ni kaya 300

Azimio la kikao kila kaya yenye uwezo wa kuchangia Itachangia Shilingi elfu arobaini tu 40000/= kwa ajili ya ujenzi wa Zahanati na ujenzi wa Shule ya msingi Kleemu na S/m Mawasiliano

AGENDA NAMBA 05 KUMPITISHA FUNDI UJENZI-
Afisa Mtendaji alisoma barua za mafundi waliolete maombi ya ujenzi wa Zahanati ya Kijiji ambao ni Gabriel G. LOOTA na ZEPHANIA L. MOLLEL
Gabriel G. Loota alisoma alipenge kwa Tsh 18000,000/.
Zephania alipenge kwa Tsh 4500,000/=
Fundi Mwenyekiti E. Kessy alisoma vyeti kufahamu na mafundi ana kazi nyingi.
Fundi alichaguliwa ni Zephania L. Mollel.
Alipewa tarehe kazi hiyo itaanza tarehe 8/04/2021 ambapo kutafanywa uzinduzi wa ujenzi wa ujenzi wa Zahanati hiyo utakaozinduliwa Mh. DC Siha

AGENDA NAMBA 06. ENEO LA UJENZI WA SEKONDARI MPYA
Agenda hii ilizungumziwa na ujio toka Halmashauri Walileta umuhimu wa Shule hiyo kujengwa katika eneo la Mawasiliano Tulikuwa first zitakazopitika na (fund) kwa Wenyeji DR. Barnabas Mbwambo kwa niaba ya Mkurugenzi alitoka kuja kuhakikisha

upatikanaji wa eneo hilo la ekari hamsini pamoja na wenzake aliyefuatana nao akiwemo Madanga J Buru (Afisa Ardhi) Marko Masue Ag DEO na Eliza M Ngonyani DSEO Sisi wote waliolezea ni nini kinacho takiwa kifanyike

Wajumbe wa Serikali ya Kijiji walikubali na kusema wako tayari kutoa ekari hamsini (50) kwa ajili ya kujenga Sekondari hiyo ya Bweni Wajumbe walitoa ruhusa eneo hilo life lipimwe na pia waleshirikisha mkutano mkuu wa Kijiji ushirikishwaji uliofanyika tarehe 30/3/2021 kwa ushirikishwaji

AGENDA NAMBA 07 SIKU YA UZINDUZI WA UJENZI WA ZAHANATI

Kwa agizo la Mh. Onesmo Buswelu (DC) aliagiza kuanza kwa ujenzi ujenzi wa Zahanati mara moja Wajumbe walikubaliana uzinduzi huo uanze mara moja tarehe 08/04/2021.

Wajumbe wa kikao hicho walitoa ahadi ya mifuko 20 ya Saruji ambapo Mh DC alichangia kuleta mifuko 10 ya Saruji siku hiyo

AGENDA NAMBA 08 MENGINEYO - Hakuna Mengineyo

AGENDA NAMBA 07 KUFUNGA - Kikao kilifungwa na Mwenyekiti wa Kijiji Saa 9:41 alasiri kwa kuwa rekodi kwenye mkutano uliofanyika kesho.

Jackson J Mose
A/Fisa Mtendaji

APPENDIX V: EMERGENCY RESPONSE AND PREPAREDNESS PLAN

1.0 Introduction

The purpose of this emergence Response and preparedness Plan is to adequately save lives and avoid injuries safeguard property and records and also establish procedures, responsibilities, resources and an organizational chain of response to emergency cases occurring within school compound. This plan will be handling man-made or natural events including fire, hazardous material, chemicals, medical injuries and earthquake, etc.

1.1 Emergences Response Procedures

1.1.1 Fire Emergences

Students, staff, visitors, and members of the school community are kindly requested to remain vigilant and promptly report any signs or evidence of fire within the school premises. It is essential to observe and identify the following indicators:

I. **Smoke**:

- Report any sight or smell of smoke, regardless of its source or location within the school buildings or surrounding areas.
- Pay attention to areas where smoke may accumulate, such as stairwells, restrooms, or utility rooms.

II. Burning smell:

- Take note of any unusual or strong burning odors that may indicate a fire.
- Report any such smell, even if there is no visible smoke or flames.

III. Abnormal heating of any material or machines:

- Be observant of any objects, equipment, or machinery that exhibit abnormal or excessive heat.
- Report any instances where materials or devices feel unusually hot to the touch.

The swift detection and reporting of potential fire incidents are crucial for ensuring the safety and security of everyone within the school. All members of the school community are encouraged to remain alert and immediately inform the designated authorities or the emergency response team upon discovering any of these fire-related signs or evidence. Remember, early detection and timely reporting can help prevent the escalation of fire hazards and facilitate prompt response and evacuation procedures if necessary.

1.1.1.1 Fire response Plan (for Large Fires)

I. Use emergency communication systems to notify the Emergency Coordinator/Supervisor immediately of the fire's location.
II. Ensure that doors in large buildings open outwardly to facilitate easier movement of people outside the building.
III. Activate the nearest fire alarm within the premises to alert others of the emergency.
IV. If safe to do so, rescue any person in immediate danger and move them to a place of safety.
V. If someone's clothing is on fire, cover them with fire blankets. If fire blankets are not available, use water from showers or other sources to extinguish the flames.
VI. Proceed to the nearest exit and evacuate the building area using the nearest available exit.
VII. Close doors behind you to contain any smoke and prevent the fire from spreading further within the building.
VIII. Proceed to the designated assembly area and do not re-enter the building until it has been deemed safe to do so by emergency personnel.

IX. If you are unable to exit the room, try to prevent smoke from entering by using available materials to block gaps under doors or windows.
X. Make efforts to draw attention to your location if you are trapped. Use a phone, window, or call for help to alert others. Remember, smoke inhalation is a significant danger in fires.
XI. Only attempt to use a fire extinguisher if the fire is small and you have been properly trained to operate it safely.
XII. If you have any doubts about operating the fire extinguisher or if the fire extinguishing attempts are ineffective, evacuate immediately from the building.
XIII. Call the firefighting crew or emergency services (e.g., dial 911) immediately for professional assistance.

1.1.2 Chemical and Hazardous Material Spills

This section covers important information for emergence involving the release of chemical or hazardous substance that could harm people health and environmental.

- Train laboratory staff and science teachers in proper safety protocols.
- Establish clear guidelines for reporting accidents or injuries.
- Implement procedures for quickly and safely evacuating students from the laboratory area.
- Designate staff members responsible for administering first aid and contacting emergency medical services, if necessary.

1.1.3 Medical Emergencies

I. Remain calm and focus on ensuring the safety and well-being of all individuals involved, without compromising your own safety.
II. Immediately seek help by contacting the designated emergency phone number for the clinic and inform the Supervisor or appropriate personnel.
III. Provide the necessary First Aid services to the injured person(s) as trained and within your capabilities.
IV. Avoid moving an injured person unless they are in immediate danger of further harm. Stabilize the person and wait for medical professionals to assess the situation.
V. Alert personnel in adjacent areas of any potential hazards to their safety, such as fire explosions, chemical contamination, or civil disturbances.
VI. If a person's clothing is on fire, cover them with a fire blanket if available. If not, instruct them to roll on the floor to extinguish the flames. If showers are immediately available, use them to douse the person with water.
VII. If chemicals have entered the eye, promptly flush the affected eye with plenty of water for at least 15 minutes, ensuring to wash the eyeball and inner surface of the eyelid.
VIII. If necessary, transport the injured person(s) to the nearest dispensary or hospital. If an ambulance is not readily accessible, utilize the available means of transportation to ensure timely medical attention.

1.2 Resources and Equipment

1.2.1 First Aid Kits

In the school area, each designated area will be equipped with a First Aid Kit, which will be stored in a readily accessible location for emergency team members. These kits will contain essential first aid items that can be used before seeking further medical assistance at the clinic.

To maintain the effectiveness of the First Aid Kits, the clinic staff and/or Office Supervisor will conduct regular inspections to ensure that the items are in good condition and have not expired. This includes checking the integrity of the packaging, verifying the expiration dates of medications and perishable items, and replenishing any used or depleted supplies

1.2.3 Fire Extinguisher

To ensure the safety of the school compound, fire extinguishers will be strategically placed in all buildings, including classrooms, dormitories, laboratories, the dining hall, and offices. These fire extinguishers will be regularly inspected to ensure they are operational and ready for use.

A yearly inspection will be conducted to verify the functionality and condition of each fire extinguisher. Trained personnel or a designated fire safety team will perform these inspections, checking for any signs of damage, ensuring that pressure gauges are within the recommended range, and confirming that safety seals are intact. If any issues are identified during the inspection, immediate maintenance or replacement of the fire extinguisher will be arranged.

1.2.5 Alarms

The school's alarm system serves as a crucial tool for emergency notification. In the event of an emergency, all students, staff, visitors, and contractors are required to respond promptly and gather at the designated assembly point once the alarm is activated. The safety and well-being of everyone within the school compound are of utmost importance, and this response protocol ensures a swift and organized evacuation or response to any potential threat or emergency situation. By adhering to this procedure, we can maintain a secure environment and effectively practice our emergency preparedness measures

1.3 Accident / Incident Reporting Obligation

- All incidents/accidents must be reported
- Notify the department responsible, Safety Managers and Environmental personnel if the accident/ Incident have led into Environmental impacts
- Report all incidents and accidents using and incidents/ Accident form to ensure that corrective measures are in place to prevent re occurrence in future
- The filled incident and Accident form will be signed off when all corrective is already done.

1.4 Responsibilities

1.4.1 Workers and Students

- Workers and Students are responsible to ensure that all incidents or suspicious situations are reported immediately
- When fire alarm signal has sounded or shout for fire, workers and students are required to immediately evacuated the buildings and if possible, knocking on their neighbor doors and while saying **EMERGENCE GET OUT!**
- Familiarize with the Emergence Response Plan
- Familiarize with the signs **EXIT, EMERGENCY EXIT, ASSEMBLY POINT**
- Observe the fire warning sign such as **DO NOT SMOKE, FIRE**
- To know where the assembly point is it

1.4.2 Office Supervisor/ Emergence Coordinator

Emergence Coordinator or office Supervisor will be responsible to responsible the rescue team (Fire crew, first aiders and emergence response team) during emergencies cases
To identify OHS training needs depending upon the existing requirement

1.4.3 District Secondary Education Officer

- To provide recourses to implement Emergence Preparedness Plan

1.4.4 Emergence Respond Team

- To quickly respond and evacuate he facility within the designated timeframe and follow all other procedures as listed in the emergency plan.
- Know where emergency and first aid equipment are found in the building (s) and how to use such equipment.
- Know the Emergency number and understand how the chain of command works.
- Known Emergence numbers and understand how the chain of command works

1.5 Trainings Programs

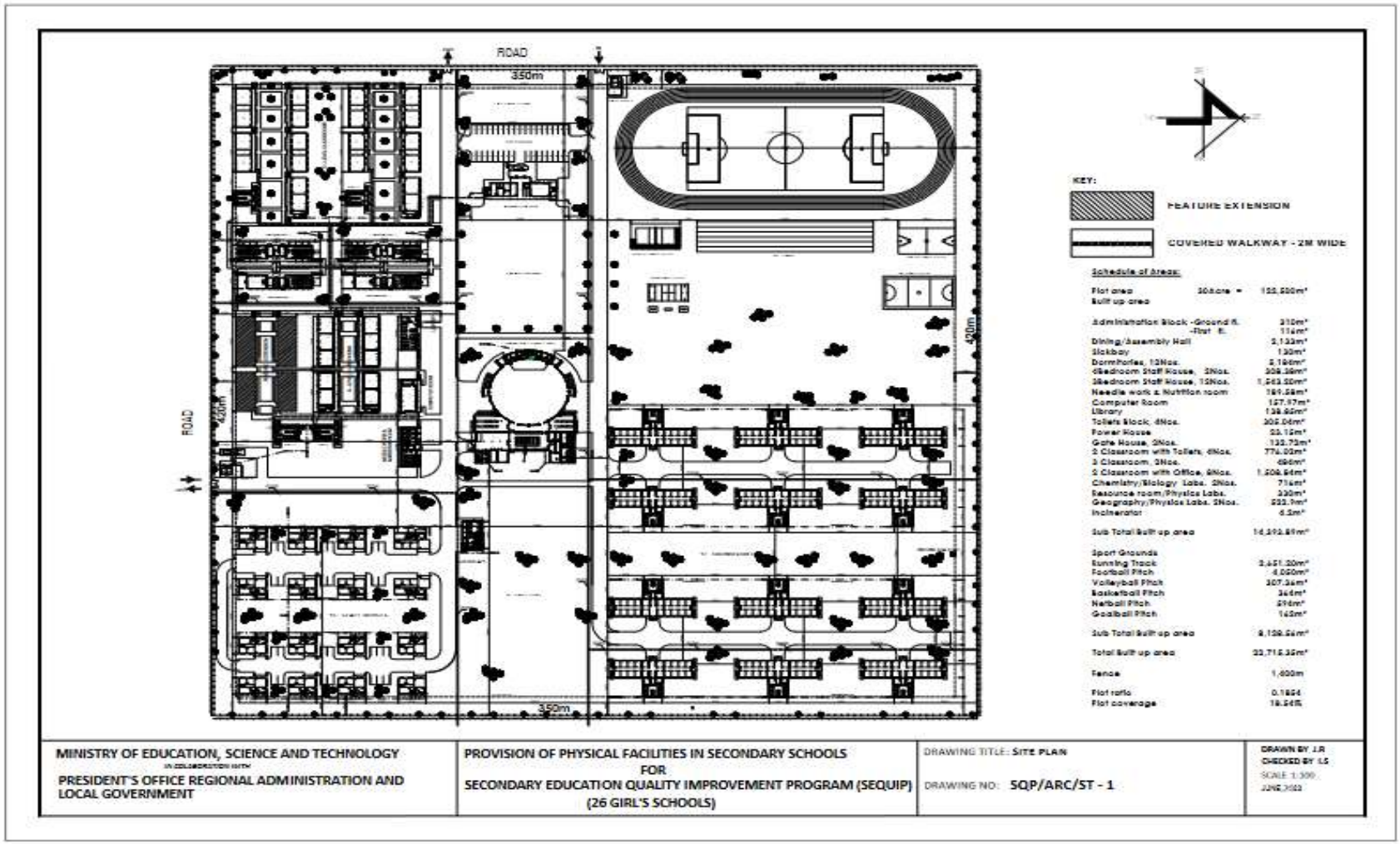
- Workers and Students will be trained depending upon the Training needs of each section
- Occupational Health, Safety and Environmental meeting will be held in month basis to ensure that issues from department are communicated and managed according
- Key personnel will be trained on evacuation procedures, use of fire Equipment's, first aid procedure etc.
- Notices indicting contact details for first aiders or appointed persons, the emergence contact number and where the first – aid box is must be posted at the site

1.6 Emergence Contact Detail

Table 1.1 List of Emergency Contacts

S/N	Organisation	CONTACT
1.	Siha District Executive Director	
2.	Siha District Secondary Education Officer	
3	Fire and Rescue Office	
4	TANESCO	
5	Gararagua Ward Executive Officer	
7	District hospital	

APPENDIX VI: SITE LAYOUT PLAN



APPENDIX VIII: LEGAL RELATIONSHIP BETWEEN LAND OWNER (Siha District council) and proponent (The Permanent Secretary-President's Office Regional Administration And Local Government)

JAMHURI YA MUUNGANO WA TANZANIA

OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA

Anuani ya Simu 'TAMISEMI' DODOMA
Simu Na: +255 26 2321607
Nukushi: +255 26 2322116
Barua pepe: ps@tamisemi.go.tz

Unapojibu tafadhali taja:

Mji wa Serikali – Mtumba
Mtaa wa TAMISEMI
S.L.P. 1923
41185 DODOMA.

Kumb. Na.DA.291/297/06/61 **16 Novemba, 2020**

Makatibu Tawala wa Mikoa
TANZANIA BARA.

Yah: **KUTAMBUA MAENEO YA KUJENGA SHULE ZA SEKONDARI ZA KITAIFA KWA WASICHANA KATIKA KILA MKOA KUPITIA MRADI WA SEQUIP**

Tafadhali rejeeni somo tajwa hapo juu.

2. Ofisi ya Rais -TAMISEMI kwa kushirikiana na Wizara ya Elimu, Sayansi na Teknolojia inaendelea na maandalizi ya Mradi wa Kuinua Ubora wa Elimu ya Sekondari (SEQUIP) utakaotekelezwa katika kipindi cha kuanzia mwaka wa fedha 2020/21 hadi 2024/25.

3. Mradi wa SEQUIP utahusisha, pamoja na shughuli nyingine, ujenzi wa shule moja mpya ya Sekondari ya Kitaifa kwa ajili ya wanafunzi wa kike kuanzia kidato cha kwanza hadi kidato cha sita. Ubainishaji wa eneo linalostahili kujengwa shule hiyo katika kila Mkoa unatakiwa kufanyika kabla ya kuidhinishwa kwa hatua za ujenzi.

4. Kwa barua hii, kila Mkoa unatakiwa kushirikiana na Halmashauri kubaini eneo la kujenga Shule mpya ya Sekondari ya Kitaifa ya Wasichana. Vigezo vifuatavyo vizingatiwe wakati wa uteuzi wa maeneo hayo:

i. Eneo teuliwa liwe na ukubwa usiopungua ekari ishirini na tano (25).
ii. Eneo lisiwe na aina yoyote ya mgogoro wa kijamii au wa mazingira.
iii. Eneo liwe linafikika kirahisi kwa usafiri wa barabara kutoka pande zote za nchi.

iv. Huduma za afya, maji na umeme zipatikane kwa karibu na eneo pendekezwa; na

v. Halmashauri pendekezwa isiwe yenye Shule ya Serikali Kongwe au kubwa ya Kitaifa ili kuhakikisha mgawanyo mzuri wa rasilimali na maendeleo kitaifa.

5. Vigezo vingine vya maeneo yenye sifa ya kujenga shule yazingatiwe kwa mujibu wa mwongozo wa usajili wa shule uliotolewa na Wizara ya Elimu, Sayansi na Teknolojia, uzingatiaji wa eneo kijiografia na kanuni za utunzaji wa mazingira.

6. Baada ya kubaini eneo linalofaa, kila Katibu Tawala wa Mkoa awasilishe jina la eneo husika ikiwa ni pamoja na taarifa zote muhimu zinazothibitisha ufikiwaji wa vigezo vilivyoainishwa katika Aya ya 4 na 5 hapo juu.

7. Pamoja na barua hii, naambatisha majina ya Halmashauri zinazopendekezwa kujengwa shule hizo zitakazoanzishwa. Hata hivyo, uongozi wa Mkoa unaweza kufanya mabadiliko ya mapendekezo haya kwa kadri utakavyoona inafaa kwa kuzingatia vigezo vyote vya uteuzi wa maeneo ya ujenzi wa shule hizo. Majina ya shule na usimamizi wa usajili wa shule pendekezwa utaratibiwa na Ofisi ya Rais – TAMISEMI baada ya ujenzi kukamilika.

8. Taarifa hiyo iwasilishwe Ofisi ya Rais – TAMISEMI kabla ya tarehe **31 Desemba, 2020.**

9 Ninawashukuru kwa ushirikiano wenu.

Eng. Joseph M. Nyamhanga
KATIBU MKUU

HALMASHAURI ZINAZOPENDEKEZWA KUJENGWA SHULE MPYA ZA SEKONDARI ZA WASICHANA KWA KILA MKOA		
Na.	**Mkoa**	**Halmashauri**
1.	Arusha	Longido
2.	Dar es Salaam	Ubungo
3.	Dodoma	Chamwino
4.	Geita	Geita DC
5.	Iringa	Kilolo
6.	Kagera	Karagwe
7.	Katavi	Nsimbo
8.	Kigoma	Uvinza
9.	Kilimanjaro	Mwanga
10.	Lindi	Lindi DC
11.	Manyara	Kiteto
12.	Mara	Tarime DC
13.	Mbeya	Kyela
14.	Morogoro	Morogoro DC
15.	Mtwara	Nanyumbu
16.	Mwanza	Buchosa
17.	Njombe	Ludewa
18.	Pwani	Chalinze
19.	Rukwa	Kalambo
20.	Ruvuma	Namtumbo
21.	Shinyanga	Ushetu
22.	Simiyu	Bariadi DC
23.	Singida	Manyoni
24.	Songwe	Tunduma TC
25.	Tabora	Kaliua
26.	Tanga	Korogwe DC

APPENDIX VII: SCHEDULE OF MATERIALS AND ARCHITECTURAL DRAWINGS

Schedule of materials pdf have been attached