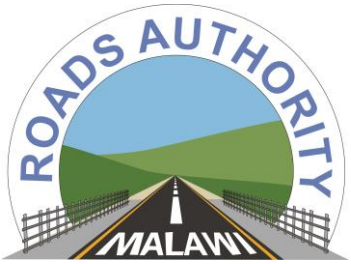
Government of Malawi



Accelerating Malawi's Economic Growth

Malawi: Southern African Trade and Connectivity Project (SATCP) (P164847) Project

Final

Environmental and Social Management Framework (ESMF)

Prepared by:

Roads Authority (RA)

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Abbreviations

CBO	Community-based organization
CRG	Compensation and Resettlement Guidelines
CRP	Compensation and Resettlement Plan
DEA	Director of Environment
DSE	Department of Safety and Environment (of the MOTPW)
EAC	East African Community
EAD	Environmental Affairs Department
ECPRW	Environmental Code of Practice for Road Works
EIS	Environmental Impact Statement
EMA	Environmental Management Act (1996)
EMC	Environmental Management Committee (district level)
EMU	Environment Management Unit
EMU	Environment Management Unit (of RA)
ESFR	Environmental and Social Final Report
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Monitoring Report
ESPAF	Environmental and Social Preliminary Assessment Form
GoM	Government of Malawi
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IDA	International Development Agency
LGA	Local Government Authority
MBS	Malawi Bureau of Standards
MoTPW	Ministry of Transport and Public Works
NCE	National Council for the Environment
NSSD	National Strategy for Sustainable Development
NEAP	National Environmental Action Plan, 1994

NEP	National Environment Policy, 1997
NGO	Non-Governmental Organization
PAPs	Project Affected People
PPP	Public Private Partnership
PPPC	Public Private Partnership Commission
PPRA	Public Procurement Regulatory Authority
RA	Roads Authority
SADC	Southern Africa Development Community
SATCP	Southern Africa Trade and Connectivity Project
SEA	Strategic Environmental Assessment
SO2	Sulphur Dioxide
SOP	Standard Operating Procedure
STDs	Sexually Transmitted Diseases
TCE	Technical Committee on Environment
TEC	Tender Evaluation Committee
THC	Total hydrocarbon
ToR	Terms of Reference
WB	World Bank

Glossary

Biodiversity: Short form for biological diversity". Biodiversity refers to the wealth of ecosystems in the biosphere, of species within ecosystems, and of genetic information within populations.

Biosphere: That part of the earth – atmosphere system that supports and is characterized by life, encompassing all terrestrial and aquatic ecosystems.

Compensation and Resettlement Plan (CRP): A plan prepared as part of an EIA process to address the issues of involuntary resettlement, compensation and rehabilitation of people and communities affected by a project.

Cumulative impacts: Those impacts that result from the incremental impacts of individual events, when added to other past, present and foreseeable future events. The individual impacts contributing to the cumulative impacts may be minor on their own, but the impacts collectively may be significant.

Direct impacts: Those impacts that are caused by a specific action and which generally occur at the same time and place as the action.

Ecology: The study of relationships of organisms to their environment (or surroundings). It considers individual organisms, as well as large units of landscape, such as forests, estuaries and river basins.

Ecosystem: Ecosystems are the basic structural units of the biosphere, characterized by interdependent interaction between the component species and their physical surroundings. Each ecosystem occupies a space where macro-scale conditions and interactions are relatively homogeneous.

Environment: Surrounding conditions that include all those physical, chemical, biological and socio-economic factors that impinge on an individual, a community, or a population.

Environmental and Social Management Framework (ESMF): A management instrument that will be implemented by RA in the "Southern Africa Trade Transport Facilitation Project – SATTFP", in order to ensure compliance with Malawian national law and the World Bank Safeguards Policies.

Environmental and Social Management Plan (ESMP): A synthesis report containing all proposed mitigation and monitoring actions, and, defining a timeline, specific, assigned responsibilities, and follow-up actions. The ESMP is one of the most important outputs of the environmental assessment process.

Environmental Impact Assessment (EIA): The systematic process by which the effects on the bio-geo-physical and socioeconomic environment of a proposed human action or set of actions are evaluated, producing a set of recommendations which serves as influential input to the design of the action or actions.

Environmental Audit (EA): The evaluation of effectiveness of environmental management and monitoring practices and procedures during and after a project (e.g., post-project evaluation) so that remedial measures can be taken. An audit may also be a comparison of actual impacts against predicted impacts.

Environmental expert: Environmental expert means an individual person or a firm of experts which has requisite qualifications prescribed by the regulations on registration of environmental experts made under the Environmental Management Act and duly certified and registered in the Register of Environmental Experts as may be kept and maintained by the National Environment Commission (NCE).

Environmental impact: An effect (positive or negative) on an environmental resource or value resulting from infrastructure development projects.

Environmental Impact Assessment Process: A systematic procedure to consider the possible environmental impacts of proposed projects before a decision is made to approve the project.

Environmental Impact Statement (EIS): A document that contains the results of an EIA study.

Environmental management: Management and control of the environment and natural resource systems to ensure the long-term sustainability of development efforts.

Environmental monitoring: Continuous or periodic surveillance of the project activities to ensure that mitigation measures are followed during project implementation. It involves repeated observation and measurement of environmental quality parameters to observe changes over a given period.

Environmental planning: All planning activities with the objective of preserving or enhancing environmental values or resources.

Environmental review: A process that entails preparing a detailed EIA, a Preliminary Environmental Assessment, or no further action or analysis depending on the results of screening process.

Environmental scoping: It is an early, open identification of potentially significant environmental impacts and the elimination of insignificant impacts or impacts that have already been addressed by other EIAs. It may also simply refer to procedures for determining the scope of environmental issues to be covered in the EIA process.

Environmental screening: It is the determination of the level of environmental impact assessment required for a particular proposed activity or project. It may also refer to procedures for categorizing projects based on professional judgment.

Impact: The effect of any action that affects one or more elements of the natural, social, or economic environment, either negatively or positively.

Indicators: Physical, chemical, biological, or socio-economic attributes that provide some indication of the environmental condition.

Indigenous peoples: Collectively, the members of cultural groups that have a historical, ancestral, spiritual, and functional connection to the land on which and from which they live. In popular usage, indigenous peoples are distinguished from members of those cultural groups whose connection to the land on which they live is limited to the historical period.

Indirect impacts: Those impacts that are closely, but indirectly linked to the project activities that induce changes in the natural environment, population, economic growth, and land use.

Key stakeholders: The inhabitants of an area affected by a project, who have the most to lose or gain from the completion of the project, and whose concerns must be addressed in an environmental assessment.

Limited environmental impact assessment: Limited environmental impact assessment (limited EIA) means an EIA, where only the environmental issues which are exceeding the environmental screening criteria will be addressed in the environmental impact study and the environmental impact statement

Mitigation measures: Actions taken to reduce, avoid, or offset adverse (negative) impacts. Mitigation options include: (1) prevention (e.g., rejecting a project), (2) amelioration (e.g., modifying the design) and (3) compensation (e.g., replacing an economic activity or investment).

Natural areas: Terrestrial and aquatic areas where the component ecosystems are characterized primarily by native species, and where human activities have not altered the ecological function to the point where the ecosystem has changed its character or distribution.

Participation A process through which stakeholders influence and share control over development initiatives and decisions on resources that affect them.

Periodic maintenance: Activities that are typically scheduled over a period, such as road resurfacing and bridge repairs.

Project: A set of planned activities designed to achieve specific objectives within a given area and time frame.

Project affected people: Individuals, groups or communities, or other organizations, whose interests may be directly affected by the location, construction and operation of the project.

Project area: The area that includes the immediate and the proximate area of a project that the project may have an environmental or social impact on.

Proponent: The agency, unit, or individual who proposes, and is responsible for a project. For road projects it will typically be the relevant road authority.

Public involvement: The dialogue, encompassing consultation and communication, between a Roads Authority and the stakeholders. It includes dissemination, solicitation, and presentation of information.

Rehabilitation/ Resettlement: A term often used to describe the process of re-establishing lifestyles and livelihood following the relocation of affected persons.

Resilience: A measure of how quickly an ecosystem or environmental variable returns to its natural state after cessation of a disturbance.

Routine maintenance: Refers to activities such as grading, grass cutting, drain clearing, pothole patching, and shoulder repairs, usually performed on a daily, weekly or monthly basis.

Significance: An expert evaluation and judgment of the magnitude of impact or the degree to which a proposed activity or project may (potentially) impact on the environment if implemented.

Significant impact: A substantial or potentially substantial, adverse change in any of the physical, biological, or social factors of the natural or built environment.

Social impact: An effect (positive or negative) on a social issue resulting from an infrastructure project.

Stakeholder: Any person or group having interest in or being directly or indirectly affected by a proposed or past project.

Strategic environmental assessment (SEA): A formalized and systematic procedure to identify environmental impacts that may arise from broad actions (e.g., new policies, national and regional development plans, or major program initiatives). SEA helps to incorporate environmental considerations and actions into strategic-level decisions (i.e., above the project level).

Synergistic effects: Those effects that result from the combination and interaction of individual impacts. The effects are often greater than the sum of the individual contributing impacts.

EXECUTIVE SUMMARY

The Government of Malawi (GoM)- through the Ministry of Transport and Public Works and Road Authority (RA) with support from the World Bank (WB) plans to implement a Southern Africa Trade and Connectivity Project. The project will be implemented in the Malawi section of the Nacala and Beira corridors. During the implementation of proposed SATCP, both positive and negative Environmental and Social (E&S) impacts will be generated from the subproject activities which will potentially affect the nearby biophysical and social environment. Although, the preparation of subproject specific safeguards instrument is required to manage the anticipated environmental and social impacts and risks, the precise designs and location of the proposed subprojects are not yet known, it is therefore difficult to manage such E&S risks in the context of traditional Environmental and Social Impact Assessment /Environmental and Social management Plan (ESIA/ESMP). Therefore, to comply with the World Bank's Environmental Assessment Policy (OP/BP 4.01), this "Environmental and Social Management Framework (ESMF)" document has been recommended and prepared.

When the exact locations and scope of each subproject under the SATCP are defined and known, the respective subproject proponents will be required to develop subproject specific Environmental and Social Impact Assessment/Environmental and Social management Plan (ESIA/ESMP) and an Abbreviated/full Resettlement Action Plan (A/RAP), as required and in accordance with the Government of Malawi Environmental Management Act (1996), and Environmental Impact Assessment Guideline, and the World Bank's Environmental and Social Safeguard Policies.

Brief Description of the Project

The main objective of the project is to support the Governments of Mozambique and Malawi in reducing trade and transport costs and increasing private investment along the Nacala and Beira corridors where the project will be implemented. The project will be implemented through four components: i) reduce trade costs; ii) improve regional coordination and project implementation; iii) increase investments in value chains; and iv) strengthen transport infrastructure to improve market access.

Component 1 aims to lower trade costs through trade facilitation, including border infrastructure and regulatory reforms with improvements in automation and border infrastructure. This provides a further opportunity to harmonize trade facilitation regimes. Trade facilitation improvements will combine simultaneous investments in ICT equipment and infrastructure with regulatory reforms (policies and procedures) and institutional capacity to strengthen trade and connectivity and to derive maximum impact from these investments. The component will focus on a Covid-19 response to support border agencies to manage goods safely and quickly, both during and after the Covid-19 crisis. The project will finance the expansion and rehabilitation of the Muloza (Malawi) to Milange (Mozambique). The focus will also be on upgrading strategic capabilities (equipment, buildings, international accreditation, and skills development) to facilitate the movement of agricultural commodities along the corridors and to meet specific demands of private operators. In Malawi, the subcomponent 1.1 will support the Malawi Revenue Authority (MRA) to update the customs system (ASYCUDA World) with new modules to enhance its capabilities and performance in line with good practice. This will allow the two countries to share e-seals across the borders and develop single transit corridors. The project under this component will also finance backup power

supplies for border offices and installation of automation for the management of import and export of products for agricultural trade to build resilience for data storage.

Small and Medium Enterprises (SMEs) and Women traders will also be supported under this component for small goods border trading, The project through the Standards and Sanitary and Phytosanitary (SPS) agencies finance the identification of critical products and design special regimes and Standard Operating Procedures (SOPs) for expedited clearance, to implement risk management to strengthen pest and disease management, the support goes to facilitate the movement of key export oriented agricultural commodities along the corridors and to meet specific demands of private operators, through MBS and DARS with equipment, capacity, accreditation, and training to enable Malawi's key exports tea, coffee, groundnut, soya and mango reduce rejection rates in export markets and allow for tests and certification to be internationally recognized. Support will be provided to detect pesticide residues, mycotoxins, heavy metals, and microbial contamination. Malawi's DAHL's regional laboratories diagnostics capacities in Blantyre and Lilongwe will be strengthened to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine with the potential to increase Malawi's livestock and poultry exports along the corridors and in southern Africa. The project will help the Public Private Partnership Commission (PPPC) in Malawi to improve their institutional capacity and their strategies to develop transport, connectivity, and logistics.

Component 2 will provide support to the existing Nacala Development Corridor Tripartite Committee (NDCTC). The committee brings together government and private sector stakeholders from Mozambique, Malawi, and Zambia to collaborate and produce an efficient, predictable transport system with a reliable flow of logistics information that minimizes transport delays at the port, borders, or intermodal transfers. The component will also support the NDCTC tripartite process to reduce barriers to trade and investment. Project activities will: Develop and implement pandemic/climate-related responses to ensure adequate trade flows between the countries; Remove non-tariff barriers, facilitate trade, and develop value chains between the corridor countries; Implement improved transport, transit, logistics and immigration procedures. Establish a corridor measurement and monitoring system; and Implement the Corridor Trip Monitoring System. Component 3 aims to expand the productivity and market opportunities of the private sector along targeted value chains in the catchment areas of the project. This is important in the economic recovery from COVID-19 and can put the countries in a better position against future shocks, including those related to climate change and further pandemics. The project will support efforts by the governments of Malawi and Mozambique to address market failures impacting investments, expanding these efforts to have a regional integration approach. The component will expand existing risk-sharing facilities in Malawi and Mozambique, incorporating further a regional integration approach. In Malawi, the sub-component will build on the Agricultural Commercialization Project (P158434) and expand the matching grant program to develop productive partnerships between lead firms and smallholders along the corridor. In addition, the component will finance upstream investments to generate private sector participation and capacity building for main actors in the targeted value chains through a regional integration lens. The upstream investments and the technical assistance under this component will be customized based on each actors' needs to meet gaps that are critical for developing value chains in the targeted corridors. The project will: Support public upstream investment including through feasibility studies, bidding documents, and small works that can generate conditions for private-sector investment through a regional integration lens; Capacity building to

small-scale cross-border traders in organization, as well as management of inventories; Capacity building to small-scale producers, emerging farmers, and firms; and Capacity building on financial institutions.

Component 4 will finance the rehabilitation and maintenance of key corridor roads and anchors to economic centres in selected districts/provinces in both Malawi and Mozambique. This will include design studies and supervision activities. The project will adopt the Performance-Based Road Based Maintenance Contracting (PBMC) approach to implement rehabilitation and maintenance works in Malawi and Mozambique. A road safety component will finance a Road Safety Implementation Plan that will be prepared in the first year of project implementation. In addition, this component will focus on: Safe School Program; Axle Load Control; and Road Safety Management and Institutional Capacity Building, including Enforcement of road traffic laws and regulations, Road Safety Culture, and Professional Development and Training.

Summary of potential negative impacts and proposed mitigation measures

The project will have several sub-projects that will impact on the environmental and social aspects in the project area. Some of the most important impacts overall are outlined below and key mitigation measures have been suggested at this stage as a guide when developing specific subproject level ESIAs, and ESMPs. These include:

Potential Positive impacts and their enhancement measures

a. Facilitation of trade and the movement of agricultural commodities along the corridor

The project will improve hardware and software aspects for trade i.e ICT, infrastructure, regulations, and procedures. The project will also upgrade capacities in terms of equipment, buildings, international accreditation, and skills development for various trade agencies. The project will also rehabilitate a selected road within the Nacala and Beira corridors.

b. Facilitate faster clearance of cargo and reduce average price of transport cost

The project will support the Malawi Revenue Authority MRA in the development of inland examination centres in Lilongwe and Blantyre to reduce pressure at the existing centres. The project will improve transport infrastructure in the Nacala and Beira corridors to rehabilitate a selected road within the corridor. This will result in a reduction in the costs of transportation in the corridor.

c. Improved connectivity and access to markets within the corridor

The improvement of transport infrastructure in the Nacala and Beira corridors by rehabilitating a selected road within the two Corridors will ensure faster transportation of agricultural produce to markets.

d. Improved road safety

Road Safety within the Nacala and Beira corridors highways will also be improved in terms of the flow of traffic, management of speed, signage, and the development of rest stops which will also be supported by the project.

e. Increase in employment opportunities and skill transfer

During the construction activities of subproject, such as rehabilitation/expansion of roads, rehabilitation/

expansion of border posts, installation of Back-up power supply and ICT facility, provision and installation of laboratory equipment, improved agriculture practices, develop/rehabilitate small-scale irrigation and warehousing infrastructure, rehabilitate feeder roads, upgrading silos, routine/periodic road maintenance, repairs/replacements to the drainage system, and structures like bridges, drifts, and pavement, the project will create job opportunities for people from surrounding project areas for the skilled and unskilled labor force. There will be skills transfer to local environmental and social experts during the development of feasibility studies and other environmental and social safeguards instruments for the project. During the construction of various infrastructure, there will also be skills transfer to local communities**.**

f. Increased business opportunities for local suppliers of goods and services

The subproject activities under value chain component and other construction works[1] shall increase business opportunities for the local suppliers of goods and services.

Potential negative impacts for buildings (Inland Examination Centres, Risk-sharing facilities and Agriculture Infrastructure)

a. Loss of land and property

People in the project areas may lose land due to the construction of value chain infrastructure roads and MRA inland examination centres infrastructure.

b. **Increased risk of HIV/AIDS and other STIs** The implementation of some activities may lead to an influx of migrant workers which may exacerbate incidences of HIV/AIDS infections including other STIs through sexual interactions with either local communities or amongst workers.

c. Removal of vegetation during construction activities

Land clearing to allow for the construction of various structures will result in the loss of vegetative cover and may expose the land to erosion.

d. Dust emissions

Dust will be generated from construction activities especially during site clearing and excavation activities which may affect air quality and induce human health implications.

Potential impacts from the rehabilitation of irrigation schemes under risk-sharing component

a. Increase in multiplication of vectors and spread of waterborne diseases.

Pools of stagnant water within irrigation field would enhance the multiplication of disease-causing/ transmitting vectors such as mosquitoes throughout the year.

b. **Risks of waterlogging and salinization**.

Waterlogging and salinization from poor drainage of soils of small-scale irrigation schemes, application of excess water to irrigation schemes.

[1] rehabilitation/expansion of roads, rehabilitation/expansion of border posts, installation of Back-up power supply and ICT facility, provision and installation of laboratory equipment, improved agriculture practices, develop/rehabilitate small-scale irrigation and warehousing infrastructure, rehabilitate feeder roads, upgrading silos, routine/periodic road maintenance, repairs/replacements to the drainage system, and structures like bridges, drifts, and pavement,

c. **Effects of use agro-chemicals for Human poisoning and pollution of the nearby soil and water sources.**

Workers on irrigation schemes and large farms may be exposed to harmful pesticides and other agro-chemicals. The exposure may lead to some health risks to the workers. In addition, discharge chemicals (pesticides), fertilizers, etc to the natural drainage will also affect the soil and water sources nearby and ultimately result in health risk of the community residing around the sub project area.

Potential Negation impacts from Road Rehabilitation works

a. Loss of Habitat and Biodiversity

The Road construction works may result to loss of habitat for animal species and loss of biodiversity in protected areas along the corridor. There will however be rehabilitation of existing roads only so there will not be new incursions into or near protected areas except the potential where existing roads are in or near protected areas.

b. Occupational safety and health risks

Construction works and other subproject activities such as roads construction, rehabilitation/expansion of border posts, installation of Back-up power supply and ICT facility, pest and disease management, provision and installation of laboratory equipment, improved agriculture practices, develop/rehabilitate small-scale irrigation and warehousing infrastructure, rehabilitate feeder roads, and improve access to electricity; establishing logistic cold chains, upgrading silos, rehabilitate key road networks, routine/periodic road maintenance, ; Axle Load control, repairs/replacements to the drainage system, and structures like bridges, drifts, and pavement,may bring in some occupational safety and health risks to workers. These risks include accidents due to the use of project equipment, machinery and construction vehicles.

c. Increased risk of disturbance to flow of traffic

Potential road construction activities could cause traffic disruption on roads serving the project area. This may also lead to increased incidences of accidents in the absence of road safety signage.

d. Increased Generation of liquid and solid waste

Waste may be generated from both construction activities and contractor's camp which will need proper management and disposal. Poor management of liquid and solid waste may lead to pollution of water bodies and soil contamination in the vicinity of project sites.

e. Public Safety Risks

Excavations, pits, and heaps of unconsolidated material would make the construction site dangerous to surrounding communities and stray animals that might walk across the site.

f. Increased risk of GBV and SEA

The implementation of the project will likely result in an influx of people in the construction sites resulting in potential for Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA).

f. Hazard when quarry or pit is abandoned

When quarries or borrow pits are abandoned after construction of roads. They may pose a safety risk to the communities.

Conclusion

This ESMF defines the steps, processes, and procedures for screening, scoping, assessment, and monitoring, to be undertaken during planning, design, procurement, construction, and post-construction stages of the proposed subprojects under SATCP. The ESMF will also provide an overview of the anticipated environmental and social impacts, and propose a screening mechanism for subproject selection, assessment of risks and impacts, and development of mitigation and enhancement measures for the identified impacts of the SATC Project. Additionally, the ESMF guides the applicable Environmental and Social Safeguards Policies of the World Bank training during project implementation. This ESMF and the subsequent safeguard documents to be prepared should be adequately funded to ensure that the mitigation measures suggested are fully implemented. The draft ESMF has been disclosed on RA website on December 10, 2020. Following this ESMF, when the exact location of subproject site identified and known, subsequent projects safeguards documents will be developed before commencing civil works, and be disclosed both in Country (Malawi-RA website) and at the World Bank external website. Copies of these documents, including ESMF and a brief of the reports will be provided and should be made available to the communities and interested and affected parties on accessible locations such as at the district council offices in English and local languages. The draft ESMF report which already be disclosed in Country will enable the project to collect feedback, comments, and suggestion from interested entities. The revised ESMF will be updated and the final ESMF upon clarence of the World bank will also be redisclosed publicly on RA website in December 2020 as well as it will also be disclosed on the WB external website in December 2020.

The budget for the implementation of this ESMF is estimated at USD 880,000.000. This figure covers Capacity development, ESMF monitoring, salaries for environmental and social safeguards, Annual Audit /reviews of ESMF, GRM implementation, and End of project evaluation.

1 PROJECT DESCRIPTION AND OBJECTIVES OF THE ESMF

1.1 Project Objectives and Location

The Government of Malawi (GoM)- through the Ministry of Transport and Public Works and Road Authority (RA) with support from the World Bank (WB) plans to implement a regional project called Southern Africa Trade and Connectivity Project "the Project". The main objective of the project is to support the Governments of Mozambique and Malawi in reducing trade and transport costs and increasing private investment along the Nacala and Beira corridors where the project will be implemented. This includes targeted improvements along the Nacala and Beira corridors, as well as broader trade-related reforms. The project site within the Nacala and Beira Corridors is a major and important trade route connecting Malawi and other countries in Southern Africa to the port of Nacala in Mozambique. Because of the scope and nature of works that will be undertaken before, during, and after construction, the risk classification for the road project is high. The SATCP ("the Project") has four components: i) reduce trade costs; ii) Strengthen regional coordination and project implementation; iii) increase investments in value chains in the region; and iv) strengthen transport infrastructure to improve market access.

The proposed Project impacts are expected to lead to wider economic benefits such as income growth, job creation, greater resilience, as well as spill overs to other countries in the region. It will strengthen Malawi's trade and transport network, which is an important priority for the landlocked country facing numerous challenges to diversify exports and integrate into the regional and global economy.

In Malawi, the main obstacles to trade are poor trade facilitation that includes inadequate border clearance facilities carrying out manual and duplicative procedures, prevalence of non-tariff barriers (NTBs), a lack of coordination within and between countries, lack of regulatory capacity, and issues related to agricultural and standards trade. A lack of connectivity to production (and distribution) centers makes it difficult to export agricultural products and benefit from non-agricultural employment. High transaction costs make it harder for subsistence farmers to access markets. Limited access to finance, particularly for small to medium-size enterprises (SMEs) in these value chains stymies development. Enhancing transport infrastructure will improve access to markets and reduce the average price of transport services. Furthermore, Malawi's reliance on agricultural commodity exports with minimal value addition leaves its producers far upstream from the production of final products in the global value chains that it sells into, and most Malawian firms are not integrated into global value chains.

The major construction works under the project will include i) rehabilitation of a selected road within the Nacala and Beira corridors, ii) construction of Modernized Inland Examination Centers (MIEC) by Malawi Revenue Authority (MRA) in the cities of Blantyre and Lilongwe, iii) construction of infrastructure for value addition and risk-sharing including rehabilitation of irrigation schemes and other infrastructure in different locations within the Nacala and Beira corridors and iv) upgrade/construction of the One-Stop Border Post at Muloza. The details components and activities of SATCP are discussed under section 2 below.

1.2 The Rationale of the Project

Considering the poor trade facilitation that is an obstacle to the trade sector, the SATCP is expected to bring several significant positive environmental and socio-economic benefits to the Project area as well as to the nation at large. The Project will enhance economic and social development along the corridor leading to a much-improved quality of life for local communities. Achieving the project objective which is to support the

Governments of Mozambique and Malawi in reducing trade and transport costs and increasing private investment along targeted corridors will help to improve trade facilitation and substantiate the importance of implementing the proposed project which has four components namely; (i) Reduce trade costs; ii) Improve regional coordination and project implementation; iii) Increase investments in value chains; and iv) strengthen transport infrastructure to improve market access, The detail of these components are discussed below in section 2.

1.3 Justification for the ESMF

The rationale for preparing this ESMF is that, during the implementation of the proposed SATCP, it is anticipated that both positive and negative environmental and social impacts will be generated that will affect the nearby biophysical and social environment. To preclude and manage the anticipated environmental and social impacts and risks of the project, applicable safeguards instruments shall be prepared. However, given that precise designs and location of the proposed project activities are not yet known, it is difficult to identify the actual risks and impacts of the project activities and managed them in the context of traditional Environmental and Social Impact Assessment (ESIA). Therefore, this "Environmental and Social Management Framework (ESMF)" document has been recommended and prepared in compliance with the World Bank's Environmental Assessment Policy (OP/BP 4.01) and WBG EHS Guidelines.

This ESMF acknowledges the probable impacts of the subprojects and integrates measures for assessing, avoiding, mitigating, and managing these during the planning/pre-construction, construction, and operation and management (O&M) stages of the subprojects. The framework identifies the level of safeguard and due-diligence required for all categories of sub-projects and provides specific guidance on the policies and procedures to be followed for environmental and social assessment, along with the roles and responsibilities of the implementing agencies to ensure effective management of the environmental and social impacts that may emanate from the project activities. The overall goal of the ESMF is to ensure that decision making in subsequent stages of the project is informed and influenced by environmental and social considerations.

When the exact locations and scope of each subproject under the SATCP are defined and known, the respective proponents will be required to develop an Environmental and Social Impact Assessment (ESIA) and a Resettlement Action Plan (RAP), as required, in accordance with the Government of Malawi Environmental Management Act (1996), and Environmental Impact Assessment Guideline~~,~~ ~~—~~and the World Bank's Environmental and Social Safeguard Policies.

1.4 Objectives of the ESMF

The main objective of the Environmental and Social Management Framework (ESMF) is to provide general procedures, guidelines, and methodologies as a framework for the assessment, management, and monitoring of environmental and social impacts of the Sothern Africa Trade and Connectivity Project.

The ESMF will help to establish a mechanism to systematically identify, predict, evaluate, and manage beneficial and adverse environmental and social impacts of the project activities, design enhancement measures for beneficial impacts, and recommend and implement mitigating measures for adverse impacts to comply with the requirement of National policies and laws and the World Bank Safeguards Policies. The specific objectives of the ESMF are to:

- develop/establish clear procedures and tools (including checklists, guidelines) for environmental and social screening, impacts assessment, planning, review, approval, implementation, and monitoring of subprojects to be financed under the SATC Project;
- present the policy, legal and institutional framework related to the environmental and social context applicable to the Proposed SATCP and its potential subprojects;
- outline the process to identify and identify potential social and environmental risks and impacts associated with the proposed project and specify a methodology for preparing the environmental and social management and monitoring plans;
- describe the implementation and institutional arrangements and specify appropriate roles and responsibilities for managing environmental and social impacts over the project implantation period and indicate implementation strategies of the major issues outlined in the Environmental and Social Management Framework;
- outline the necessary reporting procedures, for managing and monitoring environmental and social concerns associated with the proposed subprojects;
- determine the capacity building components (including training and technical assistance) for the successful realization of the provisions stated in the Environmental and Social Management Framework and establish the Project funding required to implement the ESMF requirements;
- introduce an environmental due diligence process to present methodologies, instruments, procedures, and role and responsibilities for environmental and social management and provide practical information resources for implementing the ESMF; and
- indicate implementation strategies of the major issues outlined in the Environmental and Social Management Framework and Environmental and Social Management Plan.

1.5 Scope of the ESMF

The proposed SATCP will be implemented in various Districts along the Nacala and Beira corridors. Specific locations for each subproject under SATCP will be determined later on in consultation with the relevant institution, including RA and Malawi Revenue Authority. Some activities such as the modernization of Muloza OSBP and Inland Examination Centres will be implemented outside the Nacala Corridor in Mulanje and Blantyre Districts.

This ESMF defines the steps, processes, and procedures for screening, scoping, assessment, and monitoring, to be undertaken during planning, design, procurement, construction, and post-construction stages of the proposed subprojects under SATCP. The framework is also designed to present a sample Environmental and Social Management Plan (ESMP), outlining the measures that will be taken to minimize/mitigate the potential adverse environmental and social impacts. It also contains measures and plans to enhance positive impacts, provisions for estimating and budgeting the costs of such measures, and information on the relevant institutions responsible for addressing project impacts. In addition, it identifies the project institutional and capacity building needs for environmental and social impact management.

The ESMF has been prepared as a reference and guiding manual to be used by key stakeholders who are involved in the planning, implementation, management, and operation of the proposed subprojects under SATCP. The ESMF also serves as an instrument to guide and to be used by Road Authority (RA) and other

relevant key stakeholders, such as Ministries Departments; Local Councils, Non-Governmental Organizations, and Community Based Organizations; Local Traditional Leaders, and other Funding and Donor agencies.

This ESMF was developed by the RA in coordination with the Bank's Safeguard Specialists. In accordance with the Bank's requirements for consultation, extensive consultations were conducted with relevant stakeholders during the preparation of this ESMF. The draft ESMF has been disclosed on RA website in December 10, 2020. Following this ESMF, when the exact location of subproject site identified and known, subsequent projects safeguards documents will be developed before commencing civil works and be disclosed both in Country (Malawi-RA website) and at the World Bank external website. The revised ESMF will be updated and the final ESMF upon clarence of the World bank will be redisclosed publicly on RA website in December 2020 and will also be disclosed on the WB external website in December 2020.

1.6 Potential Users of the ESMF

The main potential users of this framework are stakeholders to be involved in the planning, implementation, management, and operation of the SATC project. These include the Ministry of Transport and Public Works (MoTPW), Ministry of Lands (MoL), Ministry of Trade and Tourism (MoTT), Roads Authority (RA), Malawi Revenue Authority (MRA), Directorate of Road Traffic (DRT), Public, Private Partnership Corporation (PPPC), NGOs, District Commissioners (DC), District Executive Committees (DEC), staff of local councils, Area Development Committees (ADC) and Area Executive Committees (AEC). Consultants and contractors hired to conduct project-specific environmental assessment and resettlement studies shall also use the framework to inform their studies.

1.7 Approach and Methodology for ESMF preparation

The ESMF has been prepared in accordance with the World Bank operational policies. The ESMP has been prepared using both primary and secondary sources. The methodologies adopted in the development of this ESMF include literature review, consultations with key stakeholders, community meetings, and focus group discussion. A site visits on a potential road for rehabilitation within the corridor was also conducted. The rationale of these extensive consultations was to solicit views of a cross-section of people, at the local, district, and central government levels. An account of the existing biophysical and social environment conditions was collected and discussed under the baseline information section of this ESMF. The details of methodologies employed to prepare this ESMF are discussed below:

- Identification of likely risks and impacts associated with the interventions and preliminary assessment of their significance.
- Identification of appropriate generic mitigation measures for the likely potential negative environmental and social impacts; and
- Compilation of generic management and monitoring plan for addressing the impacts during planning and design, implementation, operation, and maintenance of the project activities.

1.7.1 Literature Review

The ESMF preparation involved a literature review of the national legal framework that is anticipated to guide the operations and implementation of the proposed activities. The review provided an in-depth understanding of the planned project and its associated risks and impacts that should be considered.

A review of the existing baseline information and relevant literature materials were also undertaken to obtain

further and deeper understanding of the proposed Project. A desk review of the World Bank environmental and social safeguard policies and procedures was also conducted.

1.7.2 Field visit

The study team undertook a site visit between 27 February to 6 March 2020 in Mangochi District which is within the Nacala corridor. The field surveys enabled the team to identify the generic environmental and social settings of the proposed subprojects area and identify some of the existing conditions on a potential road to be rehabilitated in the corridor. This site visits allowed the team to conduct consultations with various relevant stakeholders, including project beneficiaries and affected people.

1.7.3 Stakeholder Consultations

A series of stakeholder consultations have been carried out with key resource persons, beneficiaries, institutions at the various levels, including the district level between 27th February to 6th March 2020 in Mangochi District and further consultations were conducted with relevant stakeholders at District level with officials at the Border Post on 23rd and 24th April 2020 in Mulanje Districts.. The discussions were conducted and facilitated by RA Officers and the consultant. The rationale of these extensive consultations was to solicit views of a cross-section of people, at the local, district, and central government levels.

Stakeholder consultations help to identify and promptly address the concerns of different stakeholders and the PAPs regarding their rights and interests. Stakeholder consultation meetings were specifically conducted to:

a) Inform the stakeholders about the project;

b) Identify concerns from different stakeholders concerning the project;

c) Address different concerns of stakeholders about the project; and

d) Document the concerns from stakeholders about the project to minimize potential conflicts that could arise during project implementation.

Several issues were raised during the stakeholders' consultation meetings at district and community levels. The stakeholders expressed some concerns such as the potential for loss of land and assets, increased risk or spread of HIV & AIDS and other STIs, risk of Gender-Based Violence, and disruption of marriages due to the influx of migrant workers, among others. The findings of consultations are presented under section 5 below and a list of consulted stakeholders has been attached in annex 19.

In accordance with the Bank's Public Disclosure Policy, the Malawi Government will issue a disclosure letter to inform the World Bank of (i) the Government's approval of the ESMF and the RPF; (ii) the actual disclosure of these documents to all relevant stakeholders and potentially affected persons in Malawi, and (iii) the Government's authorization to the Bank to disclose these documents on its external website. Disclosure in-country and World Bank external website will be done once the ESMF is finalized and cleared.

Communities and individuals who believe that they are adversely affected by the project, may submit complaints to existing project-level grievance redress mechanisms or the WBG's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. For information on how to submit complaints to the WBG's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS.

2 THE SATC PROJECT COMPONENTS AND ACTIVITIES

The Southern Africa Trade and Connectivity Project (former Nacala Corridor) (P164847) is a regional, multi-sector, and multi-phase project intended to further facilitate trade integration in the region by contributing to the alleviation of institutional, legal, policy, and road and other infrastructure constraints along the constituent parts of the Nacala and Beira corridors. The project design involves the identification of institutional, policy and social priorities for the corridor as a whole then, based on the identified framework, the design and implementation of suitable interventions in sequence at a national level. The development objective of this project is to reduce trade and transport costs and time, improve access to infrastructure, and increase value chain development in targeted Corridors of Malawi and Mozambique.

The Proposed Southern Africa Trade and Connectivity Project has four components: i) reduce trade costs; ii) improve regional coordination and project implementation; iii) strengthen value chains for regional integration; and iv) strengthen transport infrastructure to improve market access. Together, these components together will strengthen the targeted corridors (Nacala and Beira) to be competitive, complementary and climate resilient[2]. Importantly, they will help to reduce trade and transport costs along the corridors. The proposed project components designed also to respond the recent COVID-19 crisis.

Project activities are regional, national and corridor specific. Under ***component 1***, at national level support will be provided to keep borders open during the crisis while modernizing border practices, policies, procedures, systems, and facilities for the future. These focuses on most trade facilitation improvements (ICT investments, coordinated border management, risk management, etc.), and as such this impact all corridors. Some improvements such as border post rehabilitation are corridor specific activity. ***Component 2*** activities are regional in nature though may impact specific corridors or agencies. The forum provided by Component 2 can be used to respond to specific measures that, during the pandemic, might be construed as non-tariff barriers. The forum can also be used to develop standard operating procedures for future emergencies and pandemics that cover the whole corridor. Under ***Component 3,*** financing will be available to firms operating in the Beira and Nacala corridor area to ensure they have access to additional capital for recovery from the pandemic. Firms and Small and Medium-sized Enterprises (SMEs) in distress can use the financing instruments provided under this component to ensure their access to additional capital for recovery after the pandemic. Finally, ***Component 4*** will directly stimulate jobs and growth to speed up the economic recovery from the pandemic and is targeted in the Nacala and Beira corridors in Mozambique and Malawi. As roads are yet unidentified in Malawi they could focus on either corridor. Road safety improvements are likely to be both national and targeted along both corridors. The details activities under thes proposed project components and subcomponents are discussed below.

2.1 Component 1: Reduce Trade Costs

This component comprises of three subcomponents that aims to lower trade costs through trade facilitation, including border infrastructure and regulatory reforms with improvements in automation and border infrastructure. This provides further opportunity to harmonize trade facilitation regimes. Trade facilitation improvements will combine simultaneous investments in ICT equipment and infrastructure with regulatory reforms (policies and procedures) and institutional capacity to strengthen trade and connectivity and to derive maximum impact from these investments.

[2] *As per the assessment in May 2020, the total climate co-benefits in this project amounts to US$ 112.77 million (32.22%).*

Small and Medium Enterprises (SMEs) and Women traders will also be supported under this component for small goods border trading. The project through the Standards and Sanitary and Phytosanitary (SPS) agencies finance the identification of critical products and design special regimes and Standard Operating Procedures (SOPs) for expedited clearance, to implement risk management to strengthen pest and disease management, the support goes to facilitate the movement of key export oriented agricultural commodities along the corridors and to meet specific demands of private operators, through MBS and DARS with equipment, capacity, accreditation, and training to enable Malawi's key exports tea, coffee, groundnut, soya and mango reduce rejection rates in export markets and allow for tests and certification to be internationally recognized. Support will be provided to detect pesticide residues, mycotoxins, heavy metals, and microbial contamination.

The component will focus on a Covid-19 response to support border agencies to manage goods safely and quickly, both during and after the Covid-19 crisis. To aid economic recovery, it will support governments to implement a best in class modern trade facilitation system that will focus on paperless trade, coordinated border management, risk management, and one stop border posts. It will also help implement the use of border residency cards to support border communities, small trader, and women traders. Finally, the component will lay the building blocks of regulatory capacity to support multimodal transport and trade. The project will also aim to improve the regulatory capacity of trade related agencies in the transport, logistics, and the Public Private Partnership (PPP) areas.

Malawi's DAHL's regional laboratories diagnostics capacities in Blantyre and Lilongwe will be strengthened to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine with the potential to increase Malawi's livestock and poultry exports along the corridors and in southern Africa. The project will help the Public Private Partnership Commission (PPPC) in Malawi to improve their institutional capacity and their strategies to develop transport, connectivity, and logistics

2.1.1 Subcomponent 1.1. Enabling Digital Trade: Development of Trade ICT Systems

Under this subcomponent, the project will support the implementation of paperless trade focusing on automating trade related agencies and enabling regional data sharing and ICT integration to reduce time and cost to trade and build a COVID resilient trade facilitation system.(see Figure 2-1). In Malawi, the subcomponent 1.1 will support the Malawi Revenue Authority (MRA) to update the customs system (ASYCUDA World) with new modules to enhance its capabilities and performance in line with good practice. This will allow the two countries to share e-seals across the borders and develop single transit corridors. The project will also support the implementation of Phase II of single window system in Malawi[3;] and finance to improve the capability and capacity of ICT system for the currently manually operating [4] Immigration department (the Ministry of Homeland Security) for its land borders to facilitate and enforce immigration controls.

In Malawi, the subcomponent will (i) update the customs system (ASYCUDA World) with new modules to enhance its capabilities and performance in line with good practices[5]; (ii) support the implementation of Phase II of the single window system[6] and (iii) fund an IT system for the Immigration department (the Ministry of

[3] *A single window project is already underway in Malawi with financing from the Southern Africa Trade and Transport Facilitation Project (P145566) and technical assistance from the Malawi Trade Project (IFC 601527). However, current financing under P145566 is insufficient to expand to all border posts.*
[4] *Except at its two international airports*
[5] *Including modules for rail transit.*
[6] *A facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements (UNECE Recommendation 33). Single Window systems are a means to establish improved information sharing between government agencies and businesses involved in trade across the Corridor countries. A single window*

Homeland Security), which is currently operating manually.[7] In both countries, the subcomponent will (iv) finance backup power supplies for border offices that currently suffer frequent outages; (v) automate the management of import and export of products for agricultural trade; and (vi) support the development of disaster recovery sites (DRS) to build resilience for data storage.[8] The subcomponent will also support data sharing and ICT integration between Malawi and Mozambique including to adopt a new electronic cargo tracking system and strengthening data and documentation (certificates and permits) exchange between institutions in Malawi and Mozambique. Based on best practices, the automation initiatives will be supported by business process analysis and reengineering, sustainability planning (maintenance and redundancy), change management, capacity building, and performance monitoring. .

The project under this subcomponent also fund ICT readiness to support remote work through both policies and procedures and greater ICT use to respond to the COVID 19 crisis. Technical assistance will be provided for (i) instituting flexible working conditions; (ii) extending border agency working hours to accommodate social distancing and; (iii) enabling truly paperless flow by reducing or eliminating manual paper handling where ICT systems are in place. Improving ICT readiness will include strengthening online and telephone appointment management systems and scheduling to limit the physical presence and interaction of logistics workers at buildings, facilities and border crossing points; strengthening non-physical enquiry points; and increasing the available trade-related information on websites. In addition, data sharing and ICT integration between Malawi and Mozambique will be financed by this subcomponent through the development of a single transit corridor by assisting the Malawi Revenue Authority (MRA) to adopt a new electronic cargo tracking system,[9] replacing the current (COMESA CVFTS) system with one compatible to the cargo tracking system Mozambique is developing; customs data exchange between Malawi and Mozambique to enable both countries to receive advance notification of transit goods arriving at the borders and provide the same information to traders to reduce time and cost to trade; and data and documentation (certificates and permits) exchange between the standards and agricultural institutions to speed up agricultural trade.

In Malawi, the Malawi Revenue Authority (MRA) has been leading the discussions on trade automation. The MRA implemented its Customs Management System (CMS), ASYCUDA World between 2015-17. The system, however, needs to be updated with new modules that will enhance its capabilities and performance in line with good practice. A single window project to connect four trade related agencies is ongoing with financing from the Southern Africa Trade and Transport Facilitation Project (P145566) and technical assistance from the Malawi Trade Project (IFC 601527). The project will roll out the single window system[10] across all trade related agencies in Malawi.[11] The immigration department (the Ministry of Homeland Security) also needs an IT system for its land borders to help enforces immigration controls, as these currently operate manually everywhere except at its two international airports.

Finally, the project will also support sectoral ministries that currently process trade transactions manually and need automation to support paperless trade. The subcomponent will work with government institutions in both

project is already underway in Malawi with financing from the Southern Africa Trade and Transport Facilitation Project (P145566) and technical assistance from the Malawi Trade Project (IFC 601527). However, current financing under P145566 is insufficient to expand to all border posts.

[7] Except at its two international airports

[8] In Malawi, these activities will involve the Malawi Revenue Authority (MRA), Immigration, Ministry of Agriculture's Sanitary and Phytosanitary (SPS) departments, and Malawi Bureau of Standards (MBS). In Mozambique, these activities will involve the Ministry of Agriculture's SPS departments, the Ministry of Fisheries, and the standards authority (INNOQ).

[9] An electronic cargo tracking system enables real time monitoring of goods by using technologies (like GPS, e-seals and RFID).

countries to automate the management of import and export of products. This includes the agriculture ministry's departments of veterinary services and phytosanitary services in both countries, the Malawi Bureau of Standards. All automation initiatives will be supported with business process analysis and reengineering, sustainability planning, change management, capacity building and performance monitoring inbuilt into the activities.

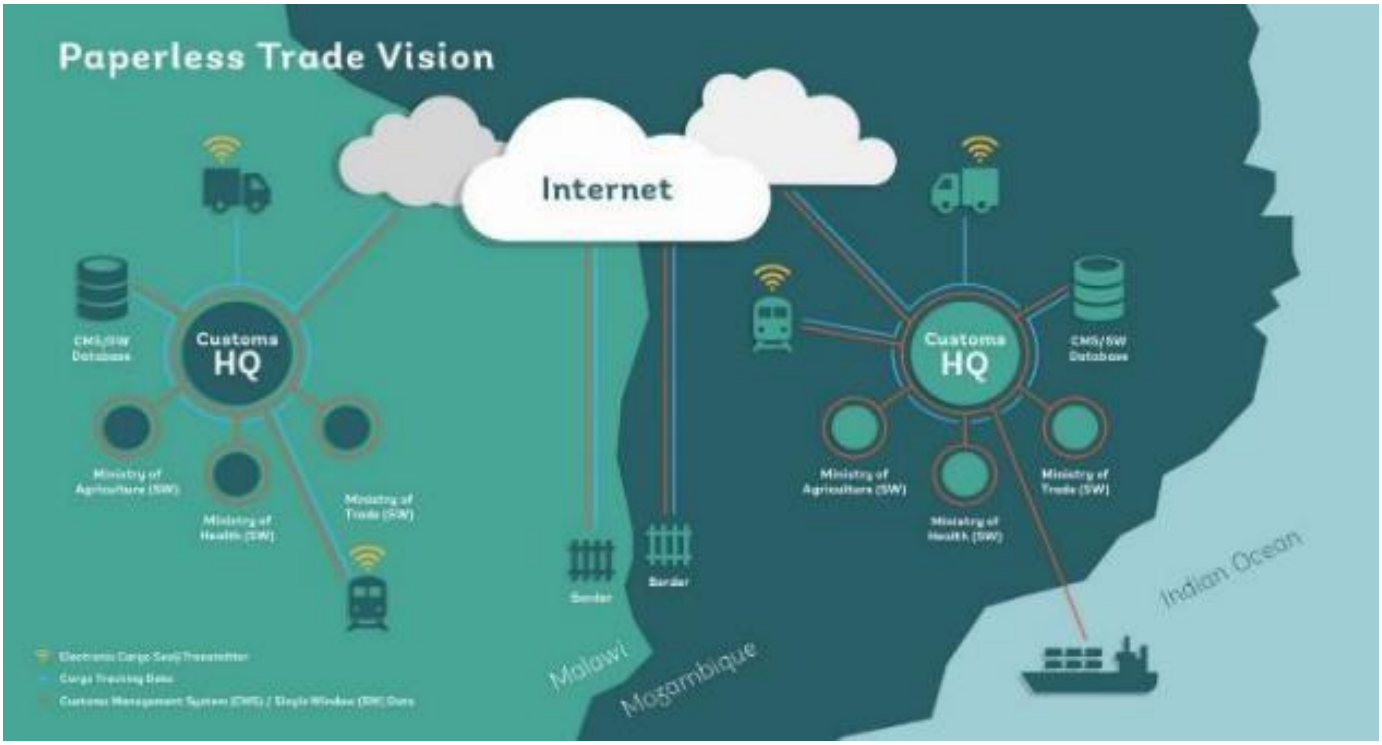

Figure 2-1: Paperless trade vision in the Nacala Corridor

Source: World Bank Group

2.1.2 Subcomponent 1.2. Improving borders and their management

The complementary nature of the Nacala and Beira Corridors implies the need to take a systemic view of the borders in the region. While current traffic volumes at different border posts are a result of a number of factors (i.e. road length, proximity to production or distribution centers, historical importance) some of which are variable (i.e. road quality, availability of railways, border infrastructure, availability of services) there is a need to ensure that all key borders (see Figure 2-2) provide a minimum level of service and facilitate trade to service the area appropriately. This trade facilitation requires automation of procedures (discussed in component 1.1), physical infrastructure investments, and improvements in coordination of border agencies. Coordination across countries of systems, infrastructure and procedures helps provide seamless cross-border trading. Further, small scale cross border traders will not be overlooked, and simple interventions can bring high returns, especially for women. This comprehensive approach to border reform is key to reducing trade costs in the project region.

The project will finance the rehabilitation of border posts in Malawi and Mozambique. The Southern Africa Trade and Transport Facilitation Project (P145566) is providing funding for Songwe, Mwanza and Dedza in Malawi. A joint EU-AFDB project is also funding the Mandimba (Malawi) - Chiponde (Mozambique) border

posts. The proposed SATC project under this subcomponent will finance to support the expansion and rehabilitation of the Muloza[12] (Malawi) border posts.

The project will support to improve border management that includes expediting the movement, release, and clearance of goods, including goods in transit which will also respond to the COVID 19 crisis. The project will fund measures to support business continuity for front line border agencies during and immediately after the COVID 19 crisis. This will include funding for Personal Protective Equipment (PPE) and training for safe handling of cargoes to reduce virus spread. The project facilitate safe cross-border trade given the COVID 19 crisis and with the importance of implementing modern trade facilitation practices through the enhanced use of risk management and increased internal and external border agency coordination and collaboration.

The Project will also finance the implementation of the recently developed Coordinated Border Management[13] (CBM) model across Malawi's borders. Customs agencies in both countries will be provided technical assistance to implement preclearance, risk management, post clearance audit, and authorized economic operators to help reduce the burden of inspections for the private sector while improving compliance and security for government. . The project will also provide technical assistance in rolling out and implementing Coordinated Border Management[14] and risk management in both Malawi and Mozambique's borders. Malawi recently issued a Cabinet Directive to reduce the number of public institutions operating at the border from 13 to a maximum of five. The directive aims to remove obstacles, regulatory burdens, and red tape to ensure a pro-business environment. The Malawi Trade Project (IFC 601527) has provided technical assistance to develop a new Coordinated Border Management (CBM) model to implement the Cabinet Directive. The project will finance the roll out of the CBM model across Malawi's borders. In Malawi, the project will also fund inland examination centres[15] in Lilongwe and Blantyre and mobile cargo scanners integrated with the customs system to strengthen risk management implementation..

The subcomponent will support Micro, Small and Medium Enterprises (MSMEs), especially women traders who have been hit hard during the COVID 19 crisis in implementing simplified trade regimes and border residency cards. The subcomponent will also assist immigration departments in both countries pilot and implement a border residency card[16] to reduce the costly and cumbersome documentation and procedural challenges that traders and communities living near the border face through enabling easier movement for cross border trade with simplified identity documents.

The project will also support to streamline agricultural trade requirements through Standards and Sanitary and Phytosanitary (SPS) agencies working together with Customs through the NTFC to (i) identify critical products and design special regimes and Standard Operating Procedures (SOPs) for expedited clearance

[12] In Malawi, support will be provided to the expansion and rehabilitation of the Muloza border post (that is no longer being funded under P145566 due to limited finances).

13 *Coordinated Border Management (CBM) refers to a coordinated approach by border control agencies in the context of seeking greater efficiencies over managing trade and travel flows, while maintaining a balance with compliance requirements (WCO).*

14 Coordinated Border Management (CBM) refers to a coordinated approach by border control agencies in the context of seeking greater efficiencies over managing trade and travel flows, while maintaining a balance with compliance requirements (WCO).

[15] An IEC is a legally established Customs and border agency examination facility that enables the MRA and other Malawian regulatory agencies to open, unpack, mark, weigh, unload any container or goods presented for import or export, at a designated location away from the prescribed land borders, airports and other approved places, under regulatory control.

[16] Border Resident Cards are a viable means of regulating local border traffic without compromising the security and integrity of the borders and still complying with the immigration rules of the two countries engaged in a formal local border traffic agreement. The implementation of Border Resident Cards is also encouraged in article 13(e) of the SADC Protocol on the Facilitation of Movement of Persons16 and the within the context of the African Union Free Movement Protocol (AUFMP)

including the facilitation of entry and clearance of critical commodities (e.g. medicines, medical equipment, perishable foods, foods required for a potentially extended period of quarantine testing kits, clothing, etc.); (ii) streamline and decentralize trade procedures to improve service delivery for small farmers and traders; and (iii) implement risk management to strengthen pest and disease management while reducing the burden of inspections. SPS and Standards agencies will work together to (i) identify key critical commodities which are produced under equivalent processes[17] that allow clearance controls to be reduced or removed; and (ii) identify critical imports that receive pre-exit testing equivalent to or are mutually agreeable with import requirements so that they may bypass clearance procedures or may be required to undergo fewer clearance activities at entry.

To facilitate the movement of key export oriented agricultural commodities along the corridors and to meet specific demands of private operators, the project will upgrade strategic capabilities (equipment, international accreditation, and skills development). In Malawi, the project will support MBS and DARS with equipment, capacity, accreditation, and training to enable Malawi's key exports tea, coffee, groundnut, soya and mango reduce rejection rates in export markets and allow for tests and certification to be internationally recognized. Support will be provided to detect pesticide residues, mycotoxins, heavy metals, and microbial contamination. Malawi's DAHL's regional laboratories diagnostics capacities in Blantyre and Lilongwe will be strengthened to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine with the potential to increase Malawi's livestock and poultry exports along the corridors and in southern Africa.

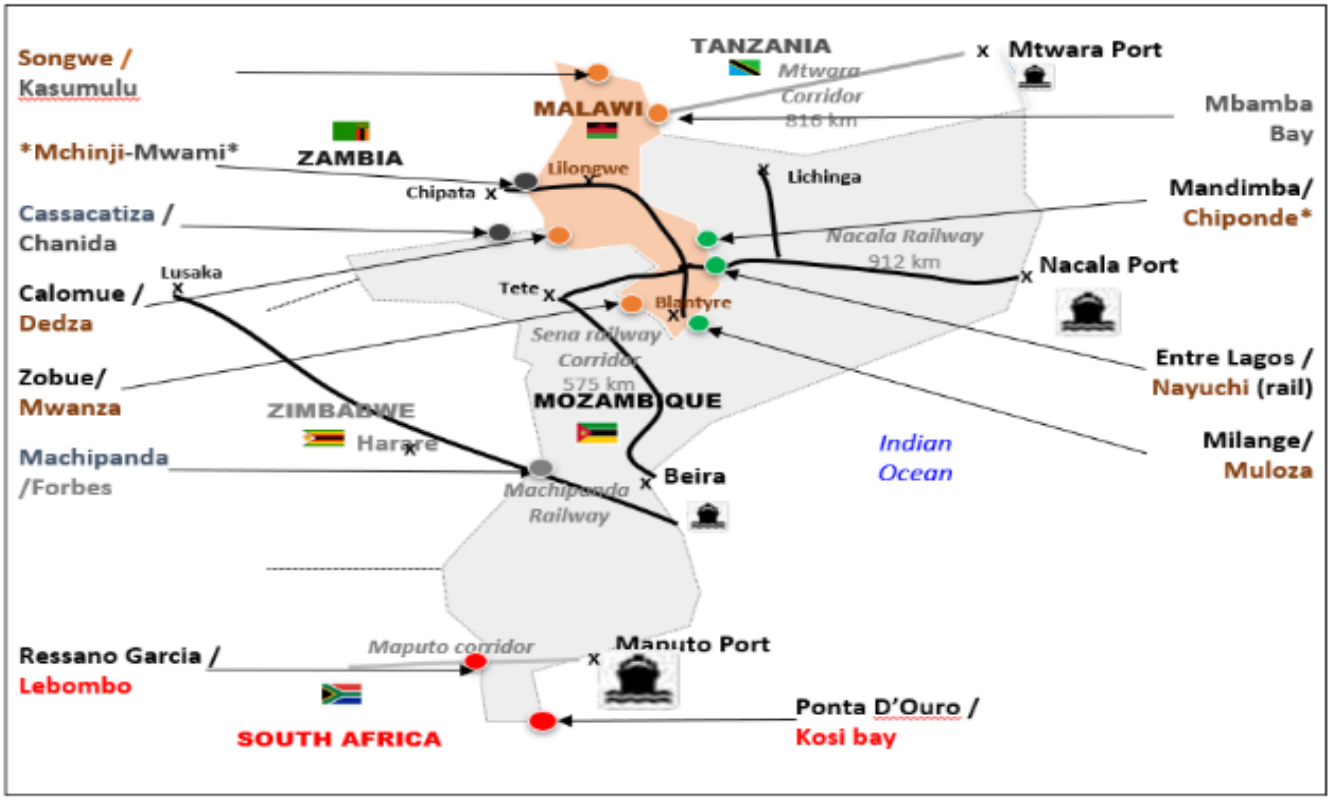

Figure 2-2: Borders in the region

Source: World Bank Group

[17] *Under Article 4 of the SPS Agreement, Members shall accept the SPS measures of other Members as equivalent, even if these measures differ from their own or from those used by other Members trading in the same product, if the exporting Member objectively demonstrates to the importing Member that its measures achieve the importing Member's appropriate level of SPS protection.*

2.1.3 Subcomponent 1.3. Strengthening trade and connectivity institutional capacity

The project will help transport ministries in both countries, and the Public Private Partnership Commission (PPPC) in Malawi to improve their institutional capacity and their strategies to develop transport, connectivity, and logistics. . In Malawi, technical assistance will be provided to the Ministry of Transport and Public Works (MTPW) to help setup the rail regulator, develop appropriate legislation for the sector, and support feasibility studies in the southern region; and provide technical assistance to support the implementation of the National Transport Master Plan (NTMP) by setting up the NTMP Secretariat and identifying and implementing at least three critical projects. Technical assistance will be provided to the Public Private Partnerships Commission (PPPC) in Malawi to expand expertise in key sectors to attract additional PPPs. Feasibility studies for international bus terminals and border markets for small traders operating in the Nacala and Beira corridors to complement streamlined agricultural, customs, and immigration procedures will also be supported under this component.

2.1.4 Component 2: Strengthen Regional Coordination and Project Implementation

The project will provide support to the existing Nacala Development Corridor Tripartite Committee (NDCTC) [18] that helps to strengthen regional coordination. The trilateral committee comprises of the Governments of Malawi, Mozambique and Zambia was formed to strengthen corridor operations and foster regional development through its organs at the Ministerial, PS/Director and technical expert levels. The project will provide financing for an interim secretariat and two meetings of the NDCTC each year for 6 years, as well as support to the National Trade Facilitation Committees (NTFC).[19] The activities related to the Beira corridor included in the project (primarily one stop border posts) are part of the NDCTC agenda given that both the Nacala and Beira corridors are part of one logistics system and overlap in agendas, geographies, and economic catchment areas. The Ponta do Ouro border post is part of the Maputo Development Corridor and will be coordinated through the Corridors Working Group (CWG) under the NTFC. It will be a vehicle for the project to engage with senior decision-makers for their buy-in and technical experts throughout the three governments to participate in project design, implementation and to carry them forward after the conclusion of the project. The project will provide financing for an interim secretariat and two meetings of the NDCTC each year for 6 years.

Under this component 2, the project will also support the development and implementation of pandemic/climate events-related corridor-wide responses to ensure adequate trade flows between the corridor countries. The COVID19 pandemic and the hurricanes Idai and Kenneth have highlighted the need for the corridor countries to have operational mechanisms to keep trade and in particular essential food and medicine flowing. Government agencies will identify priority products for special handling and tax treatment, draft Standard Operating Procedures (SOPs) and train staff to implement them. SADC is preparing SOPs to reduce spread of Covid-19 by cargo drivers, set standards for cleaning vehicles during pandemics and establishing a coordination mechanism for disaster risk coordination[20]. The NDCTC will prepare staff to use the SADC SOPs and guidelines.

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[18] *The Nacala Development Corridor (NDC) was originally established in 2000 between Malawi and Mozambique who were joined by Zambia in 2003. The NDC was influenced by the SADC Protocol on Trade (1996) and the SADC Protocol on Transport, Communications and Meteorology (1998). In 2013-2017, after the rehabilitation and construction of new rail infrastructure here was an* amendment to the 2000 Corridor agreement and the NDCTC has been tasked in revitalizing the corridor.

[19] *The project will support the NTFC and the corridor working groups under them*

20 Insert source for SADC covid19 here. See also SADC to establish disaster risk coordination

Regarding the implementation of regional activities that have been identified through the tripartite process to reduce barriers to trade and investment, following activities will be supported through this subcomponent:

- **Develop and implement pandemic/climate-related responses to ensure adequate trade flows between the countries.** The COVID-19 pandemic and the Idai and Kenneth cyclones have highlighted the need for the corridors to have operational mechanisms to keep trade (particularly for essential food and medicine) flowing. Government agencies will identify priority products for special handling and tax treatment, support efforts with SADC[21] to draft Standard Operating Procedures, and train staff to implement them.
- **Remove non-tariff barriers, facilitate trade and develop value chains between the corridor countries**. Trade regulations and procedures will be streamlined and harmonized. This includes assessing, monitoring, and mitigating NTBs, and reducing roadblocks and checkpoints. The project will assist the Ministries of Agriculture and Bureaus of Standards on agreements and implementation of harmonization, equivalence and mutual recognition of standards, tests and certificates for commonly traded commodities across the corridor. The project will also support the development of an agreed upon simplified trade regime applicable in the corridor for small traders, mostly women.[22]
- **Implement improved transport, transit, logistics and immigration procedures**. In the transport area, project activities will support the harmonization of key transport related policies, laws, regulations and standards across borders (for instance in terms of speed management across the corridor, vehicle standards, enforcement of load control) in line with both The Tripartite Road Transport Agreement (TRTA)[23] and the Tripartite Transport & Transit Facilitation Program (TTTFP). Project activities will support operational improvements in logistics systems, faster turnaround time at destination, increased automation of borders, and increased transit visibility through cargo tracking. Streamlined immigration procedures that encourage trade, tourism and investment will also be implemented.
- **Establish a corridor measurement and monitoring system.** The NDCTC will identify corridor performance measures to capture and sign agreements for sources of raw data. Collecting, analyzing and publishing data on transport operations, border operations and trade volumes will be critical to understanding shortcomings and to measuring corridor improvements. Designing the analytical system and developing the software will be a major component. Once developed, a website will be essential for data dissemination. Printed materials with updated data and analyses of corridor operations will also be included in this project,
- **Implement the Corridor Trip Monitoring System**. The SADC is in the process of piloting their vehicle/cargo tracking information system within neighboring countries. Once ready, the system will play a major role in monitoring trip progress, making data available to all corridor management institutions and providing a tool towards introduction of SMART corridors. As a result of COVID-19, the system has further been enhanced to provide features to maintain record of driver and crew compliance to medical requirements (e.g. COVID test certification) and thus facilitate management of safe transit in cross border transport operations.

[21] SADC's procedures aim to reduce the spread of COVID-19 by cargo drivers, set standards for cleaning vehicles during pandemics and establishing a coordination mechanism for disaster risk coordination.

[22] This will include simplified customs forms and an international trade desk at several border posts to assist traders.

[23] TRTA guarantees effective transport services and transit, a competitive road transport industry, fair competition and public safety. It lays down rules about permits, registration and licensing, mutual recognition of driver's licenses, third party insurance and other issues.

The component will also finance the operations and staffing in key fiduciary and technical positions of Project Implementation Units (PIU) within MoTPW in Malawi and MTC in Mozambique. The PIU will support the ministries in the daily management and implementation of the project in non-infrastructure related activities. In both Malawi and Mozambique, the infrastructure works in components 1 and 4, including rehabilitation of border posts, will be managed by the national road's agencies. The staff in these agencies are independently financed at market rates and will not be financed under the project.

This component will finance the implementation of environmental and social safeguards as well as the development, operation, and maintenance of a grievance redress mechanism (GRM) that will allow potential beneficiaries, the wider public, and other stakeholders to raise grievances, as well as respond to those complaints. This will include avenues to report and refer beneficiaries in cases of GBV. The PIU will have regional presence in the areas of focus of the project including on safeguards. The component will also finance steering committees that involve the main counterparts in each country. Activities under this component will support monitoring and evaluation (M&E) efforts including the design and implementation of Geo-Enabling initiative for Monitoring and Supervision (GEMS). This component will fund the collection of project data, gender analysis, and sector-based surveys to assess progress against project indicators, as needed. If possible, the project will also finance an impact evaluation to better measure impact of key initiatives. All activities and data collection will be gender disaggregated.

Communications, citizen engagement, and stakeholder coordination activities during the project will also be financed by this component and managed by the PIU. These will include (i) the development of a comprehensive communication strategy for each project target area, as well as the preparation of all communication materials and, where appropriate, the organization of awareness raising events; (ii) the coordination of stakeholder involvement in project activities; and (iii) the implementation of a citizen engagement plan and feedback mechanism to inform project implementation. Emphasis will be given to the participation of women in these activities, as part of the efforts to address the gender inequality gaps. Relevant sectorial ministries, regional development agencies, and subnational governments will be key implementing support counterparts.

2.2 Component 3: Strengthen Value chains for Regional Integration

This Component 3 aims to improve productivity and market opportunities of the private sector, smallholders, and cross-border traders along specific value chains through a regional integration approach. . The activities under Component 3 are strong contributors to leverage in time and spatial location on the *infrastructure-plus* approach and have an impact on regional integration. Despite the existing programs in the two countries for economic growth and employment, none of these has this focus on regional development and integration, supporting cross-border traders as well as producers and firms in developing a regional lens to their development. In addition, the component's interventions support the economic recovery from the COVID-19 crisis and improve resiliency for both countries against future shocks, including those related to climate change. This component can help generate pipeline IFC investments and leverage on IFC's Real Sector Crisis Response Envelope.

A 'supply and demand' assessment was carried out in preparation of the project, analyzing risk sharing and access to finance programs in value chains in Malawi and Mozambique along the project corridors. This assessment included consultations with the private sector, financial institutions, and program/fund managers, as well as a review of existing programs and interventions that can help in the COVID-19 recovery phase. The

activities chosen for this component are based on this assessment, which shows significant gaps in finance, skills, equipment, and practices, and the lack of functioning equity and debt markets to serve the needs of regional markets. Moreover, the activities leverage the experience in supporting value chain development and regional value chain studies.[24] They also build on ongoing efforts through the *Malawi Trade Project* and the currently ongoing "Malawi Growth and Resilience Development Policy Operation" to provide greater transparency to address trade-related distortions in agricultural markets – in particular through the passage and implementation of the *Control of Goods Act.*

The component will fund demand-driven risk-sharing solutions, as follows: (i) matching grants to aggregate market players and smallholders/firms with an export orientation and regional integration approach; and (ii) competition for grants with young entrepreneurs with innovative ideas/seed capital support. The objective is to increase access to markets for local producers in selected value chains along the targeted corridors through improved capacity, productivity, quality standards, logistics, typically in partnerships with lead firms. The financing provided under this component will support equipment (mechanization, etc), trainings, and irrigation/warehousing systems.[25] The grants will include technical assistance to producers to ensure a level playing field with lead firms during implementation of subprojects.

The selection of value chains will follow a demand-driven approach, although the following are expected to be priority given their incidence and potential, as well as their current level of regional integration and export potential: coffee, tea, groundnuts, macadamia, sugar, cotton, poultry, soya and maize, cashew, pulses, and fruits and vegetables.

Experienced independent teams (one in each country) will be used to help manage the risk-sharing solutions. The component will cover all costs of technical assistance to implement the programs. The support will include fund management, technical expertise, consulting services to help develop proposals, financial management support, and safeguard instruments to be developed with subprojects. The selection criteria will follow objective and quantifiable criteria. Priority will be given to subprojects with a regional integration approach. In addition, the selection criteria will include having proposals that are technically and financially viable with market orientation, value addition, impacts, and not creating distortions in the market. For the main matching grants program, the proposals in good condition are submitted to a private/public investment committee for approval.

Proposals with a significant gender lens strategy will score higher in the selection process. While women are highly present in agriculture production in both Malawi and Mozambique[26], their share of ownership in medium to large firms is typically much smaller.[27] Integrating gender in leadership would be an important element for support.[28] Additionally, women are less likely to have access to inputs, as well as resources

[24] *Component 3 benefits from the knowledge generated by regional integration studies including the Soya Regional Value Chain in Southern Africa (P169358). It use lessons from the methodology of the Innovation and Demonstration Catalytic Fund (IDCF) developed under the Mozambique Integrated Growth Poles Project (P127303), the delivery capacity of the team under the Malawi Agricultural Commercialization Project (P158434), the experience of the UNDP-led Malawi Innovation Challenge Fund (MICF) and the Growth Accelerator, and the outreach to youth program under the Mozambique Harnessing the Demographic Dividend Project (P166100).*

[25] In addition to the direct support to agribusiness, the component will seek to expand these risk sharing solutions to proposals in complementary areas along the corridors, especially to drive new capital investment on logistics development. This may include, *inter alia*, support for establishing logistics cold chains (including in the Beira Corridor through linkages to airfreight); upgrading silos and assign warehousing management contracts (leveraging on public infrastructure that is underused); expanding financial services to improve logistics; developing tourism-related value chains in connection to opportunities in the Ponta do Ouro corridor; and developing aggregation points including dry ports connected to transport and port infrastructure

[26] Over 60% of the agricultural workforce is female, and more than 80 percent of the female workforce is in agriculture.

[27] The mapping of agribusiness firms completed in preparation to the project shows that over 80 percent of lead firms are owned and managed by men.

[28] Previous programs in the region including the Innovation and Demonstration Catalytic Fund (IDCF) had already over 50 percent presence of women farmers as beneficiaries, but leadership of partner lead firms is where there is a gap in participation.

allocated in the household including support from family members for agriculture production.[29] Cognizant of the limited access to risk-sharing opportunities for women, this component will monitor the gender disaggregated results.

In addition, the component will finance upstream investments to generate private sector participation and capacity building for main actors in the targeted value chains through a regional integration lens.[30] The upstream investments and the technical assistance under this component will be customized based on each actors' needs to meet gaps that are critical for developing value chains in the targeted corridors. The project will:

(i) Support public upstream investment including through feasibility studies, bidding documents, and small works that can generate conditions for private-sector investment through a regional integration lens. The investments that will be pursued would typically lead to a PPP model of build-and-operate targeted infrastructures, including logistic centers, warehousing, and wholesale markets that can serve the regional clients.

(ii) Capacity building to small-scale cross-border traders in organization, as well as management of inventories. Since women constitute a larger proportion of small-scale cross-border traders, interventions will also seek to reduce harassment risks for women traders following the recommendations from recent empirical studies.[31]

(iii) Capacity building to small-scale producers, emerging farmers, and firms. For small-scale producers and emerging farmers, the component will focus on their organization and in price information, through a regional lens, building on experiences in developing Agriculture Service Centers, cooperative development, and outreach.[32] For lead firms in targeted value chains, the component will provide technical assistance to improve their management capacity to serve multiple markets. In Malawi and Mozambique, the (agribusiness) companies' technical and entrepreneurial capabilities, financial knowledge, information about regulations, capacity to manage productive relationships with local communities, and comply with safeguards, lag the standards in nearby countries such as Zambia, Zimbabwe, and South Africa.

(iv) Capacity building on financial institutions. The component will provide technical assistance for innovative financial solutions to support potential opportunities for regional integration. The component will provide capacity building to banks and microfinance institutions in developing agriculture insurance, fintech solutions to agribusiness, ways of improving credit scoring mechanisms, support for long-term finance, and integrating gender in their operations[33] with the objective of supporting those operating in the corridors. These activities were highlighted to have potential in the demand and supply assessment conducted prior to project preparation. Such financial sector solutions are currently not available at scale. They can, however, be introduced during the lifetime of the project by financial institutions.

[29] Boxho, Campos, Montalvao, and Ploen (2017). Enhancing Women's Market Access in Agribusiness in Mozambique. World Bank Publication. This study in the area of the project showed that the share of women farmers that received information from extension services was half of the men in the same communities. It also showed that less than 5 percent of women belonged to farmers' associations and had signed agricultural loans. Men had double these rates of participation.

[30] *To put it simply, while the matching grants are demand driven, these upstream investments are more supply driven. In addition for the need to upgrade existing logistic facilities for value chain development in the corridors, there are several areas that actors in the value chain need support to integrated a regional-orientation lens in terms of building capacity and knowledge, but due to the lack of information, lack of service providers, and limit knowledge about the potential benefits of these investments, the actors do not pursue them. The component will help bridge this gap.*

[31] *Croke, Garcia Mora, Goldstein, Mensah, O'Sullivan. 2020. Up before Dawn: Experimental Evidence from a Cross-Border Trader Training at the Democratic Republic of Congo–Rwanda Border. World Bank.*

[32] *The main difference to the activities in the matching grants is that the training program will reach a wider group and the content and methods of delivery will be further under the control of the project team.*

[33] *This will build on the knowledge generated by the ongoing Mozambique Women Entrepreneurs Finance Initiative (We-Fi).*

2.3 Component 4: Strengthen transport infrastructure to improve market access

Significant gaps remain in transport infrastructure despite recent investments in road and railway along the targeted corridors. The gaps include anchor roads that connect economic production centers with the corridors' roads and rail and in Malawi some rehabilitation of corridor roads. Poor connectivity to major economic and production centers makes it difficult to export agricultural and agro-processing products. Enhancing transport infrastructure will improve access to markets and reduce the cost of transport, complementing with necessary infrastructure the value chain support under component 3 and trade flow facilitation support in components 1 and 2 of the project.

2.3.1 Subcomponent 4.1: Roads

The main objective of this subcomponent is to upgrade key road networks in areas that have increased economic activity along the Nacala and Beira corridors. The component will finance the rehabilitation and maintenance of key corridor roads and anchors to economic centres in selected districts/provinces in both Malawi and Mozambique. This will include design studies and supervision activities.

Upgrading of roads will be based on paving solutions as per the SPADE analysis.[34] The project applied a Systematic Paving Decision (SPADE) model, which is a multicriteria analysis based on socioeconomic and engineering factors to decide on the type of paving solutions to be implemented. The project will adopt the Performance Based Contracting (PBC) approach to implement the upgrading and maintenance works in Malawi and Mozambique. Under the PBC approach, the contractor is responsible for final designs (an incentive to innovate), executing the initial upgrading works to bring the road to the desired standard and then maintain the asset over the contracted period to ensure agreed performance standards.

In Malawi, the roads authority intends to develop a road asset management strategy, including a comprehensive and prioritized road maintenance and rehabilitation plan, in which investments shall be prioritized through a multicriteria analysis system or tool based on strategic, social, economic, technical, environmental, poverty aspects and agricultural production potential.[35] In consultation with the Roads Authority (RA), the component will support development of a spatial tool for road prioritization that considers the network criticality, daily traffic, poverty rate in adjacent districts, proximity to potential agriculture cluster, and location of agri-businesses and that is line with the NTMP. In particular, the RA has conducted road and traffic surveys that will be used for building this prioritization tool.

Road assets will be enhanced by climate resilient design guidance, as well as consideration of any trenching, ducting and utility access for potential fiber optic installations. Consultant services will be engaged by RA to finalize feasibility and detailed engineering design studies including preparation of the associated environmental and social impact instruments, as well as bidding documents, and supervision services. The subcomponent will also finance workshops and trainings expected to sensitize construction industry practitioners on Output and Performance Based Road Contracting (OPRC) for Upgrading and maintenance, including potential South-South learning opportunities within Africa to demonstrate new approaches to asset management. Attention will also focus on national expectations and regional industry commitments to better manage environmental and social risks by elevating ownership of environmental, social, health and safety

[34] The preliminary design of all identified roads is complete. The client is currently in the process to hire consultants to prepare the Bid packages. The bid package will be ready by May 2021 for the launch of procurement (NCB). The contractor is expected to be selected by August 2020, with civil works starting in November 2021.

[35] This systematic process of road prioritization is anticipated to be coordinated through a Quality Infrastructure Investment (QII) Grant associated with the Southern Africa Trade and Transport Facilitation SATTF Program - Phase 2 (SATTFP SOP2) (P145566).

performance in the preparation of bids and in the execution of civil works. They will also serve to further deepen on-going development of effective GRMs that are grounded in cogent mitigation strategies for handling of GBV/sexual exploitation.

2.3.2 Subcomponent 4.2: Improve Road Safety

Given the road safety continue to rise to epidemic proportions in Southern Africa. The project will help to improve road safety along the corridors, including purchasing breath analyzers, and other related measures to target prevention. The focus on capacity building is critical given that post injury health care response has a strong impact on reducing fatalities, improving wellbeing and economic growth. In Malawi, this component includes improving the flow of traffic, helping reduce speeding, building signage, and other safety measures which are in line with Malawi's National Transport Master Plan (NTMP).

The project will help to improve road safety along the corridors. Both Malawi and Mozambique face large numbers of annual road fatalities, with the cost of deaths and injuries amounting to approximately 10% of GDP annually. [36] Ensuring smooth operation of the targeted corridors as such must include investments to improve road safety.

This subcomponent under road safety will finance a Road Safety Implementation Plan that will be prepared in the first year of project implementation. The plan will help assess accident prone zones in the corridors; condition report of ambulance services in the corridors; impact of lack of health facilities on fatalities (days between injury and death); capacity of the trauma and health centers and database interconnectivity; Report on (ease of) access to medical facilities; Needed capacity building/ Training (both health as well as transport professionals); and policy/organizational and regulatory changes recommended. In Malawi, these actions are in line with the recommendations in the NTMP which suggest improving the accident response and acknowledging that that Malawi has inadequate capacity for the post-crash response and care.

Road Safety Investment Prioritization and implementation: Based on the recommendations from the road safety implementation plan, and in cooperation with the Transport donors' coordination committee (MDBs, government agencies, NGOs etc.), a list of priority actions and solutions will be implemented to address the road safety challenges. The implementation of the prioritized solution will be based on the following principles, and these are i) Likely lives and injuries saved; ii) Known and significant benefit-cost ratio; iii) Clarity and manageability of delivery avoiding multiple diverse components; iv) Capacity to ensure the project is delivered though visible outputs; v) Sustainability with limited maintenance; vi) Minimal risk of loss (theft, breakage); and vii(Potential for the project to be evaluated

This subcomponent will focus on:

i. **Safe School Program.** As a regionally focused road safety initiative, the project is proposed to add a Safe School initiative to pilot an iRAP Star Rating for Schools (SR4S) program. The objective of this initiative would be to assess the participating school's risks and bring the iRAP star rating per school to at least 3 stars (where 1 is the least safe and 5 is the safest school) by addressing the problematic areas through physical improvements (speed humps; pedestrian crossings; speed management traffic signs; etc.), which will be accompanied by road safety awareness campaigns.

[36] World Bank (2019). Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Countries Country Profiles. Washington, DC., USA: World Bank.

ii. **Axle Load Control:** Upgrading of Vehicle Load Control services that conform with SADC agreements will enhance enforcement through national training and capacity building. The subcomponent will finance (i) construction of semi-permanent weighbridge station along Nacala Corridor in Liwonde, Machinga to screen the goods vehicles with regard to overloading; and (ii) procurement of a multi deck scale for a new inland station Weighbridge Station between Mwanza and Blantyre (as part of its plans for relocation of the current Mwanza Border) that upgrades the equipment for to facilitate a once off weighing of the vehicles at a station. A proposed site has not yet been identified. Training of operators. DRTSS intends to conduct trainings for transport operators on vehicle loading and standards.

iii. Road Safety Management and Institutional Capacity Building:

a. **Enforcement of road traffic laws and regulations:** To enforce corridor speed limits, the activity will procure four double cabin vehicles and acquire 10 new speed cameras (increasing DRTSS total inventory to 33 cameras), which will be used to patrol the corridor, DRTSS officer training on road traffic and safety management enforcement will also be undertaken before and throughout campaigns to curb unsafe driver behavior.

b. **Road Safety Culture:** The project will focus on enhancing protection of vulnerable road users along the corridor and related trade connectors. Activities would look to improve knowledge of road safety behavior and practices among pedestrians, school going children, bicyclists and motorbikes to increase awareness that can nurture a road safety culture. DRTSS will be responsible for targeted road safety campaigns, distribution of reflective jackets and bicycle reflectors, safety patrol programs for schools, including media messaging and dissemination of DRTSS handbooks as part of a broader series of road safety programs.

c. **Professional Development and Training:** The project is proposed to invest in the professional development and training of key road safety stakeholders using the Safe System approach to road safety, road safety audit; data collection protocol; data analysis system; and design of remedial measures. Training courses and seminars will be provided by a combination of international and local consultants and, if appropriate, a limited amount of overseas training will be considered.

2.4 Summary of Project Activities that require Safeguards

The project components have specific activities that are likely to require the development of specific safeguard instruments before they can be implemented. These activities involve civil works such as rehabilitations and construction of public infrastructure, value chain, institutional strengthening, and Technical assistance. Sub-components under the project that would require safeguard are included in Component 1.1 back-up power supply for MRA; Component 1.2 Muloza order Post, Inland Examination Centers, PPP Feasibility Border Markets and weighbridge relocation; Component 3 investments in corridor value chains; Component 4 rehabilitation and reconstruction of sections of selected roads and bridges.

As the proposed subproject activities will pass through an environmental and social safeguards screening and based on the result of such screening process, the respective instruments will be required to prepared, reviewed, and cleared before the commencement of any project activities, including testing, installation, rehabilitation, maintenance, and other civil works. The type of environmental and social assessment for each activity are presented in the table 2.1 below.

Table 2-1: Summary of the Project activities and respective proposed environmental and social assessment approach

Component	Activity	Proposed Safeguards approach	Responsible Institution for E&S
Component 1: Reduce Trade Costs: Lower trade costs through trade facilitation, including border infrastructure and regulatory reforms. This provides a further opportunity to harmonize trade facilitation regimes.			
Component 1.1 Enabling Digital Trade	• Back-up power supply for boarder offices • automate the management of import and export of products for agricultural trade through installation of servers, ICT facility, etc., through establishment of data storage to load documentation, collaborating with internet serve provided, as applicable, re-deployment of all mobile devices (tablets, laptops and similar devices), etc. • development of disaster recovery site(s) (DRS) to build resilience for data storage establishment of secondary data center for their mission critical systems	Considering the type of technology, and the limited scale and, nature of the proposed activities of installation of backup power supply and data automation facility, the Site-specific safeguards instruments such as ESMPs, A/RAPs and other management strategy implementation plans (MSIPs) for specific identified E&S issues, as applicable will be prepared.	RA, With the support from Malawi Revenue Authority (MRA), and Ministry of Agriculture's SPS departments, MBS
Component 1.2 Improving borders and their management	• Expansion and rehabilitation of the Muloza border post •	• This activity has been transferred from Southern Africa Trade and Transport Facilitation Project (P145566). Due to the nature of the activity and expected risks and impacts specific Safeguards Instruments including Environmental and Social Impact Assessment (ESIA), Environmental and	RA

Component	Activity	Proposed Safeguards approach	Responsible Institution for E&S
		Social Management Plan (ESMP) and Resettlement Action Plan (RAP) have already been prepared for the OSBP.	
	• implement risk management activities that help to strengthen pest and disease management, upgrade strategic capabilities with the provision of equipment (IFT-IR, GC-MS/MS, HPLC, etc) and upgrading of Malawi's DAHL's regional laboratories diagnostics capacities in Blantyre and Lilongwe which will serve to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine with the potential to increase Malawi's livestock and poultry exports along the corridors and in southern Africa	• The indicated proposed activities to streamline agricultural trade requirements will intervene in the handling and disposal of hazardous materials and will potentially result in an E&S risk and impact directly or indirectly to the nearby biophysical and social environment. Such anticipated risks and impact will be assessed and based on the result of the assessment, in addition to the ESMP, a sperate standalone MSIPs, including Pest Management Plan, waste management plan, IPMP, OHS plan, etc. might be required, before the commencement of any activities.	RA, with the support from relevant institutions such as Standards and Sanitary and Phytosanitary (SPS) agencies, NTFC; MBS and DARS Malawi's DAHL's regional laboratories
	• Finance the Malawi inland examination centers in Lilongwe and Blantyre and mobile cargo scanners having high-energy low-dose X-ray scanner for inspection of loaded vehicles and container for identification of the cargo	As applicable, a Site-specific ESIA/ESMP and Safety management plan will be prepared	RA with the support from MRA and other Malawian regulatory agencies

Component	Activity	Proposed Safeguards approach	Responsible Institution for E&S
	compliance to the transportation documents, detection of contraband, illegal drugs, weapon and other dangerous objects		
	Engagement of Micro, Small and Medium Enterprises (MSMEs), especially women traders through the development and implementation of a joint simplified trade regime for selected goods that include simplified declarations and procedures between Mozambique and Malawi to reduce trade costs for SMEs and women.	The potential MSMEs' activities will be assessed and based on the significance level and impact type of the downstream activities, if feasible, the applicable instrument/ESMP/ will be prepared, as required The participation of women may also require the project to prepare a gender strategy, as feasible.	RA/PIU
Subcomponent 1.3. Strengthening trade and connectivity institutional	Technical assistance will be provided to the Public-Private Partnerships Commission (PPPC) to expand expertise in key sectors to attract additional PPPs and to conduct feasibility studies for border markets for small traders trading along the Nacala and Beira corridors which complement streamlined agricultural, customs, and immigration procedures.	Feasibility studies will include screening for environmental and social risks and impacts and based on the finding of the screening and the scoping report the respective safeguards instrument ToR will be developed for the subsequent works.	RA/MoTPW
	To complement streamlined agricultural, customs, and immigration procedures, feasibility studies will be conducted for international bus terminals and border markets for small traders operating in the Nacala and Beira corridors.	Feasibility studies will include screening for environmental and social risks and impacts through the ToR developed for the work.	RA

Component	Activity	Proposed Safeguards approach	Responsible Institution for E&S
Component 2: Strengthen Regional Coordination and Support Project Implementation: provide support to the existing Nacala Development Corridor Tripartite Committee (NDCTC). The component will also finance the operations and staffing in key fiduciary and technical positions of Project Implementation Units (PIU) within MoTPW; implementation of environmental and social safeguards as well as the development, operation, and maintenance of a grievance redress mechanism (GRM); Communications, citizen engagement, and stakeholder coordination activities during the project will also be financed by this component and managed by the PIU.			
Component 3: Value chains Development: This Component aims to expand the productivity and market opportunities of the private sector, smallholders, and cross-border traders along targeted value chains in the catchment areas of the project.			
Component 3: Demand-driven solutions to support value-chains development provide risk-sharing opportunities to support value-chains; and Technical assistance to value chain players	This subcomponent will support demand-driven risk-sharing solutions through (i) matching grants to aggregate market players and smallholders/firms with an export orientation and regional integration approach; and (ii) competition for grants with young entrepreneurs with innovative ideas/seed capital support in Malawi and Mozambique, incorporating further a regional integration approach. In addition to direct support to agribusiness equipment, the project will seek to expand in capital investment on logistics development, which includes logistics last-mile infrastructure, capabilities, and improved agriculture practices) develop/ rehabilitate small-scale irrigation and warehousing infrastructure; rehabilitate feeder roads, and improve access to electricity	The nature and scale of the activity and the location will necessitate the preparation of specific ESIA/ESMP and RAP In addition, considering the intervention of small-scale irrigation and improved agriculture, per the findings of environmental screening and assessment, Integrated pest management plan (PMP), will be prepared as necessitated If this component initiates the construction of any physical works with an engagement of the private sectors, MSMEs, etc. in addition to ESMP, an ESMS will be required to be prepared by the private sectors, as applicable.	SADC

Component	Activity	Proposed Safeguards approach	Responsible Institution for E&S
	expand these risk-sharing funds to proposals in complementary areas along the corridors especially on logistics development, establishing logistic cold chains, upgrading silos under warehousing management contracts (leveraging on public infrastructure that is underused); and developing aggregation points including dry ports connected to transport and port infrastructure	As the project focus on integrating gender aspects, the project might require to prepare a gender strategy to ensure the participation of women and their benefit from the project.	
	This project will also support a significant gender lens strategy to improve women's share of ownership in medium to large firms, which integrating gender in leadership would be an important element for support.		
	The component will broaden the capacity building given to the main actors in value chain development. These actors include i) cross-border traders; ii) smallholders, emerging farmers, and lead firms, and iii) financial institutions	Given the provision of technical assistance which is directly or indirectly linked with the follow-up investments implemented by the diverse subproject proponent, the E&S screening and assessment will be conducted both for the approach and scope of the technical assistance as well as the respective downstream sub-project activities to identify the significance level of anticipated impact due to the provision of such TAs. Therefore, based on the finding of this screening and	RA

Component	Activity	Proposed Safeguards approach	Responsible Institution for E&S
		assessment, the respective instruments will be prepared, including site-specific plans ESMP, ESMS, etc., as applicable	
Component 4: Strengthen transport infrastructure to improve market access: aims at significant investments have been made in the main road and in rail infrastructure along the targeted corridors.			
Component 4.1 Rehabilitation of roads	Rehabilitate key road networks in areas that have experienced increased economic activity along the Nacala and Beira corridors The The rehabilitation will include graveling, surface treatment and routine/periodic maintenance to the prescribed level of service	The nature and scale of the activity and the location will necessitate the preparation of specific ESIA/ESMP and RAP, and other MSIPs, as required.	RA
Component 4.2: Improve Road Safety	Improvements in road safety plan that include supporting assess accident prone zones in the corridors; condition report of purchasing breath analysers, In addition, under road safety this subcomponent will finance for the Axle Load control (Upgrading of Vehicle Load Control services); Enforcement of road traffic laws and regulations: Road safety culture; and Road Safety Investment Prioritization and implementation	Given the nature of anticipated activities and potential locations, each sub projects will pass through environmental screening process and based on the result of Environmental screening and assessment, the specific safeguards instruments (ESIAs, ESMPS, ARAPs, etc) and other MSIPs for the respective subprojects will be prepared, as required.	RA, with the support from MDBs, government agencies,.),

3 POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

This chapter analyses the National policy and legal framework under which the Southern Africa Trade and Connectivity Project will be implemented. The chapter also analyses the Work Bank Environmental and Social Policies that have been triggered by the activities of the project.

3.1 Policy Framework and Guidelines

3.1.1 The National Environmental Action Plan (2002)

The National Environmental Action Plan (NEAP) provides a framework for integrating the environment into all socio-economic development activities of the country. The objectives of the NEAP are to document and analyze all major environmental issues and measures to alleviate them; promote sustainable use of natural resources in Malawi, and develop an environmental protection and management plan. The NEAP identifies the following as key environmental issues to be addressed: soil erosion, deforestation, water resources degradation, and depletion, threat to fish resources, threat to biodiversity, human habitat degradation, high population growth, air pollution, and climatic change. To protect the environment from further degradation, the NEAP outlines actions that need to be undertaken to ensure adequate environmental protection.

The development of the various infrastructure under the project such as rehabilitation of the road, development, and upgrading of last-mile infrastructure for value addition, development of inland examination Centres will be done in a way to ensure the environment and natural resources are protected in accordance with the NEAP.

3.1.2 National Environmental Policy (2004)

The policy promotes sustainable social and economic development, through sound management of the environment and natural resources. It highlights areas of priority, including efficient utilization and management of natural resources; and promotes private sector, NGO, and community participation to achieve sustainable environmental management and to involve local communities in environmental planning. The policy empowers communities to protect, conserve and sustainably utilize the nation's natural resources and advocates for enhancement of public awareness and promotion of public participation. It also prescribes cooperation with other Governments and relevant international and regional organizations in the management and protection of the environment.

Objectives of the NEP address a broad range of environmental problems facing Malawi. In line with the requirements of the NEP, the SATC project is integrating environmental management and protection during project planning and implementation and operation through the development of the various safeguard instruments including this ESMF.

3.1.3 EIA Guidelines (1997)

The EIA Guidelines of 1997 outline the process for conducting EIAs to ensure compliance with the EIA process, as required in the Environment Management Act. The Guidelines contain a list of prescribed projects for which EIA is mandatory and those that may not require an EIA. The Guidelines assist in environmental screening to determine which projects require an EIA.

Screening of all the subprojects under the SATC to identify project activities to be subjected to EIAs will be done using the Environmental and Social Screening form that has been attached in Annex 2. ESIAs/ESMPs will be conducted, as appropriate, for the project activities that qualify, by following the process outlined in the Guidelines.

3.1.4 Environmental and Social Management Guidelines in the road sector

In response to the requirements of section 24 of the Environmental Management Act, Roads Authority developed Environmental and Social Management Guidelines for the road sector in 2007. The guidelines were developed to facilitate the mainstreaming of environmental and social planning in the design and implementation of roads in Malawi. The guidelines are used by project developers, donors, and the general public in their project planning processes.

For the resettlement of affected communities, the guidelines recommend the preparation of a Resettlement Action Plan (RAP) or an Abbreviated Resettlement Action Plan (ARAP) before the implementation of any road project. This is consistent with government policy on resettlement and compensations on affected properties.

3.1.5 The National Forest Policy (2016)

The Policy takes a holistic approach to sustainable forest management. It adequately addresses issues of forests and water; climate change; food security; HIV and AIDS; gender and equity; wealth creation; biodiversity and Payments for Ecosystem Services (PES); Reduced Emissions from Deforestation and Forest Degradation and Clean Development Mechanisms (CDM). The Policy recognizes, among others, the importance of creating an enabling environment for participation of all stakeholders including Public, Private, Civil Society, Non-Governmental Organizations (NGOs), Communities, and Academia in collaboration with the international community in the management of forest resources.

In line with the National Forest Policy, the activities under the project will be implemented in a way that does not result in forest degradation. Adequate consultations will be made with relevant authorities where the projects are implemented close to within forests and other protected areas.

3.1.6 National Water Policy (2005)

The National Water Policy gives powers to the Minister responsible for water affairs in the country to enforce water resources regulations for the sustainable management and use of water resources including laying out of mechanisms to ensure water is of acceptable quality and is always accessible to all Malawians. The policy also advocates for Integrated Water Resources Management in the country and therefore recognizes the important role other policies play in resource management including water. The Implementation of the various activities within the project will take into consideration, the principles of integrated water resources management.

The activities of SATC will require huge amounts of water, especially during construction phase. This may lead to the degradation and depletion of water resources, thereby counteracting the principles of the National Water Policy. The implementation of these activities there will need to be in line with the principles laid out in the policy.

3.1.7 Malawi National HIV and AIDS Policy (2012)

National HIV/AIDS Policy identifies migrant workers and women among highly vulnerable people to the transmission of HIV/AIDS and other sexually transmitted diseases. In addition, increased disposal of income from migrant workers may enhance some workers to indulge in extra-marital affairs within the surrounding villages. These sexual activities would enhance the spread of HIV/AIDS among workers and local people.

Under the SATC, the rehabilitation of a selected road and development of inland examination centres as well as upgrading of various infrastructure under value chain addition have the potential to bring in migrant workers to the project areas. It is therefore proposed that during the implementation of these project activities, workers as well as surrounding communities, should be sensitized on the dangers of HIV/AIDS. All project workers (permanent and temporary) should sign the project Code of Conduct. Further, Information, Education, and Communication (IEC) materials on HIV/AIDS should be distributed.

3.1.8 National Gender Policy (2015)

The National Gender Policy calls for the integration of gender responsiveness in the planning and implementation of development projects and programs. It is considered that consideration of gender needs and benefits enhance poverty reduction in both rural and urban environments. This project has to integrate consideration of the needs of both males, females, and other vulnerable groups in project activities. The potential considerations could be equal employment opportunities to both male and female during the implementation of the project to enhance income for both.

3.2 Legal Framework

The overall legal framework for environmental planning and management in Malawi is laid down in the Environment Management Act (1996) and regulations made under this act.

3.2.1 The Constitution of the Republic of Malawi (1995)

The Constitution of the Republic of Malawi provides the foundation for environmental management in Malawi. Sections 13 (d) and (e) define the role of the State in environmental management as follows, which is to manage the environment responsibly to prevent degradation of the environment; provide a healthy living and working environment for the people of Malawi; accord full recognition to the rights of future generations through environmental protection and sustainable development of natural resources; and conserve and enhance the biodiversity of Malawi. In addition, the role of the State is to enhance the quality of life in rural communities and to recognize rural standards of living as a key indicator in the success of Government policies.

With respect to gender, the Constitution, under Section 13 (e), gives the State the responsibility to achieve gender equality for women through full participation of women in all spheres of the Malawian society, on the basis of equality with men; implementation of principles of non-discrimination and such other measures as may be required; and implementation of policies to address social issues such as domestic violence, security of the person, lack of maternity benefits, economic exploitation and rights to property. The project activities of the SATC Project should be implemented in an environmentally sustainable manner.

3.2.2 Provisions of the Environmental Management Act, 1996

Malawi has enacted the Environmental Management Act (EMA) 1996, to regulate environmental management issues and EIA requirements in the country. The EMA makes provision for the protection and management of the environment and the conservation and sustainable utilization of natural resources. Sections 24, 25, and 26 of the EMA provide the legal framework for managing the EIA process. The EIA is a legal requirement for any project prescribed under section 24 (1) of the EMA.

Section 26 (3) of the EMA provides that "a licensing authority shall not issue any license under any written law with respect to a project for which an environmental impact assessment is required under EMA unless the

Director of Environmental Affairs has certified in writing that the project has been approved by the Minister under EMA or that an environmental impact assessment is not required under EMA." In this way, the Project Client will have to obtain an EIA Certificate first before commencing activities of the product such as road rehabilitation and the development and upgrading of various buildings under the value chain addition component and inland examination centers.

3.2.3 Occupational Safety, Health and Welfare Act (1997)

The Act provides a regulatory mechanism to ensure safe and secure workplaces in Malawi. Under section 6, all workplaces require a "Work Place Registration Certificate" from the Director of Occupational Safety, Health and Welfare Department. Safety facilities for workplaces include protective clothes, adequate ventilation, cleaning materials, adequate lighting, washing facilities, change rooms, sanitary conveniences, first aid kits, etc. Both employers and employees are sensitized on basic hygiene practices and sanitary facilities.

Section 58 stipulates the provisions of protective clothing (such as gloves, footwear, screens and goggles, earmuff, and head covering) to protect workers from excessive exposure to nuisance with some work activities. Section 59 stipulates the provisions for masks to employees against excessive emissions of dust and fumes which are also common with construction sites and in large kitchens. Section 66 defines the procedure to be followed in case of the occurrence of an accident which either causes loss of life or disables a person from carrying out the normal duties at which he is employed.

During the implementation of SATC, especially during the construction and upgrading of various infrastructure including roads and buildings, all project-specific ESIAs including Environmental and Social Management and Monitoring Plans must address issues related to occupational safety and Health in line with provisions of the Occupation Safety, Health and Welfare Act (1997). Some of the issues that need consideration include:

- Registration of the construction site as “workplaces” as required under the Act;
- Provision of necessary workplace environmental health and safety measures. These could be sanitary facilities, washing rooms, change rooms, first aid kits, and cleaning materials; and
- Provision of protective clothing to construction workers in situations of exposure to occupational negative risks.

3.2.4 Public Roads Act

This Act provides for road standards, safety, and classification. The proposed road to be rehabilitated under the project will fully comply with the provisions of the Act by ensuring that appropriate infrastructure for public safety and road durability is considered. Such infrastructure includes road signage, packing bays, bridges, road markings, road shoulders, drainage systems, road crossings and junctions, road reserves, vertical and horizontal alignments, and others. The public roads act covers the management of road reserves and streets. Land acquisition and resettlement issues are outlined in part II of the act. Section 44 provides an assessment of compensations that can be paid under this act. The compensations cover surface and land rights of the owner or occupier of land. Section 45 provides for compensation for the conversion of land into public use and the section states specifically that in case of customary land compensation is in respect to disturbance to people, section 49 and section 50 provide opportunities for landowners or occupiers to appeal to the High Court on grievances related to resettlement and compensations provided for in this act.

3.2.5 Forest Act (1997)

The Act, things, seeks to: augment, protect and manage trees and forests on customary land, to meet basic fuelwood and forest produce needs of local communities and for the conservation of soil and water; promote community involvement in the conservation of trees and forests in forest reserves and protected forest areas; prevent resources degradation to increase socio-economic benefits; promote community involvement in the conservation of trees and forests; promote optimal land-use practices through agroforestry in smallholders farming systems; protect fragile areas such as steep slopes, river banks, water catchment and conserve and enhance biodiversity.

In line with provisions of the Forest Act, forest reserves in the Nacala and Beira corridors will be protected, and that no activities will commence before consultation with the Forestry Department and affected communities are undertaken.

3.2.6 Water Resources Act (2013)

The Act prohibits any person to divert, dam, store, abstract or use public water for any other purpose except in accordance with the provisions of this Act. Part VIII, Section 89 (1) of the Act makes it an offense for any person to interfere with, alter the flow of or pollute or foul any public water. The Act also contains provisions for the prevention of pollution or fouling of public water which will be followed in the implementation of the project. Each subcomponent will be required to assess its water needs and obtain a permit from the National Water Resources Authority in accordance with the Water Resources Act.

3.2.7 Local Government Act (1998)

This Act provides a legal mandate to local councils in planning, administration, and implementation of various development programs in their respective districts. Environmental management is provided in section 2 of the second schedule of functions of the councils as outlined in the Local Government Act.

In line with provisions of the Local Government Act, respective District Councils will ensure that they are coordinating the implementation of the Environmental and Social Management and Monitoring Plans developed for project-specific SATCP ESIAs and ESMPs during the implementation of the project. This will be done through the Environmental District Officer (EDO) for the respective districts where infrastructure projects that require ESIA are being implemented.

3.2.8 Gender Equality Act (2013)

The Gender Equality Act of 2013 Act seeks to promote gender equality, equal integration, influence, empowerment, dignity, and opportunities, for men and women in all functions of society, to prohibit and provide redress for sex discrimination, harmful practices, and sexual harassment to provide for public awareness on the promotion of gender equality, and to provide for connected matters.

Part II of the Act is on Sex Discrimination. Section 4 stipulates that a person shall not treat another person less favourably than he or she would treat a person of his or her sex. In compliance with this section of the Act, the proponent of the project will ensure that there is no sex discrimination during all phases of the project including the implementation and maintenance phase.

3.3 World Bank Safeguard Policies

To ensure the social and environmental sustainability of the projects, the World Bank developed its Safeguard Policies, divided in environment, social, and legal areas (Figure No. 4). Likewise, the World Bank has a Public Disclosure Policy that is of cross-character and applies in all the Safeguards Policies.

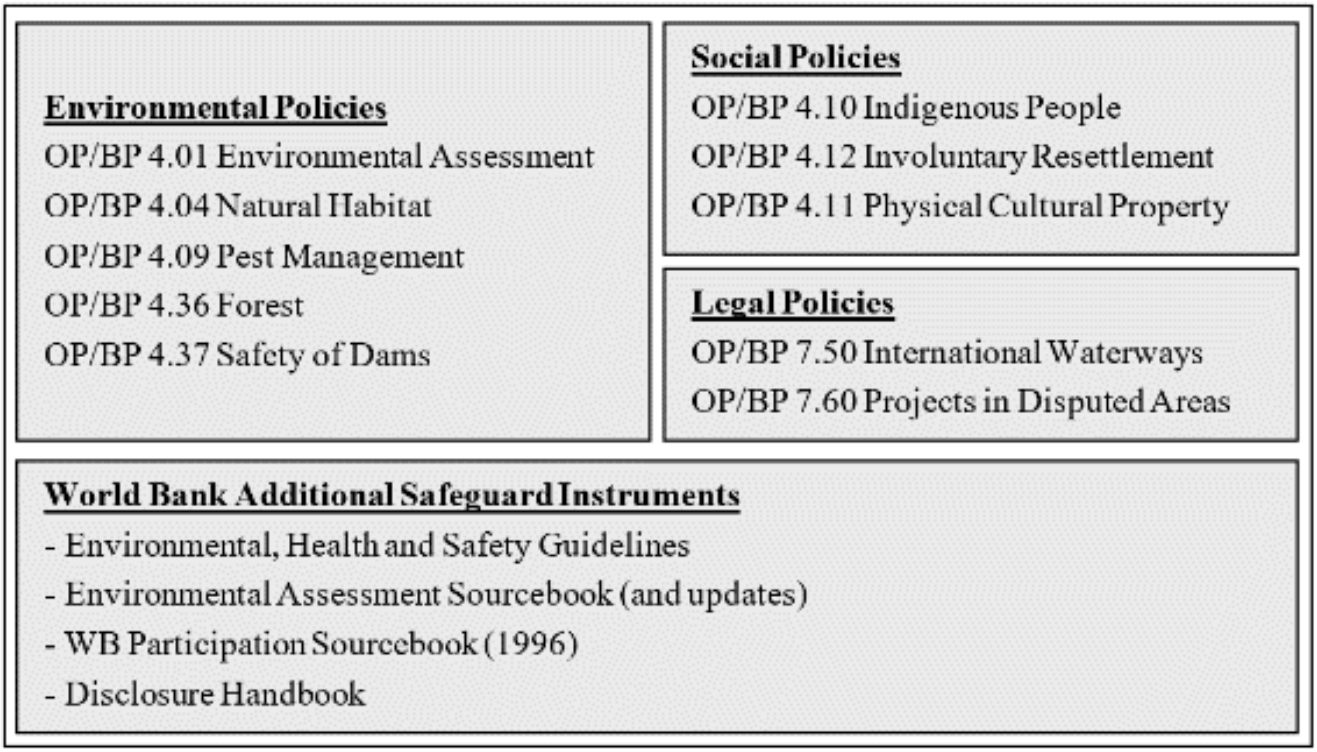

Figure 3-1: World Bank Safeguard Policies

The Safeguard Policies pursue three objectives: (i) ensuring that environmental and social issues are evaluated in the preparation and decision-making process; (ii) reducing and mitigating the environmental and social risks of Bank-financed programs or projects; and (iii) providing mechanisms for consultation and information disclosure.

The RA will comply with all the Safeguard Policies in the projects or activities funded under the World Bank. A complete description of the World Bank's safeguards and their triggers can be found on the Bank's official Web site, www.worldbank.org.

3.3.1 Safeguard Policies triggered by the Programme

Table 3-1 presents the common settings in which the safeguards are triggered and generic directions to comply with them. The policies that apply to each specific project will be decided on a case-by-case basis during the project cycle.

Table 3-1:Triggered Social and Environmental operational policies for the SATC

Safeguard Policy	Trigger settings and requests
Environmental Assessment (OP/BP 4.01)	This policy requires environmental assessment (EA) of projects/programs proposed for Bank financing to ensure that they are environmentally sustainable, and also to inform decision making. EA is a process where the breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the projects. The EA process takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and cultural property); and trans-boundary and global environmental aspects. The environmental and social impacts of the proposed project will come from the road and other infrastructure subprojects that will receive financing under the SATCP. However, since the location of these projects will not be identified before the appraisal of the Programme, the EA process calls for the GoM to prepare this ESMF to establish a mechanism to determine and assess future potential environmental and social impacts during implementation of the projects under the proposed project, and then set out mitigation, monitoring, and institutional measures to be implemented during project operations to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. Therefore, this ESMF establishes the EA process for the implementation of project activities in the proposed SATC project
Natural Habitats (OP/BP 4.04)	The World Bank does not support projects that, in the Bank's opinion, involve significant conversion or degradation of critical natural habitats. Wherever feasible, Bank-financed projects are sited on lands already converted (excluding any lands that in the Bank's opinion were converted in anticipation of the project). If the EA indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank. Such mitigation measures include, as appropriate, minimizing habitat loss (for example, strategic habitat retention and post-development restoration) and establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified. In deciding whether to support a project with potential adverse impacts on natural habitat, the Bank takes into account the borrower's/developer's ability to implement the appropriate conservation and mitigation measures. If there are potential institutional capacity problems, the project should include components to develop the capacity of national and local institutions for effective environmental planning and management. The mitigation measures specified for the project may be used to enhance the practical field capacity of national and local institutions.

Safeguard Policy	Trigger settings and requests
Pest Management (OP 4.09)	The policy supports safe, effective, and environmentally sound pest management activities and promotes the use of biological and environmental control methods. It encourages the assessment of the capacity of the country's regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management (section 3.3.2). Projects that include the manufacture, use, or disposal of environmentally significant quantities of pest control products are classified as Category A. The World Bank OP 4.09 ensures that EA covers potential issues related to pest management and considers appropriate alternative designs or mitigation measures. It places premium on using biological pest control measures, but where chemical pesticides must be used, it encourages the country's capacity to manage the procurement, handling, application, and disposal of pest control products be evaluated and the capacity to monitor the precision of pest control and the impact of pesticide use, and to develop and implement ecologically based pest management program. This policy is triggered due to the engagement of supporting subcomponent activities that improve agricultural productivity and other activities related to agribusiness. The assessment of pest management requirements is made in the context of the project's environmental assessment and is recorded in the project documents. The project will ensure that the development of Pest Management Plan to manage and/ or mitigate any adverse impacts associated with pests, pesticides, pest management activities, etc, in line with this policy. RA will prepare the PMP, encompasses Integrated Pests Management strategies (IPM) before the commencement of any civil works. The ESMF includes a brief guideline of PMP to be used by RA and other relevant parties as a guidance during the preparation of PMP as well as in a decision-making process for future selection, implementation, and evaluation of pest management practices (Annex 12). Those activities such as soil pests, weeds, field and post- harvest pests, pest diseases management, use of certified seeds or seed dressing or other activities that will be linked with pesticides and pest control, which are likely to have impacts on the environment and humans would be identified using the screening and review procedures as outlined in section 6.2, and thus all impacts associated with pest management will be addressed by the project PMP which will be prepared in line with OP 4.09.
Physical Cultural Property (OP/BP 4.11)	Cultural property includes sites having archaeological (prehistoric), paleontological historical, religious, and unique natural significance. The Bank will normally decline to finance a project that will significantly damage irreplaceable cultural property and will assist only those projects that are sited or designed to prevent such damage. It is not anticipated that the SATC will affect sites having archaeological, paleontological, historical, religious, or unique natural significance as defined under

Safeguard Policy	Trigger settings and requests
	OP/BP 4.11. However, a screening mechanism is proposed to ensure that any such sites are identified and avoided, or impacts mitigated, in line with the cultural resources policy. The public, project contractors, and operators will be notified of the potential for chance finds, and a chance find procedures will be included in construction contracts.
Involuntary Resettlement (OP/BP 4.12)	The developer will make dedicated efforts to avoid impacts on people, land, and property, including people's access to natural and other economic resources. Nevertheless, land appropriation, compensation, and resettlement of residents seem inevitable for certain types of projects in certain areas. This social issue is of crucial concern to the GoM and the Bank, because its impact on poverty, if left unmitigated, is negative, immediate, and widespread. This policy would be triggered when a project causes the GoM to appropriate land or other assets resulting in: (i) relocation or loss of shelter, (ii) loss of assets or access to assets, and (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location. This policy, in most cases, is triggered because people are being affected by physical displacement. In addition, the proposed project activity requires the appropriation of land, whereby a physical piece of land is needed and people may be affected because they are cultivating on that land, they may have buildings on the land, they may be using the land for water and grazing of animals, or they may otherwise access the land economically, spiritually, or any other way that may not be possible during and after the project is implemented. Therefore, people in most cases are compensated for their loss (of land, property, or access) either in kind or in cash or both. The resettlement policy applies to all displaced persons, regardless of the total number affected, the severity of the impact, or whether or not they have legal title to the land. Particular attention should be given to the needs of vulnerable groups among those displaced. The policy also requires that RAPs must be implemented before the implementation/start of project construction to ensure that displacement or restriction of access does not occur before necessary measures for resettlement and compensation are in place. For projects requiring land appropriation, it is further required that these measures include the provision of compensation and other assistance required for relocation, before displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, the appropriation of land and related assets may take place only after compensation has been paid, and where applicable, resettlement sites, new homes, related infrastructure, and moving allowances have been provided to displaced persons. For program activities requiring relocation or loss of shelter, the policy further requires that measures to assist the displaced persons are implemented in accordance with the RAPs.

Safeguard Policy	Trigger settings and requests
	Where there is a conflict between the laws of Malawi and the Bank's OP/BP 4.12, the latter must take precedence as the Bank is to fund the SATCP.

In accordance with the Bank's Public Disclosure Policy, generally, a Communication and Disclosure Program is required to present all the environmental and social documents developed for the projects (ESIAs, ESMPs, RAPs, or others) as part of the participation and consultation process.

3.3.2 OP 4.09 Pest Management

3.3.2.1 Main Points of the World Bank's Safeguard Policy on Pest Management

a) Applicability

OP 4.09 applies to all Bank-financed activities that affect pest management. It is not restricted to specific lending instruments or sectors. OP 4.09 applies particularly to:

- Projects for which pesticides or pesticide application equipment is envisaged, either directly through Bank-financed project components, or indirectly through on-lending, co-financing, or government counterpart funding.
- Projects that affect pest management in a way that could cause harm, even though the project is not envisaged to procure pesticides. Included are projects that (1) may lead to a substantial increase in pesticide use with subsequent increase in health and environmental risks or (2) maintain or expand present pest management practices that are unsustainable, are not based on an IPM approach, and/or pose significant health and environmental risks.

b) Main principle

In assisting borrowers to manage pests that affect either agriculture or public health, the Bank supports a strategy that promotes the use of biological or environmental methods and reduces reliance on synthetic chemical pesticides.

c) Main procedural aspects

- In Bank-financed projects, the borrower addresses pest and pesticide management issues in the Environmental Assessment.
- The borrower prepares a Pest Management Plan (BP 4.01 appendix C) when significant pest management issues exist or when procurement of substantial quantities of pesticides is envisaged.
- In appraising a project that involves pest management, the Bank assesses the capacity of the country's regulatory framework and institutions to promote safe, effective, and environmentally sound pest management. The assessment includes policies relevant to pest management in order to identify biases toward chemical control that impede IPM. As necessary, the Bank and the borrower incorporate in the project components to strengthen such capacity or to reform policy.

d) Main criteria for pesticide selection and use

- The use of pesticides in Bank-financed projects must have negligible adverse human health effects and a minimal effect on nontarget species and the natural environment.
- The Bank does not finance formulated products that fall under World Health Organization (WHO)

- Hazard Class Ia and Ib. WHO Class II products are not acceptable if (1) the country lacks restrictions on their use or (b) they are likely to be used by, or be accessible to, lay persons, farmers, or others without training, equipment, and facilities to handle, store, and apply these products properly.
- The Bank requires that any pesticides it finances be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards acceptable to the Bank

3.3.2.2 Project Pest Management and development of an Integrated Pest Management Plan

Where sub-projects involve recourse to pest management measures, the preference is for integrated pest management (IPM) approaches using combined or multiple tactics. IPM refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. It involves:

a) managing pests (keeping them below economically damaging levels) rather than seeking to eradicate them;
b) integrating multiple methods (relying, to the extent possible, on nonchemical measures) to keep pest populations low; and
c) selecting and applying pesticides, when they have to be used, in a way that minimizes adverse effects on beneficial organisms, humans, and the environment.

The project will not procure any pesticide however the project acknowledges the potential for increased use of pesticides by project beneficiaries due to the livelihoods and agricultural nature of the interventions. As the specific interventions are not yet determined the nature and extent of potential pesticide use, the crops on which pesticides may be used, the potential pests and diseases they may be necessary to address and therefore the range of pesticide and non-pesticide options available as well as the sensitivities of receiving environments in which the pesticides be considered are unknown. Hence as these details become clear an IPM Plan (IPMP) will be developed (Annex 12), in order to assist the use, handling storage and overall management of pesticides. The IPMP will be tailored to the situation of the SATCP but will follow the following principles:

- Any use of pesticides or pesticide products or formulations must be incompliance with the EHSGs.
- No use of pesticide products that contain active ingredients that are restricted under applicable international conventions or their protocols.
- No use of any formulated pesticide products that meet the criteria of carcinogenicity, mutagenicity, or reproductive toxicity as set forth by relevant international agencies.
- The IPMP will apply the following criteria to the selection and use of such pesticides:
    - they will have negligible adverse human health effects;
    - they will be shown to be effective against the target species;
    - they will have minimal effect on nontarget species and the natural environment. The methods, timing, and frequency of pesticide application are aimed to minimize damage to natural enemies. Pesticides used will be demonstrated to be safe for inhabitants and domestic animals in the treated areas, as well as for personnel applying them;
    - their use will take into account the need to prevent the development of resistance in pests; and
    - where registration is required, all pesticides will be registered or otherwise authorized for use on the crops and livestock, or for the use patterns, for which they are intended under the project.
- All pesticides used will be manufactured, formulated, packaged, labelled, handled, stored, disposed of, and applied according to relevant international standards and codes of conduct, as well as the EHSGs.

This IPMP will be in place before any pesticide use on the ground. Capacity for implementing the IPMP will be assessed and where necessary capacity building measures prepared and implemented to ensure the full implementation of the IPMP.

3.4 Applicable WBG EHS Guidelines

The World Bank Group, Environmental, Health and Safety (EHS) General Guidelines of April 2007 superseded the World Bank Handbook issue of 1998. In terms of specific guidelines to control environmental externalities (e.g. wastewater quality etc.), The WBG EHS guidelines have been set out by IFC and the World Bank Group to provide general guidelines for its members when involved in a project or when providing financial support to a project. These guidelines contain general and industry-specific examples of Good International Industry Practice (GIIP). In summary, the following WBG EHS Guidelines are relevant to the SATC project:

1. General EHS Guidelines, Environmental: a. Wastewater and Ambient Water Quality b. Hazardous Materials Management c. Waste Management	**2. Agribusiness/Food Production** a. Annual Crop Production b. Perennial Crop Production
3. Construction and Decommissioning a. Environment b. Occupational Health and Safety c. Community Health and Safety	**4. Infrastructure** a. Toll Roads
5. Community Health and Safety a. Traffic Safety	

3.5 Bank's requirement safeguard for Technical Assistance (TA)

All Technical Assistance (TA) will also be assessed for potential risks and impacts with due regard to the mitigation hierarchy. The terms of reference, work plans or other documents defining the scope and outputs of technical assistance activities will be drafted so that the advice and other support provided is consistent with World Bank Safeguards Policies identified as relevant to this project and appropriate to the nature of the risks and impacts. The terms of reference, work plans or other documents defining the scope and outputs of technical assistance activities will be drafted so that the advice and other support provided is consistent with the relevant Safeguards Policies. Recognizing that there are a variety of TA activities with varying environmental and social implications, several principles or concepts are useful when designing the best approach:

- **Integrate environmental and social objectives into the TA process -** Many standalone TA activities are essentially "process-oriented projects" involving planning, objective setting, alternatives analysis, cost benefits assessments, technical designs, consensus building, etc. These activities often provide a significant opportunity to integrate environmental and social objectives into the planning process.
- **Promote transparency through stakeholder participation and public information disclosure** - As many TA projects promote improved planning, this provides an excellent opportunity to promote broad stakeholder engagement and participation. As appropriate, strategic planning initiatives could

include focus groups, citizen consultations, expert panels, public hearings, etc. at all critical phases of the TA.

- **Promote use of appropriate environmental and social assessments such as SESA -** TA studies supporting policies, plans and programs are ideally suited to apply SESA and other environmental and social analytical tools.
- **Promote systematic and comprehensive analysis of alternatives -** Where TA supports the development of specific investment plans, such as for large scale infrastructure, TA studies may be used to meaningfully explore alternatives at various levels, including assessing the relative impacts of those alternatives.
- **Promote environmental and social capacity building and institutional strengthening** - TA projects can provide an opportunity to build counterpart capacity for integrating environmental and social concerns into their work. This could be done through support (in the form of policy strengthening, training, and support for operations, technical standards setting, monitoring and reporting etc.) to line ministries or to implementing agencies and other government/non-government agencies with strong interest in environmental and social analysis.

3.6 Gaps between World Bank Policies and The National Legislation Environmental Assessment

Both the Malawi legislation on EIA and the World Bank OP 4.01 - Environmental Assessment - have provisions for conducting environmental impact assessment studies for projects that are likely to cause adverse environmental impacts. For the case of Malawi legislation, there is no provision for environmental and social screening of projects whose activities and locations are not known, while the Bank policy provides for environmental and social screening of each proposed project (and its sub projects) to determine the extent and type of environmental (and social) assessment. The Bank further classifies proposed projects into one of four categories, depending on the type, location, sensitivity, and scale of the project, and the nature and magnitude of its potential environmental and social impacts. By preparing the ESMF, the gap that exists for the projects whose activities and locations are not known is bridged.

3.7 Environmental International Agreements

Malawi is a party to many international agreements on biodiversity, climate change, desertification, endangered species, ozone layer protection, and others, including:

- Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal (1989);
- Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris (1972);
- Convention on Biological Diversity;
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1973);
- Convention on the Ban of the Import into Africa and the Control of Trans-boundary Movement and Management of Hazardous Wastes within Africa, Bamako, Mali (1991);
- United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (1994);
- Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (1994);
- Montreal Protocol on Substances That Deplete the Ozone Layer (1987);

- United Nations Framework Convention on Climate Change (1983); and
- Vienna Convention for the Protection of the Ozone Layer.

3.8 Institutional Framework

3.8.1 Ministry of Transport and Public Works (MoTPW): Road Sector

The MoTPW is the main stakeholder in the road sector. The MoTPW formulates policies, sets standards and specifications; defines the long-term strategic plans; and participates in the management of the executive agencies.

The roles and functions of the MoTPW are:

- Formulation of policies, plans, and strategies towards development, upgrading, and Management of the Construction Sector covering short, medium, and long term.
- Setting standards and Monitoring of quality compliance in Construction, Rehabilitation, and Maintenance of Roads, Ferries, Bridges, and Government Buildings.
- Monitoring & Supervision of Construction, Rehabilitation, and Maintenance of Roads, Ferries, Bridges, and Government Buildings.
- Monitoring, supervision, and coordination of various activities of Agencies/Parastatals, Boards and Institutions which are under the Ministry.
- Sourcing of internal and external funds for financing of various projects under the Ministry.
- Supervision of axle load control and transport safety; and
- Human Resources Development for Ministry's Employees at all levels.

All road sector responsible ministries, departments, agencies, etc. have overall responsibility to protect the environment while planning or executing road projects or managing road operations in accordance with the prescriptions in the Public Roads Act. However, particular responsibilities to protect the environment within the road Sector lies with the RA through the EMU that coordinates with EAD.

3.8.2 Roads Authority (RA)

The Roads Authority was established by an Act of Parliament No. 3 of 2006 as a semi-autonomous agency under the MoTPW. Apart from the Act, RA is guided in its operations by other Acts governing organizations it interacts with in its day to day operations. It is the authority for the construction, rehabilitation, and maintenance of national roads and other categories of roads that fall under other authorities such as towns and local assemblies.

The main objective of the Roads Authority is to support the socio-economic growth and help reduce poverty through the promotion of trade; support for the economic sectors such as agriculture, mining, tourism, industry; and provision of access to social services such as health, education, and recreation.

The roles and functions of RA are:

- Planning for carrying out the required interventions, based on priority ranking;
- Engaging contractors to carry out the works;

- Supervising the works;
- Establishing and maintaining an appropriate databank for the national road network;
- Establishing and operating weighbridges and enforcing axle load control on the national road network;
- Carrying out / commissioning research in support of the operations when necessary; and
- Advising the MoTPW on standards and specifications for road works.

In relation to its structure, a Chief Executive Officer (CEO) heads the agency, there are six functional Directorates: Maintenance, Construction, Planning and Design, Procurement, Projects, and Management Services. In relation to the Regional Offices, there are 3 regions managed by Chief Engineers who report directly to the CEO.

3.8.3 Project Implementation Unit (PIU)

Under the Roads Authority, the SATC project will have a Project Implementation Unit (PIU) with specialists of varied technical expertise and experiences to manage the project. The PIU will have one environmental specialist and one social specialist who will be responsible for the implementation of this ESMF and the overall environmental and social safeguards over the project period. Roles of the PIU will include;

- Oversee SATC project implementation
- Undertake preliminary screening and Scoping study
- Preparation of E&S safeguard's instruments for various subprojects
- Coordinating the implementation of E&S safeguards on the SATC project with various relevant institution of directly or indirectly participated on SATCP implementation at all levels.
- Undertake supervision and monitoring of implementation of SATCP subprojects, including the recommendation of EHS measures
- Provide periodic reports to RA, MoTPW and the World Bank on safeguards implementation.
- Facilitate capacity building activities for SATCP subprojects implementing institutions ion safeguards management.
- Prepare a mechanism that promotes social, economic and environmental justice and channel the major part of any benefit derived thereof to the affected communities to reduce emissions of greenhouse gases that would otherwise have resulted from deforestation and forest degradation;

3.8.4 Environmental Affairs Department under the Minister Responsible for the Environment

The Minister responsible for the environment is responsible for matters relating to the environment, including providing the necessary policy guidance for promotion, protection, and sustainable management of the environment in Malawi. The EAD has the authority to issue EIA certificates (environmental permissions) which must be obtained by the Road Authority before any site preparations or construction works for road projects. The EAD also has the authority to issue an Environmental Stop Order in case of non-compliance with the environmental terms and conditions stated in the certificate and to approve amendments to the EIA certificate based on the application from the certificate holder.

The Director of Environment Affairs (DEA) is appointed by the President of the Republic of Malawi. The main functions of the DEA are to promote the integration of environmental considerations into development policies, plans, programs, strategies, and projects; to advise Government on legislative and other measures for the management of the environment; to advice Government on the implementation of relevant international environmental conventions; to monitor and assess the overall environmental performance of sector ministries, and to prepare and issue annual state-of-the-environment reports.

3.8.5 The National Council for the Environment (NCE)

The objectives of the National Council for the Environment (NCE) are to undertake enforcement, compliance, review, and monitoring of Environmental Impact Assessment (EIA) and to facilitate public participation in environmental decision making. The NCE is responsible for:

- Convening public hearings to obtain comments on the proposed project;
- Recommending to the Minister to approve, reject, or approve with conditions specific EIS (based on which the Minister will decide whether an EIA certificate will be issued);
- Monitoring the effects on the environment of activities;
- Controlling the implementation of the Environmental and Social Management Plan (ESMP);
- Registering experts and firms authorized to conduct EIA; and
- Promoting public environmental awareness in general.

3.8.6 The Technical Committee on Environment (TCE)

The TCE is a cross-sectoral committee set up to coordinate the implementation of the EMA and its regulations. It comprises members with experience from various fields of environmental management in the public, private sector, and civil society. The committee advises the Minister Responsible for the Environment through the DEA on any matter related to environmental management. Its main functions include:

- Examining any matter that may be referred to it by the minister or any sector ministry relating to the protection and management of the environment;
- Reviewing and advise the minister responsible for the environment on any environmental plans, environmental impact assessment of major projects and activities to which environmental impact review is necessary;
- Reviewing and advising the minister on any environmental standards, guidelines, and regulations;
- Receiving, reviewing and commenting on environmental impact reports regarding the protection and management of the environment; and
- Performing other environmental advisory services to the DEA as it may be necessary.

3.8.7 The Sector Ministries

According to the Environment Management Act (EMA), sector ministries are required to establish sector environmental sections headed by a sector environmental coordinator. For the road sector, this is implemented through the environment section of the RA. The local government authorities include the city councils, municipal councils, district councils, town councils, ward, and village. A District Environment Sub-Committee (DESC) is established for each jurisdiction with the responsibility to oversee the implementation of the EMA at the local level. The functions of the DESC include among other things conflict resolution, inspection and examination of polluting activities, and general enforcement of environmental legislation.

3.8.8 The Contractor

The Contractor is responsible for implementing the environmental and social safeguards management measures stated under this ESMF and the respective subproject ESIA/ ESMP. The pertinent information from the subproject ESMP will be included in the project contract under the environmental and social clauses and the ESMP document will be annexed and part of the bidding and contract agreement document. The contractor will also be required to prepare a contractor Environmental and Social Management Plan (CESMP) in-line with the recommendations of the respective subproject ESIA. The Contractor is accountable for the implementation of these instruments (CESMP/ESMP/ESIA) and required to establish an EHS unit staffed with qualified environmental and/ or social safeguards specialists. After preparing the CESMPs it needs to be approved by the Supervision Engineers and submitted to RA of clearance. The Contractor shall also provide training and undergoes awareness raising campaigns on safeguards management for crew members and staffs.

3.8.9 The Supervision/Resident Engineer (S/RE)

The S/RE under the RA is responsible for the day-to-day monitoring of the subprojects implementation, including implementation of environmental and social management during construction. By contractual arrangement, the Supervision or Resident Engineers will be responsible for ensuring adequate inclusion of the environmental and social safeguards clauses in the contract document and the corresponding supervisory responsibility to confirm sound implementation of all site environmental and social management and monitoring recommendations. The S/RE approves or rejects, as the case may be, the proposals and undertakings of the contractor in relation to the requirements of the contract documents.

3.8.10 District Administration

- Assist the subproject proponents on the implementation of the subproject,
- Establish a task force/steering committee at District level, as applicable.
- Organize the District taskforce/steering committee and chair the meeting related to the implementation of the programs, as applicable; and,
- In cases of land expropriation, support in facilitating the process of valuation and compensation process and other activities.

3.8.11 The Community

The Community has the right to be consulted to ensure the overall project acceptability and sustainable implementation of the SCATCP subprojects. In general, the community should be involved at different stages of the subproject implementation. A focus will be placed on engaging relevant women's groups to ensure both men and women are informed about subproject activities within the area.

3.8.12 Local NGOs working around the subproject implementation location

In area where SATCP subprojects are implemented, if NGOs involved in subproject related interventions exists, RA may approach them for possible contributions especially for the sustainability of the subproject. NGOs are important specifically during the operation phase of the subproject.

4 BASELINE INFORMATION ON ENVIRONMENTAL AND SOCIAL SETTINGS

4.1 Location

Malawi is situated in southeastern Africa. It is wholly within the tropics; from about 9°30S at its northernmost point to about 17°S at the southernmost tip. Malawi occupies a thin strip of land in between Zambia and Mozambique protruding southwards into Mozambique along the valley of the Shire River. In the north and northeast, it also shares a border with Tanzania. Malawi is landlocked and is connected by road and rail to the Mozambican ports of Nacala and Beira. The Great Rift Valley traverses the country from north to south. In this deep trough lies Lake Malawi, the third-largest lake in Africa, comprising about 20% of Malawi's area. The Shire River flows from the south end of the lake and joins the Zambezi River 400 kilometers (249 mi) farther south in Mozambique.

The project will be implemented in the Nacala and Beira corridors within Malawi. The project area stretches from the Zambian border in Mchinji, Lilongwe, Dedza, Ntcheu, Balaka, Machinga to the Mozambican border at Chiponde Mangochi District. In Malawi 75 km the road has been rehabilitated between the towns of Liwonde and Mangochi. The project target area is the entire Nacala Road Corridor starting from Malawi to Mozambique to the Nacala Port with an estimated population of over 2 million people. Other components of the project will be implemented in Mulanje (Muloza OSBP) and Blantyre (Inland Examination Centre). In Malawi, all of these features are mainly found in Nacala and Beira corridors catchment area. The corridor is also linked to main international sea ports at the end points of both rail and road networks, the Port of Dar es Salaam in the north and the Port of Durban in the south. Durban and Dar are the largest ports and the only ones with sufficient volumes to justify direct calls by major shipping lines. Secondary ports, such as Nacala and Beira, receive calls from feeder vessels coming from hub ports in the area, particularly Durban. Beira Port is constrained by the absence of a direct rail connection and limited depth of the port. Whilst Nacala Port is situated in a deep-water bay offering natural protection for very large vessels, it currently remains a relatively small feeder port.

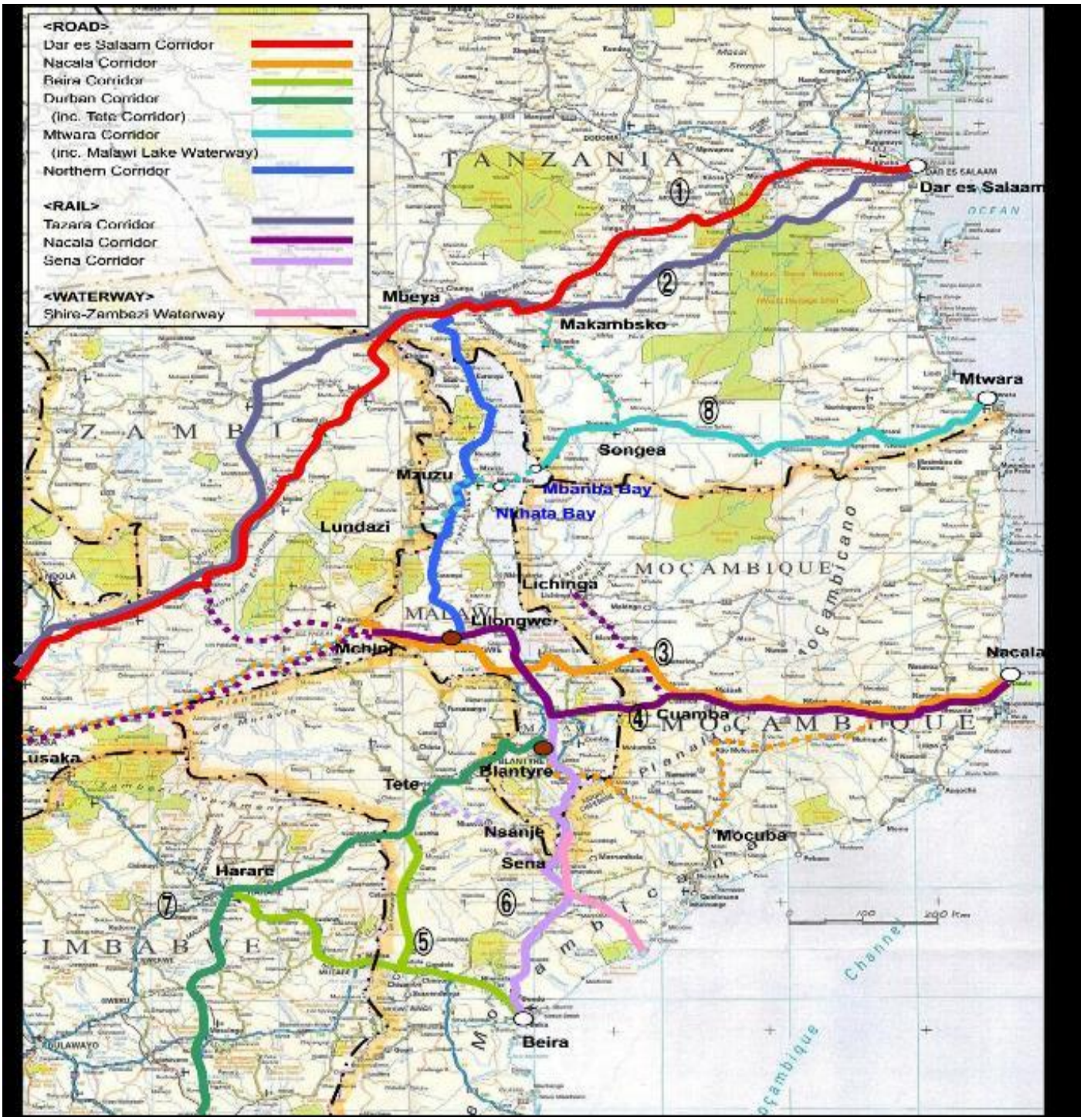

Figure 4-1: Map of Malawi

Source: Nations Online Project.

4.2 Physical environment

4.2.1 Climate

Malawi's climate and the climate in the SATCP focused project area (former Nacala and Beira Corridors catchment area) is influenced by its proximity to the huge lake (Lake Malawi) that covers almost two-thirds of its length. The climate is tropical continental with two distract seasons, the rainy season from November to

April and the dry season from May to October. However, from May to July it is relatively cool and in some high-altitude areas, drizzles (Chiperoni rains) are common. Annual rainfall in Malawi ranges from 700 to 1800mm. Its distribution is influenced by topography (orographic effects) and proximity to the lake. It is hot and humid from September to April along the lake, with an average daytime maximum of around 27 to 29 °C. The rest of the country is warm during those months with maximum temperature during the day around 25 °C. From June through August, the lake areas and south are comfortably warm, with daytime maxima of around 23 °C, but the rest of the area can be chilly at night, with temperatures ranging from 10–14 °C.

4.2.2 Soils

Sandy soils with coarse grains and light texture with good air circulation are very common in the project area. Fertile alluvial soils with fine particles and heavy texture are found along the flood plain of the Shire River, Lake Malombe, and shores of Lake Malawi. These soils support a variety of crops including maize and rice. There are also hydric soils in the riparian zones of Lake Malawi, Lake Malombe, and the Shire River. These are soils that are formed under conditions of saturation, flooding, and ponding long enough in the growing season to create anaerobic conditions in the upper 50cm of the soil. In some areas of the corridors such as Mchinji, Lilongwe, and Ntcheu there are Latosols or red-yellow soils which include the ferruginous soils of Lilongwe plain which are among the best agricultural soils in the country.

4.2.3 Water Resources

The country is dominated by Lake Malawi, which drains into the Zambezi River through the Shire River. As a result, the whole of the country, except for one eastern district is part of the Zambezi drainage system. in the project area, there are also Lake Malombe and Lake Chiuta.

The Nacala and Beira corridors also has some important rivers such as the Mua River, Lilongwe River Linthipe River, Bwanje River, Likangala River, Masanje River, Diamphwe River, and Likuni River whose water is used by South, Central and Lilongwe Water Boards to supply households with tap water. The Project's subcomponents that will involve construction activities may source water from smaller rivers within the corridor and appropriate permits will be acquired in line with this ESMF before any abstractions.

Current environmental issues in the project area are deforestation; land degradation; water pollution from agricultural runoff, sewage, industrial wastes; siltation of spawning grounds endangers fish populations that should be addressed by the subsequent specific environmental assessments under the project.

4.3 Biological environment

Flora in the Nacala and Beira corridors is composed of woodland with sparsely distributed Mopane, baobab, acacia, and mahogany trees, grasslands, thicket, and scrub. There are indigenous softwoods in the better-watered areas.

Fauna in the corridor includes large mammals such as baboon, monkey, hyena, wolf, nocturnal cat, badger, warthog, and porcupine. There are birds, reptiles including crocodile, tortoise, marsh terrapin, chameleon, lizard, and many varieties of snakes; Main types of fish from Lake Malawi are Oreochromis Spp (Chambo), Baplochromis spp (Kampango), Lethrinops spp (Chisawasawa), Clarias spp (Mlamba), Bathyclarias spp (Bombe), Lebeo mesons (Ntchila), Opsaridium microlepis (Mpasa) and Opsaridium microcephalus (Sanjika). The corridor is also rich in insect life and has species in common with tropical West Africa and Tanzania. The Mangochi to Chiponde section of the corridor cuts through heavily forested hilly areas that are home to

Branchystegia tree species and a few mammalian species and reptiles that include monkeys and snakes. The development of the various infrastructure in the corridor especially road rehabilitation will have an impact on the flora and fauna in the area and the specific instruments that will be prepared under the project should mitigate these impacts. Project activities especially roads will not affect protected areas. The project will not allow any other sub-components near Protected Areas or areas/features with high conservation values and these will be identified and screened out during sub-component screening.

Natural vegetation in the project area has been altered significantly by human activities. Swamp vegetation has given way to agricultural species as swamps have been drained and cultivated. Much of the original woodland has been cleared, and, at the same time, forests of softwoods have been planted in the highland areas. High population density and intensive cultivation in the Nacala corridor have also hindered natural succession, while wells have been sunk and rivers dammed to irrigate the dry farmland for agriculture in the project area.

4.4 Socio-Economic Aspect

4.4.1 Demographic Aspects

The estimated population of Malawi is 17.5 million, and the annual growth rate is 2.9%. Children under the age of 18 years constitute about 50% of the population size which indicates a high dependency ratio. Females are about 53% of the population while males are about 47% of the population. About 85% of the population live in rural areas and depend on smallholder farming while only 15% of the population live in towns where as much as 75% of the urban population live in poor peri-urban and informal settlements

The Lilongwe Kasungu Plains and Lake Chirwa Plain where some sections of the Nacala and Beira corridors lie, have among the highest population densities in Malawi, ranging from 200 - 350 persons per square kilometer. About 55% of the smallholder farmers have landholding size of less than 0.5 ha of cultivable land. As a result of this constraint, most rural households face difficulties in producing enough crops for both food and cash. Poverty levels are estimated at 60% and 65% of populations in rural and urban areas respectively. The SATC project intends to address this in the Nacala and Beira corridors through improving access to markets and promotion of value addition.

Main urban areas in Malawi where the project will develop inland examination centers such as the City of Lilongwe has a population of over 1,000,000, Blantyre City has about 800,000 people indicating that there is potential that the project will affect people and resettlement plans need to be prepared in line with the RPF for the project. The majority (about 70%) in urban areas live in unplanned settlements, where there are inadequate services. The quality of housing in the unplanned settlement is quite poor. Poor quality of housing is also visible in most rural areas. Population and Housing Census (2008) results in Malawi's housing indicates that housing structure in Malawi consists of 43% as traditional housing, 34% semi-permanent housing, and 23% as permanent housing.

Although Malawi is one of the most densely populated countries in southern Africa, it is also one of the least urbanized, with more than four-fifths of its people living in rural locations. It is urbanizing at a very rapid rate, however, with movement toward urban areas taking place at a pace far swifter than either the African or global averages.

4.4.2 The economy of Malawi and the Corridors

Agriculture represents 37% of GDP, accounts for over 80% of the labor force, and represents about 80% of all exports. Its most important export crop is tobacco, which accounts for about 70% of export revenues. The country's heavy reliance on tobacco places a heavy burden on the economy as world prices decline and the international community increases pressure to limit tobacco production. Most districts in the corridors such as Mchinji, Lilongwe, Ntcheu, and Mangochi produce a lot of tobacco. Malawi's dependence on tobacco is growing. Rural poverty stands at 56.5% compared to urban poverty at 25%. The components on improving access to markets and promotion of value addition to be supported by the project are intended to reduce poverty levels, address food insecurity, and reduce overreliance on tobacco within the Nacala and Beira corridors.

However, people living along the corridors are still mostly engaged in subsistence and smallholder farming of food crops,[37] with a very low participation of women in established value chains. Agricultural production is largely of low productivity and rainfed, with some of the lowest yields in cereals in Southern Africa due to both low inputs and poor techniques. While the region has shown yield improvements for some crops including soya and sesame, productivity levels in primary crops such as maize and rice are one fifth of those in South Africa. Only 4 percent of farmers have access to extension services, 5 percent use improved seeds, less than 1 percent use loans for financing, and only 14 percent have information about prices.[38] Moreover, the share of women farmers with access to extension services is half of the men in the same communities. Less than 5 percent of women participate in farmers associations; men have double these rates of participation.[39] Post-harvest losses are high due to the lack of consolidation centers close to production points, and poor-quality rural roads that are not well maintained.[40]

4.4.3 Poverty

According to demographic surveys in the country the poor people are: (i) rural households; (ii) female-headed households, other households with less than two adult members, elderly, and handicapped persons; and (iii) urban households. These groups are not mutually exclusive. The reasons for these categories are:

- ***Rural households:***
    - Low agricultural productivity, declining soil fertility, and environmental degradation;
    - Lack of access to land, land fragmentation, and insecurity of land tenure;
    - Lack of access to markets and the absence of rural commercial activity and alternative income-earning opportunities;
    - Low-quality education, lack of access to education, and high cost of education;
    - Poor health services and health standards and rise in HIV/AIDS incidence negatively impact productivity;
    - Poor nutritional intake;
    - Lack of access to low-cost capital or micro-credit or micro-grants;
    - Lack of access to affordable and sustainable household energy sources; and
    - Vulnerability.

[37] *This mainly includes cassava, maize, and beans.*
[38] *Mozambique Ministry of Agriculture and Rural Development. (2020). 2020-24 Program.*
[39] *Boxho, Campos, Montalvao, and Ploen. 2017. Enhancing Women's Market Access in Agribusiness in Mozambique. World Bank Publication.*
[40] *USAID. 2019. "Nacala Corridor and Port Performance Assessment" Background paper, Nathan Associates.*

- ***Female-headed households:***
    - Shortage of household labor;
    - Declining soil fertility;
    - Many women have to take care of unemployed/unemployable husbands, dependent parents, and dependent orphans;
    - Low education attainment, poor access to land and credit, limited paid employment
    - opportunities; and
    - Poor social services, such as water, health, education, and more.
- ***Urban poor:***
    - The rapid increase in urban population;
    - No employment opportunities, particularly among poorly educated young people;
    - Poor basic social services and infrastructure;
    - Lack of housing and land; and
    - High food prices due to low agricultural productivity, high transport costs, and restrictions on petty trade

Malawi does not have groups of people considered as indigenous. One of the reasons is that the country is overpopulated thereby forcing intertribal social interactions. There are a variety of religious groups and a lot of intermarriages. This has facilitated cultural value exchanges among groups.

4.4.5 Health and Welfare

Common diseases in the Nacala corridor include Malaria, tuberculosis, anaemia, gastroenteritis, pneumonia. Cost-effective primary health care facilities and services have begun to be implemented. Health facilities in the corridor include hospitals at Lilongwe, and District hospitals in each of the corridor districts, rural clinics, dispensaries, and health centres also available in the corridor. There are also other dedicated facilities, such as those linked with maternity care. Christian missionary societies run a number of hospitals in the corridor. The Ministry of health policy recommends that Malawians should live within a distance of km to a health facility.

The incidence of HIV/AIDS in Malawi and in the corridor of one-seventh of the population is infected, and this is among the highest rates in the world, further taxing the country's overburdened health care system. In response to the HIV/AIDS crisis, a number of major initiatives have been developed, including the National Strategic Framework, the National AIDS Commission, and the National HIV/AIDS Policy, each implemented in the early 2000s.

5 PUBLIC AND STAKEHOLDERS CONSULTATION AND DISCLOSURE

5.1 Public and Stakeholder Consultation during ESMF Preparation

5.1.1 General

Public and stakeholder consultations with relevant institutions and beneficiaries are an important component in the project planning process of the Southern Africa Trade and Connectivity Project (SATCP). Stakeholder consultations should be carried out during planning, screening, and during the environmental and social assessment to identify key environmental and social issues and determine how the concerns of all parties will be addressed. The Public and stakeholder consultations during ESMF preparation and the plan for future consultation and disclosure that helps to guide consultation and disclosure are discussed in subsequent sections.

As a principle, the guideline for public consultation includes, among others, that a requirement of major elements of the consultation program should be timed to coincide with significant planning and decision-making activities in the project cycle. Annex G of the Guidelines for ESIA (1997) provides details concerning the public consultation methods in Malawi. Such methods include press conferences, information notices, brochures/flyers, interviews, questionnaires and polls, open houses, community meetings, advisory committees, and public hearings. In terms of Malawi's EIA process, public consultation and participation should be undertaken during (i) the preparation of the EIA terms of reference; (ii) the carrying out of an EIA; (iii) Government review of an EIA report; and (iv) the preparation of environmental terms and conditions for approval. Further details are provided in Annex G of Malawi's Guidelines for EIA.

This ESMF has been prepared through public consultations and participation involving communities in the proposed project areas, Local Leaders, District Council Officials, and key Government institutions. The stakeholders consulted raised their concern and made recommendations on several issues that included land acquisition before the implementation of the project; Occupational Safety and Health Issues and employment opportunities as detailed in Table 5.1 below.

Therefore, public and stakeholder consultations and information disclosure are both national and international requirements in planning, implementation, and operation of any development projects. The draft ESMF has been disclosed on RA website in December 10, 2020. The purpose of disclosure of this ESMF is to collect feedback, comments, and suggestion from different stakholders, including project affected and interested parties. Subsequent safeguards documents for specific subprojects under the SATC project will be disclosed both in Country (Malawi-RA website) and at the World Bank external website. Copies of these documents and this ESMF will be made available to the public on accessible locations in English and local languages through the District Councils and in the same manner, the subproject safeguards instruments and the ESMF results would be communicated to the various stakeholders, including community members, interested and affected people. To meet the participatory public consultation and disclosure requirements of the Bank, the Malawi Government will issue a disclosure letter to inform the World Bank of (i) the Government’s approval of the ESMF (ii) the actual disclosure of these documents to all relevant stakeholders and potentially affected persons in Malawi, and (iii) the Government’s authorization to the Bank to disclose these documents on its website. The revised ESMF will be updated and the final ESMF disclosure upon clarence of the World Bank will also be redisclosed publicly in-country on RA website in December 2020 and via World Bank external website will be disclosed in December 2020.

During the EA process for the Bank financing projects like the SATCP, which is classified under environmental assessment category "Category A", The Road Authority (RA) is responsible to ensure that adequate consultation is carried out with project-affected groups about the project's environmental aspects and takes their views into account. The consultation should be initiated as early as possible and it is essential to consult the public throughout project implementation, as necessary to address EA related issues.

5.1.2 Objective of Consultation

This consultation provides a framework for achieving effective stakeholder involvement and promoting greater awareness and understanding of issues so that the proposed SATCP will be carried out effectively within a specified budget and time to the satisfaction of all concerned parties.

The main objectives of the consultations are to:

- Gather views of stakeholders on the programs and record the project targeted stakeholders' level of awareness, attitudes, and opinions towards the proposed Project.
- Provide information to all projects concerned stakeholders about the project activities, potential impacts, and respective enhancement and mitigation measures.
- Accommodate the stakeholders' concerns during the project implementation.
- Establish the social implications of the project on the different stakeholders.
- Maintain the rights of contacted stakeholders' participation with respect to policies and projects that affect their livelihoods, as per requirements of the national and the WB policy and legal frameworks.
- Information to shape the programs of the Project and establish the social implications of the project on the different stakeholders.

5.1.3 Stakeholders Consulted

During the preparation of this ESMF, The RA consulted stakeholders at national, district, and community levels. The stakeholders consulted included officials and experts from relevant line Ministries and District Council. The stakeholders and public consultations were conducted between 27th February to 6th March 2020 in Mangochi District and further consultations were conducted with relevant stakeholders at District level with officials at the Border Post on 23rd and 24th April 2020 in Mulanje Districts. The process was pertinent to gather the participants' views on the implementation of the proposed Southern Africa Trade and Connectivity project (SATCP) and its associated benefits and impacts. The methods of the consultations included round table discussions, focus group discussions, and one-to-one discussions. The various meetings that were held with stakeholders and project beneficiaries identified prevailing challenges of future subproject implementation under SATCP, capacity needs, potential impacts of the proposed sub-projects, and the respective recommendations of mitigation measures for the management of anticipated impact and risk.

5.1.4 Findings of Stakeholders Consultations

During consultations with various stakeholders, the participants indicated that they are willing to support the project as it provides several benefits for the community members within and around the project area. The stakeholders appreciated the importance of SATCP as it contributes to the increasing of household incomes and strengthening of self-reliance by connecting people to markets and promotion of value addition. The consulted beneficiaries and respective stakeholders, including the community members made the following recommendations /suggestions:

- All participants should have prior awareness about the project and a positive attitude towards the implementation of the project at all targeted sites.
- The discussion gave a clear indication of local acceptance of the project and they have also expressed their serious concern about the proper and transparent implementation of the project.
- They unanimously agreed on the implementation of the project and confirmed that they will provide the support required for the success of the proposed project activities.
- The project affected household shall be entitled to the all the reasonable compensation schemes, including the acquisition of replacement lands, the implementation of which must be initiated and implemented by RA in consultation and collaboration with relevant stakeholders/officials.
- The project is expected to provide temporary job opportunities to the local communities, the project proponents shall ensure that local communities are the primary beneficiary.
- Environmental and Social impact Assessment/ESIA/ must be prepared before the starting of the project implementation.
- The project may have negative impacts on biodiversity and a detailed study should be conducted to minimize the negative impact.

An attempt has been made to describe the problems and concerns associated with the implementation of the project as follows (see table 5-1).

Table 5-1:A Summary of Views of Stakeholders Consulted

Issues Raised	Response/ Comments provided
Stakeholders at the district level expressed concern on the impacts of the project on the biophysical surroundings (land-use, natural resources, water, etc.). Despite ESIA or ESMPs being prepared for subprojects how will the project as a whole ensure that the District Council is involved in the implementation of ESIA/ESMP especially in monitoring	The project will require each contractor to set aside resources for the monitoring of the ESMPs for the District Council. The councils will also be involved throughout the project lifespan.
Stakeholders were concerned with the increase of road accidents especially on cyclists in towns in the Nacala and Beira corridors;	The Roads authority will work closely with the Directorate of Roads Traffic to sensitize communities along the road corridor. The project ESIA/ESMP will recommend that the Contractors be required to develop and implement a Traffic Management Plan to avoid and/or mitigate traffic incidents and risks during construction as well as operation phase.
Communities were worried that they will not be able to live harmoniously with contractors for the project based on their previous	The project will put in place a Grievance redress mechanism for the community to voice out all their concerns. All workers of the contractor will be required to sign and adhere to a Code of Conduct to ensure that they do not misbehave in the community. The project

Issues Raised	Response/ Comments provided
negative experiences with other contractors.	will provide an opportunity for employment for local labor that supports their livelihood and live in harmony with the project contractor and other parties, including sub-contractor
How will the project ensure that the local community benefits from the project such as (increased trade and transport) and Employment opportunities;	The project will ensure that as much as possible surrounding communities are employed for unskilled work in the project. A component of the project will involve a value addition element that will benefit local farmers to earn more from their produce
What will happen to people having structures along the roads; what will happen to those people that are in the road reserve.	All PAPs will be compensated regardless of having legal ownership of land. this is in line with the world bank policy on involuntary resettlement
How will the project mitigate against Gender and HIV/AIDS issues;	The project will engage specialized people to conduct GBV and HIV/AIDs awareness in the area. Firms will be engaged as GBV, HIV/AIDS service providers
How will the project ensure that sensitive areas and protected areas such as the two graveyards along the road and Forest Reserves are protected;	The project will undertake an inventory of all protected and sensitive areas in the corridor and consult with relevant authorities on their protection.
The stakeholders expressed concern on the increase of pressure on social services in the area due to the coming in of the project such as market, schools, clinics, water, and electricity	The contractors will be required to provide for their workers separate services such as water and electricity. The contractors will have first aid kits on site and as budget allows and if applicable the Contractor will provide support to the health post working within the project area.
How will the project ensure that communities and animals are protected from the negative impacts of quarries, borrow pits?	The contractors will be required to develop Quarry site rehabilitation plans to be approved by relevant ministries. The plans will include a perimeter fence to stop people from accessing the construction site.

5.2 Public Consultation and Disclosure Plan

5.2.1.1 *Public Consultation Plan*

For the successful identification and assessment of project-specific environmental and social impacts, implementation, and monitoring of the respective mitigation or enhancement measures, a continuous consultative process is required. The implementing agency, RA, has the responsibility to engage stakeholders effectively in achieving proposed subproject objectives for the benefit of all. Through consultations, RA will create a bridge of communication between the public and the Government, which will improve the efficiency

and transparency for the execution of the sub-projects. This public consultation plan (PCP) will be part of the ESMP.

5.2.1.2 Objectives of the Plan

This plan provides a framework for achieving effective stakeholder involvement and promoting greater awareness and understanding of issues so that the project is carried out effectively within budget and on-time to the satisfaction of all concerned parties. The objectives of the public consultations are to provide the implementing parties, including RA with:

- status of implementation of the identified measures;
- a sense of the concerns, priorities, and aspirations of the subproject and implementing parties as they implement the measures;
- information to shape the programs of the project as it progresses;
- whenever possible, to recommend and implement specific recommendations and proposals; and,
- provide the participating stakeholders at various levels with a forum to interact constructively and make progress towards solutions and actions; and feedback from RA, NCE, EAD, DEC, DESC, and other implementing parties on information received and steps to follow.

5.2.1.3 Principles of Consultation Plan

To ensure effective implementation of this plan, the RA and other relevant parties at the local level shall be committed to the following principles:

- promoting openness and communication;
- Ensuring effective stakeholder involvement;
- Evaluating the effectiveness of the engagement plan in accordance with the expected outcomes.

Thus, the beneficiaries are given:

- Clear information on the purpose and objectives of the meeting;
- Opportunity to express individual expectations, views and concerns without interruption;
- Opportunity to build on views expressed and, whenever possible, to discuss and reach conclusions, consensus or recommendations; and,
- Opportunity to engage in open-ended discussion (generally at the end of the meeting).

5.2.1.4 Structure of the Consultations

Consultation meetings will generally take three approaches: (i) individual interviews involving addressing checklists, (ii) one-to-one and/or focus group meeting, and (iii) general public meetings in the specified subproject implementation area. The consultations will be structured along the following lines:

- Advance notification;
- Introduction and information;
- Early break-up into workgroups or roundtables;

- Opportunity for each participant to make a presentation; and,
- A closing session to allow open discussion between participants and RA, DECS, DEC, EAD, as applicable.

5.2.2 Public Disclosure

5.2.2.1 Introduction

The World Bank Operational Policy OP 4.01 requires that the GoM and the World Bank disclose this ESMF report and any other project safeguards instruments as separate and stand-alone documents. The ESMF and other safeguards instruments are required to be approved and disclosed before appraisal according to Bank policies and National procedures. The disclosure should be both in GoM where it can be accessed by the public, including affected groups and NGOs, and at the World Bank external website.

The RA and District Councils will make copies of the ESMF and other instruments available in selected public places (copies of the documents will be made available at District Council Offices to be accessed by all interested parties) for information and comments. The sub-projects will be announced through different forms of media. The announcement will include a brief description of the proposed subprojects under SATCP, references to where and when the ESMF and other safeguards instruments can be viewed, duration of the display period, and contact information for comments.

For meaningful consultations between the Stakeholders and possible project-affected groups, beneficiaries, and local NGOs on subprojects, the Roads Authority, shall provide relevant material on time before consultation and in a form and language that are understandable and accessible to the groups being consulted. To meet the consultation and disclosure requirements of the World Bank, the Government of Malawi will issue a disclosure letter to inform the World Bank of: -

i. The Government's approval of the ESMF and other safeguards instruments;
ii. The actual disclosure of these documents to all relevant stakeholders and potentially affected persons in Malawi, the draft ESMF was uploaded on Roads Authority website on 10th December 2020. The revised ESMF will be updated and the final version of the ESMF will also be uploaded on the RA website in December 2020, and will also disclosed via World Bank external website in December 2020
iii. The Government's authorization to the World Bank to disclose these documents in the World Bank external website.

The steps towards disclosure of the safeguard documents have to be completed before the appraisal of the Project as required by the Bank's Disclosure Policy OP 17.50.

5.2.2.2 Public Disclosure Plan.

Following the public consultation, all comments and briefs will be analyzed by DECS which shall prepare a report for the RA, and the World Bank. The report will be published and made available to the concerned community groups and interested bodies upon request. For SATCP, the World Bank procedures require that an ESMF is prepared and publicly disclosed before project appraisal. This allows the public and other stakeholders to comment on the possible environmental and social impacts of the project, and the appraisal team to strengthen the frameworks as necessary, particularly measures and plans to prevent or mitigate any adverse environmental and social impacts.

In line with this, the ESMF will be available at the relevant institutions at all levels and be publicly disclosed both in-country and at the World Bank's external website. The Road Authority will make copies of the ESMF available in selected public places in English and local language in compliance with the World Bank's *Public Consultation and Disclosure Policy*. It is proposed that the locations of copies are announced through public relation sections of relevant sector line Ministries, radio announcements in addition to press releases, as applicable.

Any ESIAs, ESMPs, RAPs, and other safeguards instruments that will be prepared for projects will also be disclosed on the Government and World Bank's external website. Copies of the ESMPs, ESIAs, RAPs, etc. shall be made available to communities and interested parties' inaccessible locations through local government authorities. Copies of the ESIAs, ESMPs, RAPs, should also be provided to the implementing agencies and submitted to the World Bank. This will ensure record keeping of all activities implemented under the ESMF and ensure that third-party audits if required, have adequate information when undertaking annual environmental and social audit and end of program evaluation.

6 SUBPROJECT SCREENING, APPRAISAL, APPROVAL AND IMPLEMENTATION PROCESS

6.1 Guiding Principles

The proposed SATC project is categorized under environmental assessment category as category 'A' according to the World Bank operational Policy (OP/BP 4.01) and the project activities/projects will most likely require a full-scale ESIA[41](see Table 3.1). An Environmental and Social Assessment (ESA) is necessary for the identification and development of measures aimed at avoiding, offsetting, and/or minimizing environmental and social impacts to levels that are acceptable during preparation, implementation, and operation of the proposed projects.

The overall guiding principles of the proposed project implementations are the following, but not limited to:

- The planning processes will have a complete understanding and prioritizing of the potential sites.
- A detailed feasibility study of projects based on the potential survey.
- Proper stakeholder consultation and engagement process during the preparation of project environmental and social studies.
- Conforming to specific requirements and standards.
- Ensuring no harm or minimal impact to the nearby social and biophysical environment that can be mitigated easily by employing best practices.
- Ensuring sound implementation of the recommended mitigation measures.
- The planning and implementation process will integrate ESA/ESMP or other relevant environmental and social safeguards instruments.
- Proposed subprojects will undergo environmental and social impacts screening.
- Promoting adequate and timely technical support to RA, and other Regional and District offices participating in the implementation of the project which in turn will do the same to the communities.
- Promoting supervision and monitoring of the implementation of projects by all relevant parties including RA with support from the respective environmental offices at all levels.
- Ensuring that subprojects operations are cost-effective.

The implementation of environmental and social safeguards management and screening process will be attained through the procedures and steps described below under screening procedures and steps and in Figure 6-1.

Environmental and Social Screening will be applied to all interventions of subprojects under the project. Malawi's Guidelines for EIA (1997) provides for the categorization of projects into either List A or List B depending on the size, nature, and perceived environmental and social consequences of the project. Where it is clear that project activities fall under List A of the guidelines, an ESIA has to be carried out.

6.2 Procedures and Steps

This subsection describes the steps and procedures to ensure the implementation of environmental and social risks and impacts are adequate and well addressed. This ESMF highlights the proposed project planning focus on ensuring the implementation of subproject activities are environmentally friendly and socially acceptable with no harm principle by applying best practices and sound mitigation measures.

[41] *It should be noted that any subproject within the exclusion list as stated in Annex 1 of this ESMF will not be financed by the SATCP.*

All subprojects to be funded under the SATCP will be subjected to the environmental and social screening process and per the result of the screening process, an environmental assessment (EA) will be conducted based on Malawi Environmental legislation and World Bank Policies to ensure that the anticipated adverse impacts and risks are managed and best practices are applied. The screening process will be used to determine the appropriate environmental and social follow-up measures, depending on the nature, scope, and significance of the expected environmental impacts from each project activity. The screening will be done using the Environmental and Social Screening Form (ESSF) provided in Annex 2. The screening form is designed to provide the necessary information to the assessors and stakeholders, to determine whether or not activities of a sub-project would likely result in significant environmental/social impacts during implementation. The Environmental and Social Screening Form (Annex 2) will be completed by trained and qualified frontline staff with support from RA and District Councils. The screening form, when correctly completed, will facilitate the:

i. Identification of potential environmental and social impacts and their significance;
ii. Assignment of the appropriate environmental category;
iii. Determination of appropriate environmental and social mitigation measures; and
iv. Need to conduct an assessment and prepare specific E&S instruments which may include, for example, but not limited to an ESIA and Resettlement Action Plans (RAPs), etc.

The screening checklist guides the impact assessment in identifying key environmental and social issues and impacts associated with projects prior to the final project design. The Environmental and social screening asks key questions on matters that are of fundamental importance to the Project. When planning a project, there is a list of issues that must be considered. Checklists are annexed and identify issues that need to be considered as part of the project planning and design. The list is intended to guide the Environmental assessment (EA) in identifying key environmental issues and impacts that may be associated with subprojects under the project prior to the project design (Annex 3). Adverse impacts of the project to the nearby environment or to the community may be minimized through changes to project design or the use of mitigation measures to lessen negative effects.

For the District Administrative structure, the screening process will be conducted in the following manner: Preparation activities for the screening process will include a desk appraisal of all interventions under the project. This will be carried out prior to the finalization of project design and commencement of bidding for project works by the District Environmental Sub-committee (DESC) and Area Executive Committee (AEC). DESC is the environmental subcommittee of the District Executive Committee (DEC) and AEC is the village level administrative sub-committee of DEC. The DEC reports to the District Council. Below are detailed steps of the environmental and social screening process (the screening process) leading towards the review and environmental approval of every potential subproject under the SATCP.

Step One: Subproject screening preparation

During planning and preparation of all subprojects under the SATCP, the RA, EAD, DESC, DEC, AEC, etc. are required to ensure that environmental and social impacts of the subprojects are adequately identified, and mitigation measures are implemented to mitigate and minimize the risks and impacts through implementations of best practice methods. Anticipated impacts and the respective mitigation measures stated under this ESMF will be used by RA, DESC, AEC, EAD, DEC to obtain an overview of potential environmental and social

impacts that could be generated due to the implementations of each subproject and the respective mitigation measures.

Given the number of subprojects under SACTP, all interventions such as civil work for Road network and other Infrastructure investment and value chain[42], institutional strengthening, and technical assistance, are likely to undergo screening and assessment of environmental and social impact and considering the scale and nature of subprojects, the required environmental and social safeguards instruments will be prepared, approved, and disclosed, accordingly.

Step Two: Desk appraisal

Prior to going to the sites, a desk appraisal of the proposed project activity plans will be carried out to confirm that all proposed subproject preparation documents contain the required information pertinent to the identification of environmental and social safeguards issues. Depending on the type of projects and to ensure that all relevant environmental and social issues are identified, desk appraisal will be conducted by the DECS, DEC, AEC. In addition, subsequent to the desk appraisal, the initial screening of the proposed project activities will be carried out in the field, using the Environmental and Social Screening Form, by the AEC and DESC, which includes the District Environmental Officer.

Step Three: Training for the screening process

To ensure that the screening form is completed correctly for the various project locations and activities, training will be provided to members of the DEC including its DESC and AEC. The Environmental District Officer who is the secretary to the DESC will take a leading role in the training.

Step Four: E&S safeguards screening and Preparation Screening Report

As applicable, DESC, AEC, DEC with the support from RA will undertake screening of proposed subproject activities for environmental and social safeguards issues associated with the subproject activities to ascertain that the likely social and/or environmental impacts are identified and to ensure that all are addressed. As stated above, this screening will be carried out by using the *Environmental and Social Screening Form (see* annex *2)*

Completion of this screening form will facilitate the identification of potential environmental and social impacts, determination of their significance, assignment of the appropriate environmental category, assignment of appropriate environmental mitigation measures, and conduct any further environmental assessment work, if necessary. Suitably qualified experts from DESC, AEC, DEC with the support from RA and EAD, as required will conduct the screening process and if none are available, training will be provided.

The assignment of the appropriate environmental category to a particular subproject construction activity will be based on the information provided in the environmental and social screening form.

The DEC will be responsible for categorizing the project activities in line with the WB Safeguards Policies (Table 3.1). The assignment of the appropriate environmental category will be based on provisions in the Bank's Operational Policy (OP) 4.01 Environmental Assessment. Consistent with this operational policy, the

[42] *rehabilitation/expansion of border posts, installation of Back-up power supply and ICT facility, pest and disease management, provision and installation of laboratory equipment, improved agriculture practices, develop/rehabilitate small-scale irrigation and warehousing infrastructure, rehabilitate feeder roads, and improve access to electricity; establishing logistic cold chains, upgrading silos, rehabilitate key road networks, routine/periodic road maintenance, Axle Load control, repairs/replacements to the drainage system, and structures like bridges, drifts, and pavement*

activities of the proposed program are likely to be categorized as "Category A", meaning that there are potential adverse environmental impacts on human populations or environmentally important areas. Project activities that have been screened and have the potential to cause irreversible/irreparable environmental damage are listed under the exclusion list of this ESMF (Annex 1). These will either be excluded from the project or the project will be redesigned to reduce risk to acceptable levels.

Step Five: Submission of screening report to Environment authority/offices (EAD)

After a thorough screening of the subproject activities, the safeguards screening report together with their recommendations will be submitted to EAD for further review, clearance, and approval of the screening reports.

Step Six: Review of screening report and appraisal by the Environment Affairs Department (EAD)

The EAD will review the screening results and recommendations in the screening report, review the proposed mitigation measures, and will further provide feedback on the specific screening endeavour's and broader issues of screening. The reviewing process at this level will take into account that the proposed project activities may or may not necessarily need a full-scale ESIA if the Proposed subprojects under SATCP lie under category A/B and any other required document i.e ESMP.

As required, after review of the screening result, the project nature might require a field appraisal mission to the location of the project in order to obtain additional or more detailed information. Moreover, if the desk appraisal and screening indicates that the proposed project may have environmental and/or social concerns that are not adequately addressed in the current documentation, or if the application meets certain criteria (see Table 6-1 below), the EAD will require a field appraisal before the project can be considered further.

Table 6-1: Sample Criteria for Requiring a Field Appraisal Criteria

Criteria	Field Appraisal
1. Land must be acquired for a Project, an individual or community's access to land or available resources is restricted or lost, or an individual or family is displaced	Determines the number of affected/displaced people and the level of impact on restricting access to any available resources, as per the criteria stated under RPF. A Resettlement Action Plan/Abbreviated Resettlement Action Plan/ (RAP/ARAP) may then be required according to procedures detailed in RPF Document.
2. A project may-affect a protected area or a natural habitat	Determines if the project will adequately avoid adverse effects on the protected area or natural habitat, as provided for in the ESMF (Annex 1).
3. A project may have an impact on ecologically sensitive ecosystems (e.g. of impact on wetlands)	A field appraisal determines the scale and level of impact. The application may need to be revised to describe how the -project will avoid or minimize adverse impacts to ecologically sensitive areas. This may require a distinct Environmental and Social Management Plan (ESMP) as outlined in this ESMF (Annexes 6 and 7).

4. A project may involve, or result in: • Diversion or use of surface waters; • Wells or water points.	A field appraisal determines the scale and potential adverse effects and may include an ESMP as outlined in this ESMF (Annexes 6 and 7).

Depending on the field appraisal mission, the appraisal might reconsider the need for the development of an ESMP for the project. The DESC is responsible for ensuring that the required ESIA/ESMP is conducted as per the safeguard's requirements of the World Bank. The ESMP/ESIA can be conducted by a team of experts. necessary training on ESMP/ESIA procedures (Annexes 3, 6, and 7, and Section 11), safeguard policies, relevant policies, and ESIA guidelines shall be provided if there are capacity gaps before conducting the environmental and social impact study.

EAD and RA will supervise further the environmental and social safeguards implementation work by the contractor, which may be included in the preparation of project ESIA/ESMP, RAP/ARAP, as the situation may require. Once all the required documentation has been compiled, the DEC will make recommendations to EAD for final clearance and approval. The ESMP/ESIA report should consist of i) description of the project activity (with location), the environmental baseline, the impacts, mitigating measures, and recommendations for implementation and monitoring of the mitigating measures, among others (see Annexes 6,7,11) for detail information on the contents of the ESMP/ESIA report. A copy of the ESMP/ ESIA report will be submitted to the World Bank for review and clearance.

Step Seven: Approval by /EAD/NCE

The first step in the approval process is to determine if all the relevant information has been provided and is adequate. The EAD will check if the EA team has thoroughly considered all environmental and social issues with regards to the identification of potential adverse effects arising from the sub-project as well as mitigating measures to adequately address negative impacts. Subprojects may not be eligible for funding if they are under the exclusion list. Although the proposed project has no activities, which affect cultural resources, in case of any events of the potential of chance find of physical cultural resources, the instrument has to consider a chance find procedure to be followed in line with annex 5. The screening of the subproject might result in a request for the development of a subproject specific Environmental and Social Management Plan (Annexes 6 and 7). EAD will review (the ESMP) and make a decision by approving the project activity (*with or without conditions relating to implementation*); recommending to re-design (*with required and/or recommended amendments*), or rejecting the project activity (*with comments as to what is required to be submitted as an acceptable report*) and EAD (on advice from the Technical Committee on Environment) will recommend to the National Council on Environment (NCE) for its review. As part of the appraisal, the subproject's corresponding ESIA/ESMP has to be made publicly available.

The World Bank's Policy on Disclosure of Information requires that ESIA/ESMPs are made available for public review as well as forwarded to the World Bank for disclosure through the World Bank's external website.

Steps Eight: Issuance of an ESIA Certificate by EAD/NCE

ESIA/ESMP, RAP, etc review should be done in the given period (shortest possible time) to avoid delays in project activity implementation. An ESIA certificate will be issued by the EAD upon recommendation from the NCE. NCE will forward its recommendations on the ESIA/ESMP, to the Minister responsible for environmental affairs for endorsement. The corresponding RAPs would be reviewed and approved by the Ministry of Lands, Housing and Urban Development.

(***Note***: *The final ESIA/ESMP documents will be disclosed at the RA website and World Bank external website as appropriate. The local level disclosure of the final* ESIA/ESMP *will be carried out using appropriate language and culturally sensitive manner.)*

Steps Nine: Implementation

Once the instruments are reviewed and approved by the World Bank and NCE, RA will inform the Contractor to commence the implementation of the subproject, as per the design and notify the Contractor to act on the decisions and requirements, including the preparation Contractor Environmental and Social Management Plan and related Management strategies and implementation plan (MSIPs) or sub plans, as required, provided by the EAD.

Steps Ten: Supervision and Monitoring

The RA, EAD, DESC, DEC, and other relevant parties will carry out supervision and monitoring, in consultation and support with the World Bank, as applicable.

Steps Eleven: Annual auditing

As stated in the ESMF section 12, the annual auditing is the responsibility of the RA and Contractor (Annexes 6 and 7). The assignment will be annual auditing at the end of each year by independent consultants or a team of experts from EAD, as required.

Steps Twelve: End -of-Project Evaluation

End-of-Project evaluation is the responsibility of RA (section 12). The assignment will be to carry out an end-of-project evaluation at the end of the project period, in this case after 7 years of implementation, by independent consultants.

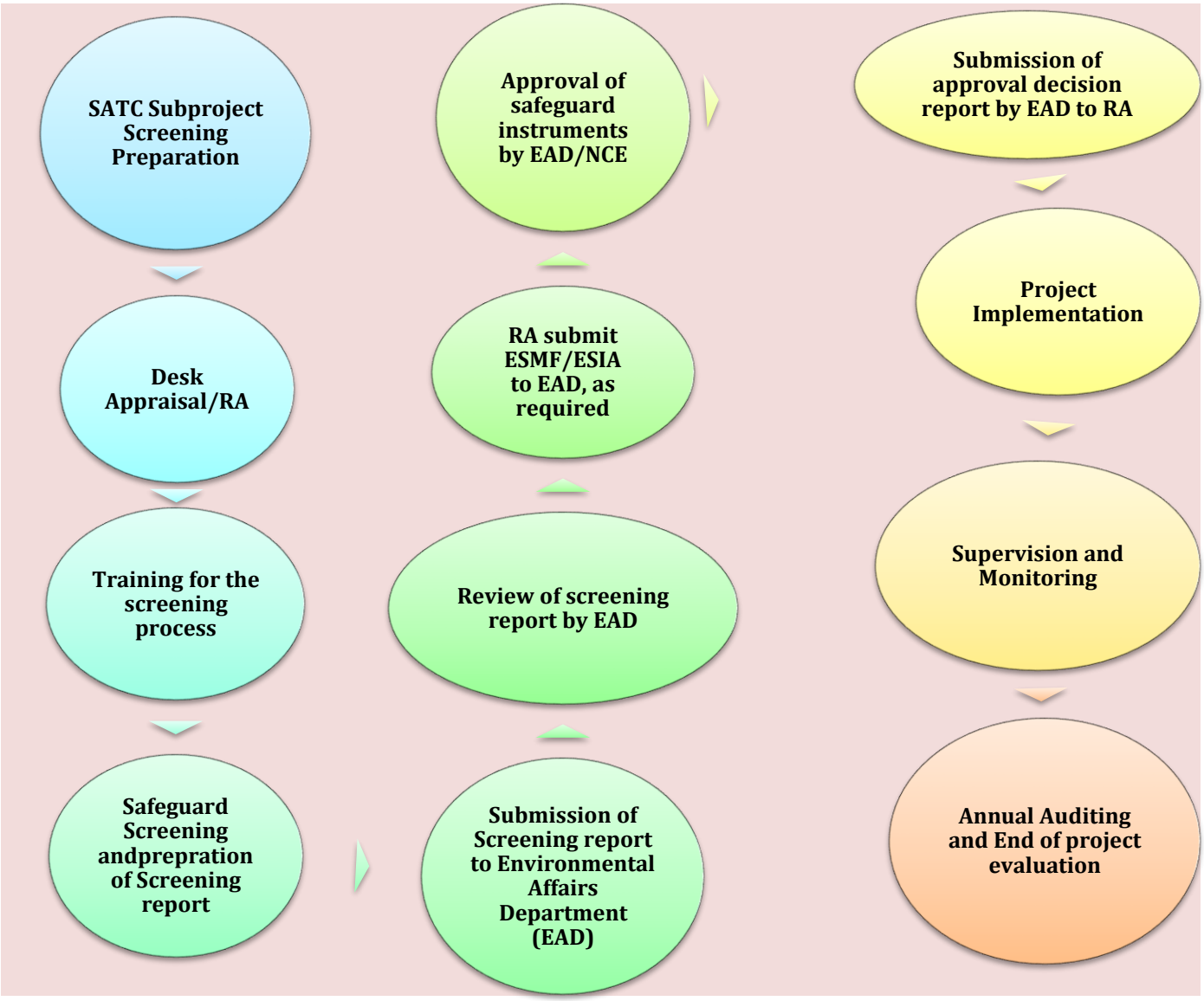

Figure 6-1: Typical Sub-Project Screening and Implementation cycle under the proposed SATCP

6.3 Additional Screening procedure for Component 3- Investment in Value Chains

Component 3 subprojects will be subjected to additional environmental and social screening by the PIU in addition to the procedure outlined above. The Environmental Safeguards Specialist (ESS) and the Social Safeguards Specialist (SSS) based at the PIU will screen every potential investment to review the inclusion of safeguards in the proposed subprojects. This will be done to verify whether the environmental and social screening has been done properly and whether the proposed actions and their related cost have been well-thought out and included in the Environmental and Social Management Plan (ESMP) to mitigate any identified impact.

The Safeguards Specialists will provide an overall opinion on whether the subproject will comply with the ESS policies within the implementation period. Only subprojects that are rated viable by the safeguards specialists will be funded and implemented under the SATC Project. An assessment report prepared by

safeguards specialists will be attached to the proposals and be used to make the decision whether to fund the subproject or not. Only sub-projects that have been screened for safeguards and have been rated as viable will be considered.

6.3.1 Environmental and Social Eligibility

To be eligible for financing, the subproject must;

- Demonstrate specific positive environmental and social impacts
- Mitigate negative environmental and social impacts adequately and efficiently
- Use environmentally friendly technologies, where possible (e.g. the use of cement blocks as opposed to burnt bricks).
- Target the adoption of climate smart agriculture, where possible.

If the project has major issues that cannot be addressed through the ESMP, the Specialists will determine the investment as not eligible. Once a project is approved the PIU Environmental and Social Safeguards Specialists will undertake a field verification visit. All screening and verification reports will be submitted to the World Bank, which will execute spot checks on selected the sub-projects.

If the capacity of the implementing agency for the subproject will be assessed as insufficient for the development of the ESSFs and ESMPs, the PIU can (i) enlist the support of district level specialists, (ii) enlist the support of the PIU Environmental and Social Specialists, and/or (iii) recruit additional consultants specialized on environmental and social safeguards to assist.

7 ENVIRONMENTAL AND SOCIAL IMPACTS

7.1 General

The proposed SATC project will have four components namely; Component 1 Reduce Trade Costs; Component 2 Strengthen Regional Coordination and Support Project Implementation; Component 3 Value Chains Development; and Component 4; Strengthen transport infrastructure to improve market access. These four components of the proposed project will have various activities which involve civil works and other activities, such as construction and rehabilitation of public infrastructures, including selected roads which includes graveling, surface treatment and routine/periodic maintenance and bridges; investment in road safety prioritization and implementation plan that supports post- purchasing breath analyzers; upgrading of Vehicle Load Control services. enforcement of road traffic laws and regulations, technical assistance, institutional strengthening, and other subproject activities[43].

In addition, other activities like Backup power supply; installation servers, computer program, data storage boxes for automation for the management of import and export of products for agricultural trade to build resilience for data storage, expansion and rehabilitation of Inland examination centre and border post (Muloza Border Post), value chains investments in Nacala and Beira corridors, PPP Feasibility Border Markets and weighbridge relocation, risk-sharing facilities for value addition, improvement of road safety, targeted seed capital investments, upgrade Malawi's DAHL's regional laboratories diagnostics capacities in Blantyre and Lilongwe, strengthen pest and disease management, support for rehabilitate small-scale irrigation, engagement of Micro, Small and Medium Enterprises (MSMEs), especially women traders for joint simplified trade regime for selected goods and agriculture infrastructure to be implemented under the supervision of RA.

As stated above, except Muloza One Stop Border Post (which the exact site identified and the ESMP has already developed), the actual implementation sites of the rest of proposed activities are not yet known, and thus the expected indicative positive and negative impacts described under this section are generic. The list of indicative anticipated E&S impacts will serve as a guideline for future thorough assessment of environmental and social impacts associated with each subproject, while screening and preparing of project-specific environmental and social safeguards instruments, including ESIA/ESMP.

The potential environmental and social impacts were identified through reviewing relevant documents, stakeholder consultation process, and field observation. Considering the expected nature, scale, and expected activities of the sub-projects there will be both positive and negative impacts on the nearby biophysical and social environment. It is anticipated that most of the adverse effects, associated with the project construction and operation activities will be reversible in nature and there are no impacts that will lead to irreversible change. Most of the impacts could be mitigated through adopting best practice methods and measures that will be presented in the respective safeguard's instruments, including ESIA, ESMP, A/RAP, and other management strategies implementation plans (MSIPs), as required.

This section discusses the probable positive and negative environmental and social impacts that might emanate from the implementation of SATC Project activities. It also provides standard measures that could be

[43] *rehabilitation/expansion of border posts, installation of Back-up power supply and ICT facility, pest and disease management, provision and installation of laboratory equipment, improved agriculture practices, develop/rehabilitate small-scale irrigation and warehousing infrastructure, rehabilitate feeder roads, and improve access to electricity; establishing logistic cold chains, upgrading silos, rehabilitate key road networks, routine/periodic road maintenance, Axle Load control, repairs/replacements to the drainage system, and structures like bridges, drifts, and pavemen*

employed to avoid, minimize, or mitigate the anticipated potential adverse impacts. These generic potential environmental and social impacts and the respective mitigation measures are based on the types of activities proposed for the project and have been derived from the consultations with stakeholders based on their knowledge and experience. More specific impacts and mitigation measures will be determined after specific subproject locations are known and the site-specific environmental and social screening is carried out.

The ESMF has presented the anticipated positive environmental and social impacts of the following various activities, but not limited: :

- All buildings construction impacts i.e. Construction of Inland examination centre, border post, risk-sharing facilities for value addition and agriculture infrastructure establishing logistic cold chains, upgrading silos;
- Road construction and road safety impacts.
- Rehabilitation of Irrigation Schemes
- Pest and disease management,
- Provision and installation of laboratory equipment,
- Improve access to electricity;
- Axle Load control, repairs/replacements to the drainage system, and structures like bridges, drifts, and pavement
- Installation of Back-up power supply and ICT facility.

7.2 Potential Positive impacts and their enhancement measures

a. Facilitation of trade and the movement of agricultural commodities along the corridor

The project will improve hardware and software aspects for trade i.e ICT, infrastructure, regulations, and procedures. The project will also upgrade capacities in terms of equipment, buildings, international accreditation, and skills development for various trade agencies. The project will also expand existing facilities and infrastructure such as upgrading silos under warehousing management contracts (leveraging on public infrastructure that is underused); expanding financial services to improve logistics; and developing aggregation points including dry ports connected to transport and port infrastructure. The project will also rehabilitate a selected road within the Nacala and Beira Corridors.

Enhancement measures

- Regular maintenance of the infrastructure
- Robust Supervisor and Monitoring of construction activities
- Promote crop diversification in the corridor

b. Facilitate faster clearance of cargo

The project will support the Malawi Revenue Authority (MRA) in the development of inland examination centers in Lilongwe and Blantyre to reduce pressure at the existing centres.

Enhancement measures

- Regular maintenance of the infrastructure
- Training of staff

c. Reduce the average price of transport services

The project will improve transport infrastructure in the Nacala and Beira Corridor to rehabilitate a selected road within the corridor. This will result in a reduction in the costs of transportation in the corridor.

Enhancement

- Regular maintenance of the infrastructure
- Robust supervisor and monitoring

d. Improved connectivity and access to markets within the corridor

The improvement of transport infrastructure in the Nacala and Beira corridors by rehabilitating a selected road within the Nacala and Beira corridors will ensure faster transportation of agricultural produce to markets.

Enhancement measures

- Regular maintenance of the infrastructure
- Robust Supervisor and Monitoring of construction activities
- Crop diversification

e. improved road safety

Road Safety within the two Corridors highways will also be improved in terms of the flow of traffic, management of speed, signage, which will also be supported by the project.

Enhancement measures

- Regular maintenance of the road infrastructure
- Sensitize communities to care for road signs
- Replacement of signage once vandalized

f. Improved food security, nutrition, and household incomes

The development of value chain infrastructure, improvement of trade, and access to market and reduction of transportation costs in the corridor will result in overall improved food security and household income to farmers in the corridor. Expansion of risk-sharing facilities and infrastructure. i.e upgrading silos under warehousing management contracts; expanding financial services to improve logistics, and developing aggregation points including dry ports connected to transport and port infrastructure

Enhancement Measures

- Provide training to farmers; and
- Promote agricultural diversification
- create awareness of sharing facilities to local communities
- Maintenance of risk Sharing and value chain infrastructure
- improved access to markets
- Road infrastructure maintenance

g. Increase in employment opportunities

During the construction of value chain infrastructure, roads, and inland examination centres, the project will create job opportunities for people from surrounding project areas for the skilled and unskilled labor force.

Enhancement Measures

- Employ people from surrounding communities; and
- Provide equal employment opportunities for both men and women including the youth.

h. Increased business opportunities for local suppliers of goods and services

The construction works shall increase business opportunities for the local suppliers of goods and services.

Enhancement Measures

- Purchase goods and services from the local communities

i. Skills transfer

There will be skills transfer to local environmental and social experts during the development of feasibility studies and other environmental and social safeguards instruments for the project. During the construction of various infrastructure, there will also be skills transfer to local communities**.**

Enhancement measures

- Partnering with local experts during studies
- Providing equal opportunities to men and women including other vulnerable groups**.**

7.3 Project Potential negative impacts and mitigation measures

The anticipated indicative potential negative environmental and social impacts that possibility emanated from all subproject activities (upgrading and construction of Roads which includes graveling, surface treatment and routine/periodic maintenance and bridges; investment in road safety prioritization and implementation plan that supports, purchasing breath analyzers; upgrading of Vehicle Load Control services; Enforcement of road traffic laws and regulations; Backup power supply; installation servers, computer program, data storage boxes for automation for the management of import and export of products for agricultural trade to build resilience for data storage, Upgrading and Construction of Buildings for Inland Examination Centres and Boarder Posts (Muloza Boarder post), Value Chain, PPP Feasibility Border Markets and weighbridge relocation, Risk Sharing facilities and infrastructure, Agriculture and last-mile infrastructure, upgrading of laboratories in Blantyre and Lilongwe, develop/ rehabilitate small-scale irrigation, Small and Medium Enterprises (SMEs) and Women trading activities, warehousing infrastructure; rehabilitate feeder roads, improve access to electricity, etc.) are discussed below and a summary of the environmental and social management plan is indicated in table 8-1.

7.3.1 Loss of land and property

People in the project areas may lose land due to relocation to pave way for the various physical and other works, such as construction and rehabilitation of roads and bridges, warehousing infrastructure, value chain infrastructure, MRA inland examination centres infrastructure, and the Agriculture and last-mile infrastructure. Relocation will likely occur for people and property located too close to the road alignment and nearby other infrastructure footprint that will have to move to provide adequate working space.

Mitigation Measures

- Avoidance of land acquisition will be the first option where that is not possible, land take from household will be minimized.
- Minimize Relocation by siting buildings and infrastructure away from highly populated areas.
- Develop and Implement Abbreviated/Full Resettlement Action Plan for the PAPs with GRM and ensure its implementation.
- Carry out sensitization meetings on planned project activities and likely impacts including loss of land/property.
- Develop and implement livelihood restoration Plans for the affected people
- RPF has been prepared for this project as a guideline to address addressing land acquisition issues of this project.

7.3.2 Occupational safety and health risks

Various subproject activities, such as Road, bridge and other infrastructure construction activities, including buildings; activities involving in the use of pesticides, medicines, chemicals, such as laboratory disease testing, small scale irrigation agriculture, pest management, etc, which will result the discharge of hazardous chemicals and chemicals and pathogens contaminated material; activities in supporting health agencies to prevent Emerging Infectious Diseases (EIDs) such as COVID 19; improve access to electricity; laboratories diagnostics capacities to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine; etc. may pose occupational safety and health risks and impact to project workers, which will also be attributed by serious hazards, including both the physical hazards and chemical hazards.

Chemical hazards will be principally associated with exposures to road construction materials, like cement, spills, and exhaust emissions from heavy equipment and motor vehicles, exposure and poisoning from pathogenic and chemical discharged from laboratory activities of disease testing, agro chemicals from irrigation agriculture and pest management activities, etc. Physical hazards include being exposed to a variety risks from operating machinery and moving vehicles, exposure to noise, work in confined spaces, trenching, falls from machinery or structures, risk of falling objects, electrocution, injuries from stepping on or using sharp objects, fires, and accidents by vehicles, motorcycles, and bicycles, etc. Spill/leakage incidents from storage and handling of hazardous materials (chemicals, pesticides, fertilizers, fuel and lubricant) that result in contamination of nearby soil and surface and ground water resources, ultimately will have a potential to affect the health and safety of the project workers, unless proper risk management designed and implemented.

Mitigation measures

- Establish and maintain high standards of occupational health, and safety management system within and around the project implementation area
- Provide training on safety for all workers
- Develop an Occupational Safety and Health Plan and enforce its use to reduce or avoid occupational health and risks;
- Provision of proper and adequate personal protective equipment (PPE) including safety helmets; protective footwear; safety glasses; welding goggles and other eye protectors; ear protectors; safety

harnesses; high visibility reflective vests, etc. to people working in high-risk sub-projects and enforce its use;

- Provide first aid kits and ensure they are fully stocked at all times; and
- Provide adequate warning signs in all areas where safety risks are high.
- Establishment of work zones to separate pedestrians and livestock traveling by foot from vehicular traffic and equipment by routing of traffic to alternative roads where possible.
- Use protective barriers to shield livestock and pedestrians from traffic vehicles and regulation of traffic flow by warning signs.
- Develop and implement Medical Waste Management Plan to mitigate any impacts associated with use and disposal of chemicals and chemical containers
- Develop and implement Pest management plan, as applicable to minimize or avoid impacts from pest management activities of small-scale irrigation agriculture and other seed testing
- Use of flaggers if possible, to direct and ensure reduction of vehicle high speeds in work zones.
- Make awareness campaigns for workers about the safety issues related to their activities hence provide frequent training about the use of PPE.
  - All equipment's shall be in good condition with regular maintenance.
  - All trenches and excavation will be covered as soon as possible.
  - Caution/warning signs should be placed at vantage points around the project site.
  - Prepare and implement a Traffic Management Plan
  - Organize awareness creation seminars and educational program for all workers and the general public on the behavioral changes required to prevent the spread of HIV/AIDS and other STDs
  - Chemicals, pesticides, fertilizers and used oil should be stored in well managed storage area having impermeable floor, any spills shall be collected in sealed containers and finally be disposed off according to the national law. Lubricants and used chemical containers should not be spilled near watercourses,

7.3.3 Increased risk of HIV/AIDS and other STIs

The implementation of some activities mainly road rehabilitation and construction, upgrading of inland examination centre, small scale irrigation scheme, etc. may lead to an influx of migrant workers which may exacerbate incidences of HIV/AIDS infections including other STIs through sexual interactions with either local communities or amongst workers.

Mitigation measures

- Source much of the labor force from surrounding communities as this may decrease the influx of migrant workers; Develop a Workplace HIV/AIDS prevention plan; Engage a service provider to sensitize workers and the communities on HIV and AIDS and other STIs**;**
- Most of these socially communicable diseases would be of temporary nature except for HIV/ AIDS. The contractor shall Develop and implement labor influx management plan (LIMP), as applicable
- Provision of HTC Services.
- Provision of free condoms to workers.

- Creation of awareness of STDs, HIV/AIDS, Ebola in worker's camps through training and installation of posters,
- Promote continuous sectoral, gender-related Information, Education, and Communication (IEC) messages about HIV/AIDS, STDS, protection, counselling, and care.
- The proposed subproject ESIA/ESMP should develop an approach to control the spread of STIs.
- Health education programs, control of illegal/illicit drugs and prostitution and other socially condemned activities near the project site need to be considered.
- Mechanisms need to be put in place to prevent and minimize Gender Based Violence (GBV) and Violence Against Children (VAC). Such mechanism should include working with the contractors to prevent sexual harassment in the workplace and GBV and VAC in the project affected communities (for example through code of conducts), strengthening grievance redress and other monitoring mechanisms to ensure safe and ethical reporting systems to alert cases of GBV and VAC and assure them to access adequate response.
- Organize awareness creation seminars and educational program for all workers and the general public on the behavioral changes required to prevent the spread of HIV/AIDS and other STDs

7.3.4 Removal of vegetation during construction activities

- Land clearing to allow for the construction of various structures will result in the loss of some of the existing vegetative cover and may expose the land to erosion. Such removal of vegetation will also result in the decrease of soil quality due to loss of vegetation that make the topsoil prone to erosion; wind erosion will also aggravated during monsoon windy periods; Sedimentation of nearby water bodies due to excessive soil erosion and run-off, etc.

Mitigation Measures

- Restrict clearing of vegetation to the areas that will be directly affected by the subproject activities;
- Prepare a plan to remove mature trees in the project activity area, as applicable
- Provide appropriate compensation for the affected communities prior to project works and in accordance with national law with a livelihood restoration program for relocated PAPs, as applicable
- Introduce afforestation activities for all sub-components that will involve the removal of vegetation.
- Excavation and vegetation clearance will be limited in extent and defined temporary and permanent access routes to be established to avoid damaging the soil structure in the wider area.
- During road, bridge, building construction and rehabilitation activities, special attention should be paid to protect water bodies from sedimentation which is caused by erosion and landslide risks and made some distance between water bodies
- Avoid and/or minimize cutting of big trees, particularly care should be given for indigenous trees, plan for replanting of trees, etc.
- Identify all areas that are ecologically and agronomically important or particularly sensitive to pesticides and other hazardous chemicals.

7.3.5 Loss of Habitat and Biodiversity

The Road construction works may result to loss of habitat for animal species and loss of biodiversity in protected areas along the corridor. There will be however only rehabilitation of existing roads, which will not

be any possible incursions into or near protected areas except the potential where existing roads are in or near protected areas.

Mitigation measures

- The project will not allow any other subproject except the rehabilitation of existing roads to be implemented near or in protected areas.
- Restrict clearing of vegetation to the areas that will be directly affected by the subproject activities
- Introduce afforestation activities for all sub-components that will involve the removal of vegetation
- Avoid sites that require cutting or substantially pruning of sensitive species, indigenous and old trees, or tree known bird-nesting tree.
- Ensure no sensitive fauna and flora species are found nearby.
- Plan accordingly to minimize or avoid the sources of impacts.

7.3.6 Increased risk of disturbance to flow of traffic

Potential road construction activities could cause traffic disruption on roads serving the project area. This may also lead to increased incidences of accidents in the absence of road safety signage and the failure of development and implementation of traffic management plan.

Mitigation measures

- Develop and implement a traffic management plan;
- Install road signs include speed limit signs; and
- Provide detours for vehicles and pedestrians.

7.3.7 Increased Generation of liquid and solid waste

Waste which possibly be generated from construction activities and other facility area needing efficient and proper waste management and disposal and be implemented in an environmentally friendly manner. Among others, Indiscriminate disposal of the anticipated solid and liquid wastes materials from workshops and various sources, including chemical and disease (Pathogen) contaminated seed and materials, other used and/or damaged pesticides and fuel containers, various packaging materials and left over construction materials and cements, vegetation clearance of road reserves, demolition works and those generated from, etc. are expected to generate a potential impact on the nearby environment and health and safety of the local community members residing nearby. Poor management of liquid and solid waste may lead to pollution of water bodies and soil contamination in the vicinity of project sites.

Mitigation Measures

- Develop and implement a waste management plan, including medical waste management plan to ensure that no or minimum impacts caused by improper management of wastes from laboratory and other similar facilities.
- Provide waste receptacles such as bins and toilets.
- Construct the necessary and adequate sanitary facilities to prevent pollution;
- Managing sediment and sludge removed from storm drainage systems maintenance activities as a hazardous or non-hazardous waste based on an assessment of its characteristics,

- The contractor to take all reasonable precautions to prevent spillages and leakage of materials with the potential to pollute water resources. The measures should be maintained in an effective condition throughout the life of the base camp. The contractor is responsible for cleaning up any pollution caused by his activities and the payment of full compensation to those affected.
- Establish temporary and/or permanent containment structure to contain any spill of Fuel and oil
- Dispose-off collected waste in the manner agreed with respective local councils.
- Use of best waste management and disposal practice and methods
- conduct regular awareness creation and sensitization program for the beneficiaries and community reside in the area about the potential negative impacts, health and safety risks, and proper waste management practices.
- Appropriate disposal of domestic and/or other non-hazardous wastes, after proper segregation, at designated place;
- Ensure chemical wastes are stored, handled and disposed of in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
- Considering the anticipated risks and impacts, develop and implement various MSIPS, such as Traffic Management Plan (TMP), Public and Occupational Health and Safety Plan (POHSP), Pest Management Plan (PMP), Medical Waste Management Plan (MWMP), etc, as applicable

7.3.8 Dust emissions

Dust will be generated from construction activities especially during site clearing, excavation, levelling and set grading activities, spillage of pesticides and chemicals, vehicle movement on haul/access roads will increase dust particles , etc which may contribute a gaseous elements, and particulate matters that affect air quality and induce human health implications, like bronchial and eye disorders.

Mitigation Measures

- Suppress dust by spraying water on dusty areas including access roads to construction sites;
- Provide dust masks, protective glasses to workers exposed to dust.
- Special consideration shall be given to sensitive receptors such as schools, hospitals, markets, etc., and the contractor should prioritize road construction in townships and schedule the construction activities with consideration of non-school period (vacation, holidays, weekends, etc.).
- As required, enforce onsite speed limit regulations, using bumps and/ or clearly marked road signs,
- Prepare and employ traffic safety risk management, including code of conduct to truck drivers to avoid impact on the workers and the community residing within and nearby the project area.
- Training and awareness creation on the management and regular monitoring and maintenance of the chemical and pesticide containers, accessories and pipe
- Laboratory specialists need to be well acquainted with the management and regular monitoring and maintenance of the chemical equipment, accessories and pipe.
- All equipment and vessels within the laboratory shall be operated and maintained in accordance with appropriate industry and equipment standards.
- Monitor dust and remedial action will be taken.

- Consider the risks and the respective mitigation measures in project various MSIPS, these are Traffic Management Plan (TMP), Public and Occupational Health and Safety Plan (POHSP), Pest Management Plan (PMP), Medical Waste Management Plan (MWMP), etc.

7.3.9 Noise and Vibrations

Due to the nature and scale of sub project activities, no significant and long-term impacts are expected. Only during construction period, minimal short-term impacts due to the use of heavy machinery during construction and farming practices may expected increased noise level and vibrations in the project area which may negatively affect workers and nearby residents. Sustained noise levels during construction are expected to be much higher than the ambient noise levels in the project area. Noise and vibration result from construction activities in general but particularly from the operation of heavy machinery including vehicles, excavation equipment, etc. There might be sensitive noise receptors like schools, hospitals, settlement areas, etc in the vicinity of the construction areas.

Mitigation Measures

- Dialogue with neighboring communities to identify and avoid sensitive periods
- Ensure that all workers wear earmuffs and other personal protective gear/equipment when working in noisy sections, where the construction workers are exposed to noise levels of 80 dB or more.
- Repair or replace if mufflers and other noise control devices of construction equipment and vehicles are defective.
- Drivers should be sensitized to switch off construction vehicles and machinery that are not being used and ensure that all vehicles and construction machinery are kept in good condition all the time to avoid excessive noise generation.
- To reduce night-time disturbance from construction noise, that is unavoidable, the practice of conducting construction activities should be limited between the hours of 21h00 and 06h00 in areas which are within 500 meters of residences.
- To cause the least disruption to the local population, it is recommended that construction producing nuisance noise level be minimized or rescheduled regarding functions of special religious holidays.
- Equipment normally producing high levels of noise should be suppressed and screened when working within a distance of 200 meters from any settlement, clinic, religious places, or other sensitive noise receptors.
- Regular site inspections shall be carried out to audit the compliance with regard to noise control.

7.3.10 Public Safety Risks

Proposed subproject activities, such as Road, bridge and other infrastructure construction activities, including buildings which resulted areas of excavations, pits, and heaps of unconsolidated material, which would make the construction site dangerous to surrounding communities; activities involving in the use of pesticides, medicines, chemicals, such as laboratory disease testing, small scale irrigation agriculture, pest management, etc, that will result the discharge of hazardous chemicals and chemicals and pathogens contaminated material; activities in supporting health agencies to prevent Emerging Infectious Diseases (EIDs) such as COVID 19;improve access to electricity; laboratories diagnostics capacities to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine; etc. may pose occupational safety and health risks and impact to people residing within or nearby the subproject activities area and to stray animals that

might walk across the site, which will also be attributed by serious hazards, including both the physical hazards and chemical hazards.

Chemical hazards will be principally associated with exposures to road construction machineries and material, like cement, spills, and exhaust emissions from heavy equipment and motor vehicles, discharge from activities laboratory disease testing, etc. Physical hazards include being exposed to a variety risks from operating machinery and moving vehicles, exposure to noise, trenching, risk of falling objects, electrocution, fires, and accidents by vehicles, motorcycles, and bicycles, etc. Storage and handling of hazardous materials (e.g., chemicals, pesticides, fertilizers, fuel and lubricant) may lead to soil and water contamination due to leakage/ spillage that ultimately affect the health and safety of the project people residing nearby. would make the construction site dangerous to surrounding communities.

Mitigation measures

- Cordon off working areas using protective barriers to shield livestock and pedestrians traveling on foot from vehicular traffic and equipment by rerouting of their access to alternative access roads where possible.
- Organize and conduct sensitization meetings and awareness creation seminars and educational program to the affected people, communities, other passerby and the general public on the behavioral changes on implementation of prevention and safety risk management measures
- Level the borrow pits and quarry sites after construction works; if applicable immediately after the work complete
- Develop and implement a traffic safety plan, Site security plan, and Quarry and borrow pit management and rehabilitation plan
- Establish and maintain high standards of public health, and safety management system within and around the project implementation area
- Develop Public Safety and Health Plan (PHSP) and enforce its use to reduce or avoid any health and safety risks to the public;
- Placing of adequate warning signs in all areas where safety risks are high.
- Develop and implement Medical Waste Management Plan to mitigate any impacts associated with use and disposal of chemicals and chemical containers
- Develop and implement Pest management plan to minimize or avoid impacts from pest management activities of small-scale irrigation agriculture and other seed testing
- Use of flaggers if possible, to direct and ensure reduction of vehicle high speeds in work zones.
- Make awareness campaigns for workers about the safety issues related to their activities hence provide frequent training about the use of PPE.
- All equipment's shall be in good condition with regular maintenance.
- All trenches and excavation will be covered as soon as possible.
- Caution/warning signs should be placed at vantage points around the project site.
- Prepare and implement a Traffic Management Plan
- Chemicals, pesticides, fertilizers and used oil should be stored in well managed storage area having impermeable floor, any spills shall be collected in sealed containers and finally be disposed off

according to the national law. Lubricants and used chemical containers should not be spilled near watercourses,

7.3.11 Increased risk of GBV and SEA

The implementation of the project will likely result in an influx of people in the construction sites resulting in the potential for Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA). Increase in disposable income for workers and communities working the project could also result in GBV/SEA incidences. Such incidences may arise in situations where large numbers of contractor workers interact with poor communities, where household representatives that receive project benefits are forced to surrender the cash to spouses, where benefits may be used to lure adolescents into unsafe sexual practices, or in cases of forced sexual relationships in return for favors.

Mitigation measures

- All forms of SEA, VAC and sexual harassment are unacceptable, regardless of whether they take place on the work site, the work site surroundings, at worker's camps or within the local community. Therefore, the Contractor is required to put in place administrative measures to prevent and minimize Gender Based Violence (GBV) and Violence Against Children (VAC) with proposed preventive and mitigation strategies.
- The Contractor is required to develop and implement the project's Codes of Conduct (COC), GBV Action Plan, Grievance Redress Mechanism (GRM), and implement accordingly throughout the project implementation period.
- All employees attend an induction training course prior to commencing work on-site to ensure they are familiar with the Contractor's commitments to the project's Codes of Conduct, and other standards, such as ESHS and OHS standards.
- All employees should sign the project's 'Individual Code of Conduct' confirming their agreement to comply with ESHS and OHS standards. This sets stringent standards for personal behaviour by those working on the project so as to avoid GBV, SEA, VAC, and workplace sexual harassment.
- Managers are required to report and act to address suspected or actual acts of GBV and/or VAC as they have a responsibility to uphold Contractor commitments and hold their direct reports responsible
- Work closely with local authorities to stop recommending underage children for the project construction works.
- Prepare and implement an action plan for managing GBV, SEA, VAC impact.
- Work closely with local authorities to stop recommending underage children for the project construction works.
- Offer equal employment opportunities to all job seekers based upon their specific skills, professional qualifications and performance without any discrimination,
- All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of SEA, VAC and sexual harassment by a fellow worker, whether in the workplace or not. Reports must be made in accordance with project's SEA, child sexual exploitation and abuse and sexual harassment Allegation Procedures
- Establish and operationalize GRM whose approach is sensitive to issues of GBV and SEA
- Development of GBV prevention and response plan as part of ESMP template (Annex 7);

- Community engagement and consultation to include GBV/SEA sensitization

7.3.12 Increased risk of child labor

During project construction period, the contractor and other parties may use child labor due to lack of awareness and lesser attention to its implication. Contractors working in various sites may employ under-aged (less than 18 years) workers. Therefore, contractors and other participating subcontractors are not allowed to use child labor in any stage of the projects implementation.

Mitigating measures

- Avoid employing under-aged (less than 18 years) workers and this should be included in the Contractors Code of Conduct;
- Take strict measures against the employment of children.
- Use National IDs to verify the age of employees
- Learners should not be engaged in any construction-related activities; and
- Conduct community sensitizations on child labor.
- Work closely with local authorities to stop recommending underage children for the project construction works.
- Prepare and implement an action plan for managing GBV, SEA, VAC impact.

7.3.13 Disturbance to existing public utilities

Where there will be construction activities, there are likely to impact on existing public utilities such as water and electricity supplies.

Mitigation measure

- Replace or relocate all disturbed public utilities before their damages.
- Sensitize communities before the movement of public utilities
- Collaboration with the respective authorities for proper identification and relocation of these utilities, as needed
- The replacement and/or relocation of existing public utilities as well as construction of new public utilities, where needed, will be required to satisfy the demand of the affected communities to the specific affected utilities.
- Avoid unnecessary utilization of water or other natural resources for construction activities and camp facilities, through development and implementation of natural resource management plan, as required.

7.3.14 Hazard when quarry or pits is abandoned

When quarries or borrow pits created for the use of various subproject activities such as construction of roads, inland examination centers, irrigation agriculture, and infrastructure for value chain are left abandoned after completion of subproject work, they will can become a causes for risk and hazard to local communities, either through the danger that they pose to people and livestock who might fall into them (whether full of water or

not) or through disease risk resulting from the breeding of disease vectors (e.g. mosquitoes or snails) in water collected in them. Abandoned quarries can also represent a significant visual impact on the landscape.

Mitigation measure

- Develop and implement quarry and borrow pit management and restoration/rehabilitation Plans
- Fence off quarries and borrow pit to restrict access
- Sensitize communities on the dangers of abounded borrow pits and quarry sites
- Provide alternative access roads for communities away from quarry sites and borrow areas.

7.3.15 Increase in the multiplication of vectors and the spread of waterborne diseases.

Pools of stagnant water within the irrigation field would enhance the multiplication of disease-causing/ transmitting vectors such as mosquitoes throughout the year.

Mitigation Measures

- Regular flashing of pools of stagnant water.
- Distribution of mosquito nets
- Spray insecticides to prevent the public from any risks of waterborne disease, including mosquitos, as required

7.3.16 Risks of waterlogging and salinization.

Waterlogging and salinization will be resulted from poor drainage of soils of small-scale irrigation schemes, application of excess water to irrigation schemes, etc.

Mitigation Measures

- Plan and Apply the correct amount of irrigation water and fertilizer type and rate to the command area
- Ensure sufficient infield drainage and minimize over-irrigation.
- Assess the impacts and add the required amount of lime to the soil where there are problems of salinization

7.3.17 Human exposure and poisoning from agro-chemicals.

Workers on irrigation schemes and large farms may be exposed to harmful pesticides and other agro-chemicals. The exposure may lead to some health risks.

Mitigation Measures

- Limit the use of pesticides
- Develop and implement integrated pest management Plan (IPMP), as required
- Provision of personal protective equipment for workers
- Aware and sensitize the community residing nearby and any other passerby

7.3.18 Conflicts over water use

Irrigation schemes will require a lot of water that would result in competing with other uses such as for domestic purposes and electricity generation in the project areas.

Mitigation Measures

- Consult widely with all water users before development irrigation systems
- Develop and implement water resources management
- Develop and implement other water storage mechanism, like rainwater harvesting, as applicable

7.3.19 Risk of Eutrophication and Pollution from Rehabilitated Irrigation Schemes

Application of fertilizer and other soil-enriching materials might lead to the aquatic ecosystem productivity through nutrient enrichment that resulted in pollution of surface water bodies.

Mitigation Measures

- Avoid riverbank cultivation
- Apply good agricultural practices in the irrigation scheme
- Use approved methods, types and amount of agrochemicals
- Conduct regular water quality monitoring, as required
- Coordinate with local government and non-government institutions to plan and implement establish watershed management around the subproject area

7.3.20 Risk of spread of COVID 19

Implementation of project activities such as road and buildings construction will bring together large numbers of people risking the spread of COVID 19.

Mitigation Measure

- Develop and implement COVID 19 prevention guidelines, using Use the WHO and WB's *ESF/Safeguards Interim Note: COVID-19 Considerations in Construction/Civil Works Projects* during project implementation, as applicable
- Conduct fever test to all employees and visitors to the work sites to make sure that their temperature is in allowable range.
- All workers shall present their ID Cards to make sure that no one is above 70 years old or below 18 years old are parts of construction work Observe social distances 1 -2 meters between two contractor's workers or between contractor's worker and consultant's supervisor to be respected strongly,
- Practice personal hygiene: Cleaning water and soap will be available at the campsite gate as well as at the work sites to ensure that everyone washes his/her hands before entering and when leaving the campsite. Where the use of water and soap is not possible, hand sanitizer will be provided to both contractor's workers and consultant's personnel.
- All foremen, staff will be instructed to properly displaying workers on the sites by respecting the required Social distancing rules, both on the site as well as inside the offices.
- Daily site visits will be conducted by the safety officer in order to make sure that social distancing rules are being properly and effectively implemented.
- Frequent sensitization and toolbox talk will be conducted on the sites for effective implementation of social distancing rules

- Provide PPE: Face masks, gloves, and any other required PPE shall be given to all Contactor's workers as well as Consultant's staff. Never share masks, gloves or any PPE.
- Short term and regular sensitization sessions will be conducted for effective use of Personnel Protective Equipment, with a special emphasis on the use of COVID-19 protection equipment.
- .Workers hiring process will be rigorous and all workers will be checked by the a Doctor and the project nurse to ensure they are healthy and that no one is suffering from any transmissible disease.
- Conduct a daily tour within all workers to make sure that no one has any symptoms related COVID - 19, and once we find someone with such symptoms emergency number will be called for the help.
- All Contractor's and Consultant vehicles, trucks and machinery will be provided permanently with hand sanitizers and drivers as well as any other person must sanitizing their hands entering in the vehicles/trucks/machines and when going out.
- Through different sensitization programs all workers will be shown the proper ways to behave when greeting, coughing or sneezing in order to prevent themselves from being contaminated or contaminating others with COVI-19 and other communicable diseases.
- Frequent sensitization programs will be conducted on the sites in order to deepen understanding level of all workers about hand hygiene culture and prevention of COVID 19.

7.4 Cumulative Impacts

Cumulative impacts are those that 'result from the successive, incremental, and/or combined effects of an action, project, or activity when added to other existing, planned, and/or reasonably anticipated future ones'. The Cumulative Impact Assessment (CIA) is therefore the process of:

- Analyzing the potential impacts and risks of proposed developments in the context of the potential effects of other human activities and environmental and social external drivers on the chosen Valued Environmental and Social Components (VECs) over time; and
- Proposing concrete measures to avoid, reduce, or mitigate such cumulative impacts and risk to the extent possible.

The purpose of a cumulative impact assessment is to determine how the potential impacts of a proposed development might combine cumulatively, with the potential impacts of other projects or human activities as well as natural stressors such as droughts or extreme climatic events. The CIA will also determine impacts that are trans boundary given the regional nature of the project and the project will carry out a regional cumulative impact assessment during implementation period.

The objectives and expected outcomes of a Cumulative Impact Assessment process are:

- Identification of Valued Environmental and Social Components (VECs) such as air, water, soil etc. that may be affected by the Project and the selected VECs the assessment will focus on;
- Identification of existing and reasonably anticipated and/or planned developments, as well as natural environmental and external social drivers, that could affect the selected VECs;
- Assessment and/or estimation of the future condition of selected VECs, as the result of the cumulative impacts that the development is expected to have, when combined with those of other reasonably predictable developments;

- Evaluation of the future condition of the VECs relative to established or estimated thresholds of VEC condition or to comparable benchmarks;
- Avoidance and minimization of cumulative impacts of the Project on the VECs and Monitoring and management measures to ensure the VEC viability over the life span of the development or its impacts.

7.4.1 Identification of Valued Environmental and Social Components (VECs)

During the preparation of this ESMF a preliminary assessment of cumulative impacts of several environmental and social parameters has been carried out and some parameters such as construction noise impacts, construction air quality (particulates), etc. have been considered. The ESMF includes the assessment of cumulative impacts, as a result of the project itself and any cumulative impacts from existing neighbouring projects.

7.4.2 Identification of Other Activities and Environmental Drivers

At this stage, exact location of most of the subproject are not known, as such, it is difficult to determine where specific project activities will be implemented within Project area. As such, the CIA cannot establish whether there are barriers to unknown future development within the projects area of influence.

7.4.3 Existing other related projects in the Corridor

The main projects that are already under implementation in the project area and may generate similar impacts with SATCP include:

a. Mangochi- Makanjira Road project about to start in Mangochi District to be financed by the Government of Malawi

b. Nsipe- Liwonde Road Project about to start in Ntcheu and Balaka District to be financed by the Government of Malawi

c. Liwonde- Matawale Road Project about to start in Balaka, Machinga and Zomba Districts to be financed by the Government of Malawi

d. Development of One Stop Border Posts in Dedza under the Southern Africa Trade and Transport Facilitation Project and the Chiponde One Stop Border Post to be financed by Africa Development Bank.

e. ASWAp-SP II (Agricultural Sector Wide Approach II) Project, the project under component 2 is rehabilitating rural in the corridor districts of Mchinji, Lilongwe, Dedza, and Ntcheu whose impacts are likely to be aggravated by the activities of the SATC project.

7.4.4 Assessment of Cumulative Impacts on VECs

Given that most of the subproject-specific locations of the proposed SATCP are not identified at this time, it is difficult to assess accurately on the potential cumulative impacts of SATCP by considering existing and future projects. However, the ESMF tried to consider the existing SATCP related projects and carry out a preliminary assessment of cumulative impacts with reference to the nature and scale of these projects, including SATCP. This will therefore go as far as the cumulative impacts upon those anticipated associated impacts from these existed projects and proposed SATCP activities, as well as specific receptors, existed in the project in the area of influences. Though, a detailed cumulative impact assessment will be carried out when

the specific location of subprojects, including Road is identified and when the preparation of subproject instruments ESIA/ESMP are carried out during the feasibility study of each sub-project.

As a conclusion, considering the limited number of projects currently undertaken and no information regarding the potential future project in the area, as well as the individual components through their interdependencies and spill overs, the anticipated cumulative effects on the nearby biophysical and social environment will appear to be limited and could be managed by adopting an international best practice methods. Although a detailed cumulative impact assessment will be carried out during the feasibility study of each sub-projects, some of the anticipated cumulative impacts associated with the SATCP are included, but not limited to:

- Increased risk of traffic congestion
- Land-use change
- Pressure on hydrological and water resources
- Child labor
- Increase in land degradation and deforestation
- Increased risk of GBV/SEA
- Spread infectious diseases and STDs
- etc.

8 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

8.1 General

In any project context, Environmental and Social Management Plan (ESMP) is necessary to avoid, minimize, or offset adverse impacts, and enhance positive and beneficial impacts during the proposed project implementation period. Environmental and Social Management Plan /ESMP/ must be fully integrated into the overall project management effort at all levels, which should be aimed at providing a high level of quality control, leading to a project which has been properly designed, constructed, and functions efficiently throughout its life. The ESMP is also used for warranting that all the preceding analysis is used to preserve/improve the quality of the overall biophysical and socio-economic environment within the project influence area. Therefore, for effective implementation of the proposed SATCP, the preparation and implementation of a sound environmental and social management plan (ESMP) is highly required to adequately consider all anticipated positive and negative impacts and their management strategy.

ESMPs provide an essential link between the impacts predicted and mitigation measures specified within the ESIA and implementation and operation activities. World Bank guidelines state that detailed ESMP's are essential elements for Category A projects, but for many Category B projects like the proposed Subproject of SATCP, a simple ESMP alone will suffice. Environmental and social impacts identified through screening and impact analysis are to be mitigated and / managed to reduce their impacts. Generic management measures applicable to the impacts discussed in the preceding section are presented in the sections below. This framework institutionalizes the measures discussed below by assigning implementation responsibilities and contractualises the measures through the formulation of contract clauses for incorporation into contract documents.

An Environmental and Social Management Plan (ESMP) discussed under this section and table 8-1 below, is focused on identification of a generic anticipated project impacts and the respective mitigation and management measures to be considered over the SATC project implementation period. It also serves as an instrument to guide the future subproject proponents and other implementers to identify impacts and recommend effective mitigation measures, in identifying the responsibilities of each institution, and design the required capacity building components for implementing parties that warrants to sustainable developments of the proposed subprojects. Annexes 6 and 7 provide a guideline for the preparation of site-specific ESMPs and a template for ESMP to be used for the development of future proposed sub-projects' ESMPs.

The general objective of the ESMP is to identify and document environmental and social impacts, mitigation and enhancement measures, and to develop procedures and plans to ensure that the mitigation measures identified to the impacts generated due to the proposed subprojects will be carried out during the preconstruction, construction, operation and decommissioning phases of the proposed SATC project.

To achieve the above objectives, the future ESMP that will be prepared by the proponent of proposed sub-projects under the SATC project will adopt the following approach:

- Examine the project in terms of its major activities and identify the aspects associated with the project construction which generate environmental impacts;
- Identify the environmental issues associated with the major activities;
- Develop mitigation measures for the aspects identified as having environmental impacts;

- Incorporate environmental mitigation measures into construction and operation schedules and activities and develop corrective actions and ensure monitoring.;
- Develop further environmental provisions through a series of subproject Site Environmental Management Plans and procedures,
- Define the specific actions required, roles and responsibilities for these actions, timetable for implementation, and associated costs;
- Describe capacity building and training requirements for the implementation of the ESMP; and
- Define a proposed institutional structure to govern the implementation of the ESMP.

The generic environmental and social impacts management strategies in Table 8-1 were derived from public consultations and professional judgment, with respect to the proposed SATC project activities. The list of impacts is an indicative and not exhaustive since the actual impacts will depend on the future specific subproject activity and location. The future project-specific ESMPs shall indicate the associated costs which the subproject will be required to set aside for the implementation of Environmental and Social Management Plans. Further, these costs will also be reflected in the Contractor's Environmental and Social Management Plan (CESMP) and will be costed in bidding documents.

Contractors will utilize the already identified information (Table 8-1) and update it to develop a Contractor Environmental and Social Management plan (CESMP). Below an indicative guideline is provided for the preparation of CESMP and specific Management Strategy Implementation Plans (sub management plans) that will be developed for future subprojects. These instruments will be prepared by the Contractor to be used as a tool for the contractor to manage any environmental, social, health, and safety (ESHS) risks anticipated during the construction period and for the proponent to monitor and supervise the contractor's management of ESHS risks.

8.2 CESMP and Management Strategy Implementation Plans preparation

In addition to the above mitigation measures indicated in section 7 for different impacts that emanated from the various subproject and the ESMP table under this section, the Contractors are expected to prepare activity-specific Contractor Environment and Social Management Plans (C-ESMP) and other key Management Strategy and Implementation Plans (MSIPs) to ensure that all impacts are mitigated at the highest possible level. The general objective of the proposed CESMP which will be prepared by the respective future subproject contractor is to communicate key project environmental and social risks and impacts management obligations that apply to the Contractor and its sub-contractors and employees while carrying out any form of construction activity under the proposed SATCP. Considering the nature and type of the subproject under the SATC project, the Key Management Strategy and Implementation Plans (MSIPs) which will be prepared and operationalized during future subproject implementation including but not limited to the followings:

- Code of Conduct (COC)
- Boundary marking and protection strategy (Quarries, borrow pits, and dumping sites to be captured).
- Strategy for obtaining Consents/Permits.
- Occupational Health and Safety Plan (OHSP)
- Public/ Community Health and Safety Management Plan (PHSMP) .
- Gender-Based Violence, Sexual exploitation and abuse, Sexual Harassment, and Violence against Children (GBV, SEA/SH/ VAC) and Labor Influx prevention and response action plan, (PRAP).

- Traffic management plan (TMP).
- Water resources protection and Stormwater management plans (WRPSMP)
- Emergency Procedures and Contingency Plan (EPRP)
- Incident Notification procedure (INP)
- Dumping site Management and Rehabilitation plan (DMRP)
- Quarry/Borrow Site Management and Restoration/Rehabilitation plan (QBMRP)
- Contractor Camp Management Plan (CCMP)
- Medical Waste Management Plan (MWMP)
- Integrated Pest management Plan (IPMP)
- Blasting Management Plan (BMP).

The CESMP to be prepared and the associated management strategy and implementation plans (MSIPs) will go into details of what needs to be done to properly manage any impacts that might arise during, construction, rehabilitation and upgrading activities depending on type of project. Some MSIPs go even beyond the proposed subproject rehabilitation/construction period and focus on the rehabilitation of different sites like quarry, borrow pits, and dumping sites. Once prepared, the mentioned C-ESMP document will be updated every six months by the contractor to capture any change that might be experienced during the project implementation period. There will be more than one single ESIA or ESMP and there will be multiple instruments prepared each of which will need one or more C-ESMP.The following tables (Table 8-1 and Table 8-2) depicted an Indicative Environmental and Social management Plan for the proposed subproject activities[44] that comprises of both positive impact and the respective enhancement measures (Table 8.1) and Negative impact and the respective mitigation measures (Table 8.2) for the proposed SATCP in Nacala and Beira corridors.

[44] *Upgrading and Construction of Buildings (Inland Examination Centres, Boarder Post, Risk Sharing facilities and infrastructure for value addition, Small Scale Irrigation, pest Management, Agriculture and last mile infrastructure), SMEs involving in small trading, supporting health agencies prevent Emerging Infectious Diseases (EIDs),Installation of Backup Power supply and Automation to build resilence for data storage, provision of equipment; and strengthen Laboratories diagnostics capacities to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine, Access to Electricity, and Road and Bridge Construction and Road Safety*

Table 8-1: potential positive impacts of the project and proposed enhancement measures

Project Positive Impact	Impact description	Enhancement measures	Responsible bodies	Subproject category		
				Road Rehabilitation and Road Safety	(Constructing Buildings), Agric. Lab Testing, Value Chains, infrastructure. SME small boarder trading, Access to electricity	Irrigation schemes, Pest Management, backup power supply and automation installation
Facilitation of trade and the movement of agricultural commodities along the corridor	The project will improve hardware and software aspects for trade i.e ICT, infrastructure, regulations, and procedures. The project will also upgrade capacities in terms of equipment, buildings, international accreditation and skills development for various trade agencies. The project will also rehabilitate a selected road within the Nacala and Beira corridors.	• Regular maintenance of the infrastructure • Robust Supervisor and Monitoring of construction activities • Promote crop diversification in the corridor	• MRA, • Ministry of Trade, Roads Authority SMEs	☑	☑	☑
Facilitate faster clearance of cargo	The project will support the Malawi Revenue Authority (MRA) in the development of inland examination centers in Lilongwe and Blantyre to reduce pressure at the existing centres.	• Regular maintenance of the infrastructure • Training of staff	• MRA	☑	☑	☑
Reduce the average price of transport services	The project will improve transport infrastructure in the Nacala and Beira corridors to rehabilitate a selected road within the corridor. This will result in reduction of costs for transportation in	• Regular maintenance of the road infrastructure • Robust supervisor and monitoring of road	Roads Authority	☑		

	the corridor.	construction works				
Improved connectivity and access to markets within the corridor	The improvement of transport infrastructure in the Nacala and Beira Corridors by rehabilitating a selected road within the Nacala and Beira Corridors will ensure faster transportation of agricultural produce to markets. The rehabilitation will include graveling, surface treatment and routine/periodic maintenance to the prescribed level of service	• Regular maintenance of the infrastructure • Robust Supervisor and Monitoring of construction activities	• Roads Authority • Ministry of Transport and Public Works (MTPW)	☑	☑	☑
improved road safety	Road Safety within the Nacala and Beira corridors highways will also be improved in terms of flow of traffic, management of speed, signage, and the development of rest stops Upgrading of Vehicle Load Control services	• Regular maintenance of the road infrastructure • Sensitize communities to care for road signs • Replacement of signage once vandalized	• Roads Authority, • Road Traffic Directorate, MDBs, government agencies, NGOs, etc.),	☑		
Improved food security, nutrition and household incomes	The development of value chain infrastructure, improvement of trade and access to market and reduction of transportation costs in the corridor will result to overall improved food security and household's income to farmers in the corridor.	• Maintenance of Value chain infrastructure • improved access to markets • Road infrastructure maintenance • Provide training to farmers; and • Promote agricultural diversification.	• Contractors,	☑	☑	☑

Increase in employment opportunities and skills transfer	During the construction of value chain infrastructure, roads and inland examination centres, the project will create job opportunities for people from surrounding project areas. During feasibility studies there will also be skills transfer to local experts.	• Employ people from surrounding communities; and • Provide equal employment opportunities for both men and women including the youth. • Partnering with local experts during studies	• Contractors	☑	☑	☑
Increased business opportunities for local suppliers of goods and services	The construction works shall increase business opportunities for the local suppliers of goods and services.	• Purchase goods and services from the local communities. • provide equal opportunity to supply goods and services for men, women, the youth and other vulnerable groups	• Contractors	☑	☑	☑

Table 8-2 potential negative impacts of the project and proposed mitigation measures

Potential Negative impacts	Source of impacts/cause of the impacts	Proposed Mitigation Measures	Responsible Institution	Sub Project category		
				Road Rehabilitation and Road Safety	**(Constructing Buildings), Agric. Lab Testing, Value Chains, infrastructure. SME small boarder trading, Access to electricity**	**Irrigation schemes, Pest Management, backup power supply and automation installation**
PRE- CONSTRUCTION PHASE						
Increased risk of loss of land and Property	• acquisition of land for rehabilitation and construction of roads, and bridges, construction of other infrastructures, including upgrading and construction of buildings for various purpose	• Minimize resettlement by siting of buildings away from highly populated areas and minimize the Row, as possible • Develop a Resettlement Plan for the PAPs with GRM and ensure its implementation; • Implement compensation on time before commencing civil work as per Malawi Law • Carry out sensitization meetings on planned project activities and likely impacts including loss of land/property;	Roads Authority	☑	☑	☑

		• Develop and implement livelihoods restoration plans				
CONSTRUCTION PHASE						
Loss of vegetation	• Clearance of land for rehabilitation and construction of buildings and Road	• Promotion of afforestation; • Identify all areas that are ecologically and agronomically important or particularly sensitive to pesticides and other hazardous chemicals. • Restrict clearing of vegetation to the areas that will be directly affected by the subproject activities; • • Limiting the clearance of vegetation to land that will be affected by the project activities • Prepare a plan to remove mature trees in project activity area, if available and as applicable • Provide appropriate compensation for the affected communities prior to project works and in accordance with national law with a livelihood restoration program for relocated PAPs, as applicable • Introduce afforestation activities for all sub-	Road Authority and Contractor	☑	☑	☑

		components that will involve removal of vegetation.				
Vibrations causing houses to crack	• Use of heavy machinery during construction of roads, buildings, and bridges	• Relocate and compensate houses close to road.	Contractor Firms own small scale irrigation	☑	☑	☑
Loss of habitat and biodiversity	• Clearance of land for road works and other infrastructures	• The project will not allow any other subproject except the rehabilitation of existing roads to be implemented near or in protected areas. • Limiting the clearance of vegetation to land that will be affected by the project activities • If applicable, introduce afforestation activities for all sub-components that will involve removal of vegetation. • Design and construction of wildlife access to avoid or minimize habitat fragmentation, if applicable • Organize awareness campaigns for drivers and workers on the protection of wildlife,	Contractor, Firms own small scale irrigation	☑	☑	☑
Creation of borrow pits and quarries and Safety	• Sourcing road construction Material (soil and road gravel)	• Design borrow pits/ quarry sites safety measures implemented as part of the Quarry/Borrow	Contractor, RA, Firms own small scale irrigation,	☑		☑

risks at the borrow/quarry sites (including accidents)		Site Management and Restoration/Rehabilitation plan • Use already existing licensed quarries and borrow pits • Develop and implement borrow pit and quarry site restoration and management plans (BQRMP) • Obtain materials from licensed borrow pits and quarries • Rehabilitate borrow pits after excavation activities prior to completion of contracts, as stated in the plan • Fence of quarries and pits to restrict access to non-authorized people • Posting of safety perimeter, signposts and guards at the site • If land acquired, develop and implement A/RAP • Implement compensation on time before commencing civil work as per Malawi Law				
Increase in surface runoff and soil erosion.	• Clearance of vegetation, Top soil stripping; excavation of soil, poor compaction of roads and on borrow pits	• Limit the clearance of vegetation to land that will be affected by the project activities; • Promote afforestation and offset planting, if necessary.	Contractor, Firms own small scale irrigation,	☑	☑	☑

		• Implement Quarry and borrow pit management plans				
Increased risk of labour influx leading to GBV and SEA, Risks of child labour exploitation and abuse, sexual harassment, prostitution cases	• labour influx and increase in disposable income resulting into Interactions between migrant workers and surrounding community or amongst workers themselves leading to GBV/SEA • Recruitment of under aged persons and within senior staff quarters may encourage local children to drop out of school to work on construction sites	• GBV/SEA sanitizations by GBV service provider, particularly for road subproject; • Requirement for each worker, permanent or temporary to sign a Code of Conduct upon commencement of their assignment and adherence to Workers' Code of Conduct • Establish and operationalize GRM whose approach is sensitive to issues of GBV and SEA • Reinforcement of the laws on child labour, sexual harassment/prostitutions and gender equity, child labour, sexual harassment/prostitutions and gender equity • Develop and Implement Labour Influx Management Plan (LIMP), as applicable • Use National IDs for verification of age during the recruitment people • Development of GBV prevention and response plan as part of C-ESMP	Contractor; District, RA, Firms own small scale irrigation,	☑	☑	☑

		• Managers are required to report and act to address suspected or actual acts of GBV and/or VAC as they have a responsibility to uphold Contractor commitments and hold their direct reports responsible				
Increased Risks of HIV/AIDS and other STIs	• Labour influx and increase in disposable income resulting into interactions between migrant workers and surrounding community or amongst workers themselves;	• Source much of the labor force from surrounding communities as this may decrease influx of migrant workers; • Develop a Work place HIV/AIDS policy and enforce its implementation; • Conduct sensitization meetings on the dangers of contracting HIV and AIDS and other STIs to workers and communities; • Provision of HTC Services; and • Provision of free condoms to workers. • Promote continuous sectoral, gender related Information, Education and Communication (IEC) messages about HIV/AIDS, STDS, protection, counselling and care.	Contractor, District, RA, Firms own small scale irrigation,	☑	☑	☑

		• Develop and Implement Labour Influx Management Plan (LIMP), as applicable				
Occupational Safety and Health Risks	• Road construction and other infrastructure construction and upgrading works; use of machinery and working under safety risk area, installation of mobile Cargo scanner, working under laboratory with chemicals	• Develop an Occupational Safety and Health Plan and enforce its implementation and use to reduce or avoid occupational health and risks; • Provide appropriate personal protective equipment (PPE) to people working in high-risk sub projects and provide training and enforce its use; • Provide first aid kits and ensure they are fully stocked at all times; • Provide adequate warning sign in all areas where safety risks are high. • Report any accidents or incidents to the World Bank within 24 hours of accident occurrence. • Provide training on safety for all workers • Prepare and implement waste management plan, focus on hazardous chemicals	Contractor, RA, Firms own small scale irrigation,	☑	☑	☑

Public Safety Risks	• The Road and building construction site could be dangerous to surrounding communities and stray animals that might walk across and within the work site • Exposure to x-rays during operation of mobile cargo scanner	• Cordon off working areas; • Conduct sensitization meetings to communities; • Use protective barriers to shield livestock and pedestrians from traffic vehicles and regulation of traffic flow by warning sign. • Use of flaggers if possible, to direct and ensure reduction of vehicle high speeds in work zones. • Level the borrow pits after construction works • Management measures including proper sanitation, waste disposal facilities, awareness campaigns for the prevention of AIDS/HIV, sexually transmitted diseases and other communicable diseases, sensitization for health insurance will be needed at the project site • Develop and implement traffic safety plan, Site security plan, safety management plan, and Quarry and borrow pit management and rehabilitation plan	Contractor, RA, Firms own small scale irrigation,	☑	☑	☑

Disturbance of public utilities	• Removal or moving of public utilities to make way for the road project (electricity lines and water pipes)	• Replace all public utilities disturbed • Sensitize communities before movement of public utilities	Contractors , Firms own small scale irrigation,	☑	☑	☑
Pollution from spillage of oil, fuel, and other chemicals hazardous substance, if applicable	• Waste generated from construction activities including leakages or spillage of diesels and oils from construction machinery; storages and maintenance workshops within the construction sites. • Discharge of chemicals, contaminated materials and spoil water from Laboratory and irrigation farm	Develop and implement waste management plan that would promote, Including Haxardeous chemicals and Medical Waste Management Plan; • Provide waste receptacles such as bins, septic tank, and toilets; • Collect and dispose of used oil at sites designated by respective municipal/district councils; • Bund all areas (with concrete) used for maintenance works and storage of oils and fuel. • Establish and use permanent and temporary spill containment structure • Develop and Implement Emergency preparedness and response plan • Develop and Implement Integrated Pest Management Plan •	Contractor, Firms own small scale irrigation, Malawi's DAHL's regional laboratories	☑	☑	☑

Risk of Eutrophication and Pollution from Rehabilitated Irrigation Schemes	Application of fertilizer and other soil-enriching materials might lead to nutrient enrichment and pollution of surface water bodies.	• Avoid river bank cultivation • Apply good agricultural practices in the irrigation scheme • Use approved agrochemicals • Develop and Implement Integrated Pest Management Plan •	Farmers/ Min of Agriculture, Firms own small scale irrigation, Malawi's DAHL's regional laboratories		☑	☑
Increased Dust emissions from construction works that ultimately air pollution	• Land clearing, Top soil stripping; excavation of soil, Road construction works (earth moving)	• Spray water regularly when constructing roads to reduce the dust • Routine maintenance, repair of trucks and machines by the contractor • Provision of speed restriction measures (speed limit signs, bumps) near villages and special facilities (schools, health posts, markets) • Prepare and employ traffic safety risk management plan, including code of conduct to truck drivers to avoid impact to the workers and the community residing within and nearby the project area.	Contractor, Firms own small scale irrigation,	☑	☑	☑
Noise and vibrations	• Project civil and earthworks during use of	• Use well serviced machinery; equipment and	Contractor, Firms own	☑	☑	☑

from construction equipment and trucks	heavy machinery and un serviced equipment and machinery during excavations	automobiles with certification of good working conditions • Limit the use of heavy machinery; • Fit silencers to all machinery with exhaust pipes. • Provision of speed restriction measures (speed limit signs, bumps) near villages and special facilities (schools, health posts, markets) • Restriction of activities creating lots of noise or irritations to normal working hours (7h00-18h00) to prevent noise for neighbor's disturbance at night, • Ensure that all workers wear earmuffs and other personal protective gear/equipment when working in noisy sections and exposed to noise levels of 80 dB or more. • Repair or replace if mufflers and other noise control devices of construction equipment and vehicles are defective.	small scale irrigation, Malawi Revenue Authority (MRA); the Malawi Bureau of Standards INNOQ; MBS for the development of disaster recovery site(s) (DRS)			

Increased risk of disturbance to flow of traffic	• The construction activities for roads affecting movement of traffic	• Develop and implement traffic management plan; • Install road signs include speed limit signs; and • Provide detours for vehicles	Contractor, RA	☑		
Increased risk of soil erosion and sedimentation	• Land clearing, • Top soil stripping; excavation of soil, Road construction works(earth moving)	• Implement soil and water conservation measures • Minimise land clearing- clear land only on working areas	Contractor , Firms own small scale irrigation,	☑	☑	☑
Increased Generation of liquid and solid waste, including Hazardous wastes From irrigation farm, laboratory	• Poor management of liquid and solid waste that will be generated from campsites and workshops, removal of different constructed and packaging materials, vegetation clearance of road reserves, demolition works materials, etc., Discharge of chemicals, contaminated materials and spoil	• Develop and implement waste management plan, Including Medical waste management plan; • Provide waste receptacles such as bins and toilets.; • Collect wastes and segregate at generation site in accordance with their types (hazardous, organic and inorganic waste), safely transport and disposed of at the final dumping or disposal site specified and approved by the local authority to avoid any adverse impact on health and well-being of people. • Locate spoil disposal sites as	Contractors, Firms own small scale irrigation,	☑		☑

	• water from Laboratory and irrigation farm	• borrow sites. • Establish temporary and/or permanent containment structure to contain any spill of Fuel, oil or other hazardous material • Take all reasonable precautions to prevent spillages and leakage of materials with the potential to pollute water resources • Develop and Implement Integrated pest management Plan				
Increased risk of labour influx leading to GBV and SEA, Risks of child labour exploitation and abuse, sexual harassment, prostitution cases	• labour influx and increase in disposable income resulting into Interactions between migrant workers and surrounding community or amongst workers themselves leading to GBV/SEA • Recruitment of under aged persons and within senior staff quarters may encourage local children to drop out of school to work on construction sites	• GBV/SEA sanitizations for staff; • Establish and operationalize GRM whose approach is sensitive to issues of GBV and SEA • Reinforcement of the laws on child labour, sexual harassment/prostitutions and gender equity, child labour, sexual harassment /prostitutions and gender equity • Develop and Implement labour influx management plan	Contractor; District, RA	☑	☑	

Hazard when quarry or pits is abandoned	When quarries or borrow pits are abandoned after construction of roads, inland examination centers and infrastructure for value chain are completed they can become a hazard to local communities, either through the danger that they pose to people and livestock who might fall into them (whether full of water or not), or through disease risk resulting from the breeding of disease vectors (e.g. mosquitoes or snails) in water collected in them. Abandoned quarries can also represent a significant visual impact on the landscape.	• Develop and implement quarry management Plans • Fence of quarries to restrict access • Sensitize communities on dangers of quarry sites • Provide alternative access roads for communities away from quarry sites •	Contractor, Firms own small scale irrigation,	☑		☑

Risk of spread of COVID 19	road and building construction will bring together large numbers of People	• Develop and implement COVID 19 prevention guidelines • Measure the temperature for workers and visitors to the work sites • Observe social distances and practice personal hygiene • Provide PPE: Face masks, gloves, and any other required PPE shall be given to all Contactor's workers as well as Consultant's staff. Never share masks, gloves or any PPE. And Making wearing of masks mandatory on work sites • Make available Cleaning water and soap at the campsite gate as well as at the work sites to ensure that everyone washes his/her hands before entering and when leaving the campsite. Where the use of water and soap is not possible, hand sanitizer will be provided to both contractor's workers and consultant's personnel.	Contractors	☑	☑	☑

OPERATION PHASE						
Increased Generation of liquid and solid waste	• Poor management of liquid and solid waste that will be generated from Offices, workshops, laboratories, and irrigation farms	• Develop and implement waste management plan; • Provide waste receptacles such as bins and toilets.; • Collect wastes and segregate at generation site in accordance with their types (hazardous, organic and inorganic waste), safely transport and disposed off at the final dumping or disposal site specified and approved by the local authority. • Establish containment structure to contain any spill of Fuel, oil or other hazardous material • Take all reasonable precautions to prevent spillages and leakage of materials with the potential to pollute water resources	Contractors		☑	
Increased risk of traffic accidents	• The constructed road may encourage drivers to over speed resulting to increased risk of traffic	• Sensitize drivers and communities; • Install road signs include speed limit signs; and	Contractor	☑		

Increased Risks of HIV/AIDS and other STIs	• Labour influx and increase in disposable income resulting into interactions between migrant workers and surrounding community or amongst workers themselves;	• Develop a Work place HIV/AIDS policy and enforce its implementation; • Conduct sensitization meetings on the dangers of contracting HIV and AIDS and other STIs to workers; • Provision of HTC Services; and • Provision of free condoms to workers. • Promote continuous sectoral,	Contractor, District, RA			☑
Increase in surface runoff from paved areas.	• land that was previously bare will now be under concrete preventing infiltration of water and increasing runoff	• The Roads Authority will ensure that the design incorporates a drainage system leading to natural drainage of the area • ensure that drainage channels are properly maintained during operation	Contractor, Roads Authority		☑	
Increased risk of water pollution from oils on paved surfaces	• Leaking oils will be carried by running water to nearby water sources	• Provision of temporary oils storage areas, with a spill containment structure • Install oil spill kit on the site • Construct permanent spill containment structure at the	Contractor, RA		☑	

Increase in multiplication of vectors and spread of waterborne diseases.	• Pools of stagnant water irrigation field enhance the multiplication of disease causing/ transmitting vectors	• Regular flashing of pools of stagnant water. • Distribution of mosquito nets	Farmers. Min of Agriculture			☑
Risks of water logging and salinization.	• poor drainage of soils of small-scale irrigation schemes	• Apply correct amount of water to irrigated area and correct amount of fertilizers • Ensure sufficient infield drainage and minimize over-	Farmers / Agriculture			☑
Human exposure and poisoning from agro-chemicals.	• Workers on irrigation schemes and large farms may be exposed to harmful pesticides	• Limit use of pesticides • Use integrated pest management (IMP) • Provision of personal protective equipment for workers	Farmers/ Agriculture			☑
Conflicts over water uses	• Irrigation schemes will require a lot of water that would result into competing with other uses such as for domestic purposes and electricity	• Consult widely with all water users before development irrigation systems •	Farmers/ Agriculture			☑

Risk of spread of COVID 19	• utilization of newly constructed building and other infrastructure will bring together large numbers of People	• Develop and implement COVID 19 prevention guidelines • Measure the temperature for workers and visitors to the work sites • Observe social distances and practice personal hygiene • Making wearing of masks mandatory on work sites • Use the WB's *COVID-19 Considerations in Construction/Civil Works Projects*	Contractors	☑	☑	☑

9 Environmental and Social Monitoring Plan

9.1 General

The environmental and social monitoring plan is a vital tool for environmental and social management as it provides the basis for rational management decisions regarding impact control. In SATCP, the environmental and social (E&S) monitoring plan will help to ensure that the proposed mitigation measures for identified impacts and risks associated with the proposed subprojects are being implemented effectively. The objectives of the project environmental and social monitoring plan are to:

- Check on whether mitigation and benefit enhancement measures have been adopted and are proving effective in practice.
- Provide a means whereby any impacts which were subject to uncertainty at the time of preparation of the ESIA/ESMP, or which were unforeseen, can be identified, and to provide a basis for formulating appropriate additional impact control measures.
- Provide information on the actual nature and extent of key impacts and the effectiveness of mitigation and benefit enhancement measures which, through a feedback mechanism, can improve the planning and execution of future, similar projects.

There are two basic forms of monitoring:

- *Compliance monitoring,* which checks whether prescribed actions have been carried out, usually by means of inspection or enquiries.
- *Effects monitoring,* which records the consequences of activities on one or more environmental components, and usually involves physical measurement of selected parameters or the execution of surveys to establish the nature and extent of induced changes.

Compliance monitoring is usually given more emphasis in the case projects than is effects monitoring. This is because most impact controls take the form of measures incorporated in project designs and contract documents, and the extent to which recommendations on these matters, as set out in the ESIA, are complied with, plays a major part in determining the overall environmental performance of the project.

Environmental monitoring during the construction phase will comprise two principal groups of activities:

- review of the Contractor's plans, method statements, temporary works designs, and arrangements relating to obtaining necessary approvals from the Engineer, so as to ensure that environmental protection measures specified in the contract documents are adopted, and that the Contractor's proposals provide an acceptable level of impact control, and
- systematic observation on a day-to-day basis of all site activities and the Contractor's offsite facilities including quarry and borrow areas, as a check that the contract requirements relating to environmental matters are in fact being complied with, and that no impacts foreseen and unforeseen are occurring.

Monitoring is the long-term process that normally begins at the start of the project and should continue throughout the life of the project. Its purpose is to establish benchmarks so that the nature and magnitude of anticipated environmental impacts are continually assessed. Therefore, monitoring involves the continuous or periodic review of mitigation activities to determine their effectiveness. Consequently, trends in

environmental degradation or recovery can be established and previously unforeseen impacts can be identified and dealt with during the project's life.

The project E&S monitoring activities will be fully integrated with other construction, supervision, and monitoring activities carried out by the contractor, Road Authority (RA), other subproject proponents, and construction supervision consultant/Resident Engineer (RE). The majority of monitoring activities will comprise visual observations, carried out at the same time as the engineering monitoring activities. Site inspections will take place with an emphasis on early identification of any environmental and social problems and the initiation of suitable remedial action. Where remedial actions have been required on the part of the Contractor, further checks will need to be made to ensure that these are being implemented to the agreed schedule and in the required form. Each part of the site where construction is taking place needs to be formally inspected from an environmental and social management viewpoint regularly.

A proposed subprojects Monitoring Plans will be included in the respective ESMP specifying the type of monitoring, who will do it, how much it will cost to carry out monitoring, and what other inputs, such as training, are necessary.

Environmental and social monitoring which will be required to be designed for the future subproject by the respective subproject proponent will focus on the activities and/or mitigation measures prescribed for the identified environmental and social impacts in the subproject ESIA/ESMP . Specifically, the monitoring process will include:

- Selection of environmental and social parameters at specific locations and for specific environmental components, in line with the sub-project ESMPs;
- Visual observations of impacts on environmental and social components;
- Consultation with the key stakeholders and communities; and
- Sampling and regular testing of the key parameters for which appropriate indicators are provided in the Monitoring Plan.

Monitoring will be undertaken at different levels as follows:

- The Resident Engineer (RE) will monitor the project in line with the ESMP at the worksites during project implementation.
- The DESC will monitor their specialized technical areas and contribute to the comprehensive district monitoring reports to be presented to the DEC by the DPD.
- RA and EAD may also monitor the projects in conjunction with the District Council and compile a monitoring report that will be sent to the secretariat and contractor of the concerned sub-project.

9.2 Parameters to be monitored

The activities under the SATC project such as the rehabilitation of a selected road and bridges, development of inland examination centres, border post, and last-mile infrastructure, laboratory testing, pest management, installation of backup power supply and automation, access to electricity, for value addition including rehabilitation of irrigation schemes, etc. will affect some parameters that need to be monitored throughout the project period. Specific parameters will have to be developed for each subproject once the project activities and sites have been defined. A summary of the most important parameters to be monitored is

presented below and an indicative project Environmental and Social Monitoring Plan for identified impacts are indicated in Table 9.1 below.

a. Soils

Soil excavation during construction of roads, inland examination centres, and the last mile infrastructure may lead to soil erosion, small scale irrigation and others. Monitoring of the soils being eroded will be through visual inspection of eroded sites and measurement of gullies formed.

b. Water Quality Monitoring

Construction sites, laboratories, irrigation farms and campsites are often a source of significant surface and groundwater pollution if not sited and managed properly. It is recommended therefore that the project should monitor both point and non-point source pollution such as effluent, wastewater, or rainfall-runoff discharged from construction sites, laboratories, irrigation farms and campsites to ensure that the Contractor installs appropriate pollution prevention mechanisms and wastewater treatment facilities. The parameters to be analyzed for water monitoring may include Temperature, pH, Electrical Conductivity (EC), Suspended Solids (SS), Turbidity, Ammonia (NH_4^+), Nitrates (NO_3^-), Total Nitrogen, Total Phosphorus, Filterable Iron (Fe), Dissolved Oxygen (DO), Biological Oxygen Demand (BOD), Grease and oil and e-coli. Where the discharged effluent does not meet the Malawi Bureau of Standards (MBS) or the World Health Organization (WHO) standards, the Contractor must take further treatment measures before discharging effluent into nearby watercourses. The National Water Resources Authority and EAD may also monitor the quality of water being discharged from the campsites.

c. Vegetation

During the construction of the selected road, inland examination centres, last-mile infrastructure for value chains, irrigation farms, etc. some vegetation will be cleared. Vegetation cover in these areas will be monitored over time using establishing fixed GPS monitoring points and photographs will be taken during the same season and on approximately the same dates. In addition, the general species composition, plant height, plant distribution, and species composition should be recorded for each monitoring site.

d. Resettlement and Compensation

Monitoring should be undertaken in accordance with the requirements of RAPs which will be prepared for the sub-projects, as the SATCP RPF. Some of the parameters to be measured include the number of people adequately compensated for loss of property, number of complaints against compensation amounts and the size of land acquired, etc. Specific parameters will be provided in the RAPs.

e. Community and occupational Health and Safety

Health monitoring shall be carried out by the District Health Officer's (DHO's) staff that will have the overall responsibility to ensure that all health-related measures are put in place and that appropriate mitigation measures are enforced. The project will assist the DHO to ensure that the contractors fulfil the health requirements. The following parameters are examples of proposed indicators for monitoring health-related impacts of the Project: i)Number of cases of STI seen at the facilities, by sex, age groups, and types; ii)Knowledge on key HIV/AIDS issues among the young and adult population; iii) Number of people counselled for HIV/AIDS; iv) Number of cases of work-related accidents by sex and age groups and types; v) Number of cases and types of work-related injuries seen in the health facilities; vi) Number of posted

warning signs at work sites compared with the recommended; vii) Availability of adequate sanitary facilities at campsites, and viii) Level of community awareness on dangers/risks associated with Project activities

f. Gender-Based Violence

GBV/SEA issues will be monitored on all SATC subprojects through the set Grievance Redress Mechanisms for the projects. Indicators for GBV/SEA will include the number of registered GBV/ SEA cases in the project area.

g. Monitoring of Accidents

The contractor must make sure that appropriate signs are posted at appropriate locations /positions to minimize /eliminate the risk of accidents /incidents and electrocutions. In addition to this, the contractor should make sure that: i) Measures to create awareness regarding sexually transmitted infections (STIs), HIV/AIDS, and other such as malaria, schistosomiasis, etc are taken, ii) Preventive measures to reduce /eliminate malaria, schistosomiasis, etc. infections where ever and whenever appropriate and measures are put in place, and iii) Periodic health survey should be carried out during the implementation period.

Table 9-1: Summary of Indicative Environmental and Social Monitoring Plan

ITEM No.	POTENTIAL ENVIRONMENTAL/ SOCIAL IMPACT	PROPOSED CONTROL / MITIGATION MEASURES	MONITORING INDICATORS	RESPONSIBLE INSTITUTION	FREQUENCY
1	Loss of properties (houses, trees, crops, etc.)/Resettlement impacts	• Develop a Resettlement Action Plan for the PAPs with GRM and ensure its implementation and completion prior to commencement of works; • Develop and implement livelihoods restoration plans (LRP) • Sensitization communities on resettlement issues	• Presence RAP and GRM; • Presence of livelihoods restoration plans (LRP); • GRM records. • No. of sensitization meetings	Roads Authority District Council Min of Lands, Housing and Urban Development	annually
2	Loss of Vegetation	• Restrict vegetation removal only areas for construction; • Introduce afforestation activities for all sub-components that will involve removal of vegetation; • On time compensation, as applicable	• No. of tree seedlings planted • Compensated people • No of subproject engaged in afforestation for loss of vegetation • vegetation cover	RE District Councils	Bi-annual
3	Increased risk of disturbance to flow of traffic	• Develop and implement traffic management plan (TMP); • Install road signs include speed limit signs and	• Presence of speed limit signs • presence of detour • Presence of traffic management plan	Roads Authority DC	Quarterly

ITEM No.	POTENTIAL ENVIRONMENTAL/ SOCIAL IMPACT	PROPOSED CONTROL / MITIGATION MEASURES	MONITORING INDICATORS	RESPONSIBLE INSTITUTION	FREQUENCY
		• Provide detours for vehicles and pedestrians.			
4	Occupational Safety and Health risks	• Develop and implement Occupational Safety and Health Plan; • Provide appropriate personal protective equipment (PPE) to people working in high-risk sub projects and enforce its use; • Provide first aid kits and ensure they are fully stocked at all times; and • Provide adequate warning sign in all areas where safety risks are high. • Report all accidents within 24 hours of occurrence/ notification	• Number of people provide with PPE; • Presence of Occupational Safety and Health Plan • Number of people provide with firs aid kit; • Number of warning sign posted • Number of incident report	Contractors, RE, DC, Roads Authority, Min of Labour	Monthly
5	Increased risk of HIV/AIDS and other STIs	• Source much of the labour force from surrounding communities as this may decrease influx of migrant workers; • Develop a Workplace HIV/AIDS policy and prevention plan; • Engage an HIV/AIDS service provider to sensitize workers and	• Presence of Workplace HIV/AIDS Policy and prevention plan; • Number of locally employed labour • Number of people accessing HTC services	District Health Officer Contractor RE	Bi-annual

ITEM No.	POTENTIAL ENVIRONMENTAL/ SOCIAL IMPACT	PROPOSED CONTROL / MITIGATION MEASURES	MONITORING INDICATORS	RESPONSIBLE INSTITUTION	FREQUENCY
		communities on HIV and AIDS and other STIs; • Provision of HTC Services; and • Provision of free condoms to workers.	• Number of condoms distributed • Presence of service provider • Number of sensitizations provided by service provider		
6	Increased generation of liquid and solid waste that ultimately affect water quality	• Develop and implement waste management plan, including medical waste management plan • Provide waste receptacles such as bins and toilets. • Establish temporary and/or permanent containment structure to contain any spill of Fuel, oil or other hazardous material and installs appropriate wastewater treatment facilities. • monitor effluent, wastewater, or rainfall runoff discharged from construction sites, irrigation farms, laboratories and campsites	• Presence of waste receptacles; • Presence of Water management plan • Number of containment structure built • Water quality parameters (pH, EC, TDS, DO, Ca, Mg, TSS, Turbidity, NH4+, BOD, COD, Coli form Count, Grease and oil, etc.) level as per national standards (Malawi Bureau of Standards (MBS) and international standards, such as WHO, WBG EHS guideline	Roads Authority EAD DC National Water Resources Authority	Quarterly

ITEM No.	POTENTIAL ENVIRONMENTAL/ SOCIAL IMPACT	PROPOSED CONTROL / MITIGATION MEASURES	MONITORING INDICATORS	RESPONSIBLE INSTITUTION	FREQUENCY
7	Dust from construction activities	• Suppress dust by spraying water on dusty areas including access roads to construction sites; • Provide dust masks to workers exposed to dust • Routine maintenance, repair of trucks and machines by the contractor	• frequency of spraying of water on dusty surfaces • Availability of appropriate PPE • Number of maintained trucks and machines	RE, Min of Labour District Council EAD	Monthly
8	Noise and Vibrations	• Limit the use of heavy machinery; • Install silencers in exhaust pipes for machinery. • Provision of speed restriction measures (speed limit signs, bumps) near villages and special facilities (schools, health posts, markets) •	• Number of serviced machineries fitted with silencers compared to all equipment; • Noise levels below 50 dB • Number/km of speed restriction measures (speed limit signs, bumps) near villages and special facilities (schools, health posts, markets)	RE, Ministry of Labour; District Council Office	Monthly
9	Increased risk of soil erosion and sedimentation	• Implement soil and water conservation measures • Minimise land clearing- clear land only on working areas	• Sediment load in installed biophysical monitoring stations	RE, DoLRC District Council	Bi-annual

ITEM No.	POTENTIAL ENVIRONMENTAL/ SOCIAL IMPACT	PROPOSED CONTROL / MITIGATION MEASURES	MONITORING INDICATORS	RESPONSIBLE INSTITUTION	FREQUENCY
10	Public safety risks from construction sites and borrow areas	• Cordon off working areas and borrow areas; • Conduct sensitization meetings to communities; and • Develop and implement borrow pits rehabilitation plans.	• Minutes of sensitization meetings; • presence of borrow pits and quarry site restoration and management plan	RE, Min of labour, EAD, District Councils	Bi-annual
11	Increased risk of GBV and SEA and child labour	• Adhere to Workers' Code of Conduct; • Establish and operationalize GRM where issues of GBV and SEA have been highlighted; and • Development of GBV prevention plan. • GBV/SEA sanitizations by GBV service provider, particularly for road subproject; • Sensitization of contractors, workers and communities on child labour; • The project should not employ any persons under the age of 18;	• Presence of Workers' Code of Conduct • GRM records on GBV and SEA • Presence of GBV plan • Employment records showing age • No. of sensitization meetings ad records • Presence of service provider • No. of GBV/SEA sanitizations provided by GBV service provider, particularly for road subproject;	RE, Min of labour, District Councils	Bi-annual

10 INSTITUTIONAL RESPONSIBILITIES AND IMPLEMENTATION ARRANGEMENTS

10.1 Definition of Roles and Responsibilities

Key stakeholders at National, District, and Local levels will have different roles and responsibilities to play on the SATC project to ensure successful implementation of this ESMF, ESMPs, and monitoring plans.

10.1.1 National Level

At the national level various institution will be involved directly or indirectly for the implementation of subproject under SATCP as well as this ESMF. These institutions are, among others The Ministry of Transport and Public Works (MoTPW), The Roads Authority (RA), Malawi Revenue Authority (MRA); the Ministry of Agriculture's Standards and Sanitary and Phytosanitary (SPS) departments, and MBS for the development of disaster recovery site(s) (DRS), Malawi's DAHL's regional laboratories, in Office of the Vice President, MSEs and Private Firms own irrigation schemes.

10.1.1.1 The Ministry of Transport and Public Works through the Roads Authority:

The Ministry of Transport and Public Works through the Roads Authority will have the overall responsibility for coordinating and monitoring the implementation of the project. A Project Implementation Unit (PIU) for the project will be established under the Roads Authority. The PIU will be responsible for the implementation of this ESMF. The PIU reports directly to the Principal Secretary for the MoTPW. The PIU will have one environmental and one social safeguard specialist dedicated full-time to the SATC project who will ensure that the ESMF is fully implemented. Together the Environmental and Social safeguards Specialist will ensure that they receive monitoring reports from the Contractor and other relevant authorities. As the RA and the PIU will also be responsible for the achievement of M&E targets, the achievement of Environmental and Social M&E targets will also ultimately be the responsibility of the RA and the PIU.

Where an ESIA may be required under the project, the DEC, will inform the PIU to initiate the preparation of a Project Brief and the Terms of Reference. The PIU will then recruit an appropriate Consultant to conduct the EIA study. Once the study is completed, the Director of Environmental Affairs will be responsible for reviewing the ESIA through the Technical Committee on the Environment (TCE).

The Director of Environmental Affairs may arrange for public consultations as part of the EIA process, to get input from the community on the project as well as to sensitize the communities and to create awareness. The TCE may require carrying out their site and works assessment before making the appropriate recommendations to the National Council on the Environment (NCE), through the Director of Environmental Affairs (DEA). The NCE will evaluate the recommendations of the TCE and make appropriate recommendations to the Minister for approval and issuance of the certificate.

10.1.1.2 Malawi Revenue Authority (MRA);

MRA will be responsible for the support of most activities under component 1 on Reducing trade costs. MRA will be responsible for the development of the inland examination centres and the deployment mobile scanners. MRA will also support the development of Muloza OSBP and oversee the automation of the management of import and export of products for agricultural trade. MRA will also update the

customs system (ASYCUDA World) with new modules to enhance its capabilities and performance in line with good practice.

10.1.1.3 The Malawi Bureau of Standards

MBS will be responsible for enabling Malawi's key exports tea, coffee, groundnut, soya and mango reduce rejection rates in export markets and allow for tests and certification to be internationally recognized. Support will be provided to detect pesticide residues, mycotoxins, heavy metals, and microbial contamination. MBS and DAHL's regional laboratories diagnostics capacities in Blantyre and Lilongwe will be strengthened to test and detect animal diseases and be accredited in microbiology, toxicology, and I-2 ND vaccine with the potential to increase Malawi's livestock and poultry exports along the corridors and in southern Africa.

10.1.1.4 Ministry of Agriculture

The Ministry of agriculture will support the development of small scale irrigation schemes, ware houses and value chain infrastructure within the corridor and also support the automation of the management of import and export of products for agricultural trade through the ministry's departments of veterinary services and phytosanitary services, All automation initiatives, apart from procurement and installation, will be supported with business process analysis and reengineering, sustainability planning (maintenance and redundancy), change management, capacity building and performance monitoring inbuilt into the activities.

10.1.1.5 Public Private Partnership Commission (PPP)

The PPPC will support the improvement of the the regulatory capacity of trade related agencies in the transport, logistics, and the Public Private Partnership (PPPC) areas that will be capacitated by the project. Technical assistance will be provided to the Public Private Partnerships Commission (PPPC) in Malawi to expand expertise in key sectors to attract additional PPPs.

10.1.1.6 Immigration Department

The project will finance to improve the capability and capacity of ICT system for the currently manually operating Immigration department will support the implementation of these activities for its land borders to facilitate and enforce immigration controls.

10.1.2 District Level

The District Councils, under the general direction of the District Commissioner, will work closely with project staff to take stock of the progress for each project activity in their respective areas of jurisdiction. The Council will hear the views of the communities on the progress, expected benefits, and challenges being faced during the implementation period of the projects and the anticipated challenges during the time of exit. The District Commissioner will also be the moderator between conflicting views and interests of both the communities on one hand; and the implementing and executing agencies on the other. In addition, all aspects related to resettlement of affected persons, headcounts, requirements, and property losses shall be heard by the District Commissioner who shall in turn bring up the findings to the appropriate authorities for action.

10.1.3 Local Area Level

The DESC will be responsible for the technical work at the local level. They will assist AEC in carrying out the screening process and determining whether or not an EIA is required.

The AEC and DESC will be responsible for completing the Environmental and Social Screening Form to identify the potential environmental and social impacts of the project activities and to propose the corresponding mitigation measures. The screening process will be under the supervision of the DEC. The RA will work closely with the district level teams to ensure that environmental and social concerns are adequately addressed in the review, approval, and implementation of sub-projects, including regular monitoring and reporting (as per identified E&S indicators, incidents/accidents, grievance mechanism functionality, etc).

11 CAPACITY BUILDING AND TRAINING REQUIREMENT

11.1 General

Effective implementation of the Environmental and Social Management Framework will require the technical capacity of implementing institutions and there is a need to have people with the right skills and knowledge. The ESMF success depends on effective capacity building through training of staff and all other parties involved in this ESMF, including the construction contractor and all subcontractors. Project implementing bodies need to understand inherent social and environmental issues and values of the proposed subprojects and be able to identify the indicators. The SATC project will therefore be required to carry out a capacity needs assessment to ensure that the capacity gaps for successful implementation of this ESMF are identified. This capacity needs assessment will be inbuilt to identify strengthening needs on social and environmental evaluation, screening, mitigation, and monitoring during the preparation of this ESMF. The suggestions on training and capacity development requirements under this section are based on the recent observations on similar projects and consultations, which were conducted as part of the preparation of this ESMF.

All those responsible for the management, implementation, and operation of any aspect of the ESMF shall be adequately trained in their role. In addition, before an individual being allowed to work, they must be trained and educated on the project needs. During the duration of the contract, this shall be both assessed and audited regularly, and where found or identified corrective measures shall be put into place. It is therefore proposed that a comprehensive induction and training program is established that prepares the employees for working on the job.

This chapter sets out training and capacity building that is required to support the implementation of this ESMF. It states the detailed training and capacity development requirement for RA, DEC, and other relevant parties' staffs at all levels, who are directly or indirectly engage in the proposed SATCP and future subprojects. This capacity development and training plan support implementing institutions, including RA, DEC, NCE, MoTPW, etc. to develop their capacity to sufficiently screen, monitor, evaluate, and assess the environmental and social impact of the proposed Southern Africa Trade and Connectivity Project (SATCP) and any future proposed subproject, like construction and rehabilitation of roads, and buildings for various purposes, small scale irrigation, laboratory testing, pest management, etc. under SATCP.

11.2 Assigning an Environmental and Social Specialists to the RA

As suggested in the institutional arrangement Chapter 10, it is proposed Roads authority (RA) will have one environmental specialist and one social safeguards specialist for the SATC project who will ensure that the ESMF is fully implemented and have the responsibility to address the implementation and supervision of recommendations under the ESMF (and RPF). The draft Terms of reference for the E&S specialists are outlined below.

Generic Draft Terms of reference for the SATC Environmental and Social Specialist:

Role and responsibility: The Environmental specialist and the Social specialist roles and responsibility will be to provide technical advice on environmental and social safeguards management and mitigation, and ensure that the ESMF is fully implemented.

Tasks: The major tasks of the E&S safeguards specialists will be, but not limited to

- Liaise with the GoM Ministry of Environment, EAD, NEC regularly, and subproject proponents;
- Ensure ESIAs/ESMPs are carried out, as required, to meet the National and World Bank requirements
- Support the Project to commission an independent consulting firm to carry out an environmental and social safeguards performance audit of the SATCP, on an annual basis;
- Provide technical advice to districts on all technical issues related to environmental and social safeguards management. These issues will relate to impacts indicated under this ESMF and any other unforeseen environmental and social risks related to surface water, groundwater, agricultural resources and vegetation, sourcing of materials used in construction, human health, safety, ecology, point and non-point source pollutions, including discharge of hazardous waste, protected areas, land and soil degradation, etc;
- Provide specific technical advice on the identification and implementation of W&S risk mitigation measures for subprojects under SATCP, including road and other safety aspects;
- Raise awareness and proactively create demand for this technical advice among District officers, community members, DEO, as well as subproject proponents, supervison consultant, and Contractor; and
- Develop a training plan and Lead the delivery of capacity-building programs for all relevant parties as stated under this section

11.3 Capacity Building and Training

Building capacity is about increasing the knowledge and skills of individuals and strengthening the supporting organizational structures and systems that are needed to effectively implement this ESMF. The project will assess environmental and social capacity and prepare a training program to strengthen capacity in coordinating, planning, implementing, and monitoring environmental and social issues. For the successful implementation of this ESMF, the capacity building requirements will mostly be in the form of training programs and sensitization workshops for staffs drawn from Road Authority (RA), SMEs, Small scale irrigation Firm, DAHL's regional laboratories, Ministry of Agriculture (MoA), MRA, MBS, Environmental Affairs Department (EAD), and other relevant institutions at National level, District Council staff and District Environmental officers at local level, Contractors, Supervising Engineers, and local communities.

In many institutions, staff members have been retained for core activities of their profession whereas little consideration to directly oversee environmental and social risk management activities has been taken. In some cases, environment and social safeguards personnel are present but their level of training and technical capacity on environmental and social safeguards principles and tools is not sufficient. Training and awareness creation will be undertaken at different levels of project implementation. As stated above, these levels will entail the national institutions, local authorities, contractors, Consultant, NGOs, community members, and other grassroots stakeholders. The exercise will be customized according to each level's needs to ensure adequacy in implementation of the ESMF and therefore, it is required to indicate detail capacity development requirements and recommendations in this ESMF, through customizing several road and other infrastructure development projects experiences to identify the capacity gap and propose project-specific training and other capacity development program.

Therefore, to ensure proper implementation of environmental and social screening, and mitigation measures, as well as the implementation of the subprojects in a sustainable manner, RA and other relevant respective subproject proponents will undertake a project of environmental and social safeguards management training and institutional capacity building. The objective of the training stated under this ESMF is to:

- Ensure that staffs from all relevant institutions (RA, DEC, NCE, DESC, SMEs, DAHL's regional Laboratories, Irrigation Firms, Ministry of Agriculture, MRA, MBS, Environmental Affairs Department (EAD), and other relevant institutions at National level, etc.) can assist District staffs at local level, contractor and communities to appraise, approve and supervise the implementation of subprojects, accordingly;
- Representatives and leaders of community members, Institutions, and associations at local levels to prioritize their needs, and to participate in identification of impact and implementation and management of the environmental and social aspects of subprojects activities; and
- Support local representatives, and relevant committees to have a sensitization and awareness regarding environmental and social aspects indicated in safeguards instruments such as ESIA, ESMP, ESMF, RPF, and A/RAP and other relevant management strategies implementation plans (MSIPS), such as MWMP, IPMP, POHSP, etc. and the implementations of these instruments that ultimately contribute to ensure the subprojects implementation in an environmentally friendly and socially acceptable manner.

The RA, DEC, DESC safeguards specialists will require an induction training on World Bank and GoM environmental and social safeguards policies, applicable to the SATCP, on the use of the screening and other pertinent checklists, and identification of impacts and development and implementation of relevant safeguards instruments. Annual follow-up training is anticipated. The training will take place in areas accessible to all participants at national and local levels, as required.

The anticipated capacity building demand of the various stakeholders, experts, and officials relevant to the implementation of this ESMF will be managed in terms of technical training, awareness creation, and sensitization for those who will be drawn from of the following institutions, but not limited to:

- Environmental and Social Experts of implementing institutions, such as RA, NCE, DEC, DESC, MOA, MRA, Regional laboratories, etc., as applicable
- Relevant experts and officials from Regional Land and Environment Bureaus;
- Local district office relevant experts and officials
- Private Sector Enterprises and NGOs, if applicable;
- Representatives from community members, clan leaders and elders; and, etc.

The first step in pursuing capacity building will be to identify the capacity building needs of the various stakeholders. However, in addition to the needs identified, an indicative list of areas of training relevant to the implementation of this ESMF has been proposed which includes:

- National and WB safeguard policies as well as implementation and enforcement;
- Project cycle and ESIA/ ESMF (including E&S clauses in project contracts), national EIA law, procedures, & guidelines and enforcing mechanisms;
- Stakeholder engagement, consultation, and partnerships;

- Application of ESMF tools (Screening checklists, ESIA/ESMP), ESIA process, their review, implementation, and enforcement
- Development of mitigation measures and Environmental and Social Management Plans (ESMPs), A/RAP; Other instruments, such as, Labor laws and working conditions (LLWC); Biodiversity conservation and sustainable management of natural resources (BCSNRMP); Traffic Management Plan (TMP); Waste Management Plan (WMP), including Medical and Hazardous Waste management Plan; Integrated Pest Management Plan (IPMP), Grievance Redress Mechanism; Stakeholder engagement; and Public and Occupational Safety and Health Plan (POHSP), etc.; and
- Environmental reporting, monitoring, annual auditing, and follow-up of ESMF.

Technical training (T)-In -depth training to a level that allows trainees to go on to train others, including technical procedures where relevant;

Sensitization (S), in which the trainees become familiar with the issues to a sufficient extent that it allows them to demand their precise requirements for further technical assistance; and

Awareness creation training (A), in which the participants acknowledge the significance or relevance of the issues, though they have not in-depth technical knowledge of the issues.

Training for safeguards, and other relevant staffs drawn from RA, DEC, NCE, DESC, MOA, MRA, Regional laboratories, etc. will be required, both on general environmental and social safeguards issues, on the specific screening procedures, and Impact identification and mitigating measures described in this ESMF. Initial as well as on job and annual follow-up training is anticipated. This staff training will provide a good opportunity to conduct the required monitoring and evaluation of the performance of the project. Table 11.1 sets out an indicative specific training requirement for the respective stakeholders under different category:

Table 11-1: Indicative Training and Sensitization Requirements

Topics	**Participants**			
	E&S specialists & related experts from NEC, RA, DEC, DESC, MOA, MRA, DAHL's RL, etc.	**District level Environmental team and officials**	**Staffs from the contractors, District offices**	**Elders, clan leaders, affected people, Representatives from community members**
National and WB safeguard policies as well as implementation and enforcement;	T	T	S	A
Project cycle and ESIA/ ESMF (including E&S clauses in project contracts EIA law, procedures, & guidelines and enforcing mechanisms;	T	T	S	A
Applying ESMF and Application of ESMF tools (Screening checklists, ESMP,	T	T	S	A

EA), their review, implementation, and enforcement.				
ESIA/ESMP Procedure guideline preparation and implantation of ESMP	T	T	S	A
Technical and operational aspects of the subproject, Road network, examination centre, etc.	T	T	S	A
Identification of impacts and development of mitigation measures, preparation of Environmental and Social Management Plans, A/RAP; Other specific instruments, such as LLWC, BCSMNR, IPMP, MWMP, GRM, TMP, WMP, POHSP, etc.	T	T	S	A
Stakeholders Engagement, consultation, and partnerships	T	S	S	A
Environmental reporting, monitoring, and follow-up of ESMF	T	T	T	A

Key: T = detailed training, S = sensitization to the issues, A = raised awareness, NA=not applicable

As a general guideline, training, awareness creation and sensitization of environmental and social experts, officials from relevant stakeholders (RA, NCE, DEC, DESC, MOA, MRA, DAHL's RL etc.) at the national and district level, and community members and affected groups on issues of environmental and social impacts are required. The sensitization/awareness/training will aim to build the capacity, create awareness, and sensitize on the requirements and key aspects of ESMF for a broad audience comprises of experts and officials from various implementing institutions listed above. In addition, a more detailed and specific training module will be developed and delivered to the RA and other direct implementing parties who are responsible and involved in the implementation of E&S safeguards and implementation of the proposed subprojects. The project will develop a training plan based on the needs identified that includes regular updates and refresher modules which will be delivered during ESMF implementation. Table 11.2 below is indicated a proposed training package.

Table 11-2: Proposed Training Packages

Audience	Training Component	Duration	Potential Trainers
Environmental and social; specialists & related experts from RA, EAD and DESC, MOA, MRA, DAHL's RL, etc.	All training topics are listed under table 11-1.	2-day workshop for the first year and 1-day refresher courses annually	• Consultant • Environment Affairs (EAD) • Ministry of Lands, Housing and Urban Development. • WB safeguard Team • Ministry of Labor (Department of Occupational Health and Safety), • Other relevant institutions.
District level Environmental team and officials	All training topics listed under table 11-1 except sensitization on Stakeholders Engagement, consultation and partnerships	1-day workshop for the first year and 1/2-day refresher courses annually	• Consultant • RA • EAD • WB safeguard Team if requested and applicable.
Staffs from the contractors	Attend sensitization for all training topics listed under table 11-1,	1-day workshop for the first year and 1/2-day refresher courses annually	• RA • DEC • Consultant
Elders, clan leaders, affected people, Representatives from community members	Raised awareness on relevant topics stated under table 11-1.	1-day awareness creation workshop as required	• RA, DEC, DESC, Consultant

An example of an agenda for a proposed one (1) day training on ESMF implementation and integration of environment and social management concerns into development planning, which further amended before implementation of the training and during the preparation of the training plan is provided in table 11.3.

Table 11-3: Sample-training agenda for a one day

Session	Content
Introduction to Environmental and Social Management Plans	This session will introduce participants to the theory and application of ESMF as a decision-making tool. It will outline the principles of ESMF and provide clear definitions on ESMP practice terminology (e.g. classification of impacts, natural resource base (water, soil, land, biodiversity, air, etc., mitigation and monitoring) and social baseline (employment, social, health, etc.).
World Bank Safeguard Policies and national legislation	This section will discuss the relevant principal World Bank safeguard policies and their application to subprojects under the sub-projects under discussion. In addition, the applicable GoM legislation will be discussed in terms of the relevant environmental and social laws and policies, which apply to activities under the program.
Screening of the proposed SATCP's subprojects	A list of potential activities to be financed under the projects will be discussed. The application of the screening checklist will be explained using case studies.
Impact identification	Potential impacts related to various types of activities will be discussed, in terms of their significance (adverse or minimal, positive or negative), magnitude (long term versus short term), and impact category (localized or cumulative).

Overall, the training will be conducted by RA, EAD, Consultant, DEC, Ministry responsible for Gender, Ministry of Labor (Department of Occupational Health and Safety), Ministry of Lands, Housing and Urban Development. The training activities in Environmental and Social Impact Assessment including environmental project screening and implementation of ESMF can be conducted by RA, EAD, other subproject proponents, or Consultant. This will be done before the implementation of the project, to apply the knowledge/skills during the implementation of the projects. Skills in the screening process will be very useful for assessing the environmental implications of the Project activities at the outset.

12 ESMF MONITORING, ANNUAL AUDIT, REPORTING REQUIREMENTS

This chapter sets out requirements for monitoring of ESMF implementation. Monitoring of the indicators set out here will be mainstreamed into the overall monitoring and evaluation system for the project.

12.1 ESMF Implementation Monitoring

ESMF Implementation monitoring is a continuing process throughout the life of the proposed SATCP from subproject design and construction phase up to operation and decommissioning phase. Its purpose is to establish benchmarks so that the nature and magnitude of anticipated environmental and social impacts emanated from subproject activities under SATCP can be continually assessed ensuring the achievement of ESMF objectives. Monitoring of ESMF could be continuous during SATC project implementations or periodic review as annual monitoring/auditing to determine and guarantee the effectiveness of ESMF measures and procedures. This chapter sets out requirements for monitoring of ESMF implementation. Monitoring of the indicators set out here will be mainstreamed into the overall monitoring and evaluation system for the project.

The objectives of ESMF monitoring are

i) To alert program implementers by providing timely information about the success or otherwise of the environmental and social impact management process outlined in this ESMF in such a manner that changes can be made as required to ensure continuous improvement to SATCP's environmental and social management process (even beyond the project's life).

ii) To make a final evaluation to determine whether the mitigation measures incorporated in the technical designs and the subproject ESMP have been successful in such a way that the pre-project environmental and social condition has been restored, improved upon or is worse than before and to determine what further mitigation measures may be required.

A number of indicators are presented below as part of the ESMF implementation which will be included in the overall project monitoring. In addition, an Annual Audit of ESMF Implementation will be conducted by the RA and other the respective relevant subproject implementing entities, and the report will be delivered to the Environmental Affairs Department (EAD), DEO, World Bank. Any Schedule 1 project financed by STACP that has been subject to an ESIA study or RAP will also be required to produce an annual audit report, for delivery to EAD, DEO, World Bank.

Indicators which will be used during monitoring of the performance of ESMF implementation include the following:

- Number of field appraisals undertaken;
- Number of ESIA/ESMPs, A/RAPs and other MSIPs developed;
- Number of written warnings of violations of ESMPs issued to subproject contractors in case of non-compliance;
- Number of recommendations from the World Bank missions, Annual audit/review that has been implemented by the beginning of the following year and Quarterly performance monitoring report;
- Number of staff at all levels trained in the implementation of this ESMF;
- Number of chances find procedures for physical cultural resources invoked, if applicable; and,

- Number of staff and other stakeholders at all levels attending training course, raise awareness and sensitization program in environmental and social policies and safeguards instruments, ESMF, A/RAP/RPF, ESMP, ESIA, and other, as stated in Table 11-1 above.

The indicators are deliberately very simple. Despite their simplicity, the integration of these indicators into the SATCP and its subprojects M&E system provides a guarantee that the ESMF will be implemented in full.

12.2 Annual Audit

Annual Audit is an independently commissioned environmental and social audit that will be carried out on an annual basis, as required. Annual Audit of the ESMF implementation will be undertaken by external consultants. The Audit amongst other things will assess the performance of subprojects under SATCP against the procedures described in this document, the need for future training, awareness creation and sensitization, and the implementation of environmental and social impacts of the proposed SATCP and its subprojects.

The Annual Audit also provides a strong incentive for RA, DEC, and other relevant implementing parties to ensure that the ESMF is implemented and the project ESMPs and other required safeguards instruments are developed and implemented, as recommended. As applicable, the Audit Team will report to RA, DEC, EAD, World Bank, who will lead the implementation of any corrective measures, as required. An Annual Audit Report will include a summary of the environmental and social safeguards performance of the sub-projects under SATCP, based on the project ESMPs and measures indicated in the ESMF; presentation of compliance and progress in the implementation of the project ESMPs; and a synopsis of the environmental and social monitoring results from individual project monitoring measures (as set out in the respective subproject ESMPs), at local/district level.

The main tasks of the audit study will be, but not limited to:

- Consideration of the description of the project;
- Indicate the objective, scope, and criteria of the audit;
- Verify the level of compliance by the proponent with the conditions of the environmental and social management plan;
- Evaluate the proponent’s knowledge and awareness of and responsibility for the application of relevant legislation;
- Review existing project documentation related to all project facilities and designs;
- Examine monitoring programs, parameters and procedures in place for control and corrective actions in case of emergencies;
- Examine records of incidents and accidents and the likelihood of future occurrence of the incidents and accidents;
- Inspect areas where project equipment and materials are stored and disposed of and give a record of all significant environmental risks associated with such activities;
- Examine and seek views on health and safety issues from the project staffs, the local and other potentially affected communities; and

- Prepare a list of health, safety, and environmental and social concerns of past and on-going activities.

12.3 End-of-project evaluation

As stated in section 6 of this ESMF, based on the comprehensive annual reviews, an end-of-project evaluation will take place, going into more details with some of the issues raised in the annual audit/reviews and the impact of the capacity development activities provided to the GoM relevant ministries and institutions officials and staffs, as stated in section 11. The evaluation will be performed as per the OECD/DAC criteria of relevance, effectiveness, efficiency, impact, and sustainability[45].

12.4 Reporting Procedure

To monitor the progress of the implementation of the measures that have been identified in this ESMF, annual audit/reviews will be carried out as outlined in annex 8. The principal output of the annual Audit/reviews is a comprehensive report that documents the Audit/review methodology, summarizes the results, and provides practical recommendations and more specifically a section referring to the overall ESMF performance. Annexes should provide the detailed results of the fieldwork, and summarize the number of approved projects by the respective national and regional teams and their characteristics according to the annual report format (see annex 9).

During the implementation of the Project, reports mainly originate from the RE's on the day-to-day progress of the works. The RE's submits reports to the Project office for their follow-up and review and comment on the reports. DEC will submit copies of reports to the RA for action. The feedback of reports from the Project office should be provided to the RE's within the time stipulated in the contract document. RA will also submit copies of reports to the World Bank. To ensure early detection of critical environmental and social conditions and to provide information on the mitigation progress and results, reporting deadlines have been specified in the implementation schedule.

[45] for more information on the OECD/DAC criteria, please refer to http://www.oecd.org/dac/evaluationofdevelopmentprograms/daccriteriaforevaluatingdevelopmentassistance.htm

13 ESMF INDICATIVE IMPLEMENTATION SCHEDULE

This section of the ESMF describes the process for ensuring that environmental and social concerns are adequately addressed through the institutional arrangements and procedures used by the project for managing the identification, preparation, approval, and implementation of subprojects. This section sets out the reporting systems and schedules for ESMF implementation adherence to the program implementation period.

To comply with various technical and performance standards, the proposed project activities to be supported under SATCP shall comply with this Environmental and Social Management Framework. The implementation, monitoring, and reporting arrangements for the ESMF have been worked out within the overall institutional structure for implementation of the proposed program. The indicative implementation schedule for the ESMF, which will be further amended before project implementation is outlined in table 13-1 and takes into account all activities related to the proposed measures (enhancement and mitigation), the monitoring program, consultations, and institutional arrangements.

Table 13-1: Implementation schedule for ESMF

No.	Activities	ESMF Implementation Years							Reporting Deadline
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	
1	Recruitment of safeguards specialists	X							• Immediate after staff are recruited
2	Various Capacity development Programs, training, and technical assistance	X	X	X					• ESMP before project approval and/or after finalizing screening of sub-projects • Annually at every fourth quarter (Technical assistance)
3	Development of Site-specific ESMPs	X	X						During initiation of new subproject and before commencing civil works
4	Development of Site-Specific Work plans	X	X	X	X	X	X	X	
5	ESMF implementation, monitoring, and supervisions	X	X	X	X	X	X	X	Every quarter
6	Annual Audit/ reviews of ESMF	X	X	X	X	X	X	x	Annually by at the end of 4th quarter
7	End-of-Program evaluation							x	By the end of program implementation year of 4th quarter

14 INDICATIVE BUDGET REQUIREMENT FOR ESMF IMPLEMENTATION

The summary of the estimated budget requirement for the implementation of the ESMF is provided in table 14-1 below. The environmental and social management cost is not included in the ESMF budget, as it will be covered directly or indirectly by the respective subproject budget, i.e. through allocation for project's administrative and logistical expenses or through inclusion of cost for mitigating measures in contracts with contractors. The breakdown of activities with indicative cost implications for the implementation of ESMF includes development of sites specific subproject ESMPs.

Given the nature of the proposed subproject site and the significance and scale of anticipated impacts that will be identified during the screening of each subproject, site-specific ESMP will be prepared. This ESMP will use the information and template stated under environmental and social impacts, management, and monitoring sections of this ESMF. Recruitment of environmental and social specialists or consideration of other alternative means is required to develop site-specific Environmental and Social Management Plans (ESMPs) for all subprojects. Every year an independent consultant is required for a period of at least one month to undertake annual environmental and social audit that will be mainstreamed within the scope of the Programs' Annual Audit.

Table 14-1: Indicative summary of estimated ESMF budget

Activity	**Description**	**Total cost [USD]**
Capacity development	Lumpsum	100,000
ESMF Monitoring	Lump-sum for five years quarterly monitoring	30,000
Annual Audit /reviews of ESMF	Based on annual reviews (the last annual review is replaced by the end-of-program evaluation)	50,000
GRM implementation	Lump-sum for 7years	70,000
Recruitment safeguards staffs	Lump-sum for 2 safeguards specialist for 7 years	500,000
End-of-Project evaluation	An evaluation of the impact of the ESMF implementation and the respective subprojects completed at the time of conducting End-of -Project Evaluation (as per chapter 12)	50,000
Total		**800,000**
Contingence (10%)		**80,000**
Grand Total		**880,000**

15 FEEDBACK AND GRIEVANCE REDRESS MECHANISM (GRM)

15.1 General

Grievance redressing mechanisms have to be designed because program activities may upset the existing balance in society. Resettlement, if applicable will touch upon property issues, means of livelihood, and organization of social and spatial aspects that influence proximity to a set of environmental, economic, social, and spiritual assets. Therefore, the grievance redressing system has to be designed in such a way that it functions flexibly and the implementing agency has to incline to a pro-poor approach in all its decisions. The GRM will have a working place and adequate budget for implementation.

Grievances will be actively managed and tracked to ensure that appropriate resolution and actions are taken. A clear schedule will be defined for resolving grievances, ensuring that they are addressed in an appropriate and timely manner, with corrective actions being implemented if appropriate and the complainant being informed of the outcome.

Grievances may arise from members of communities who are dissatisfied with (i) the eligibility criteria, (ii) community planning and resettlement measures, or (iii) actual implementation. This chapter sets out the measures to be used to manage grievances. The grievance procedure does not replace existing legal processes. Based on consensus, the procedures will seek to resolve issues quickly to expedite the receipt of entitlements, without resorting to expensive and time-consuming legal actions. If the grievance procedure fails to provide a result, complainants can still seek legal redress.

15.2 Project Grievance Redress Mechanism

The project will have a Grievance Redress Mechanism (GRM) where the Project Affected Persons (PAPs) will have the ability and opportunity to lodge complaints or concerns on the project activities, without cost, and with the assurance of a timely and satisfactory resolution of the issue. All PAPs under the project will be informed of the GRM and the procedures that will be involved. The PAPs will be informed about the procedures during the preparation of the investments' specific ESIAs, ESMPs, and RAPs.

To resolve all grievances effectively, the Project will establish a Community Grievance Redress Mechanism Committee (CGRMC) at the community level and a Workers Grievance Redress Mechanism Committee (WGRMC) at the Contractors level. At the District level, the District Grievance Redress Management Committee (DGRMC) will be responsible for resolving grievances that have not been resolved at the community level.

15.3 Grievance Types

The Project will receive all resettlement related grievances and complaints, and these are indicated in the below table 15-1.

Table 15-1: Examples Project anticipated grievances and complaints

Grievances that may come from workers include:	**Grievances from local communities or PAPs may include:**
• Unfair dismissal from work; • Suspected corruption and theft cases;	• Unfair compensation; • Objections to the use of someone's land; • Encroachment on private land;

Grievances that may come from workers include:	Grievances from local communities or PAPs may include:
• Lower wages than the minimum set by labor-related legislation in Malawi; • delayed wages; • Working hours; • Child labor; • Gender-based violence; and • Sexual exploitation and abuse.	• Delayed compensations; • Quality of infrastructure constructed; • Gender-based violence; • Sexual exploitation and abuse; • Theft of property during construction and public works etc.

15.4 Implementation of the GRM

The GRM structure will have 5 stages from when a grievance is first reported to when it is resolved. These stages are outlined below as follows;

Stage 1: Complaint Uptake

All the PAPs in the community and workers will present their complaints or grievances to the CGRC or the WGRMC. In addition, complaints drop-in boxes will also be provided in all the villages to facilitate easy uptake of grievances. A message or WhatsApp number will also be provided for the communities to present their grievances. Complaints may also be channelled directly to the following address in writing or telephone:

- *The Project Coordinator*
- *Southern African Trade and Connectivity*
- *Roads Authority*
- *Private Bag B346*
- *Lilongwe 3*

The CGRC will record all received complaints or grievances in a Community Grievance Log and Resolution Form (Annex 15). The case shall only be referred to the District Grievance Redress Committee if it has not been resolved at the CGRC. Otherwise, the preferred scenario is to have grievances resolved at the lowest levels possible. Criminal cases will not be handled by the respective CGRC, will be reported directly to the police.

Stage 2: GRM Registry

All grievances received will be publicly entered into an accessible entering recording system as the GRM registry shall be maintained at both community and district levels. The community log and resolution form shall be in triplicate. For any case heard, closed, or referred, a copy of this case shall be sent to the DGRC. This shall enable the district to keep a register of all cases recorded and handled by any GRM committee in their district. Using this information, councils will be able to generate a matrix of cases and agreed resolutions and be able to follow up if the resolutions are being implemented.

Stage 3: Assessment, Analysis, and Response

When a complaint is received by GRC, the GRM provides that a resolution be provided within 15 working days. This is so to make sure that grievances/complaints are resolved as early as possible and that feedback is provided to the complainant. Once complaints are received, the CGRC shall assess whether the complaint/grievance is related to the project or not. In case, complaints are not related to the project, Persons Affected with Project (PAPs) shall be advised to channel their complaints to the right institutions.

Stage 4: Resolution and Closure

Where a resolution has been arrived at and the PAP accepts the resolution, the PAP shall be required to sign the resolution and closure section in the Grievance Community Log and Resolution Form as attached. Two members of the CGRC (Chairperson and Secretary) shall also be required to countersign. If the grievance has not been resolved at CGRC, it will be referred to District GRC and if the resolution is not reached at this level, the PAP has the option of seeking legal redress from civil courts.

Stage 5: GRM Monitoring and Evaluation

The GRM evaluation can be undertaken alongside any other evaluation exercises for the project. This will be possible using copies of registers that Councils and RA will be keeping. The monitoring will assist to track whether the GRM system is working efficiently and effectively and will inform the project to make any necessary adjustments. The evaluation will help to assess the impact of GRM in response to people's complaints and whether the GRM principles were met or not during the project implementation.

15.5 Grievances Processes and Institutional Arrangements

The Grievance redress system shall be established at three levels, Community Grievance Redress Management Committee (CGRMC) at the community level and Workers Grievance Redress Mechanism Committee at the Construction site level, District Grievances Redress Mechanism (DGRMC) at the District level. Summary of Membership is indicated in the below table 15-2:

Table 15-2: Summary of Membership

Community Grievance Redress Management Committee (CGRMC)	Workers Grievance Redress Management Committee (WGRMC)	District Grievances Redress Management Committee (DGRMC)
• A representative of the people directly impacted by the project (PAPs) • Lands Officer • Contractors Representative • Engineers Representative • Representation of Chiefs • Women Representative • Youth Representative • Village Development Committee Chairperson	• Two worker representatives • Client representative • Consultant representative • Contractor representative	• Director of Public Works • The District Lands Officer • The District Community Development Officer • Environmental District Officer • District Labour Officer • Gender Officer • HIV/AIDS Officer • Consultants representative

Roads Authority in collaboration with District Councils shall establish and orient the CGRMC for every sub-project. The contractor, workers, and the communities shall be sensitized of the existence of the CGRMC at this level. The committees at this level shall record, vet, and hear cases as submitted to them by PAPs at community and construction site levels. If the PAP will be satisfied with the resolution, the case will be closed. The same procedure will also apply for the WGRMC.

If cases at the CGRMC or the WGRMC are not closed, the grievances shall be referred to the DGRMC. The PAP shall be communicated that his/her issue was referred to the upper committee for a hearing. The DGRMC shall receive and record the cases as referred to them by the CGRMC. This committee shall hear the case from the PAP and review the decision made by either CGRMC. If the PAP will be satisfied with the decision, the case will be closed. Where the case was not closed at DGRMC level, the PAP shall be advised to seek justice from the Court of Law and the decision made by the Court of Law shall be final. Some cases such as rape and theft which need evidence in the court may go straight to court by PAPs to avoid the destruction of evidence required legally.

15.6 World Bank Group (WBG) Grievance Redress Service

Communities and individuals who believe that they are adversely affected by a WBG supported program may submit complaints to existing program-level grievance redress mechanisms or the WBG ‘s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address program-related concerns. Program affected communities and individuals may submit their complaint to the WBG ‘s independent Inspection Panel which determines whether harm occurred or could occur, as a result of WBG non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the WBG ‘s attention, and WBG Management has been allowed to respond. For information on how to submit complaints to the WBG‘s corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS.

A detailed feedback and grievance mechanism will be included in the Operations Manual for the overall functioning of the two programs. It will be ensured that the grievance mechanisms will include the necessary procedures for disclosure and resolution of environmental and social related grievances of each Project.

The grievance mechanism will detail procedures on how grievances related to proposed projects are dealt with, including how, when, and where project information is disclosed, who will receive and respond to grievances, when grievances are referred to higher levels, and how grievances are ideally resolved. It is anticipated that the grievance mechanism will contain procedures for addressing grievances at different levels, including at district, region, national, etc levels with multiple lines of reporting and special attention to grievance channels for vulnerable groups. In case of any request, it is anticipated that grievances can be put forward both in writing and orally.

Based on the Bank’s Grievance Redress Service (GRS), project-affected communities and individuals may submit complaints regarding a Bank-financed project to the project grievance redress mechanism, appropriate local grievance mechanism, or the World Bank’s corporate Grievance Redress Service (GRS). Annex 13 provides generic GRM forms for recording grievance emanating from the project.

16 REFERENCES

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17 ANNEXES

Annex 1: List of Subprojects that are not eligible for Funding

Subproject that are not eligible for funding
Subprojects that will block the access to water points etc. used by others
Subprojects that will cause encroachment to, and adversely affect, important natural habitats (e.g., wildlife reserves; parks or sanctuaries; protected areas; natural habitat areas, forests and forest reserves, wetlands, national parks or game reserve; any other ecologically/environmentally sensitive areas)
Subprojects that will impact on physical cultural resources (archaeological sites; religious monuments or structures; natural sites with cultural values; cemeteries; graveyards; graves; and other sites of significance)
Subprojects that will be located in protected areas and ecologically sensitive sites
Subprojects that would not disadvantage or give advantage to community members.
Subproject that will contravene international and regional conventions on environmental and social issues
Subprojects that cause large-scale physical disturbance of the site or the surroundings

Annex 2 :Environmental and Social Screening Form

GUIDELINES FOR SCREENING

The evaluator should undertake the assignment after:

1. Gaining adequate knowledge of baseline information of the area.
2. Gaining knowledge of proposed project activities for the area.
3. Having been briefed/trained in environmental and social screening.

The form is to be completed by consensus of at least three people, knowledgeable of the screening process.

PART A: GENERAL INFORMATION

Project Name	Estimated Cost (MK)
Project Site	Funding Agency
Project Objectives	Proposed Main Project Activities
Name of Evaluator	Date of Field Appraisal

PART B: BRIEF DESCRIPTION OF THE PROPOSED ACTIVITIES

Provide information on the type and scale of the construction/rehabilitation, livelihood, TA activity (e.g. area, land required and approximate size of any structures or restoration actions).

Provide information on the activities including support/ancillary structures and activities required to build them, e.g. need to quarry or excavate borrow materials, water source, access roads etc.

Describe how the activities will be carried out. Include description of support/activities and resources required.

PART C: ENVIRONMENTAL BASELINE INFORMATION OF THE PROJECT SITE

CATEGORY OF BASELINE INFORMATION	BRIEF DESCRIPTION
GEOGRAPHICAL LOCATION • Name of the Area (District, T/A, Village) • Proposed location of the project (Include a site map of at least 1:10,000 scale)	

CATEGORY OF BASELINE INFORMATION	BRIEF DESCRIPTION
LAND RESOURCES • Topography and Geology of the area • Soils of the area • Main land uses and economic activities	
WATER RESOURCES • Surface water resources (e.g. rivers, lakes, etc.) quantity and quality • Ground water resources quantity and quality	
BIOLOGICAL RESOURCES • Flora (include threatened/endangered/endemic species) • Fauna (include threatened/endangered/endemic species) • Sensitive habitats including protected areas e.g. national parks and forest reserves	
CLIMATE • Temperature • Rainfall	

PART D: SCREENING CRITERIA FOR IMPACTS DURING CONSTRUCTION

	AREAS OF IMPACT			**IMPACT EVALUATION**						**POTENTIAL MITIGATION MEASURES**
	Is the project site/activity within and/ or will it affect the following environmentally sensitive areas?			Extent or coverage (On site, within 3km -5km or beyond 5km)			Significance (Low, Medium, High)			
1.		No	Yes	On Site	Within 3-5 km	Beyond 5km	Low	Medium	High	
1.1	National parks and game reserve									
1.2	Wet-lands									
1.3	Productive traditional agricultural /grazing lands									
1.5	Areas with rare or endangered flora or fauna									
1.6	Areas with outstanding scenery/tourist site									
1.7	Within steep slopes/mountains									
1.8	Dry tropical forests such as *Brachystegia* species									
1.9	Along lakes, aquifers, riverine ecosystems									
1.10	Near industrial activities									
1.11	Near human settlements									
1.12	Near historic, archaeological, sacred or other cultural heritage sites									
1.13	Within prime ground water recharge area									
1.14	Within prime surface run off									
1.15	Near boreholes or other potable drinking water sources									

2.0	SCREENING CRITERIA FOR IMPACTS DURING IMPLEMENTATION AND OPERATION									
	Will the implementation and operations of the project activities within the selected site generate the following externalities /costs /impacts?									
		No	Yes	On Site	Within 3-5 km	Beyond 5km	Low	Medium	High	
2.1	Deforestation									
2.2	Soil erosion and siltation									
2.3	Siltation of watercourses, dams									
2.4	Environmental degradation arising from mining of construction materials									
2.5	Damage of wildlife species and habitat									
2.6	Pollution from Pesticides									
2.7	Nuisance - smell or noise									
2.8	Reduced water quality									
2.9	Increase in costs of water treatment									
2.10	Soil contamination									
2.11	Loss of soil fertility									
2.12	Reduced flow and availability of water									
2.13	Long term depletion of water resource									

2.14	Incidence of flooding									
2.15	Changes in migration patterns of animals									
2.16	Introduce alien plants and animals									
2.17	Increased incidence of plant and animal diseases									

3.0 SCREENING CRITERIA FOR SOCIAL AND ECONOMIC IMPACTS									
	Will the implementation and operation of the project activities within the selected site generate the following socio-economic costs/impacts?								
		No	Yes	On Site	Within 3-5 km	Beyond 5km	Low	Medium	High
3.1	Loss of land/land acquisition for human settlement, farming, grazing								
3.2	Loss of assets, property- houses, agricultural produce etc.								
3.3	Loss of livelihood								
3.4	Require a RAP								
3.5	Loss of cultural sites, graveyards, monuments[46]								
3.6	Disruption of social fabric								
3.7	Interference in marriages for local people by workers								
3.8	Spread of STIs and HIV and AIDS, due to migrant workers								

[46] ***NOTE:*** *Sub-projects affecting cultural property negatively will either require specific institutional arrangements to be followed for funding or will not be funded depending on the location of the project*

3.9	Increased incidence of communicable diseases								
3.10	Health hazards to workers and communities								
3.11	Changes in human settlement patterns								
3.12	Conflicts over use of natural resources e.g. water, land, etc.								
3.13	Conflicts on land ownership								
3.14	Disruption of important pathways, roads								
3.15	Increased population influx								
3.16	Loss of cultural identity								
3.17	Loss of income generating capacity								
3.18	Potential for child labor								
3.19	Potential for forced labor								
3.20	Risks associated with community labor								
3.21	Dam safety risks								

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

The result of the screening process would be either (I) the proposed project would be permitted to proceed on the site, provided that standard good environmental and social practices are followed during project construction and operation, including the Environmental Rules for Contractors (typically Low Risk); (ii) the proposed project would need its own specific Environmental and Social Management Plan[47] (ESMP), but not a separate ESIA; or (iii) the proposed project would need its own ESIA (including an ESMP), with the ESIA [48] subject to review by Malawi's Environmental Affairs Department.

Some examples are provided in the table below:

[47] Which may include as part of the ESMP document or be presented as stand-alone instruments such as but not restricted to Resettlement Action Plan, OHS Procedures, Emergency Response Plan, Dam Safety Plan, Waste Management Plan, Biodiversity Management Plan, Labor Management Plan, Cultural Heritage Management Plan.

[48] Which may include as part of the ESIA document or be presented as stand-alone instruments such as but not restricted to Resettlement Action Plan, OHS Procedures, Emergency Response Plan, Dam Safety Plan, Waste Management Plan, Biodiversity Management Plan, Labor Management Plan, Cultural Heritage Management Plan.

The Proposed Project Activity Can Be Exempted from ESIA and/or RAP Requirements on The Following.	The Proposed Project Activity Needs an EMP and possibly also an ESIA.
• Screening indicates that the site of the project will not be within environmentally–sensitive areas. e.g. protected areas	• Field appraisals indicate that the project site is within environmentally –sensitive areas, protected areas.
• No families will be displaced from the site	• Cause adverse socio-economic impacts
• Identified impacts are minor, marginal and of little significance	• Significant number of people, families will be displaced from site
• Mitigation measures for the identified impacts are well understood and practiced in the area	• Some of the predicted impacts will be long term, complicated, extensive
• The stakeholders have adequate practical experiences in natural resource conservation and management.	• Appropriate mitigation measures for some predicted impacts are not well known in the area

5.0 FIELD APPRAISAL DECISION

- **The sub-project can be considered for approval.** Based on a site visit and consultations with both interested and affected parties, the field appraisal determined that the community and its proposed project adequately address environmental and/or social issues as required by the ESMF.

- **Further sub-project preparation work is required before the application can be considered further.** The field appraisal has identified environmental and/or social issues that have not been adequately addressed. The following work needs to be undertaken before further consideration of the application:

Completion by EDO, or EO	
Is This Project Likely to Need An ESIA	YES/ NO
List A/B Paragraph Numbers	

Completion by Director of Environmental Affairs	
Date Received from District Assembly:	
Dated Reviewed:	

Date Exempted	
Date Forwarded to DEA Head Office	
Name & Signature of EDO	

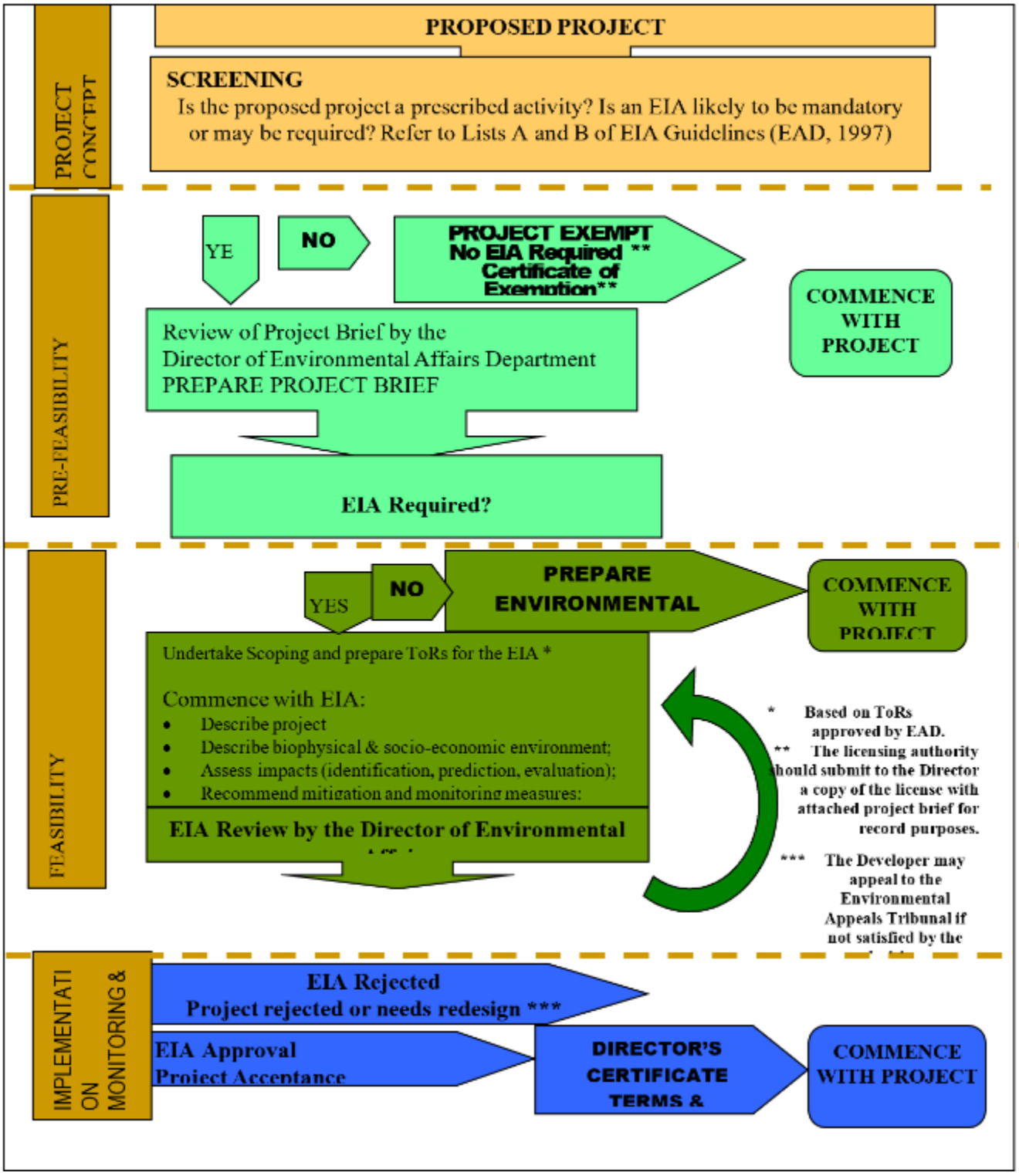
Date of Submission of Project Brief	
Date of Submission of EIA Reports	
Date of Approval/Rejection	

NOTES:

- Once the Environmental and Social Screening Form is completed it is analysed by experts from the District Environmental Sub-Committee who will classify it into the appropriate risk rating based on a predetermined criterion and the information provided in the form.
- All projects' proponents exempted from further impact assessment must be informed to proceed with other necessary procedures.
- All projects recommended for a specific ESIA will have to follow the procedures outlined in section 24 and 25 of the Environmental Management Act, and the Malawi Government's Guidelines for Environmental Impact Assessment Appendix C, page 32.

Annex 3: General EIA Process in Malawi (from EIA Guidelines 1997, EAD)

This chart depicts the Government of Malawi's Environmental Impact Assessment (EIA) review process for development projects with significant environmental impacts. This review process is led by the Environmental Affairs Department (EAD).



Annex 4: Environmental Rules for Contractors

These Environmental Rules for Contractors are prepared for all the contractors to be engaged for the SATC construction activities. The rules include provisions for proper management of construction sites, safe storage of construction materials and safe disposal of wastes.

General Considerations

- The contractor shall, in all his activities ensure maximum protection of the environment and the socio-economic wellbeing of the people affected by the project, whether within or outside the physical boundaries of the project area.

- Before any construction works begin, the contractor shall ensure that the relevant environmental and land acquisition certificates of authorization for the works have been obtained from the Director of Environmental Affairs and/or the Commissioner for Lands.

- In general, the contractor shall familiarize himself with the ESMF and the RPF for the Project Specifically, the contractor shall make every effort to follow and implement the recommendations and mitigation measures of the ESMP and the RAPs, to the satisfaction of the RA and the EAD, or any such persons or agencies appointed by the RA or the EAD, to inspect the environmental and social components of the Project.

- The contractor shall work in cooperation and in coordination with the Project Management Team and/or any other authority appointed to perform or to ensure that the social and environmental work is performed according to the provisions of the ESMF and RPF for the Project, along with any specific RAP and/or ESMP.

- The contractor shall always keep on site and make available to Environmental Inspectors or any authorized persons, copies of the EMPs, RAPs and any other relevant documents for the monitoring and evaluation of environmental and social impacts and the level or progress of their mitigation.

Acquisition of Construction Materials

The contractor shall ensure that construction materials such as sand, quarry stone, soils or any other construction materials are acquired from approved suppliers and that the production of these materials by the suppliers or the contractor does not violate the environmental regulations or procedures as determined by the EAD.

Movement and Transportation of Construction Materials

The movement and transportation of construction materials to and within the construction sites shall be done in a manner that generates minimum impacts on the environment and on the community, as required by the ESMP and/or the RAP.

Fencing of Construction sites

Construction sites refer to all areas required for construction purposes, including quarries, staff/employee living quarters. The boundaries of the site shall be demarcated prior to any work commencing on the site. It is the responsibility of the contractor to decide on an appropriate system of protective fencing for the site. The site boundary demarcation fence shall be removed when the site is decommissioned and full or almost fully restored to its original state.

The Contractor shall ensure that all their plants, labour and materials remain within the boundaries of the site and he shall ensure that materials used for construction on the site do not blow on or move outside the site.

Storage of Construction Materials and Equipment

Construction materials shall be stored in a manner to ensure that:

- There is no obstruction of service roads, passages, driveways and footpaths;
- Where it is unavoidable to obstruct any of the service paths, the contractor shall provide temporary or alternate by-passes without inconveniencing the flow of traffic or pedestrians;
- There is no obstruction of drainage channels and natural water courses;
- There is no contamination of surface water, ground water or the ground;
- There is no access by public or unauthorized persons, to materials and equipment storage areas;
- There is no access by staff, without appropriate protective clothing, to materials and equipment storage areas;
- Access by staff and public or unauthorized persons, to hazardous, corrosive or poisonous substances including sludge, chemicals, solvents, oils, asbestos cement dust or their receptacles such as boxes, drums, sacks and bags is prohibited.

Solid Waste Management

The Contractor shall institute a waste control and removal system for the site. All wastes shall be disposed of offsite at an approved landfill site in consultation with the District Council. Burning of any waste on any construction site is forbidden. The Contractor shall supply waste bins throughout the site at locations where construction personnel are working. The bins shall be provided with lids and an external closing mechanism to prevent their contents blowing out and shall be scavenger-proof to keep out and other animals that may be attracted to the waste. The Contractor shall ensure that all personnel immediately deposit all waste in the waste bins for removal by the Contractor. Bins shall be emptied on a daily basis and waste removed to a temporary storage site where it shall be properly contained in water and windproof containers until disposed of. The bins shall not be used for any purposes other than waste collection.

In performing his activities, the contractor shall use the best practical means for preventing emissions of noxious or offensive substances into the air, land and water. He shall make every effort to render any such emissions (if unavoidable) inoffensive and harmless to people and the environment. The means to be used for making the emissions harmless or for preventing the emissions shall be in accordance to the RAP and/or the EMP, and with the approval of the relevant Local Authority or the Environmental Affairs Department.

The contractor shall, in particular, comply with the regulations for disposal of cement pipes, construction/demolition wastes, wastewater, combustion products, dust, metals, rubble and timber. Wastewater treatment and discharge will conform to the applicable regulations by the relevant Local Authority and Ministry of Water Development and Irrigation. Hazardous wastes shall be treated and

disposed of in conformity with the national regulations and where applicable, with the supervision of qualified personnel.

Wastewater Management

The Contractor shall construct and operate the necessary collection and waste treatment facilities for waste water to prevent pollution. In case where water is mixed with oil/waste, separators shall be installed. The oil should be stored in tanks or drums as hazardous waste and disposed off in approved manner. The Contractor shall dispose of collected waste water in a manner agreed with the respective councils and Environmental Affairs Department.

The Contractor may discharge "clean" silt laden water overland, preferably grass land at the construction site and allow this water to filter into the ground. However, the Contractor shall ensure that he does not cause soil erosion as a result of any overland discharge.

All washing equipment shall take place within the construction camp. Water from washing operations shall be collected in a conservancy tank, remove them from the site and disposed of in the agreed manner. The Contractor is encouraged to recycle dirty wash water to minimise the amount required to be off site.

Trucks delivering concrete shall not wash the trucks on the site or in any environmentally sensitive areas. All washing operations shall take place off-site at a location where waste water can be disposed of in an acceptable manner.

Kitchen wastes shall be disposed into soak pits. Wastewater from campsites will be discharged and disposed in a kitchen sump located at least 15 meters from any body of water. Sump capacity should be at least 1.3 times the maximum volume of wastewater discharged. The bottom of the pit should be filled with course gravel and the sides shored up with board, and so forth to prevent erosion and collapse of the pit. Sanitary wastes shall be disposed into septic tanks.

Stockpiles, Borrow Pits and Quarries

Borrow pits and quarries shall be prohibited where they might interfere with the natural or designed drainage patterns. River locations shall be prohibited if they might undermine or damage the riverbanks, or require works in the wetted area, which may carry too much fine material downstream. The Contractor shall ensure that all borrow pits and quarries are rehabilitated to its original or near condition after construction finishes.

Site Restoration

The Contractor shall ensure that all temporary structures, equipment, materials, and facilities used for construction activities are removed upon completion of the project. Any oil and fuel contaminated soil shall be removed and buried in waste disposal areas. Soak pits and septic tanks shall be covered and effectively sealed off and the sites shall be grassed and all the sites shall be restored to a similar condition to that prior to the commencement of the works or to a condition agreed to with council officials. The ESMP will also specify occupational health and safety measures to be followed during project construction including measures to raise awareness and to prevent the spread of HIV/AIDS and other sexually transmitted diseases.

Health and Safety of Workers

The contractor shall protect the health and safety of workers by providing the necessary and approved protective clothing and by instituting procedures and practices that protect the workers from dangerous operations. The contractor shall be guided by and shall adhere to the relevant national Labour Regulations for the protection of workers. In addition, the contractors should indicate specific measures they will take during construction to prevent HIV-AIDS transmission by the work force, in relation or in addition to those indicated in the EMP

Natural Habitats

In all relevant civil works projects, the contractor shall locate project facilities (permanent and temporary) so as to avoid or minimize the clearing of natural vegetation. The contractor shall enforce a strict prohibition on the washing of vehicles or changing of lubricants in waterways or wetlands,

Chance Finds Procedures for Physical Cultural Resources

If, during project construction, the contractor or project workers encounter archaeological relics, fossils, human remains, or other items of historical or other cultural value, the Contractor shall (I) temporarily suspend any works which might damage these items and (ii) notify the Client who then notifies the competent authority for instructions or guidance regarding the appropriate next steps to evaluate, salvage, recover, protect, and/or document the items found.

Worker Behaviour

To help ensure that good environmental and social practices are consistently followed throughout project construction and operation, all workers, operational staff, and contract personnel shall be prohibited from (I) hunting, (ii) fishing, (iii) wildlife capture, (iv) bush-meat purchase, (v) plant collection, (vi) unauthorized vegetation burning, (vii) speeding, (viii) weapons possession (except by security personnel), (ix) working without Personal Protection Equipment (PPE), (x) inappropriate interactions with local people, (xi) disrespecting local customs and traditions, (xii)littering of the site and disposing trash in unauthorised places, (xiii) Use of alcohol by workers during working hours, (xiv) sexual harassment, or (xv) building fires outside camp areas without being authorised.

Annex 5:Chance Finds Procedures

Introduction

Cultural property includes monuments, structures, works of art, or sites of significance points of view, and are defined as sites and structures having archaeological, historical, architectural, or religious significance, and natural sites with cultural values. This includes cemeteries, graveyards and graves.

Screening for the project indicated that Cultural Physical Resources were unlikely to be at risk as a result of the projects. Nonetheless, there is the possibility that unexpected cultural heritage items could be discovered during sub-project screening or even during the implementation of works – 'Chance Finds'.

Chance Finds Procedure

If the Contractor discovers archaeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor/Masons shall:

This procedure is to be followed in the event of a Chance Find:

1: Excavation in sites of known archaeological interest should be avoided and as stated in annex 1, such subprojects are not eligible for funding. Where historical remains, antiquity or any other object of cultural, historical or archaeological importance (including graveyards) are unexpectedly discovered during construction in an area not previously known for its archaeological interest, the following procedures should be applied:

- Stop the construction activities in the area of the chance find.
- Delineate the discovered area.
- Secure the area to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible Regional authorities and the Department of Museums and Monuments or other relevant authority take over.
- Notify the RA or environmental and social safeguards specialist who in turn will notify the responsible local authorities and the Department of Museums and Monuments. (less than 24 hours).
- Responsible local authorities and the Department of Museums and Monuments would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This might require an evaluation of the findings to be performed by the archaeologists of the relevant authority (within 1 week). The evaluation of the findings will take in consideration various criteria relevant to cultural heritage, including the aesthetic, historic, scientific or research, social and economic values as decided by the Department of Museums and Monuments.
- Decisions on how to handle the finding shall be taken by the responsible authorities and the HPO. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage.
- Construction or rehabilitation work will resume only after authorization is provided by the responsible local authorities and the Department of Museums and Monuments concerning the safeguard of the heritage.
- Authorization to resume work shall be communicated to the contractor and/or RA in writing by the Department of Museums and Monuments.

2: In case of delays incurred indirect relation to any physical cultural resources findings not stipulated in the contract (and affecting the overall schedule of works), the contractor/masons may apply for an extension of time. However, the contractor/masons will not be entitled to any kind of compensation or claim other than what is directly related to the execution of the physical cultural resources findings works and protections.

These procedures must be referred to as standard provisions in contracts for all SATC project activities.

Reporting

During project supervision, the Site Supervisor shall monitor the above regulations relating to the treatment of any chance find encountered are observed. Relevant findings will be recorded in World Bank Supervision Reports and Implementation Completion Reports will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

Annex 6:Guideline for the preparation of site specific ESMP

ESMPs should demonstrate that proposed environmental and social management and monitoring activities will encompass all major impacts and how they will be integrated into subproject supervision. The ESMP should also describe proposed measures, methods, and actions to facilitate public consultation. It is important that the ESMP identify linkages to other social and environmental safeguards plans relating to the subproject, such as plans dealing with resettlement issues. Given the scale and nature of the subproject and the significance of the potential anticipated impacts, RA and Contractor will be responsible for preparing a sub project specific ESMP for identified subprojects in a format suitable for inclusion as technical specifications in the contract of each subproject beneficiaries, if applicable and required. ESMPs should be finalized and approved after taking into account comments from the EAD. The World Bank safeguards team will review and provide comments on draft site-specific instruments (if required) and monitor safeguards compliance, among others. Given below are the important elements that constitute an ESMP:

i) **Description of the sub project**: Scale nature and type of subprojects implemented under the proposed programs are summarized.

ii) **Description of Subproject implementation area:** The Biophysical and social environmental setting of the specific subproject implementation area are summarized

iii) **Impacts:** Predicted adverse environmental and social impacts (and any uncertainties about their effects) for which mitigation is necessary should be identified and summarized.

iv) **Description of Mitigation Measures**: Each measure should be briefly described in relation to the impact(s) and conditions under which it is required. These should be accompanied by and/or referenced to designs, development activities, operating procedures, and implementation responsibilities. Proposed measures and actions to facilitate public consultations should be clearly described and justified. Feasible and cost-effective measures to minimize adverse impacts to acceptable levels should be specified with reference to each impact identified. Further, the ESMP should provide details on the conditions under which the mitigation measure should be implemented. The ESMP should also indicate the various practicable measures applicable to the proposed subprojects at each project phases (design, construction and/or operation). Efforts should also be made to mainstream environmental aspects wherever possible.

v) **Description of monitoring program:** The ESMP identifies monitoring objectives and specifies the type of monitoring required; it also describes performance indicators which provide linkages between impacts and mitigation measures identified in the ESA report, parameters to be measured (for example: national standards, extent of impacted area to be considered, etc.), methods to be used, sampling location and frequency of measurements, and definition of thresholds to signal the need for corrective actions. Monitoring and supervision arrangements should be agreed by the Bank and the borrower to: ensure timely detection of conditions requiring remedial measures in keeping with

best practice; provide information and the progress and results of mitigation and institutional strengthening measures; and, assess compliance with National and World Bank environmental safeguard policies

vi) **Institutional arrangements**: Institutions responsible for implementing mitigation measures and for monitoring their performance should be clearly identified. Where necessary, mechanisms for institutional coordination should be identified, as often, monitoring tends to involve more than one institution. This is especially important for subprojects requiring cross-sectoral integration. In particular, the ESMP specifies who is responsible for undertaking the mitigation and monitoring measures, e.g., for enforcement of remedial actions, monitoring of implementation, training, financing, and reporting. Institutional arrangements should also be crafted to maintain support for agreed enforcement measures for environmental protection. Where necessary, the ESMP should propose strengthening the relevant agencies through such actions as: establishment of appropriate organizational arrangements; appointment of key staff and consultants.

vii) **Implementing schedules:** The timing, frequency and duration of mitigation measures and monitoring should be included in an implementation schedule, showing phasing and coordination with procedures in the overall subproject implementation/operations manual. Linkages should be specified where implementation of mitigation measures is tied to institutional strengthening and to the subproject legal agreements, e.g. as conditions for loan effectiveness or disbursement.

viii) **Reporting procedures**: Feedback mechanisms to inform the relevant parties on the progress and effectiveness of the mitigation measures and monitoring itself should be specified. Guidelines on the type of information required and the presentation of feedback information should also be highlighted.

ix) **Cost estimates and sources of funds:** Implementation of mitigation measures mentioned in the ESMP will involve an initial investment cost as well as recurrent costs. The ESMP should include cost estimates into the sub-project design, bidding and contract documents to ensure that the contractors will comply with the mitigation measures. The costs for implementing the ESMP will be included in the sub-project design, as well as in the bidding and contract documents. It is important to capture all costs – including administrative, design and consultancy, and operational and maintenance costs – resulting from meeting required standards or modifying subproject design.

To ensure unique identification and to cater for changes in administrative borders or names, the ESMP further requires entering of GPS coordinates of the location, if applicable. For each potential impacts of the subproject, corresponding mitigation measures, and who is responsible for implementation is indicated. For each potential environmental and social impact, there can be more than one mitigation measure. Responsibility for implementation of mitigation measures will typically rest with the contractor and RA during construction and operation of the subprojects.

The monitoring section of the ESMP prescribes indicators for monitoring the environmental and social impact and the effects of mitigation measures. The responsibility for this will typically rest with the RA, EAD, NEC, District, Contractor, etc. in collaboration with the respective pertinent institutions. A template for ESMP is depicted in annex 7 below.

Annex 7:Suggested Environmental and Social Management Plan (ESMP) Template for a Subproject

Subproject identification					
Subproject title/Name					
Region				***District***	
community		***Location GPS coordinates***			

Description of the subproject activity
Description of potential environmental and social impacts;
Description of planned mitigation measures and monitoring along with institutional responsibilities and capacity/training requirements

Environmental and Social Management Plan-Mitigation					
Project Phase	**Project activity**	**Environmental Impacts**	**Mitigation/ enhancement measures**	**Institutional responsibilities**	**Cost**
Pre-construction					
Construction					
Operation and maintenance					
Total mitigation costs					

Environmental and Social Management Plan-Monitoring							
Project Phase	**Mitigation measures**	**Parameters to be monitored**	**location**	**measurements**	**frequency**	**Institutional responsibilities**	**Cost**
Pre-construction/ activities							
Construction/ activities							
Operation and maintenance/ activities							
Total monitoring costs							

Annex 8:Guidelines for Annual Reviews

Objectives:

The objectives of annual reviews of ESMF implementation are two-fold:

a) To assess the two programs performance in complying with ESMF procedures, learn lessons, and improve future performance; and

b) To assess the occurrence of, and potential for, cumulative impacts due to subprojects.

The two programs management is expected to use the annual reviews to improve on procedures and capacity for integrating natural resources and environmental/social management into proposed programs operations. They will also be a principal source of information to Bank supervision missions.

Scope of Work:

ESMF Performance Assessment

The overall scope of the performance assessment work is to:

a) Assess the adequacy of the subproject approval process and procedures based on interviews with Project participants, Project records, and the environmental and social performance of a sample of approved subprojects;

b) Assess the adequacy of ESMF roles and responsibilities, procedures, forms, information resource materials, etc.;

c) Assess the needs for further training and capacity building;

d) Identify key risks to the environmental and social sustainability of subprojects; and

e) Recommend appropriate measures for improving ESMF performance.

The following tasks will be typical:

a) Review national, regional and District records of subproject preparation and approval (e.g. applications; management in the region and District; screening checklists; EMPs, appraisal forms; approval documents), as well as related studies or reports on wider issues of natural resources and environmental management in the country.

b) On the basis of this review, conduct field visits of a sample of approved subprojects to assess the completeness of planning and implementation work, the adequacy of environmental/social design, and compliance with proposed mitigation measures. The sample should be large enough to be representative and include a substantial proportion of subprojects that had (or should have had) a field appraisal according to established ESMF criteria. Subprojects in sensitive natural or social environments should especially be included.

c) Interview national, regional and District officials responsible for subproject appraisal and approval to determine their experience with ESMF implementation, their views on the strengths and weaknesses of the ESMF process, and what should be done to improve performance.

   Improvements may concern, for example, the process itself, the available tools (e.g. guidelines, forms, information sheets), the extent and kind of training available, and the amount of financial resources available.

d) Develop recommendations for improving ESMF performance.

Cumulative Impacts Assessment

This part of the annual review assesses the actual or potential cumulative impacts of subprojects with other subprojects or development initiatives on the environment, natural resources and community groups, if applicable. Cumulative impacts result from a number of individual small-scale activities that, on their own, have minimal impacts, but over time and in combination generate a significant impact. For example:

a) Decline in groundwater levels or quality due to the abstraction of waters from limited natural water sources or wells and the introduction of numerous other small-scale subprojects affecting the available water potential in the area;

b) Overwhelmed or illegal waste and dumping sites due to the inappropriate disposal of increasing amounts of waste materials; and

c) Attraction of migrant populations to communities that have successfully introduced improved social infrastructure (such as schools, health facilities or water sources) resulting in depletion of resources (e.g., supplies, water), etc.

The function of this assessment is primarily as an "early warning" system for potential cumulative impacts that might otherwise go undetected and unattended to. It will be largely based on the observations of people interviewed during the fieldwork, and trends that may be noticed by regional or District officials. Where cumulative impacts are detected or suspected, recommendations will be made to address the issue, perhaps through more detailed study to clarify matters and what should or can be done about them.

Qualifications for Undertaking Annual Reviews:

The annual reviews shall be undertaken by an individual, or small team, with experience relevant to the likely issues to be encountered (e.g. environmental and natural resources management, land acquisition and resettlement, livelihood restoration). They should also be familiar with the methods and practices of effective community consultation, and with typical methods and processes for preparing, appraising, approving and implementing small-scale community development projects.

Timing:

Annual reviews should be undertaken after the annual ESMF report has been prepared and before WB supervision of the Project, at the closing of each year of the programs. It is expected that each review would require 3 to 4 weeks of work (interviews, examination of subprojects), and that the review report would be completed within 2 weeks of completing the fieldwork.

Outputs:

The principal output is an annual review report that documents the review methodology, summarizes the results, and provides practical recommendations. Distinct sections should address;

a) ESMF performance and

b) Cumulative impacts.

C) Measures to be taken

Annexes should provide the detailed results of the fieldwork, arid summarize the number of approved subprojects by state and their characteristics according to the annual report format.

Copies of the annual review report should be delivered to the two Programs management, to each national and regional office responsible for appraisal, approval and implementation of subprojects, and to the World Bank. The project management (national or regional) may also want to host national or regional workshops to review and discuss the review findings and recommendations.

Annex 9: Suggested Annual Report Template for a Subproject

Name of the Project: Application Number:

1. Name of District or Local Government:

2. Name and Position of Review Authority Completing the Annual Report:

3. Reporting Year:

4. Date of Report:

5. Sub-project (s):

Please enter the numbers of sub-projects in the following table.

Types of Sub Project Activities	**Approved this year**	**Application included an ESMF checklist**	**Field Appraisal**	**ESMP**	**ARAP**	**RAP**	**Specific TA**

Types of Sub Project Activities	Approved this year	Application included an ESMF checklist	Field Appraisal	ESMP	ARAP	RAP	Specific TA

6. Were there any **unforeseen environmental or social problems** associated with any sub-project approved and implemented this year? If so, please identify the sub-project (s) and summarize the problem (s) and what was or will be done to solve the problem (s). Use a summary table like the one below.

Sub-project	Problem(s)	Actions taken	Actions to be taken

7. Have any other environmental or social analyses **been carried out by other public or private agencies in your District/region? If so, please describe them briefly.**

……
……
……

8. Have you noticed any particular problems with implementing the ESMF **in the past year (e.g. administrative, communications, forms, capacity)? If so, please describe them briefly.**

……
……
……

9. Training: Please summarize the training received in your District/region in the past year, as well as key areas of further training you think is needed.

Group	Training Received	Training Needed

Annex 10: Suggested Forms for ESMF Reporting, Training and Follow-up

This annex contains three templates to be used in conjunction with monitoring and reporting and follow for ESMF implementation.

ESMF reporting form

Subproject title	Application received (date)	Field appraisal undertaken (date if undertaken)	Application approved (date if approved)	ESMP developed (yes or no)	Written warnings of violation of ESMP issued (yes/no)	Chance find procedures invoked (yes or no)

ESMF training form

Personnel	No. of people trained	Training received

Personnel	No. of people trained	Training received

Follow up on previous recommendations

Recommendation	Date of recommendation	Action taken	Recommendation implemented (yes/no)

Annex 11: Sample Terms of Reference (ToR) for ESIA Preparation

Based on the screening and scoping results, ESIA terms of reference will be prepared. The terms of reference will have the following contents.

I. **Objective of the TOR:** This section should state the scope of the ESIA in relation to the screening category and the proposed program activities. It needs to stipulate the process and the timing of the ESIA preparation and implementation stages in order to adequately address the safeguards requirements of the GoM and the World Bank.

II. **Introduction and Context:** The ToR needs to provide information on program activity objective, the name of the program activity proponent, the rational for conducting the ESIA, specific components of the program activity, program activity area with location map, short briefing of social and environment of settings and applicable national and international safeguard policies.

III. **Location of the study area and likely major impacts:** State the area involved and the boundaries of the study area for the assessment. Identify adjacent or remote areas which should be considered with respect to impacts of particular aspects of the program activity.

IV. **Mission/Tasks:** The ESIA study team/consultant should clearly execute the following tasks.

Task A: Description of the proposed program activity: Describe the location, size and nature of the program activity, environmental assessment category, brief description of program activity alternatives, time schedule for phasing of development (i.e. preconstruction, construction,

operation/maintenance, decommissioning), and resources (finance, human, material and technology) required for the program activity, among others.

Task B: Baseline information/Biophysical and social-economic description: Describe the baseline/biophysical and socio-economic characteristics of the environment where the program activity will be implemented; and area of influence. Include information on any changes anticipated before the program activity commences.

Task C: Administrative and legal Policy framework: In addition to the required administrative and institutional setup for the implementation of the program activity, this part needs to identify pertinent policies, regulations and guidelines pertinent to the study that include:

- ✓ National laws and/or regulations on environmental and social assessments;
- ✓ Regional environmental and social assessment regulations;
- ✓ Environmental and social assessment regulations of any other financing organizations involved in the program activity;
- ✓ Relevant international environmental and social agreements/conventions to which Malawi is a party; and
- ✓ World Bank safeguards policies.

Task D: Identification of potential impacts of the program activity: Identify all potential significant impacts that the program activity is likely to generate. Assess the impacts from changes brought about by the program activity on baseline environmental conditions as described under Task B. The analysis should address both the positive and negative impacts of the program activity. Wherever possible, describe impacts quantitatively, in terms of environmental and social costs and benefits.

Task E : Propose Program activity alternatives: Alternatives extend to site, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. Compare alternatives in terms of potential environmental and social impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements.

Task F: Preparation of an Environmental and Social Management Plan (ESMP): Describe the mitigation measures for adverse environmental and social impacts, staffing/institutional and training requirements, schedules, and other necessary support services to implement the mitigating measures. Provide environmental and social protection clauses for application by contractors and consultants, if any. The ToR should state that the concerned and affected parties should agree on the proposed mitigating measures before they are included in the ESMP.

Task G: Monitoring Plan: This organizes a comprehensive plan to monitor the implementation of mitigating measures and the impacts of the program activities. It should also address an estimate of capital and operating costs and a description of other inputs (such as training and institutional strengthening) needed to implement the plan.

V. Qualification of the ESIA study team/Consultant: The ToR should provide clear guidance on the qualification of the ESIA study team.

VI. Duration of the ESIA Study: This should be determined according to the type of the program activity.

VII. Preparation of the final Report: The ESIA study team/consultant will produce the final report one week after receiving comments from program activity proponent and concerned stakeholders. The final report will include comments from these institutions.

VIII. Suggested Contents of the ESIA Report:

- Executive Summary
- Introduction
- Methodology
- Administrative, legal and policy requirements
- Description of program activity (need, objectives, technical details, size, location input and other relevant requirements)
- An outline of the main development alternatives
- Description of baseline information/environmental and socio-economic conditions
- An account of the prediction and assessment of each impact at all stages of the program activity cycle for each alternative
- Description of the methodology and techniques used in assessment and analysis of the program activity impacts
- Description of environmental and social impacts for program activity
- Environmental and Social Management Plan (ESMP) for the project including the proposed mitigation measures**;**
- Institutional responsibilities for monitoring and implementation; Summarized table for ESMP.
- Conclusions and recommendations
- References
- Annexes
    - ✓ List of Persons/Institutions met
    - ✓ List of the ESIA study team members
    - ✓ Minutes of consultations

Annex 12: Indicative Pest Management Plan Guidelines

Overview

If the proposed project (SATCP) through any of its subprojects purchases or uses chemicals to manage pests (including herbicides, fungicides, insecticides, mildewcides, or other pesticides), then at a minimum, the project must not purchase or use chemicals which are currently or are soon to be prohibited by law or international agreement. A list of these pesticides appears in this document. In addition, the project must adhere to good practice and follow the laws and guidelines that are available in the host country.

When there are significant pest management issues identified, a Pest Management Plan (PMP) will need to be prepared. Significant pest management issues are described as (a) new land-use development or changed cultivation practices in an area, (b) significant expansion into new areas, (c) diversification into new crops in agriculture, (d) intensification of existing low-technology systems, (e) proposed procurement of relatively hazardous pest control products or methods, or (f) specific environmental or

health concerns (for example, proximity of protected areas or important aquatic resources or worker safety issues). A PMP is also prepared when pest control products represent a large component of the project. The World Bank Group Pest Management Policy refers to 'pesticides' to include all chemicals used for the control of target pests (that is, herbicides, fungicides, insecticides, mildewcide, biocide, algaecide, and so on).

The PMP is a comprehensive framework through which pest management is defined and accomplished. The plan should identify elements of the program to include health and environmental safety, pest identification, and pest management, as well as pesticide storage, transportation, use, and disposal. The PMP is to be used as a tool to reduce reliance on pesticides, enhance environmental protection, and maximize the use of integrated pest management techniques. The PMP should apply to all the activities and individuals working on the project or activity. The PMP should be consistent with Integrated Pest Management (IPM) and emphasize that nonchemical control efforts will be used to the maximum extent possible before pesticides are used.

The PMP must contain pest management requirements; outline the resources necessary for surveillance and control; and describe the administrative, safety, and environmental requirements. The plan should provide guidance for operating and maintaining an effective pest management program/activity. Pests included in the plan may be weeds and other unwanted vegetation, crawling insects, and other vertebrate pests. Without control, these pests provoke plants' diseases. Adherence to the plan will ensure effective, economical, and environmentally acceptable pest management and will maintain compliance with pertinent laws and regulations.

Definition:

An Integrated Pest Management (IPM) plan is a conservation activity plan documenting decisions by producer/growers who agree to implement an ecosystem-based strategy that is a sustainable approach to manage pests using a combination of conservation practices and IPM techniques that are characterize as chemical tools, biological control, and habitat manipulation, modification of cultural practices and use of resistant varieties. Methods of chemical applications are selected in a manner that minimizes risks to human health, beneficial and non-target organisms, and the environment. The importance of "Integrated Pest Management activity plan" include, but are not limited to: Managing pests effectively and economically; Minimizing the risk associated with pest suppression; Producing quality commodities, etc.

The recommended structure of a PMP is presented in the following paragraphs:

1. **Background** which would outline (a) the *purpose* of the plan, (b) identify indicate *pest management authorities*, and (c) pest management program *objective*
2. **Responsibilities of individuals** (Project manager, SATCO Operations Officer, SATCP Environmental Officer and so on)
3. **General information** which should provide data on project description, objective, project area, such as land use and soil, in the area where the pesticides are applied, climate, geomorphology, settlements in the area of concern, population, surface water, and so on, as well as inventory of land use and layout of facilities
4. **Pest Management Concerns and Control Measures in Malwi**
    - Present Status and Need for the PMP

- Goal for Preparing PMP
- Pest and diseases Problems of agriculture in Malawi
- Control methods of pests and diseases in Malwi
- Assessment of Capacity of Malawi on Integrated Pest Management
- Promotion of Safer Pesticides Management

5. Institutional and regulatory framework

This section should provide a short description of the institutional and legal framework under which the pesticide or other technique will be applied.

- Short description of the country's regulatory framework and the legal status of the product or technique including a reference to the required documentation and standards required under national law and international good practice.
- Where a pesticide or other technique is not regulated, the proponent should attempt to identify international laws for this or similar products, or applicable regulations in neighboring countries that could be used as a guide, including internationally recognized good practice. The proponent must also explain why this particular pesticide or technique is necessary despite the absence of national regulation.
- Analysis of institutional capacity for control of the distribution, use and disposal of pesticides,
- in particular the product selected by the project and the institutions responsible at the project site.
- Any measures proposed to strengthen regulatory framework and institutional capacity, where relevant

6. Priority of pest management (for example, undesirable vegetation, vertebrate pests, and so on)

7. Integrated pest management

***7.1 Principles of the integrated pest management* are the following:**

- ***Mechanical and physical control.*** This type of control alters the environment in which a pest lives, traps and removes pests where they are not wanted, or excludes pests. Examples of this type of control include harborage elimination through caulking or filling voids, screening, and so on.
- ***Cultural control.*** Strategies in this method involve manipulating environmental conditions to suppress or eliminate pests. For example, spreading manure from stables onto fields to dry prevents fly breeding. Elimination of food and water for pests through good sanitary practices may prevent pest populations from becoming established or from increasing beyond a certain size.
- ***Biological control.*** In this control strategy, predators, parasites, or disease organisms are used to control pest populations. Sterile flies may be released to lower reproductivity. Viruses and bacteria which control growth or otherwise kill insects may be used. Parasitic wasps may be introduced to kill eggs, larvae, or other life stages. Biological control may be effective in and of itself but is often used in conjunction with other types of control.
- ***Chemical control.*** Pesticides kill living organisms, whether they will be plants or animals. At one time, chemicals were considered to be the most effective control available, but pest resistance rendered many pesticides ineffective. The trend is to use pesticides which have limited residual action. While this has reduced human exposure and lessened environmental

impact, the cost of chemical control has risen due to requirements for more frequent application. Since personal protection and special handling and storage requirements are necessary with the use of chemicals, the overall cost of using chemicals as a sole means of control can be quite costly when compared with nonchemical control methods.

7.2 ***Integrated pest management outlines***. This subsection addresses each major pest or category of similar pests, by site, in separate outlines.

7.3 ***Annual workload for surveillance, prevention, and control***. In this subchapter should indicate the number of man-hours expended for surveillance, prevention, and control of pests.

8. Health and safety. This section contains health and safety requirements as follows:

8.1 ***Medical surveillance of pest management personnel.*** All personnel who apply pesticides have to be included in a medical surveillance program.

8.2 ***Hazard communication.*** Pest management personnel are given hazard communication training, to include hazardous materials in their workplace. Additional training is to be given to new employees or when new hazardous materials are introduced into the workplace.

8.3 ***Personal protective equipment***. This chapter has to describe approved masks, respirators, chemical resistant gloves and boots, and protective clothing (as specified by applicable laws, regulations, and/or the pesticide label) that are provided to pesticide applicators. These items are used, as required, during the mixing and application of pesticides. Pesticide-contaminated protective clothing is not to be laundered at home but commercially. Severely contaminated clothing is not laundered but is considered a pesticide-related waste and disposed, as applicable for hazardous waste.

8.4 ***Fire protection.*** The fire safety protection requirements have to be established; the Pest Management Coordinator has to control implementation of measures to prevent fire.

9. Environmental Considerations

9.1 ***Protection of the public***. Precautions are taken during pesticide application to protect the public, on and off the installation. Pesticides should not be applied outdoors when the wind speed exceeds 155 m per min. Whenever pesticides are applied outdoors, care is taken to make sure that any spray drift is kept away from individuals, including the applicator. Pesticide application indoors is accomplished by individuals wearing the proper personal protective clothing and equipment. At no time are personnel permitted in a treatment area during pesticide application unless they have met the medical monitoring standards and are appropriately protected.

9.2 ***Sensitive areas.*** No pesticides are applied directly to wetlands or water areas (lakes, rivers, and so on) unless use in such sites is specifically approved.

9.3 ***Endangered/protected species and critical habitats.*** Protected migratory birds which periodically appear on the installation cannot be controlled without a permit. The Pest Management Coordinator periodically evaluates ongoing pest control operations and evaluates all new pest control operations to ensure compliance with the list of endangered species. No pest management operations are conducted that are likely to have a negative impact on endangered or protected species or their habitats without prior approval from environmental authorities.

9.4 ***Environmental documentation***. An environmental assessment which specifically addresses the pesticide use program on the installation has been prepared. This plan is referenced in the assessment as documentation of pesticide use.

10. Consultation, disclosure and grievance

- This section should document when and where the PMP was disclosed and the range of consultations the proponent has undertaken with stakeholders, particularly local communities and their potentially affected members including adjacent community members. It should specify the dates and results of relevant consultations, including how feed- back received was taken into consideration.
- It should also provide evidence of consultations held with relevant authorities (indicating who and when) and evidence that appropriate EIA procedures were followed and licenses and permissions, where relevant, were obtained.
- The section should conclude with an explanation of the ESMF grievance system and its role to receive and address complaints in case pest management techniques might cause social or environmental harm; this should include instructions how to access this system.

11. Monitoring, Training and Capacity Building

12. Work Plan and Budget

13. List of Prohibited Pesticides.

Indicative list of Prohibited pesticides are listed below:

Table 1: Indicative List of Prohibited Pesticides

– 2, 4, 5, -T aldicarb	– Lindane
– Aldrin	– Mercury compounds
– Binapacryl	– Mirex
– Captafol	– Paraquat
– Chlordane	– Pentachlorophenol
– Chlordecone	– Toxaphene
– Chlordimeform	– Monocrotophos
– Chlorobenzilate	– Methamidophos
– DDT	– Phosphamidon
– Dieldrin	– Methyl parathion

– Dinoseb and dinoseb salts	– Parathion
– 1, 2-dibromoethane (EDB)	– Alpha hexachlorocyclohexane
– Endrin	– Beta-HCH
– Fluoracetamide	– Pentachlorobenzene
– HCH (mixed isomers)	– Hexachlorobenzene
– Heptachlor	

Annex 13: Grievance Redress Mechanism

The World Bank has introduced a Grievance Redress Service (GRS) requiring the Borrower to provide a grievance mechanism, process, or procedure to receive and facilitate resolution of stakeholders' concerns and grievances arising in connection with the project and the Borrower's environmental and social performance.

According to the GRS project-affected communities and individuals may submit complaints regarding a Bank-financed project to the project grievance redress mechanism, appropriate local grievance mechanism, or the World Bank's corporate Grievance Redress Service (GRS).

The table depicted below shows a generic grievance redress mechanism that can be applied to the subprojects.

Steps	Process	Description	Time frame	Other information
1	Identification of grievance	Face to face; phone; letter, e-mail; recorded during public/community interaction;	1 Day	Email address; hotline number
2	Grievance assessed and logged	Significance assessed and grievance recorded or logged (i.e. in a log book)	4-7 Days	Significance criteria Level 1 –one off event; Level 2–complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or policy or this ESMF/RPF provisions

Steps	Process	Description	Time frame	Other information
3	Grievance is acknowledged	Acknowledgement of grievance through appropriate medium	7-14 Days	
4	Development of response	• Grievance assigned to appropriate party for resolution • Response development with input from management/ relevant stakeholders	4-7 Days10-14 Days	
5	Response signed off	Redress action approved at appropriate levels	4-7 Days	Senior management staff of RA should sign off
6	Implementation and communication of response	Redress action implemented and update of progress on resolution communicated to complainant	10-14 Days	
7	Complaints Response	Redress action recorded in grievance log book Confirm with complainant that grievance can be closed or determine what follow up is necessary	4-7 Days	
8	Close grievance	Record final sign off of grievance If grievance cannot be closed, return to step 2 or refer to sector minister or recommend third-party arbitration or resort to court of law	4-7 Days	Final sign off on by Senior management of RA

Annex 14:Gender-Based Violence (GBV) Action Plan

Gender Based Violence is defined as any conduct, comment, gesture, or contact perpetrated by an individual based on gender on the work site or in its surroundings, or in any place that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to another individual without his/her consent, including threats of such acts, coercion, or arbitrary deprivations of liberty.

The objective of the GBV mitigation plan is to prevent sexual exploitation and abuse of women and children during implementation of the project through improved project risk assessment, active community engagement, and the design and monitoring of systems to minimize risks.

The project is classified as a moderate GBV risk project that requires an assessment of the GBV risks in the subproject's Environmental and Social Impact assessments and development of a GBV action plan as part of subprojects ESMPs.

GBV Risks of the project

The project will involve some construction works that will likely engage contractors that employs both men and women from surrounding communities and also bring workers from other areas increasing the risk of social impacts such as Gender Based Violence.

The populations at high risk of GBV are women and girls because gender-based violence is largely rooted in societal norms that perpetuate power differentials between men and women. The major risk factors that aggravate GBV include:

- High levels of poverty in the project area;
- Large population of young women;
- Large population of sex workers;
- Education level of women;
- Unstable social conditions;
- Employment rate of women (economic empowerment)
- Existence of norms supporting gender inequality;
- Lack of institutional support;
- High crime levels/violence

Some of the forms of gender-based violence that could arise from the project include:

- Rape and sexual assault;
- Sexual harassment;
- Unwanted sexual advances including touching
- Physical violence/ assault
- Use of abusive, sexually provocative, demeaning or culturally inappropriate language;
- Domestic violence;
- Sexual interactions that are not agreed to with full consent by all parties;
- Exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior;
- Discrimination against women and children;

Generic mitigation measure

To mitigate the risks of the GBV risks associated with the project, the following general mitigation measures will have to be applied before and during the implementation of subprojects:

- Sensitize communities on GBV risks of the project during stakeholders' engagement prior to implementation of subprojects;
- Develop and institute an effective grievance redress mechanism and sensitize the community on the same before implementation of subprojects;
- Define GBV requirements and expectations in bid documents;
- Ensure that code of conducts are signed and understood by all contractor staff;
- The contractor should include a GBV response proposal in the contractor ESMP and should be evaluated prior to project implementation;
- Provide separate facilities for men and women; and
- Provide appropriate signage on GBV in local language.

Some serious risks of GBV such as rape, sexual assault and physical violence should be reported to the Police as early as possible as they are criminal in nature. Preventing and mitigating against project-related risk of sexual exploitation and abuse requires interaction and collaboration between different stakeholders that includes:

- Women and girls/children at risk, as well as other vulnerable populations in the targeted communities;
- Community leaders that can play a role in GBV mitigation; such as chiefs, religious leaders etc.;
- Contractors and consultants;
- Government agencies at central and local levels, such as Ministry of Gender, Malawi Police service, District Councils and Ministry of labour; and
- The World Bank.

Categorise the risks:

- Low risk;
- Medium risks; and
- High risks

Annex 15: Community Grievance Log & Resolution Form

SECTION A: GENERAL INFORMATION **Form Number ……..**

District Name: ……. TA……..……GVH……..……..……

Name of Project Location/ Catchment Area:	Name of Community/ Village:		Reporting Dates:
Name of Complainant	Complainant Sub Component:	Household Identification:	Phone Number, E-Mail:

SECTION B: DETAILS OF THE GRIEVANCE

Ref No.	Date of Grievance	Summary description of Grievance/Complaint	Follow-up/Investigation		Resolution Made
			Date	Person Assigned	
G1					
G2					
G3					

Name of Reporting Officer: …….

SECTION C: SUBMISSION OF GRIEVANCE

If case is closed, GRM Committee members & complainant to sign below

GRM Committee Chair_____

Name & Signature of Project Affected Person /Beneficiary_____

GRM Committee Secretary_____

Date: _____

SECTION D: REFERRAL OF CASES

Referred to DGRMC

Ref No.	Date of Referral	Follow up / Investigation		Summary of action undertaken
		Date	Person Assigned	
G1				
G2				
G3				

RECEIPT: SUBMISSION OF GRM Form number ……..

Complaint:	
Household ID:	TA:
Districts:	Program:
Name of Complainant:	Reporting officer:
Case: - Closed { } - Referred { }	Signature of complainant:

Annex 16: Workers' Grievance Log & Resolution Form

SECTION A: GENERAL INFORMATION **Form Number ……..**

District Name: ……. TA…….……GVH…….……..……

Name of Project Location/ Catchment Area:	Name of Community/ Village:		Reporting Dates:
Name of Complainant	Complainant Sub Component:	Household Identification:	Phone Number, E-Mail:

SECTION B: DETAILS OF THE GRIEVANCE

Ref No.	Date of Grievance	Summary description of Grievance/Complaint	Follow-up/Investigation		Resolution Made
			Date	Person Assigned	
G1					
G2					
G3					

Name of Reporting Officer: …….

SECTION C: SUBMISSION OF GRIEVANCE

If case is closed, GRM Committee members & complainant to sign below

WGRM Committee Chair_____

Name & Signature of Project Affected Person /Beneficiary_____

WGRM Committee Secretary_____

Date: _____

SECTION D: REFERRAL OF CASES

Referred to DGRMC

Ref No.	Date of Referral	Follow up / Investigation		Summary of action undertaken
		Date	Person Assigned	
G1				
G2				
G3				

RECEIPT: SUBMISSION OF GRM Form number ……..

Complaint:	
Household ID:	TA:
Districts:	Program:
Name of Complainant:	Reporting officer:
Case: - Closed { } - Referred { }	Signature of complainant:

Annex 17: District Grievance Log & Resolution Form

SECTION A: GENERAL INFORMATION **Form Number ……..**

District Name: ……. TA……..……GVH……..……..……

Name of Project Location/ Catchment Area:	Name of Community/ Village:		Reporting Dates:
Name of Complainant	Complainant Sub component:	Household Identification:	Phone Number, EMail:

SECTION B: DETAILS OF THE GRIEVANCE

Ref No.	Date of receipts of Grievance	Summary Description of Grievance/Complaint	Follow-up/Investigation		Resolution Made
			Date	Person Assigned	
G1					
G2					
G3					

Name of Reporting Officer: …….

SECTION C: SUBMISSION OF GRIEVANCE

If case is closed, GRM Committee members & complainant to sign below

GRM Committee Chair_____

Name & Signature of Project Affected Person /Beneficiary_____

GRM Committee Secretary_____

Date: _____

Annex 18:District Grievance Redress Mechanism Register

DISTRICT GRIEVANCE REGISTER

GRM……/…… District Reference No.

Name of the District: ……

Ref #	Recording Date	Name of the Household	Household Identification	TA	Type of Grievance/Complaint:	Resolution Made:	Program	Status (Open, Closed)
G 1								
G 2								
G 3								
G 4								
..								
..								
..								
..								
Gx								

INCLUDE AN ANNEX ON SUMMARY OF ISSUES RAISED FROM STAKEHOLDER CONSULTATIONS DONE AND LIST OF NAMES OF PEOPLE CONSULTED

Annex 19:List if Stakeholders Consulted during the preparation of the ESMF

Name	Institution	Designation
Mulanje District Council		
Gregory Kulemeka	Forestry Department	District Forestry Officer
S. Kamwagha	District Agriculture Office	DADO
James Banda	Department of Irrigation	District Irrigation Officer
Anthony Makhanga	Ministry of Sports	District Sports Officer
George Manda	Fisheries Department	District Fisheries Officer
M. Ngondo	Land Resources Department	Land Resources Department
Sydney Kananji	Forestry Department	Assistant District Forestry Officer
Osbert Kapachika	Ministry of Trade	DBPO
AchaChawinga	Ministry of Tourism	District Tourism Officer
Patrick Ndawala	Department of Information	District Information Officer
Pearson Mphangwe	Mulanje District Council	DAC
SuzenSodzapanja	Community Development Department	Community Development Officer
Dorothy Paulosi	Ministry of Education	DEM's Representative
Jarvis Mwenechanya	Environmental Affairs Department	Environmental District Officer
William Kulapani	Mulanje District Council	Director of Public Works
Golden Mbale Phiri	EAM	Project Officer
Mulanje Joint Border Committee		
MasoziMwenefumbo	MBS	Inspector
EwaSibale	Combine Cargo	Supervisor
Patricia Chayekha	MRA	Deputy Station Manager
Brian Ng'omba	Prime Insurance	Underwriter
Eddings Jambe	Department of Agriculture Research	Inspector
Francis Meleke	Department of Parks and Wildlife	Inspector
Misheck Zulu	Ministry of Health	Inspector

Dickens Chikaphonya	Road Traffic Department	Road Traffic Officer
P. Kumwenda	Breakthrough Insurance	Managing Director
K. Yesaya	Immigration Department	Officer in Charge
O. Matewere	MRA	Station Manager

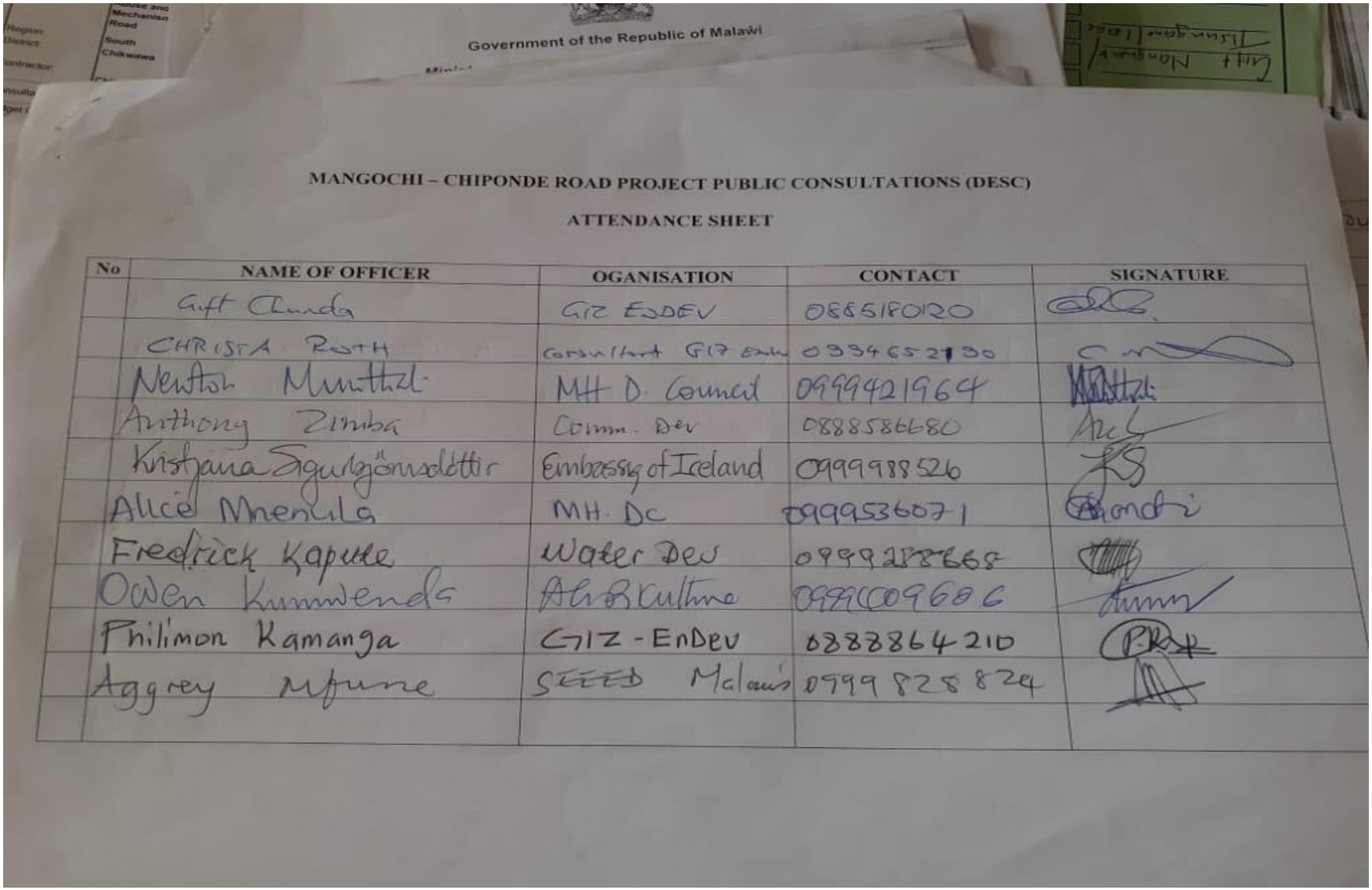
Mariam Idi	Villager	Namasalima GVH
Owen Liphevo	Villager	Namasalima GVH
MalitaOdala	Villager	Namasalima GVH
Isabel Saidi	Villager	Namasalima GVH
Judith Milimbo	Villager	Namasalima GVH
ThokozaniMateyu	Villager	Namasalima GVH
MagretMussa	Villager	Namasalima GVH
LidsonJali	Villager	Namasalima GVH
Isabel Saidi Ii	Villager	Namasalima GVH
Mary Benito	Villager	Namasalima GVH
MalitaOdala	Villager	Namasalima GVH
Ester Noniwa	Villager	Namasalima GVH
MagretMussa	Villager	Namasalima GVH
Mary Matola	Villager	Namasalima GVH
William Chauluka	Villager	Namasalima GVH
Annie Lucias	Villager	Namasalima GVH
Estere Maxwell	Villager	Namasalima GVH
BeritaSemani	Villager	Namasalima GVH
Elias Feston	Villager	Namasalima GVH
Isaac Idi	Villager	Namasalima GVH
JineSemani	Villager	Namasalima GVH
John Mutawa	Villager	Namasalima GVH
Mary Idi	Villager	Namasalima GVH
Owen Liphevo	Villager	Namasalima GVH
Petro William	Villager	Namasalima GVH
Mary Fulakishoni	Villager	Namasalima GVH
Feston John	Villager	Namasalima GVH
Friday Gowelo	Villager	Namasalima GVH
Petro Magubu	Villager	Namasalima GVH

Cecilia Charles	Villager	Namasalima GVH
LovenessNgwamire	Villager	Namasalima GVH
DelinoMbewe	Villager	Namasalima GVH
Isaac Bilai	Villager	Namasalima GVH
Estere Jonas	Villager	Namasalima GVH
	Villager	Namasalima GVH
Emma Horace	Villager	Namasalima GVH
Efeness Idi	Villager	Namasalima GVH
JineLigomeka	Villager	Namasalima GVH
Rose Joseph	Villager	Namasalima GVH
David James	Villager	Namasalima GVH
Collings Siliya	Villager	Namasalima GVH
Stephano Thomas	Villager	Namasalima GVH

MANGOCHI – CHIPONDE ROAD PROJECT PUBLIC CONSULTATIONS (DESC)

ATTENDANCE SHEET

No	NAME OF OFFICER	OGANISATION	CONTACT	SIGNATURE
	Bob M. Fagu	MDHO	0884 55135	[signature]
	ISAAC MTALIMANJA	MH. POLICE	0999 230 872	[signature]
	Modesta mkawa	MH DC	0888288369	Mwaka
	Rose Nyerka	MH Town	0991690490	[signature]
	Chijembekezo Likangala	DEM MH	0882847772	[signature]
	Henry Ambar	DHO	099224 6061	[signature]
	PATRICIA KAPENJA	DNMO	0888865365	[signature]
	Kondwani Mamba	Health	0995650 623	[signature]
	Kondwani Ngombo	DIO	0999613572	[signature]
	Regina Kapalamula	Messenger	0996659100	[signature]



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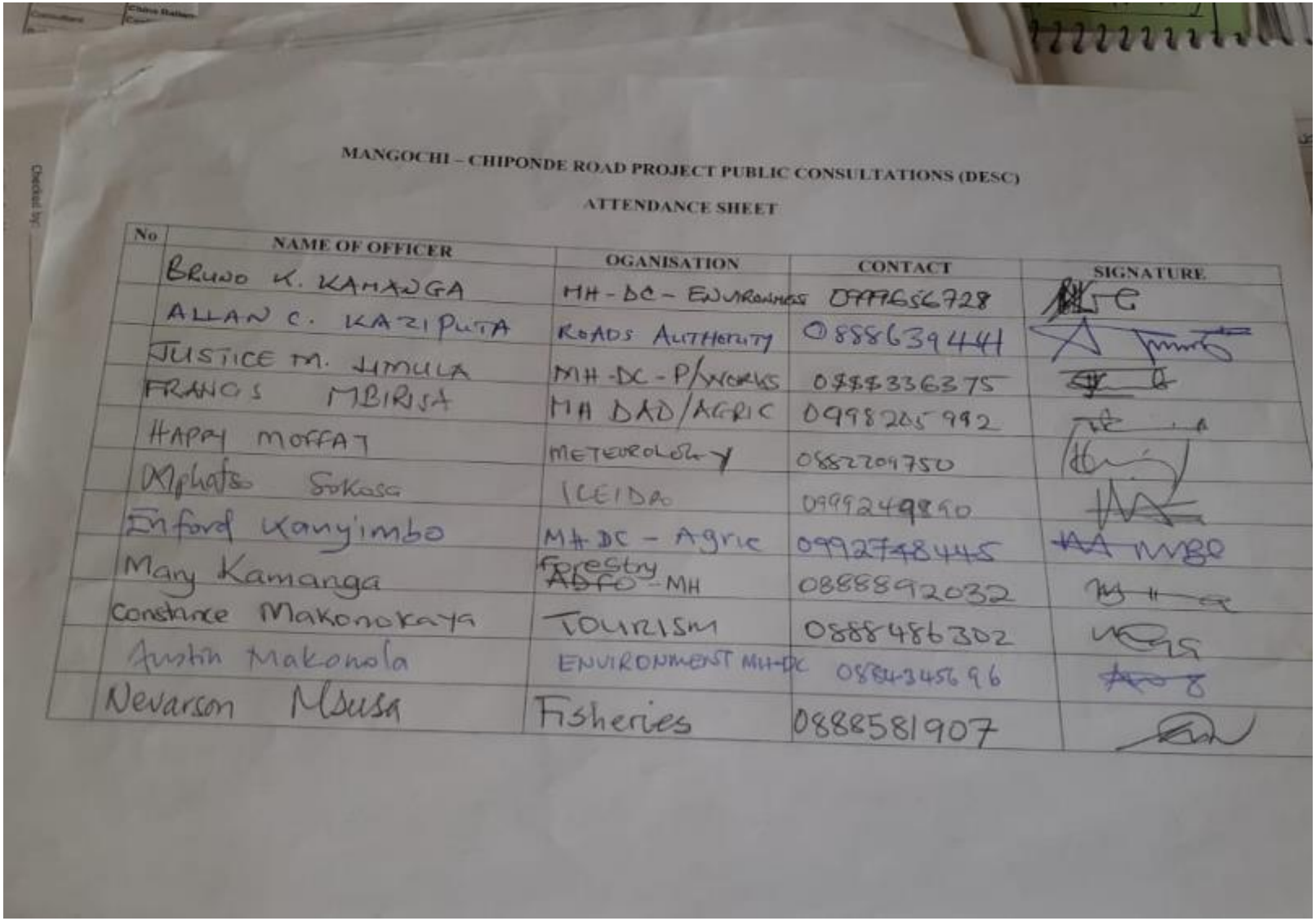
ATTENDANCE SHEET

No	NAME OF OFFICER	OGANISATION	CONTACT	SIGNATURE
	Gift Chunda	GIZ EnDEV	0885180120	
	CHRISTA ROTH	Consultant GIZ EnDev	0334652130	
	Newton Mumtazi	MH D Council	0999421964	
	Anthony Zimba	Comm. Dev	0888586680	
	Kristjana Sigurbjörnsdóttir	Embassy of Iceland	0999988526	
	Alice Mhenula	MH. DC	0999536071	
	Fredrick Kapute	Water Dev	0999288668	
	Owen Kumwenda	Agric Culture	0991009606	
	Philimon Kamanga	GIZ - EnDev	0888864210	
	Aggrey Mpume	SEED Malawi	0999828824	



MANGOCHI – CHIPONDE ROAD PROJECT PUBLIC CONSULTATIONS (DESC)

ATTENDANCE SHEET

No	NAME OF OFFICER	OGANISATION	CONTACT	SIGNATURE
	BRUNO K. KAMANGA	MH - DC - ENVIRONMENT	0999656728	
	ALLAN C. KAZIPUTA	ROADS AUTHORITY	0888639441	
	JUSTICE M. JIMULA	MH-DC-P/WORKS	0888336375	
	FRANCIS MBIRIA	MH DAD/AGRIC	0998205992	
	HAPPY MOFFAT	METEOROLOGY	0882209750	
	Mphatso Sokasa	ICEIDA	0999249890	
	Enford Kanyimbo	MH DC - Agric	0992748445	
	Mary Kamanga	~~ADFO~~ Forestry - MH	0888892032	
	Constance Makonokaya	TOURISM	0888486302	
	Austin Makonola	ENVIRONMENT MH-DC	0884345696	
	Nevarson Mbusa	Fisheries	0888581907	

MANGOCHI – CHIPONDE ROAD PROJECT PUBLIC CONSULTATIONS (DESC)

ATTENDANCE SHEET

No	NAME OF OFFICER	OGANISATION	CONTACT	SIGNATURE
41.	Collins Sadyalunda	CEGORE	0882920653	
	Madalitso Munthali	PROSPER-CEP	0995614044	
	Levy Mwambakulu	Concern Worldwide	0997642542	
	Phullipina Nkhoto	Wamama Pamodzi	0884884168	
	Charles Mbeba	YONECO	0884484302	
	Beatrice Chimombo	Mangoch CTC	0882166881	
	Joseph Ntwana	MSH	0995836890	
	Aaron Luhanga	LGAP	0888239015	
	AUSTIN MADANGA	Labour-MH	0881413463	
	HARVEY MBWEZA	SOCIAL WELFARE	0888006520	
	Diffory Jonathan Bwanali	Umoyo-fm Comm Radio	0998232229	

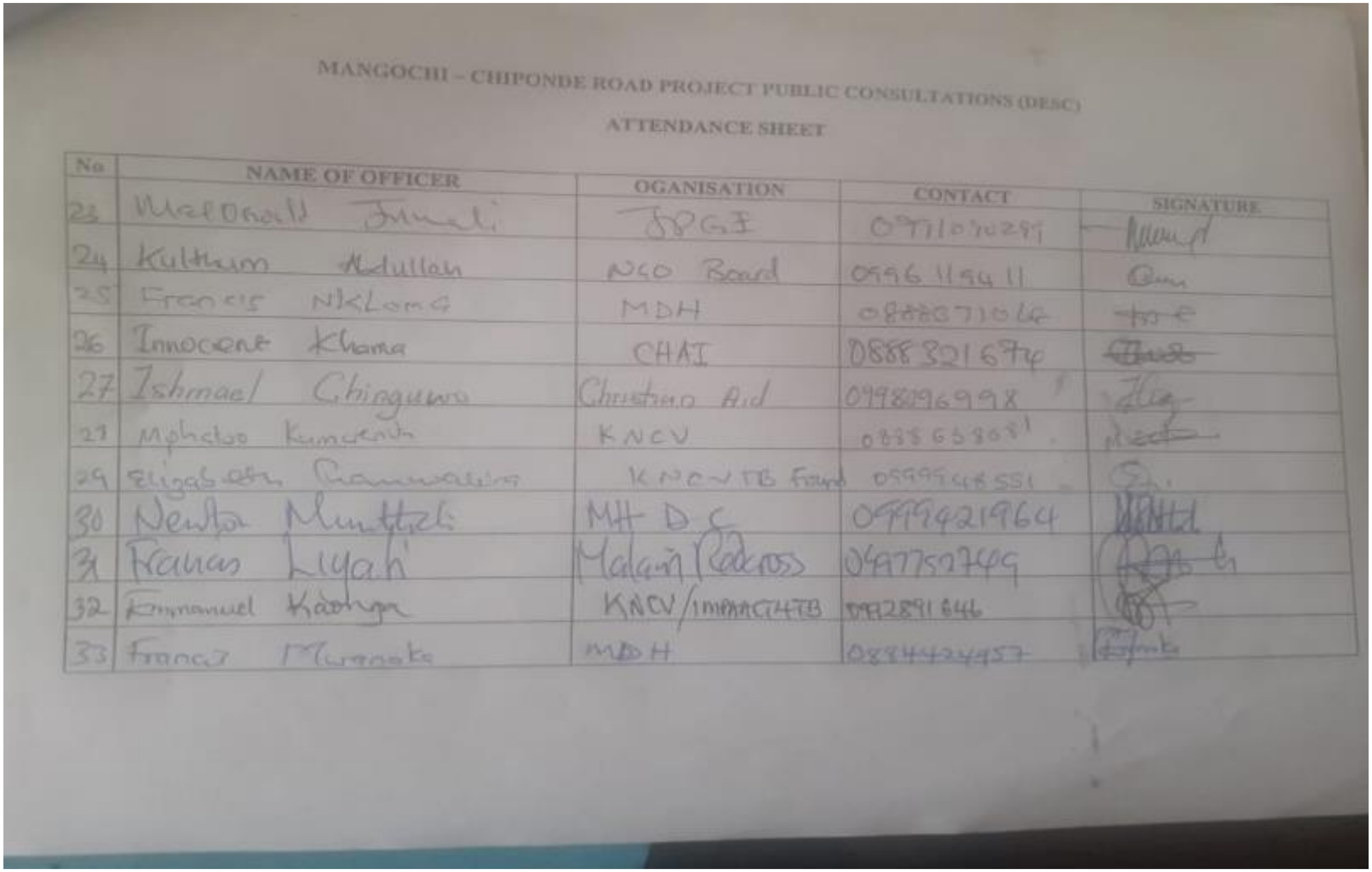
MANGOCHI – CHIPONDE ROAD PROJECT PUBLIC CONSULTATIONS (DESC)

ATTENDANCE SHEET

No	NAME OF OFFICER	OGANISATION	CONTACT	SIGNATURE
34	Daniel Mwale	ONE COMMUNITY	0999604326	[illegible]
35	Harold Madimbo	Mangochi DC	0882266543	H. Madimbo
36	Robert Chawela	[illegible] Proj.	0999317657	[illegible]
37	Telista Chulu	United Purpose	0998254625	[illegible]
38	Cliff Phiri	UNFPA	0999417784	[illegible]
39	Macdonald Gondwe	MDHO	0999364936	[illegible]
40	JAMES NANGOMA	SANE	0999672325	[illegible]
41	Olive Munthali	Mangochi District Hospital	0995254055	[illegible]
42	Geoff Gamani	MOH DHO	0884297615	[illegible]
	JOSEPH TSANGA	ONSE	0997230032	[illegible]
44	Newarson Mansa	Fisheries	0888581907	[illegible]

ATTENDANCE SHEET

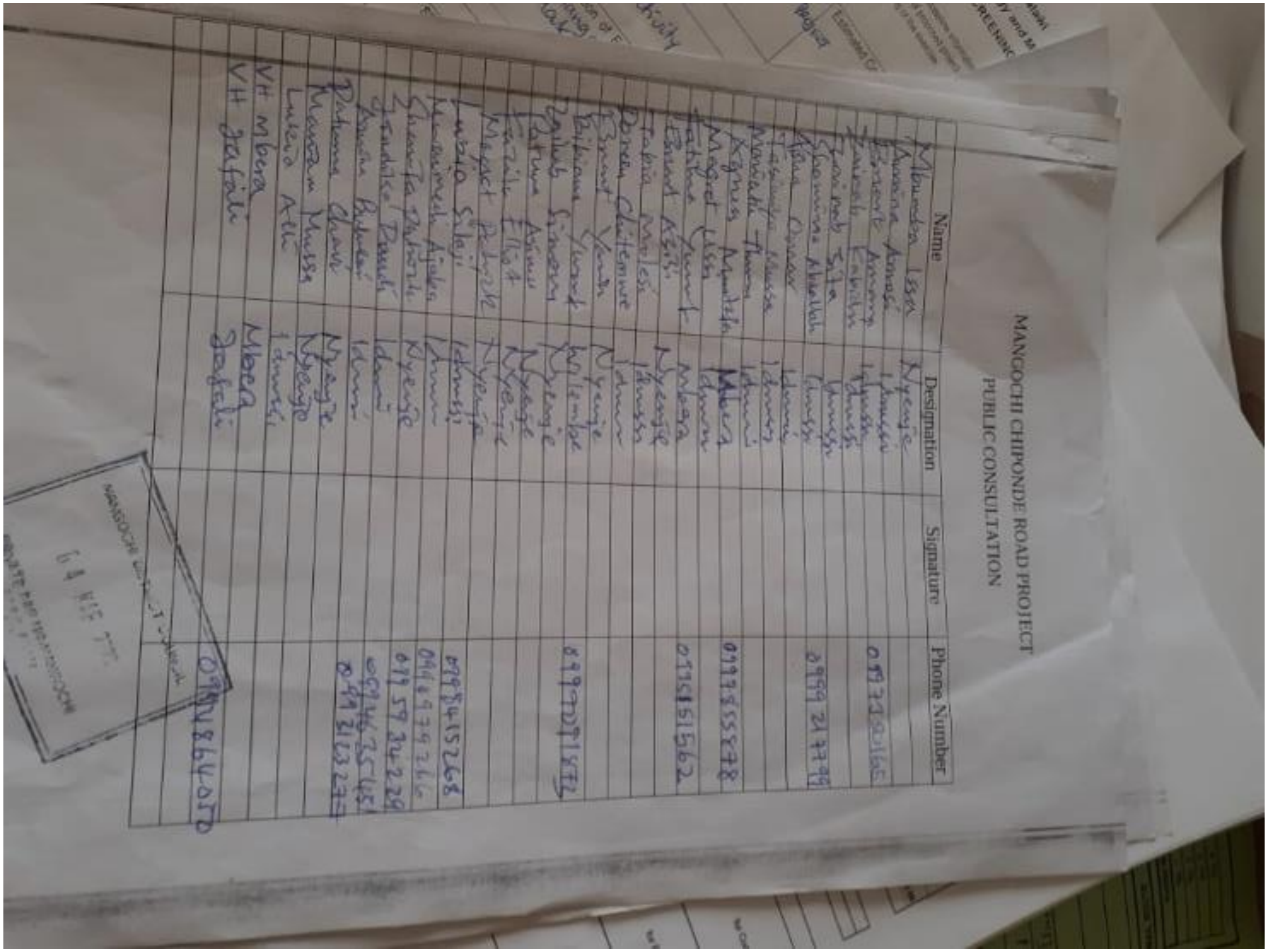
No	NAME OF OFFICER	OGANISATION	CONTACT	SIGNATURE
12	Enford Kanyimbo	MH DC - DAENR	0992748445	[signature]
13	Sinthani Mbaluku	Radio Lilanguka	0884 612213	[signature]
14	Leonard Kamangadazi	Forestry - MH	0999727066	[signature]
15	Fradrick Kapute	Water Dev MH	0999288668	[signature]
16	CHIFUNDO MANJOLO A	Comet - Health	0888 514155	[signature]
17	Laston Chikopa	Gender	0991881460	[signature]
18	METRO CHINGANI	Gender	0999104011	[signature]
19	Aisha Shaker	Radio Islam	0999210197	[signature]
20	Joyce Chawss	mayadu	0999 860176	[signature]
21	Victor Kaonga	UNFPA	0888851476	[signature]
22	Collins Kachoka	Education	0882571 434	[signature]



MANGOCHI – CHIPONDE ROAD PROJECT PUBLIC CONSULTATIONS (DESC)

ATTENDANCE SHEET

No	NAME OF OFFICER	OGANISATION	CONTACT	SIGNATURE
23	McDonald Jumali	JPGI	0771070299	[signature]
24	Kulthum Abdullah	NGO Board	0996 119411	[signature]
25	Francis Nkhoma	MDH	0888371066	[signature]
26	Innocent Khoma	CHAI	0888321674	[signature]
27	Ishmael Chinguwo	Christian Aid	099809699X	[signature]
28	Mphatso Kumwenda	KNCV	088865808	[signature]
29	Elizabeth [illegible]	KNCV TB Found	0999948551	[signature]
30	Newton Munthali	MH DC	0999421964	[signature]
31	Francis Liyah	Malawi Redcross	0997752749	[signature]
32	Emmanuel Kadonga	KNCV/IMPACT4TB	0992891646	[signature]
33	Francis Mwanake	MDH	0884424457	[signature]



MANGOCHI CHIPONDE ROAD PROJECT

PUBLIC CONSULTATION

Name	Designation	Signature	Phone Number
Mbumba Lessa	Nyenje		
Amina Amosi	Idrussi		
Esnart Among	Idrussi		0997730165
Zainab Kabitin	Idrussi		
Zainab Sita	Idrussi		
Shamima Abdallah	Idrussi		0999217799
Asha Omar	Idrussi		
Tasiwiya Mussa	Idrussi		
Mariati Thom	Idrussi		
Agness Mustafa	Mbera		0999855878
Magret Lessi	Idrussi		
Fatima Yusuf	Mbera		0995151562
Esnart Azizi	Nyenje		
Fabia Molesi	Idrussi		
Doreen Chitemwe	Idrussi		
Esnart Yasin	Nyenje		
Bibiana Yusuf	Wilembe		0997091872
Zainab Simon	Nyenje		
Fatuma Asimu	Nyenje		
Fazila Elliot	Nyenje		
Magret Patrick	Nyenje		
Lucia Silaji	Idrussi		0998415268
Muhammed Ajaba	Idrussi		0994979366
Sharifa Patrick	Nyenje		0995934229
Jandiko Daudi	Idrussi		0994635451
Amina Bulabai	Idrussi		0993123277
Patuma Chavi	Nyenje		
Mariam Mussa	Nyenje		
Lukia Ali	Idrussi		
VH Mbera	Mbera		
VH Jafali	Jafali		0994864050

MANGOCHI DISTRICT COUNCIL
[illegible]
PRIVATE BAG [illegible] MANGOCHI

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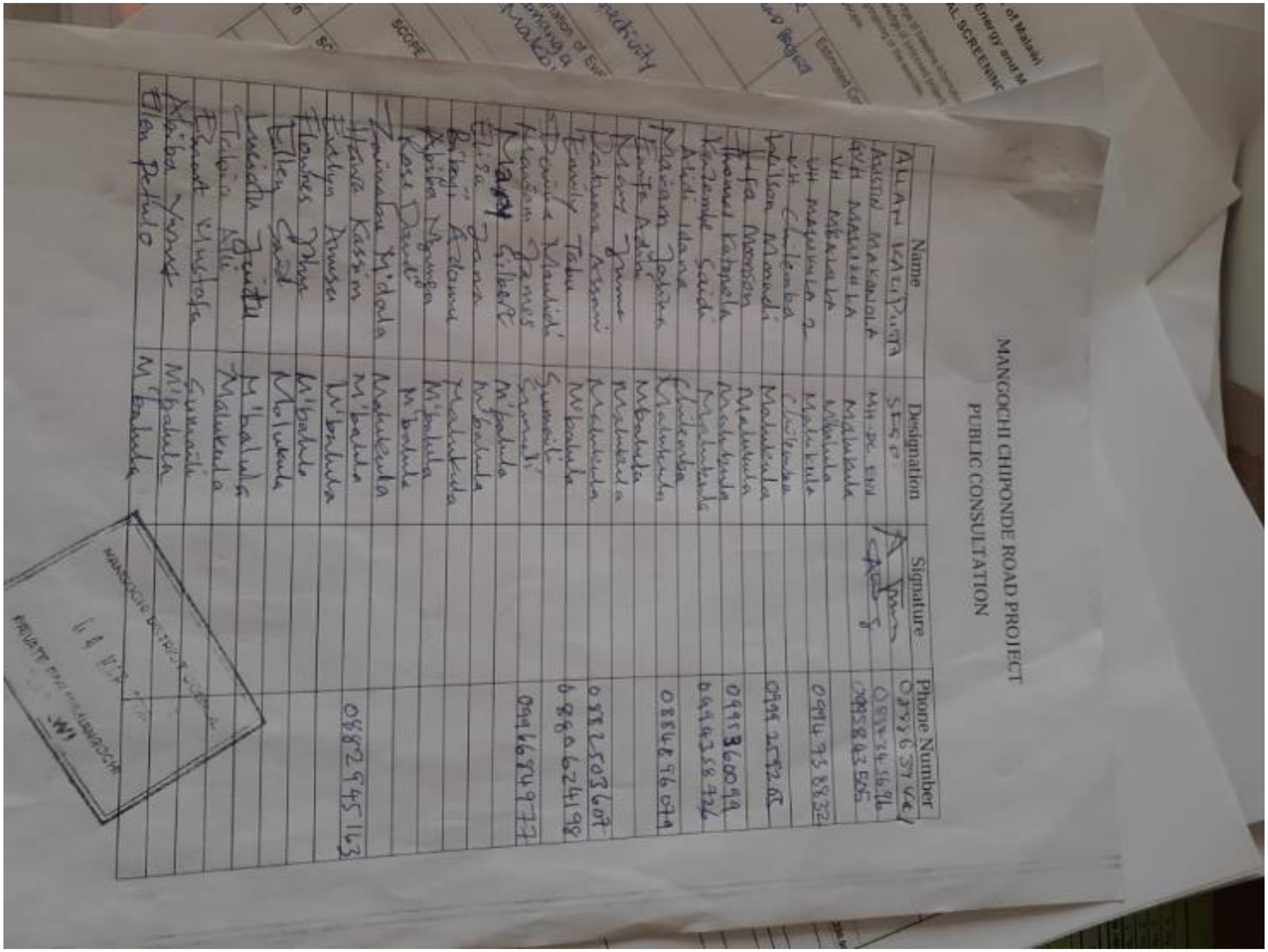

MANGOCHI CHIPONDE ROAD PROJECT

PUBLIC CONSULTATION

Name	Designation	Signature	Phone Number
ALLAN KAZIPUTA	SESO	[illegible]	0885639461
AUSTIN MAKANOLA	MH-DC ENV	[illegible]	0888345696
GVH MALUKULA	Malukula		0995843505
VH MBALULA	Mbalula		
VH MAJUKULA 2	Malukula		0994938832
VH Chilemba	Chilemba		
Wilson Mnandi	Malukula		0999259205
Lifa Moonson	Malukula		
Thomas Katanola	Malukula		0995360099
Kazembe Saidi	Malukula		0994358426
Atidi Idana	Chilemba		
Mariam Jafina	Malukula		0884896079
Enifa Adini	Mbalula		
Mary Juma	Malukula		
Patuma Assani	Malukula		0882503607
Emily Tabu	M'balula		0880624198
Damiane Maulidi	Sumaili		
Hawam James	Sumaili		0996684977
Mary Gilbert	M'balula		
Elisa Jana	M'balula		
Bibiyi Adamu	Malukula		
Abiba Mpunga	M'balula		
Rose David	M'balula		
Zainabu M'dala	Malukula		
Hawa Kassim	M'balula		0882945163
Evelyn Amusa	M'balula		
Flowres John	M'balula		
Ellen Said	Malukula		
Lucia Juitu	M'balula		
Tabia Ali	Malukula		
Ebnat Mustafa	Sumaili		
Abiba Yusuf	M'balula		
Ellen Petulo	M'balula		

MANGOCHI DISTRICT COUNCIL
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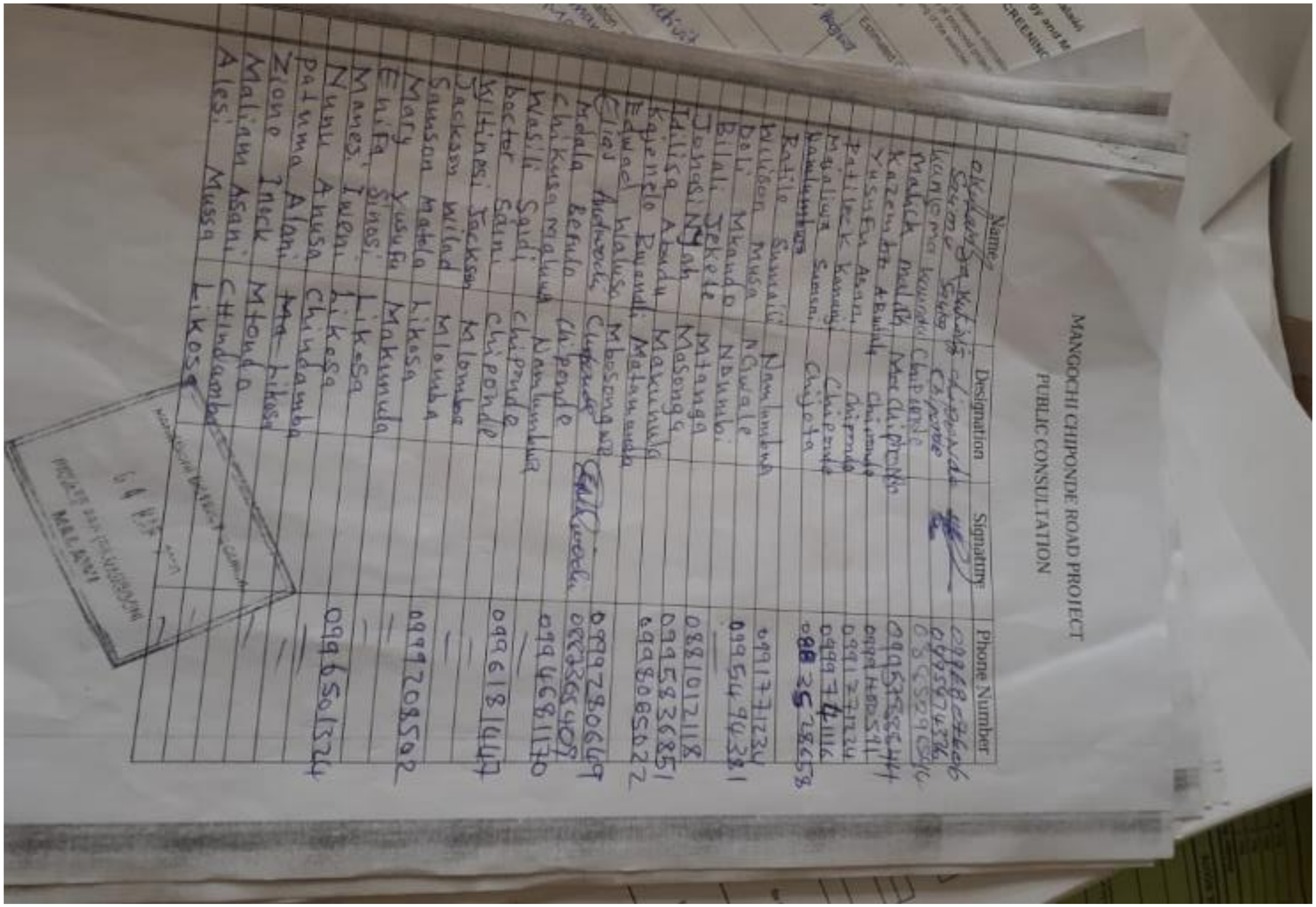
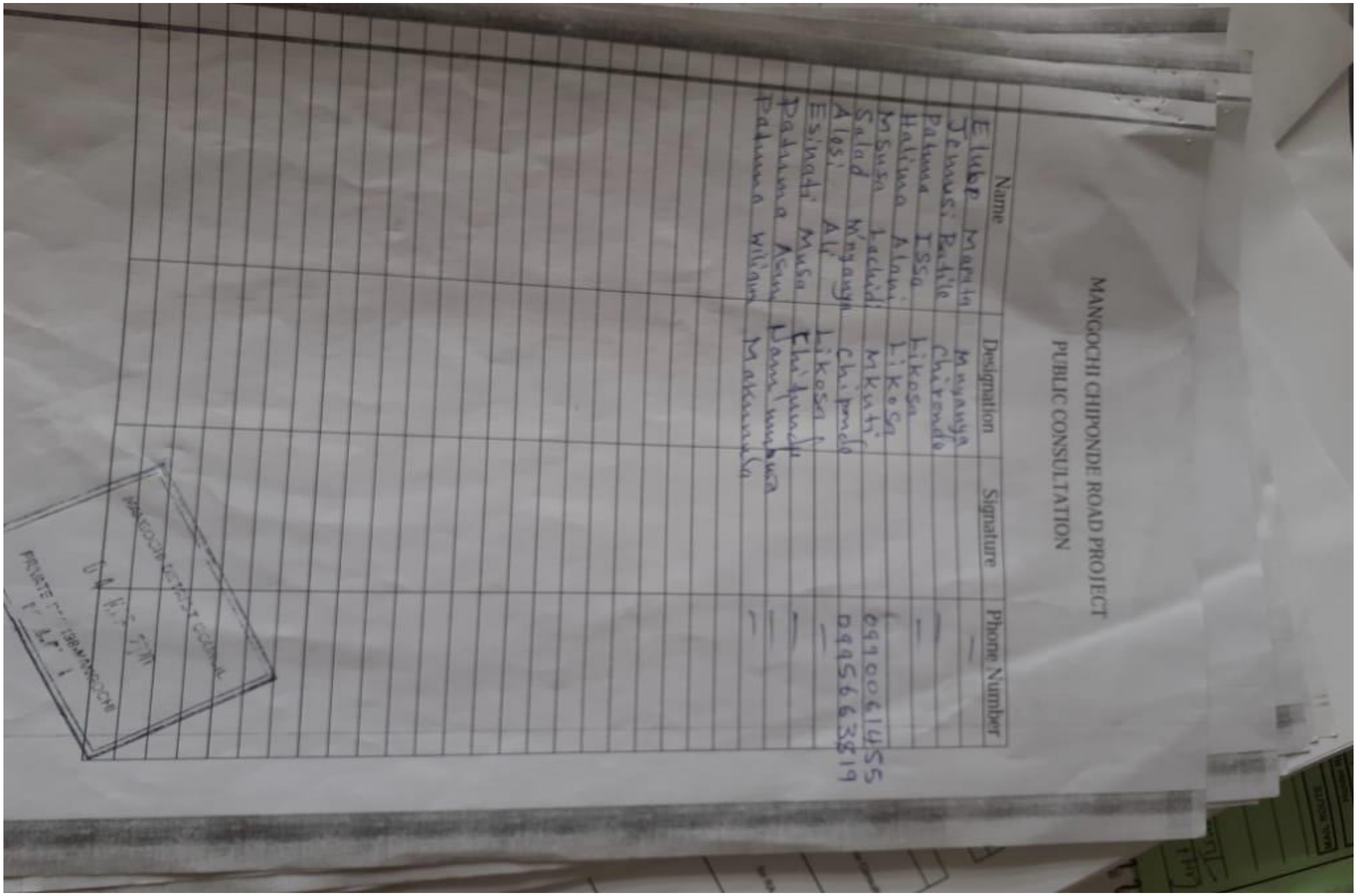


MANGOCHI CHIPONDE ROAD PROJECT

PUBLIC CONSULTATION

Name	Designation	Signature	Phone Number
Okulamba Kutiti	Chiponde		0996807606
Saimon Saka	Chiponde		0995974336
Kanjoma Kaunda	Chiponde		0885529[illegible]
Malick Malik	Mec Chiponde		0995758844
Kazembe Abdala	Chiponde		0999480591
Yusufu Asan	Chiponde		0991771234
Patiseck Kamanga	Chiponde		0999741116
Majaliwa Sumani	Chijota		0882528658
Namlumbwa			
Ratilo Sumaili	Namlumbwa		0991771234
Wilison Musa	Nawale		0995494381
Doli Mkando	Ndumbi		—
Bilali Jekete	Mtanga		0881012118
Jonasi Nyah	Masonga		0995836851
Idilisa Abudu	Makunula		0998065022
Kajenelo Ruyandi	Matamanda		
Edwad Waliusa	Mbosongwe		
Elias Andrewdi	Chiponde		0999280649
Mdala Befulo	Chiponde		0882365409
Chikusa Maluwa	Namlumbwa		0994681170
Wasili Saidi	Chiponde		—
Doctor Saini	Chiponde		0996181447
Witinesi Jackson	Mlomba		—
Jackson Wilad	Mlomba		—
Samson Matela	Likosa		0999208502
Mary Yusufu	Makunula		—
Enifa Sinosi	Likosa		—
Manes Iweni	Likosa		0996501324
Nunu Anusa	Chindamba		—
Patuma Alani	Likosa		—
Ziono Inock	Mtonda		
Maliam Asani	Chindamba		
Alesi Mussa	Likosa		



MANGOCHI CHIPONDE ROAD PROJECT

PUBLIC CONSULTATION

Name	Designation	Signature	Phone Number
Eluke Martin	Mnyanga		—
Jemusi Bathle	Chirende		—
Fatuma Issa	Likosa		—
Halima Alani	Likosa		
Msusa Lachidi	Mkuti		0991006 1455
Salad Mingaungu	Chipondo		0995663819
Alesi Ali	Likosa		—
Esinati Musa	Chitundu		—
Fatuma Asani	Nammunsa		—
Fatuma William	Makawula		—

MANGOCHI DISTRICT COUNCIL

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