EXECUTIVE SUMMARY

Introduction

Mtandao wa Vikundi vya Wakulima Tanzania (MVIWATA) is a Trust Fund formed in 1993 and registered in 1995(Reg.no.SO8612) under the Society Ordinance Act. In 2007 MVIWATA received a compliance certificate under the NGO Act of 2002 (Reg.no 1930). It is a farmers' organisation which unites smallholder farmers in order to have a common voice in defense of the economic, social, cultural and political interests of smallholder farmers. MVIWATA's goal has been to unite small-scale farmers (including all small holder producers, whose livelihood depend on land such as pastoralists and fisher folks) in order to defend their interests and address together the challenges of farmers. Its mission has been to strengthen farmers' groups and networks and facilitate communication and learning among farmers for the purpose of defending the interests of small-scale farmers, while the mission has been to become a strong national farmers' organisation that will guarantee small-scale farmers' participation and local investors.

In line with her goal, mission and vision MVIWATA secured fund for implementing Food Systems Support Project (FSSP) which is ongoing. They also applied for funding to the Global Agriculture and Food Security Program (GAFSP) to scale up the FSSP by strategizing in the Improvement of Food Systems Supply Services in Rural Tanzania (F3SRT) in Adaptation to COVID-19 - **"Baridi sokoni".** F3SRT will scale up operations for two value chains, namely, potatoes (Solanum tuberosum) in Njombe Region, Southern Highlands of Tanzania and ginger (Zingiber officinale) in Same District, Kilimanjaro Region, Northern Tanzania. These crops have nutritional, income-generating potentials and possibilities to make a long-term contribution to resilient and sustainable food system that is capable of improving and assuring food access for smallholder producers, including MVIWATA members and the poor urban and thus curbing the adverse effects of the multiple economic and climate shocks.

MVIWATA is committed to implementing this project through a well-dedicated organizational setting, including Project Steering Committee (PSC), Technical Advisory Committee (TAC) and Project Implementation Team (PIT). Other institutions to participate will be Tanzania Bureau of Standards (TBS), Small-scale Industry Development Organization (SIDO), TanTrade, Ministry of Agriculture, Representative of the President's Office Regional Administration and Local Governments (PO-RALG); and one representative of local farmers' groups as deem necessary by MVIWATA.

Brief Project Description

FSSP and the scaled up F3SRT "Baridi Sokoni" is in consisted and well aligned with National, Regional and Global strategies related to agricultural and economic development. This project, for example is aligned with the FYDP III, the Agricultural Sector development program II (ASDP II); the 2030 Sustainable Development Goals (SDGs) - particularly SDG1 (no poverty), SDG2 (zero hunger), SDG 10 (Reduced inequalities) and SDG 13 (climate action). Other initiatives to which this project is well aligned are Africa Agenda 2063 as well as the East African Development Vision 2030, the AfDB's Ten-Year Strategy (2013-2022). FYDP III aims to steer Tanzania to a middle-income economy with a high level of human development. Specifically, this plan focuses in increasing agriculture productivity, value, income, employment creation and diversification of products. The Second Agriculture Sector Development Programme (ASDP II) of 2017/18–2022/23) aims at transforming the agriculture sector towards higher productivity, commercialization and increasing smallholder farmer income for improved livelihood, food and nutrition security and contribution to the GDP. The ASDP II is also aligned to the National Climate Change Response Strategy 2021-2026.

When implemented, this project will help to achieve one of the High 5s agenda, namely Feed Africa. The Project will also help achieve the Bank's policy commitments under Pillar I of ADF-15 regarding: (i) technologies for agriculture; (ii) climate smart agriculture; and (iii) promoting gender inclusivity. Additionally, the Project is aligned to the Bank's Gender Strategy 2021-2025 and the Bank's Climate Change and Green Growth Action Plan (2021 – 2025), which aims at boosting climate resilience and adaptation to climate change. It is also in line with the Bank's current Country Strategy Paper for Tanzania (CSP 2021-2025), particularly its second priority area Improved private sector business environment for job creation.

Project Development Objective

The objective is to increase smallholder farmers' horticultural productivity. Specifically, the project aims to (i) increase productivity and production of horticulture and food crops; (ii) enhance value addition and marketing of horticultural crops grown by smallholder farmers, particularly women and youth; and (iii) promote technologies to mitigate the impact of climate change on smallholder farming systems.

The development model or theory of change (TOC) of this project is improved extension services will improve adoption rate of improved technologies and ultimately lead to increased production and productivity. Also, improved farmers' institutional capacity, value addition, marketing efficiency, supply services on horticultural produce value chains will increase profitability on horticultural crops, and thus, sustainable household incomes. In totality, the combined effects of increased production, productivity and household income will enhance availability, accessibility and affordability of food at household level, and ultimately mitigate the negative impacts of COVID-19 pandemic and other calamities (AfDB, 2022).

Project Components and Activities

The project has three components, namely: (i) Scaling up production and productivity; (ii) Strengthening value addition and marketing; and (iii) management and coordination of the project. Activities for each component are presented below:

Component 1: Increase productivity and sustainable production of potatoes and ginger for improving nutritional and food security at household, local and national levels

Activities

1 Improvement of potato and ginger husbandry and climate-change adaptation management strategies at farm and landscape level through group learning in farmer field schools and on-farm action-oriented and gender-based training. This will be complemented with supporting efficient provision of timely, adequate and appropriate advisory services by linking the producers to the agricultural research centres and to the national extension services.
2 Provision of direct support for identified production constraints including establishing appropriate, low cost irrigation infrastructure for supporting off-season production and increase productivity; creation of seed banking system to increase reliability of planting materials[1]
3 On-farm post-harvest management interventions; trainings, establishing collective on-farm quality centres (for cleaning, sorting and grading); provision of appropriate containers for improving the shelf life of potatoes and handling conditions from farm to markets.

[1] https://www.mviwata.or.tz/minimizing-loss-of-potato-seeds-through-improved-potato-seeds-storage-facilities-for-smallholder-farmers-an-initiative-facilitated-by-mviwata-in-njombe-region/

Component 2: Improve market access of round potatoes and ginger for increasing household income and local government revenue from the potato and ginger trade
Activities

1. Establish low-cost state of the art potatoes processing hub using appropriate technology in Njombe Region for cleaning, sorting, grading, weighing, packing and cold-storing of potato for domestic and regional markets.
2. Undertake product development interventions including branding taking into account uniqueness of products and regions, promotion and marketing.
3. Linking smallholder producers to business development and financial services including the use of innovative revolving fund to support emerging rural enterprises.
4. Linking potatoes and ginger producers to an E-marketing platform established under **"Baridi Sokoni"** project.

Component 3: Increased Capability of MVIWATA and its members to manage shocks through capacity development and increased Investment in sustainable food systems.
Activities

1. Strengthening organisational, operational, managerial and technical capacities of potatoes and ginger producers' groups and MVIWATA as the PO.
2. Monitoring, evaluation and learning
3. Policy advocacy actions on potatoes and ginger value chains
4. Project management activities

Specific activities in Same District focus in ginger production and productivity by linking the marketing into digital platform. As per stakeholders' consultation in Same District the critical issues related to ginger growth are processing and connecting with global marketing. In Njombe Region – Ludewa, Makete, Njombe and Wanging'ombe Districts- construction of a small potatoes processing plant for value addition.

Project Geographical Locations

This project will be implemented in Tanzania in the Regions of Kilimanjaro and Njombe. In the Njombe Region, the project will benefit four districts of Ludewa, Makete, Njombe and Wanging'ombe. In the Kilimanjaro Region it will be implemented in Same District.
Value chain crops to be supported in Njombe is potato through processing and marketing while in Same District the crop is ginger.

Overview of Major Environmental and Social Risks and Stakes

During the project implementation, major environmental and social risks and stakes are as follows:
As the project entails two value chains namely potatoes and ginger, the major impacts associated with their growing include:

i) Soil and groundwater pollution resulting from increased application of agrochemicals to increase potato productivity.
ii) Increased water abstraction due to increased demand for irrigating the new potatoes and ginger farms.
iii) Pressure on existing water resources
iv) Risks of emerging water use conflicts among the users
v) Increased generation of wastes from the processing of potatoes in Njombe.
vi) Increased generation of hazardous wastes such as chemical containers and packaging
vii) Risks related to pest invasion if a pest management plan is not developed and implemented.
viii) Social-economic risks associated with potato market failures. (i.e. in case it happens, the market is already flooded, or the processing facilities are inadequate.

Institutional and Legal framework

This project is guided by various laws, regulations and guidelines including the African Development Bank's safeguards policy requirements that the ESMF complies with.

As per the concept note for the implementation of this project, the suggested and agreed institutional framework are summarised below:

i) *Project Steering Committee (PSC)* –will comprise of 9 MVIWATA Board Members – tasks to provide the strategic guidance and oversight on the Project.
ii) *Technical Advisory Committee (TAC)*: This will advise the project on technical areas and ensure synergy.
iii) *The Project Implementation Entity (PIE) is MVIWATA, which will use her staff members* from the Project Implementation Team (PIT). PIT will be responsible for day to day implementation of the project. MVIWATA existing staff members and others to be recruited will make up the PIT.
iv) *Benefitting Local Government Authorities (LGAs*): Same and Ludewa, Makete, Njombe and Wanging'ombe District Councils. They will provide advice and policy positions on agriculture matters, environment, land use and project construction-based approvals such as issuance of building permits and village authority approvals of land use and development.
v) MVIWATA Middle and Local Levels Networks will engage with the project activities effectively.

In summary the following are laws and regulations that will govern the implementation of the project:

S/N	Law/Regulations	Legal Requirements
1.	The Environmental Management Act (Cap.191), 2004.	This is a framework environmental law that provides for legal and institutional framework for sustainable management of the environment and natural resources in the country. It provides institutional roles and responsibilities with regard to environment management; environment impact assessments; strategic environmental assessment; pollution prevention and control; waste management; environmental standards. It has various regulations and screening procedure for all categories of projects. It has regulations that operationalize it including the Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018, Bio-safety Regulations 2009; Waste Management Regulations 2009; Strategic Environmental Assessment Regulations 2009; Solid Waste Management Regulations 2009; Environmental Inspectors Regulations, 2011; and Hazardous Waste Management regulations, 2009. This law and her regulations will be used in the management of the F3SRT.
2.	Agriculture Sector Environmental Impact Assessment Guidelines, 2013	These were prepared by the Ministry of Agriculture as a compliance requirement of EMA, 2004 for each sector to have specific guidelines. It aimed to provide to agricultural projects developers and other stakeholders engaged in the sector to ensure that they formulate and implement sound projects that reduce adverse environmental, social and health impacts. Farmers in the targeted value chain under F3SRT will have to abide to these guidelines to ensure they harvest healthy products. It proposes ESMP for handling agro based impacts per phases.
3.	Local Government (District Authorities) Act of 1982 RE 2000	This law establishes the local government authorities in Tanzania. F3SRT will be implemented in the jurisdiction of Districts Councils (DC) of Same, Ludewa, Makete, Njombe and Wanging'ombe. As such all guidance such as permissions, agro-based information, identification of genuine workers, health services, security, in relation

		to project implementation will be accessed from leaders of these authorities. There are Departments responsible for agriculture, cooperatives, environment, land, works etc. These have authorities and guidance related to engagement with farmers.
4.	Water Resources Management Act, 2009	The law was enacted to govern management of water resources in Tanzania mainland. It requires any development project within a water basin to be authorized by the respective water basin officer to abstract water. It also protects water sources from pollution by prohibiting unauthorized discharges into water bodies. It puts in place Water Basin Offices where a project promoter can apply for water use rights such as abstraction. F3SRT activities related to productivity improvement means more water consumption.
5.	Land Use Planning Act, 2007(Cap 116)	This law replaced the National Land Use Planning Commission Act, 1984. The National Land Use Planning Commission (NLUPC) is helpful in facilitating effective planning and management of land use planning in Tanzania. Some of the responsibilities of the NLUPC are: i) Coordinate, advise and inspect all sectors on common standards and advise the minister to set acceptable standards to oversee the planning and development of towns and villages; ii) Assist all land use planning authorities and prepare land use planning, monitor its implementation and evaluate it regularly. iii) Coordinate all activities of all agencies involved in land use planning matters and serve as a means of communication between these Institutions and the Government; F3SRT will have to ensure that horticultural activities are done in areas designated for the use.
6.	Employment and Labour Relations Act No 6 of 2004	The Act provides broad protection against discrimination. It requires that employers promote equal opportunity in employment and strive to eliminate discrimination in any employment policy or practice". It prohibits direct or indirect discrimination by employers, trade unions and employers' associations on a number of grounds, including gender, pregnancy, marital status or family responsibility, disability HIV/AIDS and age. Harassment of an employee on any of these grounds is equally prohibited. The Act also requires employers to take "positive steps" to guarantee women and men the right to a safe and healthy environment. Should **F3SRT** Implementer decide to employ anyone in the implementation of this project then provision of this law will have to be followed.
7.	Village Land Act No.5, 1999	The law provides procedure for ownership of land within villages. Within villages there are areas categorised by villages as hazardous such as wetlands, land within 60 meter from the highest water marks of water bodies, village forests, water catchment etc. **F3SRT** Implementer will have consult Village Councils for clarifications on issues related to land use at the village.
8.	The Plant Protection Act No.13 of 1997	It prevents the introduction and spread of harmful organisms, to ensure sustainable plant and environmental protection, to control the importation and use of plant protection substances, to regulate export and imports of plants and plant products and ensure the fulfilment of international commitments, to entrust all plant protection regulatory functions to the Government, and for matters incidental thereto or connected therewith. F3SRT will have to comply with the provision of this law.
9	The Occupational Health and Safety	The law requires employers to provide a good working environment to workers in order to safeguard their health and ensure safety at the workplace. The employers need to perform medical examinations to

	Act No. 5 of 2003	determine fitness before engaging employees. Employers must also ensure that the equipment used by employees is safe and shall also provide personal protective equipment (PPE) as appropriate. Whoever that will be engaged with **F3SRT** activities will have to adhere to the provisions of this law. During implementation of **F3SRT** any contractor or a group of local contractors through Force Account will be required to strictly adhere to this law to ensure that no accident or fatality occur.
10	Industrial and Consumer Chemicals (Management and Control) Act of 2003	This Act introduces measures for the control of production, importation, exportation, transportation, storage, handling and placing on the market of industrial or consumer chemicals or chemical products and provides for the carrying out of such control. It empowers the Chief Government Chemist to oversee registration of all chemicals in Tanzania. The F3SRT may entail activities and processes that may require use of chemicals of different types during the processing of agro-products. The Proponent to this project will have to consult the relevant authority especially the Office of the Chief Government Chemist for guidance.
11.	Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018	These regulations are made under EMA, 2004. They provide procedures and requirements for undertaking Environmental and Social Assessment (ESIA) for different types of projects. They also provide screening criteria for various projects including those that require full ESIA studies and those that do not. Though not categorised already, F3SRT sub-projects are ones that require registration only.
12.	Environmental Management (Hazardous Waste Management) Regulations, 2009	These regulations provide categories of controllable wastes and a list of hazardous and nonhazardous wastes. In relation to F3SRT, there will be a need to review the list and determine if there will be waste as a result of improving productivity. MVIWATA will have to abide to these regulations.

Risks and Generic Potential Impacts of each Type of Eligible Sub-Project;

Eligible sub-projects are the construction and operation of potatoes processing facility and ginger processing and productivity activities in the targeted districts.

Mobilization Phase

Socio-Economic Impacts – are likely to include employment opportunity for transporters of required building materials; experts in various skills such as engineers, masonry, plumbers etc; drivers of equipment machineries. Others who will be employed will be food vendors who will prepare food and drinks for workers during the preparation of sites for each of the proposed sub-projects.

Construction Phase

Socio-economic impacts–there will be the creation of employment for various individuals of semi and skilled levels. Increase of income for local communities due to sell of products to workers. It is anticipated that the Government will get revenue resulting from income tax, levies and VAT for materials to be procured during the construction of each of the sub-projects. Local Government

Authorities will also collect service levies from procured contractors/force account operators during the construction.
It is anticipated that persons both skilled and semi-skilled persons will be employed during the construction of aggregation centres or the processing facility. Skilled persons to benefit will include architects, Civil and environmental engineers, quantity surveyors, drivers, food vendors, procurement and logistics experts, electrical engineers, local masonry etc.

Operation Phase
Socio-economic impacts

i) The operation phase of the processing facility will contribute to the Local and National Economy - Increased revenue to the central and local government through fees and levies such as industrial cess, service levy, income tax, VAT, export duty -Increased foreign currency through export of value added products of the spices;
ii) There will employment opportunities for those to be engaged in transportation of targeted products from farms to the bulking centres. There will be jobs for unskilled laborers women, girls and youth dealing with sorting and parking. There will be temporary or permanent employments for skilled and semi-skilled persons from surrounding communities.
iii) Increased income to enhance food security – as smallholder farmers will be able to sell their produce to raise income which they will use to have secure food for their families.
iv) Increased markets for raw materials near the community – this will happen as small holder farmers of targeted crops in the project areas will have secure markets for their crops. During consultation in Same District there was a significant concern over the production of ginger that goes unsold hence requiring more firms with capabilities to buy and process ginger.
v) The implementation of this project and in particular the operationalization of these sub-projects will act as learning opportunities for smallholder farmers, local communities on spice processing technology and marketing strategies to be done by the MVIWATA. Private entrepreneurs such as Food vendors, private warehouse owners, transporters, agro-inputs sellers will generate income through selling of their products.

Risks and Potential Negative Impacts
The Mobilization Phase of the construction of these sub-projects is likely to

i) Influx of people especially youth searching for jobs which can result into spread of diseases such as HIV/AIDS, COVID-19;
ii) Sense of insecurity for local community where the proposed sub-project will be constructed for example in Wanging'ombe District for the processing facility. New faces are likely to arrive with different culture, norms and values from other areas;
iii) Transportation of materials to the site can result into air pollution depending on the season of mobilization
iv) Accidents can also occur as some vehicle can be moving to and from the site bring materials.

Construction Phase of Sub-Projects
Environmental Impacts

i) Erosion caused by removal of top soils during site clearing, leveling and extraction works;
ii) Impacts on surface water resources existing around the site due to uncontrolled release of solid and liquid wastes;

iii) Risks to the environment and public health due to construction waste consisting of excavation cart away material, construction in packaging materials and debris and other domestic solid waste generated by workers;
iv) Air pollution due to increased particulate and gaseous concentrations caused by the movement of heavy duty machineries, vehicles and other equipment.

Socio-economic impacts

i) Impacts on public safety and security.
ii) Impacts on Community health- increased HIV/AIDS and communicable diseases – create awareness among the community and workers and provide preventive measures.
iii) Impact of noise to residential receptors resulting from movement of heavy duty machineries, vehicles and other equipment nuisance along the site route and boundary;

Improvement of Productivity of Potatoes

i) Impacts on underground aquifer due to increased use of chemicals in the production of potatoes and ginger;
ii) Encroachment of protected or reserved areas to increase production of selected crops especially potatoes and ginger,
iii) Impacts on environment and social health to smallholder farmers due to the use pesticides especially in potatoes production so as to increase production.

Operation Phase of potato Processing Facility

Risks and Negative Environmental Impacts

i) *Surface water resources* existing around the site could be affected due to uncontrolled release of solid and liquid wastes;
ii) Impacts on environment and social health for smallholder farmers due to the use pesticides so as to increase production of potato needed as raw materials needed by the potato Processing Facility
iii) Impacts associated with the generation of solid waste during spice processing,
iv) *Risks associated with inadequate supply of targeted spices* for processing at the facility.
v) Air pollution due to dust caused by washing of potato before processing; solid wastes generation due to processing of both potatoes during the processing.
vi) *Occupational safety and health impacts* such as fire outbreak; accidents caused by running processing machines.

Socio-economic impacts

i) *Health hazards* caused by inhaling and contamination – provide protective gears such as face masks, proper packing and labeling;
ii) *Increased HIV/IDS* and communicable diseases Impacts on public safety and security and on Community health;
iii) Pressure on needed land for further expansion of farms so as to increase production;
iv) Impacts associated with inadequate supply of crops needed for the functionality of the processing facility.
v) *Incidence of child labour* for working in small farms, aggregation and bulking of needed potatoes products and at the processing facility;
vi) Impacts associated with the supply of agro-raw materials of low qualities and of different species;
vii) *Loss of Income* – can result from the closure of the spice processing facility due to inadequate supply of types of potatoes.

Operation Phase of Ginger Processing Facility

Risks and Negative Environmental Impacts

i) *Water demand as ginger requires water in farming process*;
ii) Impacts on environment and social health due to inadequate water due climate change
iii) Impacts associated with the generation of solid waste during ginger processing,
iv) Risks associated with reluctance of farmers to sell their produce due to prices fluctuations.
v) Risks associated with decrease in the value of ginger due to delay in harvest caused by failure for buyers to pay agreed prices.
vi) Occupational safety and health impacts such as fire outbreak and accidents caused by running processing machines;
vii) Risks associated with failure to transport ginger from farms to processing facility due to poor road networks.

Engagement with Stakeholders during the Preparation of the ESMF

In development projects it is vital to ensure that all stakeholders relevant to the activity are engaged adequately throughout the project phases. This chapter presents objectives of the consultations, consulted stakeholders, methods used in the consultation and summary of raised issues, challenges and suggested solutions. Series of field visits, analysis and engagement with various stakeholders was conducted in different times in November, 2022 and March 2024 in the regions of Njombe and Kilimanjaro respectively.

Following the improvement and additional financing and the renaming of the project from F3SRT to Food Systems Supply Services in Rural Tanzania (**F3SRT**) "Baridi Sokoni" further consultation with stakeholders was held in Kilimanjaro Region focusing on Same District from 16th March to 21st March 2024. The consultation concentrated on the value chains of ginger and potato production. The results of the consultation clearly showed the need for intervention in the ginger value chain particularly in the entire value chain especially marketing and sales, processing and strenghtening of the cooperatives of farmers. When actual sites for the proposed sub-projects will be identified there will be a need for PIE to comply with the policy, laws and regulations guiding agro-processing system.

Framework Environmental and Social Management Plan (Framework ESMP)

The following are generic environmental and social measures to ensure that the anticipated impacts are handled adequately by ensuring:

i) On the construction of potatoes processing facility, the project management will ensure that impacts related to the selected sites are mitigated adequately by screening the site based on the criteria provided inEnvironmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018.
ii) Proper training and capacity to building to farmers on proper use of chemicals during the production and improvement of productivity of potatoes
iii) Wise use of water through issuance of water abstraction rights as per the laws and regulations. It was observed in Same District that ginger production requires intensive use of water so sustainable use of this resource is critical,
iv) proper support of the functionality of the markets by engaging with other Government actors in Njombe Region in the production of potato has exceeded demand hence farm loss as there are no adequate processing facility for the same;
v) Proper handling of Wastes will be generated during the processing of potato in Njombe.
vi) Guidance on proper handling of empty containers resulting from the use of chemical containers,

vii) Effective implementation of the pest management plan so as to mitigate risks associated with the pest invasion if pest management plan is not well implemented.
viii) Support the processing of ginger value chain through the analysis and construction of a processing facility in Mamba Area.

Sub-Projects Environmental and Social Management Procedure

The PIE, using the E&S Consultant, will prepare a detailed description of the Sub-project guided by the Environmental Management Act (EMA) and her Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018and submit the same to NEMC using online portal. This will be done after a site has been assessed for its suitability in terms of zoning and ownership.

A checklist of screening criteria is provided under the Environmental Management Act (EMA) and her EIA and Audits Regulations, 2005 and the Amended Regulations, 2018; and the AFDB Safeguards Policy.
The Consultant will fill up the EIA Application Form and share the same with AfDB for review and approval before submitting to NEMC for final approval. NEMC has established a very effective online portal such that project EIA Clearance is very fast provided mandatory fee is paid in time.

The Government of the United Republic of Tanzania has procedure for the registration and approval of Environmental and Social Impacts Statement. These are:

i) ***Sub-Project registration and screening*** – here, MVIWATA with the support of a Registered Environmental Expert, will prepare a project brief as per and submit it online to NEMC for screening and determination of the risks and associated impacts; The regulations categorises:
   (a) "A" category for Mandatory Projects;
   (b) "B1" category for Borderline Project;
   (c) "B2" category for Non-Mandatory; and
   (d) "Special Category.

As per F3SRT Concept Note – the intended subprojects fall under category B, hence requiring registration with NEMC because it constitutes small scale activities- horticulture and floriculture.

Specific and Target Capacity Building

Groups of small-scale farmers in the potato value chain will be trained on best practices for using industrial chemicals for potatoes, handling empty containers with hazardous wastes, using water sustainably for irrigation, and protecting environmentally sensitive areas such as water catchment areas. For ginger production, consultations showed that this crop does not use industrial chemicals. In the processing of potatoes more training will be on procedure for harvesting so as to maintain quality, drying techniques, and packaging before transportation to the proposed processing facilities.

Grievance Redress Mechanism (GRM)

For the sub-projects involving the construction and operation of the potato and ginger processing facility, the PIE will collaborate with participating local government authorities in Kilimanjaro and Njombe Region. The aim of collaboration will be to ensure the handling of the project anticipated environmental and social related complaints and conflicts. Local designated leaders will be trained on how to receive and document any raised complaints; record the same and submit them to the representative of PIE for quick action including feedback. It is worth noting that this project due to its nature, is not expected to have significant challenges related to labor. PIE will employ an environmental and social safeguards specialist to support the project on issues related to grievance handling. The expert may be available on an intermittent basis.

Performance Indicators

These will be used to monitor the implementation of the Framework ESMP.

i) Decrease of the occurrences of the misuse of industrial chemicals.
ii) Number of Potato farmers participating in the project that have adequately understood the handling and safe disposal of industrial chemicals.

Comprehensive Institutional Arrangement

Institutional arrangement for the implementation of the Framework ESMP

As per Project Concept Note, the institutions to engage in the implementation of this project are summarised below: Referring to the FSSP Appraisal Document, the organization structure for this project will comprise of the following:

i) *Project Steering Committee (PSC)* –will comprise of 9 MVIWATA Board Members – tasks to provide strategic guidance and oversight on the Project.
ii) *Technical Advisory Committee (TAC)* – this will advise the project on technical areas and ensure synergy.
iii) *The Project Implementation Entity (PIE) is the MVIWATA, which will use her staff members* from the Project Implementation Team (PIT). PIT will be responsible for day to day implementation of the project. MVIWATA existing staff members and others to be recruited will make up the PIT.
iv) *Benefitting Local Government Authorities (LGAs*): these are Same, Ludewa, Makete, Njombe and Wanging'ombe District Councils. They will provide advice advise and policy recommendations on agricultural matters, environment, land use and project construction - based approvals such as issuance of building permits, village authority approvals of land use and development.
v) MVIWATA Middle and Local Levels Networks will engage with the project activities effectively.

Implementation of the Framework ESMP

This will be done by the PIT to be established within the PIE. The roles and responsibilities of each member in the PIT as presented below:

- *Project Coordinator: to* lead the PIT and ensure all project activities are implemented as planned. Ensure development of sub-project specific ESMPs by facilitating the process through funding, field visits. Liase with regional coordinators on all issues related to environmental and social safeguards by facilitating the ESSS-PIE,
- *Project Accountant (*PA-PIE*):* responsible for all financial management matters by keeping proper accounts on finance, expenditure by abiding to the AfDB financial management rules and those of the Goverment of Tanzania.
- *Agronomist*: will advise on agriculture and business focusing on the potato and ginger (PG) value chain in this project.
- *Value Chain and Marketing Officer* (VCMO-PIE): follow up and sensitization on value chain for PG and marketing of the same after processing.
- Regional Coordinators (RCs) for Njombe and Kilimanjaro: guide implementation of the planned activities in their respective regions.
- *Environmental and Social Safeguards Specialist (*ESSS-PIE*):* ensure compliance to the Tanzania policies, laws and regulations as well as the AfDB policies on environment and social matters as per risk levels. Will facilitate environmental clearance with the NEMC through preparing recommended environmental instruments, sites verification visits and follow up for approvals;
- *Procurement specialist (*PS-PIE*):* ensure procurement of goods and services are done according to the policies of the Bank and those established by the PIE; the Government of Tanzania;
- *Monitoring and Evaluation specialist (*M&E- PIE): monitor implementation of the project by collecting data on progress made, expenditure, indicators based on the log-frame and theory of change for the project. The Project M&E Plan that is aligned with the Bank's Results Measurement

Framework and the M&E framework for ASDPII will be used to ensure that everything is recorded and reported accordingly.

Summary of Roles and Responsibilities for Project Implementation

No	Steps/Activities	Responsible	Collaboration	Service Provider
1.	Identification and/or sitting of the Multipurpose Processing Plant for Spices and The Rehabilitation of the Fresh Foods Transformation Centre.	PIE	District Local Government where the sub-project has been proposed to be located, Land Officer for land tenure issue, land use and land valuation in case of acquisition.	District Land Office.
2.	Screening, categorization and identification of the required instrument (national EIA procedure)	PIE-Environmental Specialist.	Relevant Local Authority, Beneficiary; Social Safeguards Specialist (SSS) on the PIE; District Environmental Officer, Land Officer, Land Use Planner, Agriculture Officer.	Sourther highland and Northen NEMC Zonal Offices .
3.	Approval of the classification and the selected instrument by the Public EA Agency	PIE Coordinator	ESS-PIE; SSS-PIE; District Environmental Officers.	• NEMC • The Bank
4.	Preparation of the safeguard document/instrument (ESIA, Env. Audit, simple ESMP, etc.) in accordance with the Tanzania environmental clearance procedure including requirements of AfDB policies.			
	Preparation and approval of the Sub-Project Brief as per EIA Procedure in Tanzania	ESS-PIE	E&S consultant at PIE	• NEMC • The Bank
	Preparation of the report		Procurement specialist (PS-PIE); SSS-PIE; Relevant District Authority-depending on where the project is to locate.	• Consultant • NEMC
	Approval of Application for Environmental Clearance of a Sub-project.		Procurement specialist (PS-PIE); SSS-PIE; Local authority	• NEMC • The Bank
	Disclosure of the document		Project Coordinator	PIE-Media; The Bank; supervising engineer.
5.	Integrating the construction phase mitigation measures and E&S clauses in the bidding document prior they're advertised; (ii) ensuring that the	Technical staff in charge of the sub-project	ESS-PIE; PS-PIE; Supervision Consultant (if any)	Contractor. NEMC

	constructor prepares his ESMP (C-ESMP), gets it approved and integrates the relevant measures in the works breakdown structure (WBS) or execution plan.	(TS-PIE)		
6.	Implementation of the other safeguards measures, including environmental monitoring (when relevant) and sensitization activities	ESS-PIE	SSS-PIE, PS-PIE; TS-PIE; Financial Staff (FS-PIE); Local authority	• Consultant; National specialized laboratories;
7.	Oversight of safeguards implementation (internal)	SSES	Monitoring and Evaluation specialist (M&E-PIE); FS-PIE; Relevant Local Government Authorities in Tanzania.	• NEMC,
	Reporting on project safeguards performance and disclosure	Coordinator	M&E-PIE; ESS-PIE; SSS-PIE	NEMC
	External oversight of the project safeguards compliance/performance	PEA	M&E-PIE; ESS-PIE; SSS-PIE; PS-PIE; Supervisor	NEMC
8.	Building stakeholders' capacity in safeguards management	ESS-PIE	SSS-PIE; PS-PIE	• Consultant • NEMC or any qualified public institutions
9.	Independent evaluation of the safeguards performance (Audit)	ESS-PIE	SSS-PIE; PS-PIE	Consultant

Budget for ESMF Implementation

This project is pegged on the previous FSSP which has a budget for various activities. on estimated at UA 0.089 million (USD0.117 million, or 4.5%). The budget for implementation of ESMF is tentatively estimated at USD 25,090 which will be 21% of MVIWATA in-kind contribution to the project. The Source of funding will be MVIWATA.

	Item	**Unit**	**Unit Cost**		**Total**	
			TZS	**US$**	**TZS**	**US$**
1.	Preparation of specific ESIA	1	5,000,000	1,957	5,,000,000	1,957
2.	Capacity Building	2	5,000,000	1957	10,000,000	3,914
3.	Implementation of specific ESMP	2	6,500,000	2,544	13,000,000	5,088
4.	Mid-term audit of ES performance	1	3,500,000	1,370	3,500,000	1,370
5.	Completion audit of ES performance	1	2,500,000	978.5	2,500,000	979
	TOTAL				**34,000,000**	**13,308.**

Source: MVIWATA, 2024

Proposed construction sub-project will have to be registered online at the National Environmental Management Council (NEMC) where a fee of USD 85.11 will have to be paid by PIE. Upon receipt of

the document, NEMC will screen the project using screening criteria in the EMA Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018 to determine the risk categorisation. The cost of reviewing and approval (CRA) of the project (issuance of Certificate of EIA) will depend on the sub-project Cost as done in the Bills of Quantities (BOQ) for the sub-project in question. CRA entails field verification visits by the representatives of the Technical Advisory Committee (TAC) from the NEMC. Later on, annual monitoring will be done by NEMC using E&S experts in the Southern highlands zone and the Northen Zone for Njombe and Kilimanjaro respectively.

GRM implementation is estimated at USD 2000.

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Acronyms and Abbreviations

AfDB	African Development Bank
AGM	Annual General Meeting
AMSDP	Agricultural Marketing Systems Development Program
ASDP	Agricultural Sector Development Program
CEO	Chief Executive Officer
COVID-19	Corona virus Disease 2019
CSP	Country Strategy Paper for Tanzania
DADO	District Agricultural Development Officer
DADP	District Agricultural Development Plan
DC	District Councils
DoE	Department of Environment
DRSLP	Drought Resilience and Sustainable Livelihoods Project
EIA	Environmental Impact Assessment
EMA	Tanzania Environmental Management Act
EMOs	Environmental Management Officers
ERPP	Expanding Rice Production Project
ESIA	Environmental and Social Impact Assessment
ESM&MP	Environmental and Social Management and Monitoring Plan
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan

FAO	Food and Agricultural Organization of the United Nations
FGD	Focus Group Discussions
FPAs	Forest Protected Areas
F3SRT	Food Systems Supply Services in Rural Tanzania (F3SRT) “Baridi Sokoni”
FYDP	Five Year Development Plan
GAFSP	Global Agricultural and Food Security Program
GBV	Gender Based Violence
GDP	Gross Domestic Product
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HOA	Horn of Africa
ICT	Information Communication Technology
ISS	Integrated Safeguards System
LCBC	Lake Chad Basin Commission
LGAs	Local Government Authorities
LTA	Lake Tanganyika Authority
MIVARF	Marketing Infrastructure, Value Addition and Rural Finance
MVIWATA	Mtandao wa Vikundi Vya Wakulima Tanzania
NBS	National Bureau of Statistics
NEMC	National Environment Management Council
NFRA	National Food Reserve Agency
NGO	Non-Government Organization
NLUPC	National Land Use Planning Commission
NSSF	National Social Security Fund
OSHA	Occupation Safety and Health Agency
PEIAs	Public Employees Insurance Agencies
PMO	Prime Minister's Office
PO-RALG	President Office-Regional Administration and Local Government
PPE	Person Protective Equipment
RAS	Regional Administrative Secretary
RSS	Regional Stabilization Strategy
SAPZ	Special Agro-Industrial Processing Zone
SDGs	Sustainable Development Goals
SMEs	Small, Medium Enterprises
SSA	Sub Sahara Africa
TACTICs	Tanzania Cities Transforming Infrastructure and Competitiveness
TANAPA	Tanzania National Parks Authority
TANIPAC	Tanzania Initiative for Preventing Aflatoxin Contamination
TANROADS	Tanzania National Roads Agency
TARURA	Tanzania Rural and Urban Roads Agency
TBS	Tanzania Bureau of Standards
TFDA	Tanzania Food and Drug Authority
TOC	Theory of Change
ToR	Terms of Reference
TRA	Tanzania Revenue Authority
UA	Official currency for the AfDB projects
UNESCO	United Nations Educational, Scientific and Cultural Organization

UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organizations
URT	United Republic of Tanzania
USD	United States Dollar
VAT	Value-Added Tax
VAW	Violence against Women
VPO	Vice President Office

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CHAPTER ONE
INTRODUCTION

1.1 Project Background

Mtandao wa Vikundi vya Wakulima Tanzania (MVIWATA) is a Trust Fund that was formed in 1993 and registered in 1995(Reg.no.SO8612) under the Society Ordinance Act. In 2007 MVIWATA received a compliance certificate under the NGO Act of 2002 (Reg.no 1930). It is a farmers' organisation which unites small holder farmers in order to have a common voice in defence of economic, social, cultural and political interests of smallholder farmers. MVIWATA's goal has been to unite small-scale farmers (including all small holder producers, whose livelihood depend on land such as pastoralists and fisher folks) in order to defend their interests and address together the challenges of farmers. Its mission has been to strengthen farmers' groups and networks, facilitate communication and learning among farmers for the purpose of defending the interests of small scale farmers while the mission has been to become a strong national farmers' organisation that will guarantee small-scale farmers' participation and local investors.

In line with her goal, mission and vision MVIWATA secured fund for implementing Food Systems Support Project (FSSP) which is ongoing. They also applied for funding to the Global Agriculture and Food Security Program (GAFSP) to scale up the FSSP by strategizing in the Improvement of Food Systems Supply Services in Rural Tanzania(F3SRT) in Adaptation to COVID-19 - **"Baridi sokoni".** F3SRT will scale up operations for two value chains, namely, potatoes (Solanum tuberosum) in Njombe Region in Southern Highlands of Tanzania and ginger (*Zingiber officinale*) in Same District, Kilimanjaro Region, Northern Tanzania. These crops have nutritional, income-generating potentials and possibilities to make a long-term contribution to resilient and sustainable food system, that is capable of improving and assuring food access for smallholder producers, including MVIWATA members and the poor urban and thus curbing the adverse effects of the multiple economic and climate shocks.

MVIWATA is committed to implement this project through a well dedicated organizational setting including: Project Steering Committee (PSC), Technical Advisory Committee (TAC) and Project Implementation Team (PIT). Other institutions to participate will be Tanzania Bureau of Standards (TBS), Small-scale Industry Development Organization (SIDO), TanTrade, Ministry of Agriculture, Representative of the President's Office Regional Administration and Local Governments (PO-RALG); and one representative of local farmers' groups as deem necessary by MVIWATA.

This project is to be implemented in Tanzania Mainland in the regions of Kilimanjaro and Njombe. F3SRT is consistent and well aligned with National, Regional and Global strategies related to agricultural and economic development. This project, for example is aligned with the FYDP III, the Agricultural Sector development program II (ASDP II); the 2030 Sustainable Development Goals (SDGs) - particularly SDG1 (no poverty), SDG2 (zero hunger), SDG 10 (Reduced inequalities) and SDG 13 (climate action). Other initiatives to which this project is well aligned are Africa Agenda 2063 as well as the East African Development Vision 2030, the AfDB's Ten-Year Strategy (2013-2022). FYDP III aims to steer Tanzania to a middle-income economy with a high level of human development. Specifically, this plan focuses in increasing agriculture productivity, value, income, employment creation and diversification of products. The Second Agriculture Sector Development Programme (ASDP II) of 2017/18–2022/23) aims at transforming the agriculture sector towards higher productivity, commercialization and increasing smallholder farmer income for improved livelihood, food and nutrition security and contribution to the GDP. The ASDP II is also aligned to the National Climate Change Response Strategy 2021-2026.

In Tanzania, more than 70% of its population lives in rural areas. Majority of these people depend on agriculture hence 80% of the country's labor force is employed in this sector. The sector is said to contribute to 27% of its GDP. Horticulture, a sub-sector of agriculture is recognized as labor intensive and offering multiple employment opportunities throughout the value chain, particularly in the rural areas. It employs 450,000 farmers composed of small, medium, and large scale and mostly comprised of women and youths. Generally, its value chain provides employment to around 4.5million Tanzanians2. Tanzania has witnessed increases in foreign exchange from horticulture subsector from USD46.7 million to USD779 million from 2006/2007 to in 2019/2020 respectively. This achievement placed Tanzania among the top 20 leading countries in horticulture exports in the World. The government intends to increase the horticulture export value from the current USD779 million to USD3 billion by 2025.

Save for efforts made by Government on Horticulture, the sub sector value chain has faces challenges related to ineffective market logistics for its products from farm to the gate; inadequate storage facilities; market strategy and information gaps and awareness on the international standards mainly by smallholder farmers. Besides, there have been inadequacies in harmonization of different institutions that deal with the horticulture subsector; digitalization of the marketing channels; extension and advisory services; availability of inputs, credit facilities and irrigation schemes (critical for crops that require water throughout the year).

Actors in the sub-sector have experienced post-harvest losses caused mainly by inadequate handling techniques; limited packaging facilities; poor transport and storage infrastructures, market processing; The agricultural produce markets challenges have also been exacerbated by the outbreak of COVID-19, which afflicted agricultural trade and supply chain causing domestic producers to receive low farm produce prices.

Globally and in Tanzania in particular, the emergence of COVID-19 disrupted produce marketing systems, family labor, production patterns and yields and consumer behavior. Therefore, strategies and actions are needed to minimize the impact of COVID-19 and its spillover effects on general citizens particularly smallholder rural producers, consumers (urban and peri-urban) areas. Besides, these strategies will contribute to the national food systems and build the resilience of crop and food production to other stresses related to climate variations. F3SRT seeks to improve the local horticultural produce supply and unlock market failures emanating from COVID-19 pandemic and long-term climate change effects by improving on-farm horticultural commodities, markets of food supply services and building capacity of rural market companies and small and medium enterprises (SMEs).

1.2 Project Description

The FSSP is a continuum, a connect to and a scale up of the GAFSP 2021 funded project Improvement of Food Systems Supply Services in Rural Tanzania in Adaptation to COVID 19 - "Baridi sokoni"[3] which is currently under final preparations. The FSSP will well complement "Baridi sokoni" and reach areas and values chains namely ginger and potatoes that were not covered under the "Baridi sokoni" because of funds limits. As pointed out earlier, the project will therefore scale up to Njombe Region- for potato value chain and in Kilimanjaro Region- Same District for ginger value chain where linkages

[2] Pilot 4 Research and Dialogue Policy Brief, November 2021

[3] Improvement of Food Systems Supply Service in Rural Tanzania in Adaptation to COVID-19 Project | Global Agriculture and Food Security Program (gafspfund.org)

and synergies with the current "Baridi sokoni" project will be established for wider impact of the project and project management cost effectiveness[4].

1.2.1 Project Development Objective

To increase capability of the families of rural producers in managing food security shocks and improving nutrition and food security system from households, communities, districts to national levels. Specifically, the project aims to (i) increase productivity and production of horticulture and food crops; (ii) enhance value addition and marketing of horticultural crops grown by smallholder farmers, particularly women and youth; and (iii) promote technologies to mitigate the impact of climate change on smallholder farming systems.

The development model or theory of change (TOC) of this project is improved extension services will improve adoption rate of improved technologies and ultimately lead to increased production and productivity. Also, improved farmers' institutional capacity, value addition, marketing efficiency, supply services on horticultural produce value chains will increase profitability on horticultural crops, and thus, sustainable household incomes. In totality, the combined effects of increased production, productivity and household income will enhance availability, accessibility and affordability of food at household level, and ultimately mitigate the negative impacts of COVID-19 pandemic and other calamities (AfDB, 2022). Results of the consultation with stakeholders in Same District has indicated clearly challenges of processing of gingers, inadequate capital to buy ginger timely; low capacity of the existing processing facility to buy and process the produced ginger. Other challenges are associated with ineffective roads network and reliable electricity.

1.2.2 Project Components and Activities

FSSP is a scale up "Baridi Sokoni", a GAFSP funded project has the following components:

Component 1: Increase productivity and sustainable production of potatoes and ginger for improving nutritional and food security at household, local and national levels

Activities

4 Improvement of potato and ginger husbandry and climate-change adaptation management strategies at farm and landscape level through group learning in farmer field schools and on-farm action-oriented and gender-based training. This will be complemented with supporting efficient provision of timely, adequate and appropriate advisory services by linking the producers to the agricultural research centres and to the national extension services.

5 Provision of direct support for identified production constraints including establishing appropriate, low cost irrigation infrastructure for supporting off-season production and increase productivity; creation of seed banking system to increase reliability of planting materials[5]

6 On-farm post-harvest management interventions; trainings, establishing collective on-farm quality centres (for cleaning, sorting and grading); provision of appropriate containers for improving the shelf life of potatoes and handling conditions from farm to markets.

Component 2: Improve market access of round potatoes and ginger for increasing household income and local government revenue from potato and ginger trade

Activities

5. Establish low cost state of the art potatoes processing hub using appropriate technology in Njombe Region for cleaning, sorting, grading, weighing, packing and cold-storing of potatoes for domestic and regional markets.

4 Mviwata – Additional fund application document to GAFSP

[5] https://www.mviwata.or.tz/minimizing-loss-of-potato-seeds-through-improved-potato-seeds-storage-facilities-for-smallholder-farmers-an-initiative-facilitated-by-mviwata-in-njombe-region/

6. Undertake product development interventions including branding taking into account uniqueness of products and regions, promotion and marketing.
7. Linking smallholder producers to business development and financial services including the use of innovative revolving fund to support emerging rural enterprises.
8. Linking potatoes and ginger producers to an E-marketing platform established under **"Baridi Sokoni"** project.

Component 3: Increased Capability of MVIWATA and its members to manage shocks through capacity development and increased Investment in sustainable food systems.

Activities

1. Strengthening organisational, operational, managerial and technical capacities of potatoes and ginger producers' groups and MVIWATA as the PO.
2. Monitoring, evaluation and learning
3. Policy advocacy actions on potatoes and ginger value chains
4. Project management activities

1.2.3 Project Geographical Locations

F3SRT "Baridi Sokoni" which is a scaled up of the FSSP is to be implemented in Tanzania Mainland in the regions of Kilimanjaro and Njombe (see **Figure 1** below). The benefitting district in Kilimanjaro Region is Same focusing on ginger production while in Njombe Region the benefitting districts will be Ludewa, Makete, Njombe and Wanging'ombe focusing on processing of potatoes.

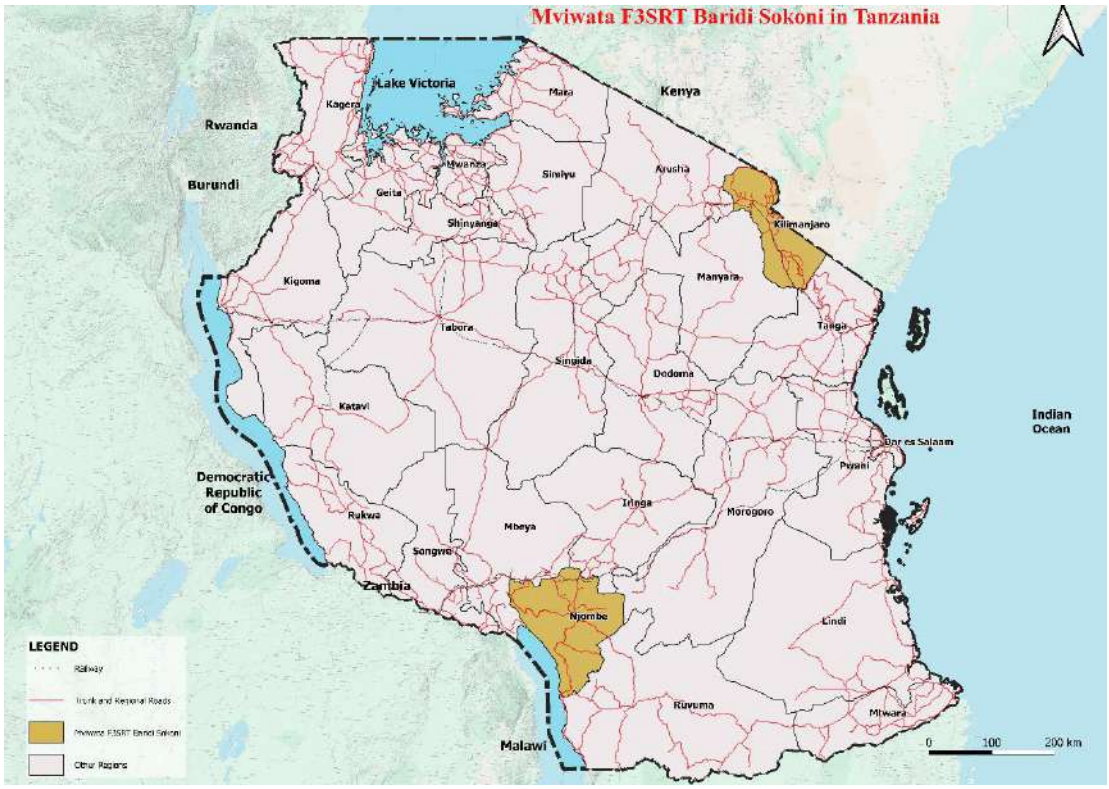


Figure 1: Tanzania:Regions where the Project is to be Implemented
Source: Courtesy of Mary Chuwa-GIS Specialist

1.2.4 Project Beneficiaries

The primary target group of beneficiaries are rural smallholder producers (women-55%, men-15% and youth-30%). Of the 10,000 targeted smallholder producers, there will be 7500 potatoes producers from Ludewa, Makete, Njombe and Wanging'ombe Districts. In the Same District, about 2500 smallholder producers of ginger growers will benefit. Besides, it is anticipated that at least 10 rural small and medium enterprises (SMEs); 2 local business development service (BDS) providers, at least 1 in each project area and at least 100,000 urban and sub-urban consumers will benefit from the intervention of this project. **Table 1** summarises the target areas, value chain, and number of expected beneficiaries.

Table 1: Target Districts by Value Chains and Beneficiaries

Region	Districts	Value Chain Crop Types	Beneficiaries
Kilimanjaro	Same	Ginger	2500
Njombe	Ludewa, Makete, Njombe Wanging'ombe	Potatoes	7500

Source: Project Documents 2024

1.2.5 Environmental and Social Risk Categorization

As per Project Concept Note for FSSP, which is the origin of F3SRT Baridi Sokoni, it is category 2 in the environmental and social risk. This means this project will pose low to moderate environmental and social risks and impacts. The two operational safeguards are (i) OS1 E&S Assessment and (iii) OS5: Labour Conditions, Health and Safety.

Land take and compensation is likely to occur during the construction of the potatoes chips factory in Njombe Region, as MVIWATA will have to acquire a small land for the facility or get it through donations as the case may be.

In the context of climate change and green growth the project has been screened and classified as Category 2 on the Bank's climate safeguards system, meaning it is moderately vulnerable to climate risk. Main climate risks include reduced rainfall, delayed and changing rainy seasons and crop pests and diseases, all of which may reduce productivity of ginger and potatoes.

The Project has been designed to mitigate all the above-mentioned climate risks. Project activities that will contribute to mitigating the risks while building climate resilience in Tanzania'sfarming systems in Njombe and Same Districts will include training farmers on improved agricultural technologies including climate-smart and conservation agriculture; provision of improved potatoes and ginger seeds; improvement of agricultural extension services; and construction of processing and storage facilities. The Project objectives and activities are aligned with climate adaptation contributions for the agriculture sector as outlined in Tanzania's Updated Nationally Determined Contribution under the Paris Agreement.

1.2.6 Project Cost

The cost of this project is USD 3,000,000 and the budgetted cost per components and the detailed cost summary is as presented in Table 2 below.

Table 2: Estimated Project Cost

Component Description	Cost (USD)	Cost Summary
Component 1: Increase productivity and sustainable production of potatoes and ginger for improving nutrition and food security.	1,000,000 (33%).	Trainings – US$ 390,000; Services – US$ 80,000; Goods – US$ 80,000; Equipment – US$ 450,000.00.
Component 2: Improve market access of potatoes and ginger for increasing household income and local government revenue from potato and ginger traders.	1,400,000 (47%).	Trainings – US$ 210,000; Services – US$ 640,000; Goods – US$ 150,000; Equipment – US$ 400,000.00.
Component 3: Increased capability of MVIWATA and its members to manage shocks through capacity development and increased Investment in sustainable food systems.	600,000 (20%).	Trainings – US$ 200,000; Services – US$ 300,000; Goods – US$100,000.00

Source: MVIWATA 2024

1.2.7 Identities of Associated Projects

African Development Bank (AfDB) has experience in supporting projects in the sector of agricultural development, including but not limited to the Special Agro-Industrial Processing Zone (SAPZ), Tanzania Initiative for Preventing Aflatoxin Contamination (TANIPAC), Marketing Infrastructure, Value Addition and Rural Finance (MIVARF) Program, and Agricultural Marketing Systems Development Program (AMSDP). TANIPAC is still ongoing while SAPZ is under preparation, and AMSDP and MIVARF have already been closed.

1.3 Objectives of the ESMF

As per ToR for this assignment, this ESMF has objectives of:

i) Identifying potential impacts of the Food Systems Supply Services in Rural Tanzania (F3SRT) "Baridi Sokoni" Project and prepare an Environmental and Social Management Plan for the direct impacts and indirect impacts, as well as incremental impacts as they relate to land use changes, soil erosion, dust emissions, noise pollution, loss of trees, liquid and solid wastes from the activities among others;

ii) Formulating the Environmental and Social Management Framework (ESMF) standards and procedures, specifying how unidentified subprojects whose locations are unknown will systematically address environmental and social issues in the screening for environmental and social impacts and categorization, site selection criteria, mitigation measures, design, implementation and operational phases as well as maintenance of the subproject lifecycle; and

iii) formulating Environmental and Social Rules for construction contractors. The rules shall be recommended for incorporation in construction contractor's bids and contract documents.

This framework establishes a process of environmental and social screening that will permit MVIWATA to identify, assess, and mitigate the environmental and social impacts of the sub-projects per value chains targeted in this project. It also aims to identify potential impacts of the F3SRT-GASP

project and to prepare a generic Environmental and Social Management Plan for the direct impacts and indirect impacts, as well as incremental impacts as they relate to land use changes, soil erosion, dust emissions, noise pollution, loss of trees, liquid and solid wastes from the activities among others.

Specifically, this instrument formulates the Environmental and Social Management Framework (ESMF) standards and procedures, specifying how unidentified subprojects whose location are unknown will systematically address environmental and social issues in the screening for environmental and social impacts and categorization, site selection criteria, mitigation measures, design, implementation and operational phases as well as maintenance of the subproject lifecycle. To formulate Environmental and Social Rules for construction contractors. The rules shall be recommended for incorporation in construction contractor's bids and contract documents. Specifically, this instrument puts in place clear procedures and methodologies for screening sub-projects, undertaking required level of environmental and social assessment.

1.4 Study Methodology

We employed the mixed approach in conducting this study. The study needed secondary and primary data. As per ToR, for secondary data we were asked to review various documents including but not limited to the ESMF for FSSP; MVIWATA Additional Finance Application for FS3RT, the F3SRT Concept Note (which was rich in information concerning the project details).

For primary data we organized and conducted a Mission in Kilimanjaro Region in particular Same District where we administered semi structured interviews (face to face and by telephone conversation) and two focus group discussions(FGD). Sources primary data were stakeholders from Same District Council (District Executive Director; District Agriculture Extension Officer, Head of Department of Agriculture, Livestock and Fisheries; Head of the Copperative Management Unit, Agriculture Inputs Coordinator, Cooperative Officer) and the Senior Officer from Mamba Ginger Growers Cooperative Society.

Considering the fact that, in November 2022 we had a Mission in Njombe Region especially Wanging'ombe District where we met Regional Officials including the Regional Commissioner we found it not imperative to relevant another physical mission in the same area. We opted to use the previous contact to administer telephone interviews will senior officials in Njombe Regional Dministrative Secretariat – agriculture advisor on the proposed project. The Stakeholders' major views and concerns are incorporated into this report (ESMF). We used qualitative content analysis to reach get meaning from the gathered data from multiple sources.

CHAPTER TWO
RELEVANT POLICIES, LEGAL, ADMINISTRATIVE AND INSTITUTIONAL FRAMEWORK AND BANK SAFEGUARDS

2.1 An Overview

This chapter provides policy, legal, administrative and institutional framework for the management of environmental and social aspects in relation to the proposed project Tanzania Mainland. Section 2.2 presents details for Tanzania Mainland. AfDB Integrated Safeguards Systems (ISS) crafted under Safeguards and Sustainability Series are presented under section 2.4 with the description of Operation Safeguards that are likely to be triggered by the implementation of sub-projects under this project in Tanzania. Tanzania has National Policies, legal and institutional framework that apply in the Tanzania Mainland are presented. Besides, there are Legislations, regulations and guidelines on environmental and social issues relevant to sub-projects under the F3SRT. Below we present some of the policies, laws and regulations that are relevant to the management of activities under this project.

2.2 Relevant Policy Framework

Table 3 presents in summary relevant policies and their relevant statements related to this project.

Table 3: Tanzania Mainland Relevant National Policies

S/N	Policy	Relevant Provisions
1.	National Environment Policy, 2021	The National Environment Policy of 2021 provides a framework for mainstreaming environmental considerations in decision-making in Tanzania. It aims to ensure sustainable and equitable use of resources without degrading the environment or risking health or safety; to prevent and control degradation of land, water, vegetation, and air which constitute the essential life support systems; to conserve and enhance natural and man-made heritage, including the biological diversity of the unique ecosystems of Tanzania. The policy applies to all development projects that are likely to impact the environment.
2.	National Land Policy,1997	This policy (reviewed) deals with matters of land administration, development and management. All land uses must be coherent with the existing plans. The proposed building project is located in the vicinity of residential area as such it is compatible with the land use in the project area as required by the National Land Policy. The policy recognizes the need for protecting environmentally sensitive areas. It stresses protecting the environment and natural ecosystem from pollution; degradation and physical destruction. It aims at promote and ensure a secure land tenure system in Tanzania that protects the rights in land for all its citizens. The policy provides government position on land rights issues such as equitable distribution of land to all citizens. Besides, the policy emphases the protection of sensitive environmental areas through land use planning. F3SRT as a project has to be guided by this policy to ensure that beneficiaries of this project follow requirements of this policy as translated in various legislations.

3.	Construction Industry Policy, 2002	Among the major objectives of the policy, which support sustainable construction include: to promote application of cost effective and innovative technologies and practices to support socio-economic development activities such as road-works, water supply, sanitation, shelter delivery and income generating activities and to ensure application of practices, technologies and products which are not harmful to both the environment and human health. The implementation of this project will make use of cost effective and environmentally friendly technologies to minimize wastage of resources especially building materials, water and energy.
4	National Gender Policy, 1999	The key objective of the policy is to provide guidelines that will ensure that gender sensitive plans and strategies in all sectors and institutions are developed. While the policy aims at establishing strategies to eradicate poverty, it puts emphasis on gender equality and equal opportunity of both men and women to participate in development undertakings and to value the role-played by each member of the society. This project shall also ensure that women will be adequately involved at all levels of project implementation.
5.	National Strategy on Climate Change, 2012	National Strategy on Climate Change for the United Republic of Tanzania, 2012 focuses on enhancing climate resilience in Tanzania while reducing vulnerability on natural and social systems. This can be attained by establishing efficient and effective mechanism to address climate change adaption and achieve sustainable national development through mitigation actions with enhanced international cooperation. The strategy objectives among others include building the capacity for Tanzania to adapt to climate change impacts, and also enhancing resilience of ecosystems to the challenges posed by climate change.
6.	Small, Medium Enterprise Development Policy 2003	This policy specifically acknowledged the special role of SMEs in the context of Tanzania industrialization. It aimed to address the constraints to industrialization and to tap the full potential of Tanzania's SME sector. The policy had a beneficial impact on SME performance, but many constraints it aimed to address still exist to this day.
7.	Tanzania Integrated Industrial Development Strategy 2025	Formulated and adopted in 2010 with a view to provide concrete strategies to implement SIDP 2020 and build a competitive industry by putting in place a competitive business environment. The strategy was adopted four years after the SIDP 2020 has been created, to promote the efforts of achieving the SIDP goal of bringing an economy to a state of accelerating industrialization and to provide concrete strategies to implement SIDP 2020. The strategy target six sub-sectors: agro-processing, textiles, leather, fertilizer and chemicals, light machinery and iron and steel.
8.	Tanzania Vision 2025	Is for Tanzania to develop a strong, diversified resilient and competitive economy which can effectively cope with the challenges of development and which can also easily and confidently adapt to the changing market and technological conditions in the regional and global economy.

9.	Kilimo Kwanza Policy,2009	It emphasizes industrialization to address the needs of agricultural producers. Industrialization is considered to lead to both increased supply of fertilizers and agricultural machinery and improved seeds as well as adding value to agricultural produce.
10.	National trade Policy 2003	It follows principles stated in the Vision 2025 by focusing on private sector led export growth. It emphasizes stimulation and encouragement of value addition as one its chief objectives.
11.	National Water Policy of 2002	It emphasizes sustainable utilization of water resources including protection of accidental pollution of water sources. Protection of riparian biodiversity, wetland systems, and the freshwater-seawater balance in deltas and estuaries. It has put in place Water basin offices to ensure sustainable water rights.
12.	Mini-Tiger Plan 2020	In 2005 the government created the Tanzania Mini-Tiger Plan 2020 to fast-track the implementation of Vision 2025, by imitating the Asian Tigers model in Tanzania. The Mini-Tiger Plan emphasizes the introduction of Special Economic Zones and Export Processing Zones.

Source: Consultant from Various Reports,2024

2.3 Legal Framework

The F3SRTBaridi Sokoni is positioned within the context of various local and national legislations related to the management of human behavior on natural environment and social matters. The relevant legislations and regulations are summarized in Table 4 below.

Table 4: Critical Legislations and Regulations for F3SRT Implementation in Tanzania

S/N	Law/Regulations	Legal Requirements
1.	The Environmental Management Act (Cap.191), 2004	The act is a framework environmental law which provides for legal and institutional framework for sustainable management of the environment and natural resources in the country. It provides institutional roles and responsibilities with regard to environment management; environment impact assessments; strategic environmental assessment; pollution prevention and control; waste management; environmental standards. It has various regulations and screening procedure for all categories of projects. The Act has Regulations relevant to industrial establishment such as Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018, , Bio-safety Regulations 2009; Waste Management Regulations 2009; Strategic Environmental Assessment Regulations 2009; Solid Waste Management Regulations 2009; Environmental Inspectors Regulations, 2011; and Hazardous Waste Management regulations, 2009. This law and her regulations will be used in the management of the F3SRT.
2.	Agriculture Sector Environmental Impact Assessment Guidelines, 2013	These were prepared by the Ministry of Agriculture as a compliance requirement of EMA, 2004 for each sector to have specific guidelines. It aimed to provide to agricultural projects developers and other stakeholders engaged in the sector to ensure that they formulate and implement sound projects that reduce adverse environmental, social and health impacts. Farmers in the

		targeted value chain under F3SRT will have to abide to these guidelines to ensure they harvest healthy products. It proposes ESMP for handling agro based impacts per phases.
3.	Local Government (District Authorities) Act of 1982 RE 2000	This law establishes the local government authorities in Tanzania. F3SRT will be implemented in the jurisdiction of Districts Councils (DC) of Same, Ludewa, Makete, Njombe and Wanging'ombe. As such all guidance such as permissions, agro-based information, identification of genuine workers, health services, security, in relation to project implementation will be accessed from leaders of these authorities. There are Departments responsible for agriculture, cooperatives, environment, land, works etc. These have authorities and guidance related to engagement with farmers.
4.	Water Resources Management Act, 2009	The law was enacted to govern management of water resources in Tanzania mainland. It requires any development project within a water basin to be authorized by the respective water basin officer to abstract water. It also protects water sources from pollution by prohibiting unauthorized discharges into water bodies. It puts in place Water Basin Offices where a project promoter can apply for water use rights such as abstraction. F3SRT activities related to productivity improvement means more water consumption.
5.	Land Use Planning Act, 2007(Cap 116)	This law replaced the National Land Use Planning Commission Act, 1984. The National Land Use Planning Commission (NLUPC) is helpful in facilitating effective planning and management of land use planning in Tanzania. Some of the responsibilities of the NLUPC are: • Coordinate, advise and inspect all sectors on common standards and advise the minister to set acceptable standards to oversee the planning and development of towns and villages; • Assist all land use planning authorities and prepare land use planning, monitor its implementation and evaluate it regularly. • Coordinate all activities of all agencies involved in land use planning matters and serve as a means of communication between these Institutions and the Government; F3SRT will have to ensure that horticultural activities are done in areas designated for the use.
6.	Employment and Labour Relations Act No 6 of 2004	The Act provides broad protection against discrimination. It requires that employers promote equal opportunity in employment and strive to eliminate discrimination in any employment policy or practice". It prohibits direct or indirect discrimination by employers, trade unions and employers' associations on a number of grounds, including gender, pregnancy, marital status or family responsibility, disability HIV/AIDS and age. Harassment of an employee on any of these grounds is equally prohibited. The Act also requires employers to take "positive steps" to guarantee women and men the right

		to a safe and healthy environment. Should **F3SRT** Implementer decide to employ anyone in the implementation of this project then provision of this law will have to be followed.
7.	Village Land Act No.5, 1999	The law provides procedure for ownership of land within villages. Within villages there are areas categorised by villages as hazardous such as wetlands, land within 60 meter from the highest water marks of water bodies, village forests, water catchment etc. **F3SRT** Implementer will have consult Village Councils for clarifications on issues related to land use at the village.
8.	The Plant Protection Act No.13 of 1997	It prevents the introduction and spread of harmful organisms, to ensure sustainable plant and environmental protection, to control the importation and use of plant protection substances, to regulate export and imports of plants and plant products and ensure the fulfilment of international commitments, to entrust all plant protection regulatory functions to the Government, and for matters incidental thereto or connected therewith. F3SRT will have to comply with the provision of this law.
9	The Occupational Health and Safety Act No. 5 of 2003	The law requires employers to provide a good working environment to workers in order to safeguard their health and ensure safety at the workplace. The employers need to perform medical examinations to determine fitness before engaging employees. Employers must also ensure that the equipment used by employees is safe and shall also provide personal protective equipment (PPE) as appropriate. Whoever that will be engaged with **F3SRT** activities will have to adhere to the provisions of this law. During implementation of **F3SRT** any contractor or a group of local contractors through Force Account will be required to strictly adhere to this law to ensure that no accident or fatality occur.
10	Industrial and Consumer Chemicals (Management and Control) Act of 2003	This Act introduces measures for the control of production, importation, exportation, transportation, storage, handling and placing on the market of industrial or consumer chemicals or chemical products and provides for the carrying out of such control. It empowers the Chief Government Chemist to oversee registration of all chemicals in Tanzania. The F3SRT may entail activities and processes that may require use of chemicals of different types during the processing of agro-products. The Proponent to this project will have to consult the relevant authority especially the Office of the Chief Government Chemist for guidance.
11.	Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018	These regulations are made under EMA, 2004. They provide procedures and requirements for undertaking Environmental and Social Assessment (ESIA) for different types of projects. They also provide screening criteria for various projects including those that require full ESIA studies and those that do not. Though not categorised already, F3SRT sub-projects are ones that require registration only.

12.	Environmental Management (Hazardous Waste Management) Regulations, 2009	These regulations provide categories of controllable wastes and a list of hazardous and nonhazardous wastes. In relation to F3SRT, there will be a need to review the list and determine if there will be waste as a result of improving productivity. MVIWATA will have to abide by these regulations.

Source: Gathered from Various Reports, 2024

2.4 Administrative and Institutional Framework of ESMP

As per the Project Concept Note, the institutions to engage in the implementation of this project are summarised below:

i) *Project Steering Committee (PSC)* –will comprise 9 MVIWATA Board Members – tasks to provide strategic guidance and oversight.
ii) *Technical Advisory Committee (TAC)* – this will advise the project on technical areas and ensure synergy.
iii) *The Project Implementation Entity (PIE) is MVIWATA, which will use her staff members* from the Project Implementation Team (PIT). PIT will be responsible for the project's day-to-day implementation. MVIWATA existing staff members and others to be recruited will make up the PIT.
iv) *Benefitting Local Government Authorities (LGAs*): Same, Ludewa, Makete, Njombe and Wanging'ombe District Councils. They will provide advice and policy positions on agriculture matters, the environment, land use, and project construction-based approvals such as the issuance of building permits and village authority approvals for land use and development.
v) MVIWATA Middle and Local Levels Networks will effectively engage with the project activities.

Implementation of the Framework ESMP

This will be done by the PIT to be established within the PIE. The roles and responsibilities of each member of the PIT are presented below:

i) *The project coordinator will* lead the PIT to ensure all project activities are implemented as planned. Ensure the development of sub-project-specific ESMPs by facilitating the process through funding and field visits. Liaise with regional coordinators on all issues related to environmental and social safeguards by facilitating the ESSS-PIE;
ii) *Project Accountant (*PA-PIE*)* responsible for all financial management matters by keeping proper accounts on finance and expenditure by abiding by the AfDB financial management rules and those of the Governments of Tanzania;
iii) *Agronomist* –will advise on agriculture and business, focusing on this project's selected crop value chain.
iv) *Value Chain and Marketing Officer* (VCMO-PIE)-follow up and sensitization on the value chain for the targeted crops and marketing after processing.
v) Regional Coordinators (RCs) for Kilimanjaro and Njombe –guide implementation of the planned activities in their respective regions.
vi) *Environmental and Social Safeguards Specialist (*ESSS-PIE*) ensure* compliance to the Tanzania laws, regulations and AfDB policies on environment and social matters as per risk levels. Will facilitate environmental clearance with the NEMC through preparing recommended environmental instruments, site verification visits and follow-up for approvals;
vii) *Procurement specialist (*PS-PIE)-ensure procurement of goods and services are done according to the policies of the Bank and those established by the PIE; the Government of the United Republic of Tanzania;
viii) *Monitoring and Evaluation Specialist (M&E—PIE): This specialist will monitor the project's implementation by collecting data on progress made, expenditures, and indicators based on the logframe and theory of change for the project. The Project M&E Plan, which is aligned with the Bank's Results Measurement Framework and the M&E framework for ASDPII,* will be used to ensure that everything is recorded and reported accordingly.

The Matrix of roles and Responsibilities for the project is presented as **Annex 5**

2.5 International Conventions

Tanzania is a party to many international agreements on Biodiversity, Climate Change, Desertification, Endangered Species, Ozone layer protection, Marine Life Conservation, wetlands etc. Examples are:

- 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)
- Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons, and their Destruction, London (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)
- Montreal Protocol on Substances that Deplete the Ozone Layer (1987)
- Phyto-sanitary Convention for Africa, Kinshasa (1967) UN Convention on the Law of the Sea (1982)
- UN Framework Convention on Climate Change (UNFCCC) adopted in May,
- 1992; signed by Tanzania on 12 June, 1992, ratified by Tanzania on 1 march 1996
- Vienna Convention for the Protection of the Ozone Layer, adopted on 16 September 1987. Acceded to by Tanzania on 16 April 1993
- Ramsar convention on Wetlands (1971)
- United Nations Framework Convention on Climate Change (1994)
- Lusaka Agreement on Co-operative Enforcement Operations Directed at illegal Trade in Wild Fauna and Flora (1994)

2.6 AfDB's Integrated Safeguards System

According to the F3SRT Concept Note and the scaled-up **F3SRT** this project poses low to moderate environmental and social risks and impacts. This project has been classified as Category 2 in terms of Environmental and Social risk. This project will not entail Involuntary Resettlement, which can result in land acquisition for project implementation.

Table 5 presents the operational safeguards that will be triggered during implementing the proposed **F3SRT** in Tanzania. Reasons or descriptions for decisions are also presented.

Table 5: Applicable AfDB's Operational Safeguards Policies in the **F3SRT** in Tanzania

Operational Safeguards (OS)	Triggered?	Description
OS.1: Environmental and Social Assessment.	**YES**	F3SRT, through initiatives to improve productivity in the crop value chains, is likely to cause environmental and social impacts that will need mitigation. Site-specific ESMPs will be required once sites have been identified.

OS.2: Involuntary Resettlement, Land Acquisition, Population Displacement and Compensation.	**YES**	As sites for the construction of a processing facility for Potatoes and Ginger have not been established yet, land acquisition and compensation will likely be required.
OS3: Biodiversity and Ecosystem Services.	**YES**	F3SRT will implement activities in different environmental settings such as valleys, near water sources and critical habitats.
OS.4: Pollution prevention and control, hazardous materials and resource efficiency.	**YES**	The residual impacts of activities under F3SRT may have potential impacts on the surrounding environment and health if applicable environmental standards are not met during the phases of the F3SRT**.**
OS.5: Labour conditions, health and safety.	**YES**	F3SRT will have activities requiring the recruitment of temporary workers, skilled and semi-skilled. Therefore, compliance with occupational, health and safety issues is critical to the project.

Source: Adopted from FSSP Concept Note with Amendments for F3SRT Baridi Sokoni.

On Climate Change and Green Growth – this project has been screened and classified as Category 2 on the Bank's climate safeguards system. This means it is moderately vulnerable to climate risk. Main climate risks include reduced rainfall, delayed and changing rainy seasons and crop pests and diseases, all of which may reduce the productivity of the selected crops.

2.7 Comparing AfDB Policies and Tanzania Mainland

Table 6 compares policies between the AfDB's Policies and those of Tanzania. There is no significant difference among the policies and laws enforceable by AfDB, Tanzania Mainland is as far as this project is concerned.

Table 6: Relationship of Policies among AfDB's Policies Tanzania

Operational Safeguards(OS)	Triggered?	Tanzania
OS.1: Environmental and Social Assessment.	**YES**	Policies and Laws emphasize conduct of Environmental and Social Assessment
OS3: Biodiversity and Ecosystem Services.	**YES**	Emphasis is made in policies on protection biodiversity and ecosystems development.
OS.4: Pollution prevention and control, hazardous materials and resource efficiency.	**YES**	EMA,2004 has regulations for overseeing issues of pollution, hazardous materials and resources efficiency.
OS.5: Labour conditions, health and safety.	**YES**	Occupational safety and Health law is in place with a dedicated agency for enforcement and monitoring.

2.8 Chapter Summary

This chapter has presented summary of relevant policies, legal and administrative framework for the implementation of this project in Tanzania Mainland. Besides, applicable AfDB policies have also been presented including showing a gap that exists between the countries and the AfDB. Next chapter presents the baseline information in relation to the areas for the project implementation.

CHAPTER THREE
DESCRIPTION OF THE ENVIRONMENTAL SETTING

3.1. Baseline Environmental Conditions of TANZANIA

3.1.1 Geographical Location

Tanzania lies between 29º30'E and 40º30'E and 1º00'S and 11º48'S. It is a land of contrasts, being the home of Africa's highest mountain (Kilimanjaro, at 5,895meters and its lowest point (the floor of Lake Tanganyika, which is 1,470 m deep). Located on the east coast of Africa, it covers an area of approximately 945,000 square kilometers (km^2), of which the Zanzibar Islands covers 2,400km^2. The country is bordered by Uganda to the north for 396km; Rwanda and Burundi to the northwest for 217km and 451km respectively; the Democratic Republic of Congo to the west for 459km (a water border on Lake Tanganyika); Zambia and Malawi to the southwest for about 338km and 475km, respectively; Mozambique to the south for 756km; and Kenya to the northeast for 769km. The India Ocean, with shores characterized by coral reefs and small islands, lies to the east. The continental shelf within the 200m depth contour varies from 4-60km from the shore.

3.1.2 Climatic Conditions

Tanzania experiences a variety of climatic conditions, ranging from the alpine deserts on the top slopes of Mount Kilimanjaro that are permanently covered by snow, to the tropical coastal areas that are under the influence of two monsoon winds. The northeast monsoon wind, which blows southwards from December to March, brings the hottest weather, while the southeast monsoon winds that blow northwards from March to September bring intermittent rains. The main rainy season on the coast is from March to May (the long rains) with a second season between October and December (the short rains). Mean annual rainfall varies from 400 mm in the central regions to over 2,500 mm in the highlands and the western side of Lake Victoria. Mean annual temperatures are influenced by altitude, ranging from 21ºC in high mountain areas to 29ºC at sea level(AfDB,2023).

Except for the coastal belt and islands, most of the country is part of the Central African Plateau (1,000 – 1,500 m above sea level) and characterized by gently sloping plains and plateaus, broken by scattered hills and low-lying wetlands. The Central African Plateau is deeply incised by two arms of the Rift Valley: the eastern arm, which includes lakes Natron and Manyara, and the deeper western arm, which contains Lake Tanganyika. Both arms of the rift coverage in the south of the country near the northern end of Lake Nyasa/Malawi.

There are seven agro-ecological zones in Tanzania based on climate, physical geography, soils, vegetation, land use and tsetse fly occurrence, which are the main physical factors that influence opportunities and constraints for crop and livestock production.

3.1.3 Water Bodies

Apart from the Indian Ocean, the largest water body that lies to the country, Tanzania shares three major lakes (Nyasa/Malawi, Tanganyika and Victoria) with other countries in the region. Other lakes in the country include Manyara, Natron, Eyasi, and Rukwa. Tanzania also has permanent and seasonal rivers. Main rivers include the Kilombero, Mara, Pangani, Ruaha, Rufiji, Ruvu and Ruvuma.

Tanzanian's wetlands cover about 10 percent of the country. They are classified as marine and coastal wetlands, inland wetland systems, rivers and inland flood plains, and artificial wetlands. The marine and coastal wetlands include the mangrove estuary swamps, coral reefs, seaweed and grasses, and intertidal mudflats. The inland wetlands include the Rift Valley lakes (Balangida, Eyasi, Manyara, Natron, Nyasa, Rukwa and Tanganyika), some depression swamps (Bahi and Wembere), and Lake

Victoria. The shores of the Rift Valley lakes provide a habitat for birds, while Lake Natron serves as the largest flamingo breeding ground in Africa. The soda lakes (Eyasi, Manyara, Natron and Ngorongoro) are their feeding grounds. The waters of these lakes and the adjacent land are often inhabited by wildlife, which is a major tourist attraction in Tanzania.

Some swamps are important breeding sites for fish. Lake Tanganyika is home to about 217 endemic fish species, while Lake Nyasa/Malawi has the most diverse fish species population (over 600 species). Both lakes are world famous for their variety of aquarium fish. Lake Tanganyika is important nationally for sardine, while Lake Victoria has a naturally rich and diverse indigenous fish fauna (178-208 species). However, the introduction of Nile perch has led to the disappearance of several indigenous species.

3.1.4 Groundwater Resources

Groundwater availability is mainly controlled by geology and climate, and is unevenly distributed across the country. The groundwater has huge potential for complementing the surface water sources, it accounts for 97% of the accessible global freshwater resource. In many countries, Tanzania included groundwater is often the main source for domestic water supply apart from widely being used for irrigated agriculture and industry (NBS, 2017).

As of 2017, there are 65 registered groundwater drilling companies and 13 registered groundwater exploration companies (MoWI, Jan 2018). The main persistent challenge, which continues to be a hindrance to groundwater utilization and development, is paucity of data. More efforts are needed in order to get relevant information on available and minable groundwater resources (NBS, 2017).

3.1.5 International Water Issues

Tanzania shares six international lakes and five international rivers including three of the largest African rivers basins – Nile, Congo and Zambezi, and seven international aquifers. This is more than any other nation in Africa in comparison. A larger part of the country's international borders are water bodies. The Ruvuma River form a border with Mozambique, Lake Tanganyika with the Democratic Republic of Congo, Zambia and Burundi, Lake Nyasa and the Songwe River with Malawi, the Kagera River with Rwanda and Uganda and Lake Victoria with Uganda and Kenya. As a result, the United Republic of Tanzania is part of numerous trans-boundary institutions and agreements for management of these shared water resources (NBS, 2017). Some important international agreements on the use of water resources are: - the SADC's Shared Water Course Systems Protocol, Lake Tanganyika Authority (LTA), the Joint Water Commission Agreement between Tanzania and Mozambique in 2007, the Lake Victoria Tripartite Agreement, Cooperative Framework Agreement for the River Nile Basin ratified in 2015 (NBS, 2017in URT 2014)

3.1.6 Biodiversity and Protected Areas

Throughout the country, a network of freshwater rivers and lakes provides drinking water, sustains agriculture and provides hydropower. Lake Victoria, the largest lake in Africa and recognized for its high levels of endemic fish species, supports a large fishing industry and provides food security and jobs for surrounding residents. Tanzania's coastlines host numerous fringing and patch reefs, important both ecologically and socio-economically as major fishing grounds and tourist attractions. These resources are key to maintaining healthy and productive landscapes, and are intricately linked with energy generation, agriculture, and human consumption.

The country's biodiversity and unparalleled wildlife are globally renowned. Tanzania hosts diverse, distinct, and iconic ecosystems and species. About a third of the country's total land area is officially

under protection, one of the world's highest ratios. Tanzania boasts 19 national parks including the Ruaha National Park – the largest national park in East Africa (with an area of 20,226 km^2), the famous Kilimanjaro National Park, and the Serengeti National Park. The latter is well-known for its large herds of wildebeest, and their annual migration, one of African's most spectacular natural events. Tanzania also hosts 25 game reserves including the Selous game reserve, a UNESCO World Heritage Site and Africa's largest game reserve (with an area of over 50,000km^2). The country has three marine parks, 15 marine reserves, and multiple forest reserves and woodlands (World Bank, 2019).

3.2. Baseline Socio-Economic Conditions of Tanzania

3.2.1 Population

The national population, as per 2022 census results is 59.8 million in Tanzania Mainland. Majority of this population (65 percent) which is about eight million households are involved in agricultural activities especially crop farming while 33 percent were active in both crops and livestock keeping (www.statista.com).

3.2.2 Road Network

Tanzania has a total road network of 36,258 km comprising of trunk roads, regional roads and district roads as summarized in the Table 7 below.

Table 7 Tanzania's Road Network

Sn.	Type of road	Distance (Km)
1	Trunk roads	
	Paved trunk roads	8,211
	Unpaved trunk roads	4,011
	Total trunk roads	12,222
2	Regional Roads	
	Paved regional roads	1,508
	Unpaved regional roads	22,004
	Total regional roads	23,512
3	District Designated Roads	
	Paved district designated roads	33
	Unpaved district designated roads	491
	Total district designated roads	524
	Total Road Network	36,258

Source: PO – RALG (ESMF Report), AfDB,2023

3.2.3 Poverty

The poverty rate in Tanzania has been declining gradually. The national poverty headcount has improved from 34.4 percent of population in 2007 to 28.2 percent in 2012 and further to 26.4 percent in 2018. Despite Tanzania's impressive GDP growth between 2012 and 2018, poverty reduction slowed, and growth has become less inclusive. Inequality has also risen during this period. The international poverty headcount (US$1.90 per day at 2011 purchasing power parity) remained high and unchanged during this period at 49 percent (TACTIC's PAD, 2021).

3.2.4 COVID-19 Pandemic

Corona virus Disease 2019 (COVID-19) has negatively impacted Tanzania's macroeconomic performance-decelerating GDP growth in 2020-although Tanzania is one of the few economies in the region that avoided recession[6]. The global economic slowdown adversely affected Tanzania's export-oriented industries, especially tourism and traditional exports, and has caused a drop in foreign investment. The exception is gold mining which has benefitted from rising prices since the onset of the pandemic. Although the government did not impose a lockdown, the pandemic initially spurred precautionary behaviors that slowed down domestics' economic activity.

3.2.5 Gender Based Violence

Gender Based Violence (GBV) has been defined as "any harmful act that is perpetrated against a person's will and that is socially ascribed (gender) differences between males and females. GBV has a greater impact on women and girls, as they are most of often the survivors and suffer of great physical damage than men when victimized (Odunga, 2021). The term GBV[7] is often used interchangeably with the term "Violence against Women" (VAW). Literature has revealed that the major root cause of gender based violence is discrimination perpetuated by customs, cultural and traditional setting that place women and girl child at lower level of social relations. According to the Global 2015 Human Development Report, 35% of women globally have experienced physical or sexual intimate partner violence, which impacts on women's empowerment.

From a situation analysis of National Plan of action to End Violence Against women and Children in Tanzania 2017/18 – 2021/22 (URT, 2016), violence is a daily reality for large numbers of women and children in Tanzania. In Tanzania, almost four in ten women have experienced physical violence, and one in five women report experiencing sexual violence in their lifetime (from the age of 15). 16 Spouse abuse, both sexual and physical, is even higher (44%) for married women. According to the 2010 Demographic Health Survey, 39% of women aged 15-49 have ever experienced physical violence since 15 and almost one-third of women (33%) aged 15-49 experienced physical violence in the 12 month prior to the survey.

3.3 KILIMANJARO REGION

3.3.1 Environmental Baseline Conditions

3.3.1.1 Geographical Location

The Region is located in the north eastern (NE) corner of Tanzania Mainland. The region is located in the Northern part of the Tanzania Mainland. It lies in the South of the Equator (20°25' and 40°15'S; 25'30'' and 38°10'45''E). It borders Kenya to the North East; Tanga Region to the South East; Arusha Region to the West; and Manyara Region to the West.

It has a common border with Kenya in the North and Eastern part; to the Southeast it shares its border with Tanga region. Moreover, the region is bordered to the North by Arusha region and in the Southwest by Manyara region. Administratively, the region has six districts namely Moshi, Rombo, Same, Mwanga, Hai and Siha district as illustrated by **Figure 2** below.

[6]World Bank, 2021. Tanzania Economic Update, 15th Edition

[7]. Gender based violence

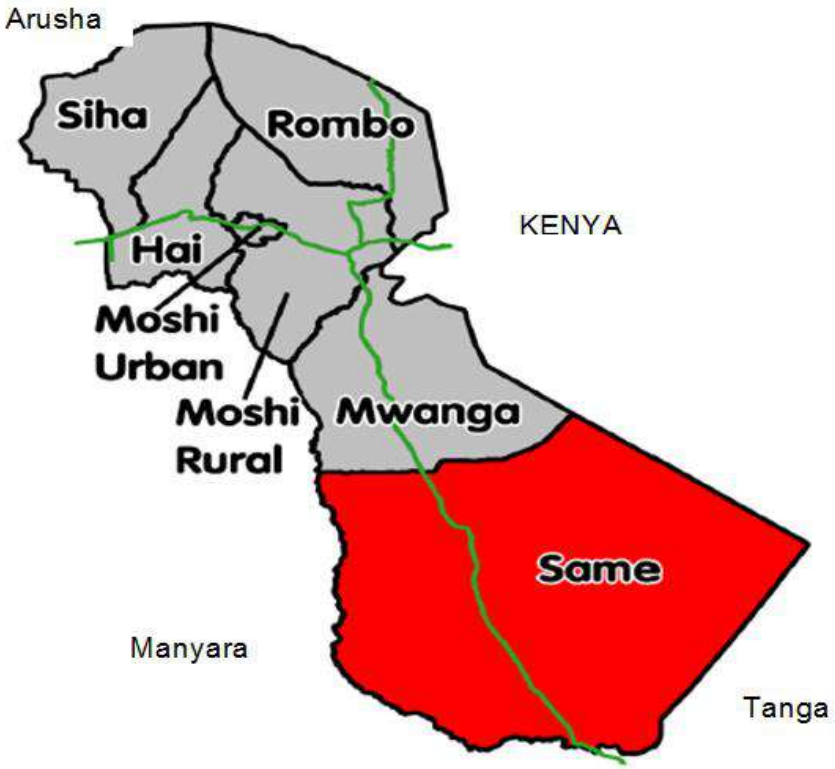


Figure 2 : Administrative Boundary of Kilimanjaro Region

Source: URT, 2018

3.3.1.2 Administrative Boundaries

Currently, Kilimanjaro region is divided into 7 managerial districts that are listed here according to their population size (based on 2022 population estimates) with the smallest listed first: Siha, Mwanga, Moshi Urban, Hai, Rombo, Same, and Moshi Rural (URT, 2022). The regional capital is the Moshi Urban district. Likewise, for management purpose similar to Local Government Authorities (LGAs), Moshi Urban is the only municipality (Moshi Municipality) while other six districts are district councils namely Siha DC, Mwanga DC, Hai DC, Rombo DC, Same DC and Moshi DC. Each of these LGAs is also subdivided into divisions, wards, villages/streets and sub-village/Hamlets as summarized in **Table 8** the Region has a total of 30 divisions, 169 wards, 519 villages and 60 streets; and 2,266 sub-villages/hamlets.

Table 8: Distribution of Administrative Units by District in the Region, 2022

District/Councils	Division	Wards	Villages/Street	Villages/Hamlets
Moshi MC	2	21	60Streets	
Moshi DC	4	32	119	548
Rombo DC	5	28	108	307
Same DC	6	34	100	496
Mwanga DC	5	20	70	370
Hai DC	3	17	62	264
Siha DC	5	17	60	169
Total	**30**	**169**	**60 Streets, 519 Villages**	**2,266**

Source: URT, 2022a.

3.3.1.2 Climate and Soils

Kilimanjaro region has variations in climate based on elevation, prevailing winds, temperature and rainfall. The region has typically two distinct rainfall seasons; long rains (major one) in March – June and short rains (a minor one) in September – December.

There is marked variation in the amount of rainfall according to altitude and direction of the slope in the mountainous areas. The mean annual rainfall varies from 500mm in the lowlands to cover 2,000 mm in the highland zones or mountainous areas (over 1,600 meters above the sea level). Rainfall decreases rapidly with increase in altitude; thus the mean precipitation is 2300 mm in the forest belt (at 1,830 m), 1300 mm at Mandara hut on the upper edge of the forest (2,740 m), 525 mm at Horombo hut in the moorland (3,718 m), and less than 200 mm at Kibo hut (4,630 m) which has desert-like conditions. Mount Kilimanjaro rain shadow in the southern and eastern sides of lower altitude dramatically reduces rainfall. The seasonal rainfall distribution in particular greatly influences agricultural practice.

The rainy season is tailed by two dry seasons, a major one in December – January and a minor one in July – August. During the rains, extra cloud cover and evaporative cooling tend to reduce maximum temperatures. Cloud cover also tends to raise minimum temperatures. Besides, in the region, temperatures are closely related to altitude. Over the last 5 years, maximum temperatures ranged from (26.4 – 30.4ºC), although they can go into the lower ranged from (17.6 - 20.3ºC) during December and January (NBS, 2019). The soils of the region vary; there are alluvial soils which are potential agriculturally through irrigation farming due to unreliability of rainfall in those areas.

3.3.1.3 Topography

The altitude of the region ranges from 600 metres in the lowlands up to 5985 metres above the sea level at the highest peak of the Mount Kilimanjaro. The largest part of the region is mountainous, running from North-North West to South-South East with land sloping away to a minimum height of 305m above sea level on either side surrounded by Pare Mountains that range from the base of Mount Kilimanjaro and its foot slopes.

The snowcapped Mount Kilimanjaro provides an endless supply of water to the lower slopes along numerous streams. Most of the rivers in this region part out after running into the plains, Ruvu (Pangani) river and Kikuletwa River gather water from the upper streams and keep flowing even in the dry season. Both rivers join together at some point, approximately 38 kilometers south of Moshi municipality, forming a large artificial lake called *"Nyumba ya Mungu"* extending about 6 kilometers from north to south. The water discharged from the dam, forms Pangani river, which turns around and flows southward in the neighborhood of Mkomazi at the southern tip of South Pare mountain system forming the largest water system in this region. Due to the steep hills, land has become very scarce in the region, and forced out migration to other regions in Tanzania. A smaller part of the lowlands in the west comprises of marshland, which goes along Pangani River system. Contrary to the dry Maasai plains, this part of the Lowlands can be cultivated.

3.3.1.4 Agro-Ecological Zones

As per URT,2018, the Region comprises of three agro-ecological zones based on altitude, soils, climate and farming system. Ginger thrives in the lower zone in the then Pare district (now Mwanga and Same) whose large area is flat land that stretches to the east of the hills of north and south Pare and reaches up

to the national border with the Republic of Kenya. Two thirds of this zone is taken up by the Mkomazi game reserve.

The agro-ecological zones include the lowland plain (1,500 m and below) with extensive grazing; the highland zone/coffee zone (1,500 – 3,000 m); the intermediate/forest zone (above 3,000 m) with mixed farming. With the exception of land above 3,000m above the sea level, most of the land can be used for agricultural activities. Agricultural land on the other hand can be classified into four main zones; the coffee zone which can be cultivated to grow coffee, bananas, maize, beans, vanilla, rice and dairy cattle. The wheat zone, where the agricultural activities include wheat, beans, maize and dairy production.

a) The Lower Zone

The lower zone borders Moshi and Hai Districts, extends South of the banana/coffee zone on the southern slopes of Mt. Kilimanjaro and borders at its southern most end with the Kikuletwa River. The landscape is generally very gentle except the area to the north of the highway connecting Arusha and Mombasa where the landscape is mildly rolling. The Rombo district lower zone on the other hand, borders with and extends to the East of the coffee zone and on the East; it borders the Republic of Kenya. The Pare district lower zone encompasses a large area of flat land that stretches to the east of the hills of north and south Pare (Mwanga and Same) and reaches up to the national border with the Republic of Kenya. Two thirds of this zone is taken up by the Mkomazi game reserve. Depending on the location, the lower zone (Moshi and Hai districts) can accommodate a variety of agricultural activities. In the south eastern part of the lower zone where irrigation water is available, paddy, and maize are cultivated in rotation and in many cases double-cropping of paddy and maize or maize followed by maize is practiced. In Moshi district, this part is endowed with abundant subterranean water, and has many springs including Miwaleni spring which would support irrigation farming with minimum effort. The Rombo lower zone is suitable for rain fed cropping activities because it gets some rain during the long and short seasons. (Crops like finger millet, maize, beans and groundnut). Most farms in the lower zone are owned by farmers who commute from their homes in the coffee zone.

b) The Coffee Zone

The zone is the typical one of the region. It is intensely cultivated with coffee and bananas in pure or mixed stands, and is very densely populated and forms the core of the region's economy. Although more than 60% of the zone gets 1,000 mm or more of rainfall annually, much of this rainfall is concentrated in the rainy season. Consequently, in the dry season those crops which are not irrigated suffer from lack of water.

c) The Wheat Zone

This zone is located in the western part of Mt. Kilimanjaro and suitable for wheat, beans, maize and dairy, though other crops can also be grown. Often private farmers do wheat crop production on a large scale. The farms planted with wheat are located in areas with annual rainfall of 600 to 700 mm but due to year-to-year fluctuations in the rainfall, the wheat yields are not stable. In addition to dairy farming practiced by large farmers, beef cattle and goats are grazed on natural pastures called the Maasai steppe

d) The Forestry Zone

The forestry zone in the district of Hai, Moshi and Rombo forms the Kilimanjaro National park. They border the coffee zone and are covered by forests. In Rombo and Hai districts, Irish potatoes and maize are grown at the height of between 1,800 to 2,000 m above sea level in re-forested blocks. However, the forestry zone in Pare district consists of steep mountains which are poorly covered by trees (*ibid*).

3.3.2 Socio-Economic Baseline Conditions

3.3.2.1 Population

Total population according to population census 2022, Kilimanjaro region population stood at 1,861,934 out of which, females account for 51.3 percent (954,298) while males account for 48.7 percent (907,636) of the total population. Average population density is 141 persons per square kilometer. The population in the region increased at an average annual intercensal growth rate of 1.3% between 2012 and 2022 (national lowest rate) with an average household size of 3.7 (URT, 2022).

3.3.2.2 Land and Water bodies

Kilimanjaro region is the smallest of all 26 regions in the mainland with a total surface area of only 13,209 sq. km or 5116 sq. miles, approximately to 1.4% of the area of the entire Tanzania Mainland (Wikipedia, 2020). In the region, 97.7% of the main land surface area includes arable land (farms) 48.7%, protected areas (such as game reserves 21.3% and forest reserves 12.4%), grasslands and rangelands 15.3%. About 2.3% of the regional land is covered by water bodies such rivers, lakes and dams (URT, 2018).

3.3.2.3 Regional Economy

The Kilimanjaro Region economy is growing and the middle class income is increasing; therefore creating huge market forecasts. According to 2020 Tanzania Human Development Report, the region's Gross Domestic Product (GDP) was TZS 8,606,689 in 2019 and its GDP per capita was TZS 6,123,528. In 2022, statistical data region wise in Tanzania showed that the share of the Gross Domestic Product (GDP) of Kilimanjaro region amounted to roughly 6,621.7 billion Tanzanian shillings (TZS), approximately 2.55 billion U.S. dollars (Statista, 2023). The regional economy contributors depend on different sectors such as Agriculture (crops, livestock and fisheries) which constitute important economic undertakings in the region. These activities are responsible for approximately 60 percent of the region's Gross Domestic Product (GDP) and over 75 percent of employment to the rural population (Bank of Tanzania (BoT), 2022; World Bank, 2020).

Kilimanjaro region together with Arusha and Manyara regions, constitute the northern tourist circuit, which is the one of the main destinations of tourists in the country. Mount Kilimanjaro and native wildlife provide tourist attraction in the region. Important national parks include Kilimanjaro National Park and Mkomazi Game Reserve, these attraction enable tourism sector contribute economic growth in the region. Other important sectors include manufacturing and trading activities, tourism, services, and carpentry.

The region *manufacturing industry* is growing fast and is increasingly contributing more to regional GDP. The main industrial activities are food manufacturing, leather, chemicals and wood products. In addition, there are few small and medium scale industries that include milling, oil mills, and metal works. However, these manufacturing activities provide limited salaried employment.

The region economy is expected to improve further with the coming mega projects such as tourism, commercial and international markets, some of which are in the pipeline and ongoing.

3.3.2.4 Local Communities

Kilimanjaro region is the ancestral home to two main groups of indigenous people: the Chagga & the Pare, although over time other ethnic groups (tribes) have migrated into the area, including Maasai, Sambaa, Wakwayi, and Waarusha (Wikipedia, 2024). The Chagga (or Chaga) are descended from immigrants of various groups who migrated into the once forest-covered foothills of the mountains.

Although, traditionally, the Chagga settled on the slopes of Mount Kilimanjaro and its neighboring areas in Hai, Moshi (Urban & Rural), Rombo and Siha, they are present throughout the entire Kilimanjaro region now. The Chagga are known for their trading and overall enterprise. Historically

they often travelled to neighboring or far lands in search of business or to establish one, leading to their spread nationwide and making them the third largest ethnic group in Tanzania.

The Pare (pronounced "Pahray") are members of an ethnic group indigenous to the Pare Mountains (Wikipedia, 2024). Pareland lies on one of the northern routes for historic east-African long-distance trade, connecting the hinterland with the Indian Ocean coast. Within Kilimanjaro region, Mwanga and Same districts are historically Pare territory. Residents of this northern Pare territory recognise two sub-areas based on ethno linguistic differences: Pare North and Pare South. The area known as South Pare is now modern day Same District.

3.3.3 Ginger Production in Kilimanjaro Region

Globally, ginger whose World production reached 1.6 million metric tonnes in 2019; is cultivated in many countries such as India, China, Japan, Indonesia, Australia, Nigeria and Western Indies islands (Mmasa and Mhagama,2017). India, a largest producer and consumer of ginger; produces ginger in several states such as Orissa, Kerala, Karnataka just to mention some few. According to FAO (2011), Kerala is the largest ginger producing state accounting for 33% of the total production from India. For period between 1995-1999, Tanzania was ranked the third among LDCs by exporting 5% of LDCs total spice exports (Mmasa and Mhagama,2017). There is a big potential in the ginger production industry as the exports made by biggest producers such as Madagascar (72%) and Commorro (6%) all in total fulfilled only 5.5% of the global imports demand (ITC, 2001 in Mmasa and Mhagama,2017).
Many parts of Tanzania, namely, Coast, Tanga, Mbeya, Ruvuma, Morogoro, Kilimanjaro, Kigoma and Kagera produce ginger (URT,2011 in Mmasa and Mhagama,2017).

Small holders' farmers dominate the production of ginger whereby little or no agricultural inputs are used hence ginger is produced organically(ibid). Production of ginger in Tanzania is estimated to have reached 4.3 thousand metric tonnes in 2010/11 ginger production activity (URT, 2011b in Mmasa and Mhangama, ibid). Generally, ginger production has potential as a source of income to rural households in many parts of the country.
In Same District, ginger was introduced over ten years ago and the population engage in ginger production resulting into the annual production of about six thousand metric tons (Mmasa and Mhangama, ibid). Other crops grown include cardamom coffee and cinnamon. The annual crop increase is at the average of 46%; besides, data show that in the 2005/2006 period, ginger amounting to six thousand tons came from six hundred hectares(ibid). For low farmers, yield per hectare stands at 10 tonnes per ha instead of the target of 20 tonnes(ibid).

3.4 NJOMBE REGION

3.4.1 Environmental Baseline Conditions

3.4.1.1 Geographical Location

The region is located in Southern Highlands Zone which comprises of Ruvuma, Iringa, Mbeya, Rukwa, Katavi and Njombe Regions. It borders Iringa Region in the north, Morogoro Region in the east and Ruvuma region in the south. The Republic of Malawi via Lake Nyasa and part of Mbeya Region borders Njombe Region in the south-west, while in the west the borders are shared with Mbeya Region again. The region lies between latitude 08° 50' and 10° 30' south of the equator and between longitude 33° 45' and 35° 45' east of Greenwich.

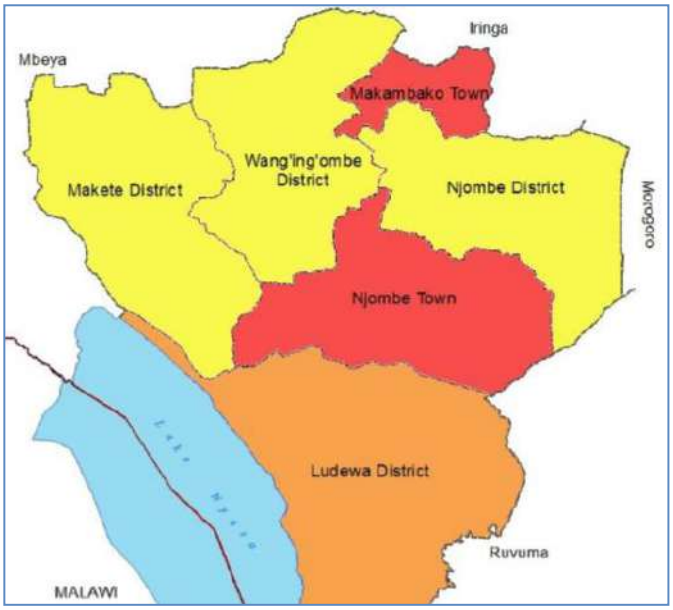


Figure 3: Administrative Boundary of Njombe Region
Source: URT,2020

Njombe region has an area of 24,994 Km^2 and is divided into four Administrative Districts (Ludewa, Makete, Njombe and Wanging'ombe) and six Local Government Authorities (Njombe DC, Njombe TC, Makambako TC, Makete DC, Ludewa DC and Wanging'ombe DC).

3.4.1.2 Climate and Soils

Two key features that describe *climate* of this region are temperature and rainfall. Njombe region falls in the Southern Highlands that include Iringa and Mbeya regions. The Southern Highlands experience long rainfall and short dry seasons which more often are cool with fairly moderate wind (URT, 2020a). Total *rainfall* ranges from 600mm to 1,600mm per annum with high geographical, seasonal and annual variations. There is one rather well defined rain season starting from November through May followed by a dry and cold season which lasts from May to September (URT, ibid). Altitude, topography and vegetation influence the climate resulting in micro climates in specific areas and macro climate in larger areas. *Temperature* range from 0^0C in May/June to about 20^0C to 24^0C during the month of October/November (ibid).

Soil in the region entails three major superficial geological deposits which are the red/yellow, well drained and highly weathered and the leached clay soils in the high altitude areas (URT, ibid). Intermediate gravel sandy soils which are characterized by being moderately drained and leached are found in the midlands while the lowlands are occupied dominantly by red brown and acidic loams which are highly fertile. Most of the farmlands are on red brown sandy loams with some red soils which characteristically host Acacia woodland (ibid).

3.4.1.3 Topography

This region occupies the southern part of the southern plateau of Tanzania which has elevations ranging from 600m to 3,000m above sea level (URT, 2020a). The region is surrounded on all sides by a major scarp of up to 800 meters high which is the eastern part of the Kipengere Ranges. A prominent feature of the land escarpment in Makete and Ludewa DCs is the massive outcrops escarpments and metamorphic rocks known as icelbergs. The region is generally dominated by the Kipengere and Livingstone Mountains separating Njombe and Mbeya regions in the west. The northern parts of the region are relatively flat, high plains cut by the eastern arm of the Great Rift Valley in which the tributaries of the Great Ruaha River flows. The region is further characterized by the presence of a big

plateau portion which forms the common landform of the region. The only permanent and big rivers in the region are the Ruhuji, Hagafilo, Ruaha, Mbarali and Ruhuhu (URT, ibid).

3.4.1.4 Agro-ecological zones and Water bodies

Climatic conditions as well as geological features have been the base of identifying different agro-ecological zones. Three distinctive agro-ecological zones are highlands,

Highlands Zone is characterized by moderately high rainfall with annual mean precipitation ranging from 1,000mm to 1,600mm falling in single season from November through April or sometimes May. The dry and cold season occurs after the rain season and lasts from May to October. It is generally mountainous with plains dissected by many seasonal streams. The zone covers the central and eastern parts of Njombe DC and Wanging'ombe DC, the Western parts of Ludewa DC and most parts of Makete DC. The soils are red/yellow, well drained and highly weathered and leached clay soils. Crops grown are mainly maize, bananas, peas, tea, wheat, sweet and Irish potatoes, temperate fruits and beans. Livestock keeping is largely practiced and includes cattle, pigs, goats and sheep.

According to the Regional Profile (URT, 2020a),*The Midlands Zone* lies at an altitude of 1,200 to 1,600 meters above sea level. The temperatures range from 10^0 C to 20^0 C. The zone enjoys moderate rainfall with annual precipitation from 600mm to 1,000mm. The area is characterized by a gently undulating plateau with isolated hills, rocky outcrops and dissected by many streams in the central parts of Njombe region covering parts of Wanging'ombe and Ludewa DCs and Makambako TC. Areas in this zone are occupied of intermediate clay soils, which are characterized by being moderately drained and leached. Crops grown: maize, cowpeas, sweet potatoes, beans, and fruits. Livestock keeping includes cattle and dairy farming, sheep, pigs and goats.

The Lowlands zone is predominantly undulating, flat and broken by occasional small hills and has a fair rainfall regime ranging between 600mm and 1000mm annually. It has an altitude of 600 meters to 1,400 above sea level. It covers the low lying western parts of the Njombe DC, western parts of Wanging'ombe DC and most parts of Makambako TC. It also includes the southern lowlands of Ludewa DC along Lake Nyasa belt. The temperatures in this zone vary between 15^0 C to 28^0 C. The Lowlands are dominated by red/brown loams and are highly fertile. There is considerable soil erosion. The zone is suitable for growing drought resistant crops like sorghum, millet and cassava; groundnuts, paddy, bananas, vegetables and fruits. The zone is free from tsetse flies and hence livestock keeping (cattle, goats, sheep and donkeys) is taking place in the zone.

3.4.2 Socio-Economic Baseline Conditions

3.4.2.1 Population

As per 2022 population census, the regional population stood at 889,946 out of which, females account for 52.7 percent (469,413) while males account for 47.3 percent (420,533) of the total population(URT,2022b).

3.4.2.2 Land and Administrative Boundaries

The Region has a total surface area of 24,994 sq.km. Land covers 21,172 sq km while 3,822 sq km is covered by water. Administratively, it is divided into four Districts namely Njombe, Wanging'ombe, Makete and Ludewa. There are six Local Government Authorities (LGAs) with two urban LGAs of Njombe and Makambako Town Councils and four District Councils of Ludewa, Makete, Njombe and Wanging'ombe.

Each of these LGAs is also subdivided into divisions, wards, villages, Streets and Hamlets are as summarized in Table 9 below.

Table 9: Distribution of Administrative Units

District/Councils	Division	Wards	Villages	Sub-Villages
Njombe TC	2	13	44	26
Njombe DC	2	12	45	219
Ludewa DC	5	25	77	337
Makete DC	6	22	97	467
Wanging'ombe DC	3	21	108	446
Makambako DC	1	12	14	54
Total	19	105	385	1,549

Source: Njombe Regional Commissioner's Office, 2016.

3.4.2.3 Regional Economy

The regional economy by council grew from TZS 2,132,154 Million (2016) to TZS. 3,157,746 million in 2019 at current prices (URT, 2020a). *Agriculture sector* contributed a big share of the GDP in all the four years. In 2016 the sector contributed 42.3 and 48.4 percent in 2017, 47.4 percent in 2018 and 45.2 percent in 2019. *Services sector* was the second contributing 33.6 percent of the GDP in 2016, 30 percent in 2017, 29.6 percent in 2018 and 32.6 percent in 2019. The Industry and Construction sector contributed less share of the GDP in all the four years (ibid).

Agriculture is the back born of the Njombe economy and about 80 percent of its residents depend on it as their main source of livelihood. Maize, beans, Irish potatoes, wheat, cassava, round potatoes and cow peas are the major food crops in the region. Round potatoes and Cowpeas were planted in small area with an annual average of 1,581 ha (1.3 percent) and 4,133 ha (1.2 percent) respectively.

3.4.2.4 Local Communities

The indigenous ethnic groups are the Bena, Kinga, Pangwa, Manda, Nyakyusa, Wanji, Magoma, Mahanji, and Kisi.

3.4.2.5 Potatoes Production in Njombe

Potatoes crop is the second after maize in terms of food and cash crop in this region (URT, 2016). Table 10 presents production in each district for the season of 2014/2015. The common seed potato variety used is called CIP although the recommended one is KIKONDO which was recommended in 1987 by Uyole Agricultural Research Institute (ARI). In 2012, Mtanga Food based in Iringa in collaboration with the Government brought new varieties called Meru, Tengeru, Sherekea and Asante (URT, 2016).

Table 10: Njombe Potatoes Production Status-2014/2015

Na	District/Councils	Area Under Production (Ha)	Yield (Million Tons)
1.	Njombe TC	14,116	243,504
2.	Njombe DC	840	12600
3.	Ludewa DC	4,636	35,257
4.	Makete DC	12,757	118,370
5.	Wanging'ombe DC	12,641.6	93,224.84
6.	Makambako DC	408	4,896
	Total	45,399	507,852

Source: URT, 2016 with Author's Amendments,2022.

Farm implements utilization include hand holes, OX ploughs and tractors for preparation. Average potatoes yield per hectares' ranges between 6 to 10 tones. As presented in Table 19 the potatoes yield

per hectare stood at 11.19 tons. Storage in potatoes business is a challenge resulting into significant losses. *Potatoes marketing* – there are internal and international markets.

Internal market is dominated by traders who buy directly from farmers or through agents and then transport the products to various locations within the country. External markets are in Kenya, Zambia, Democratic Republic of Congo (DRC) and Arab Countries (URT, 2016). In the chain, there are middle men and blockers that participate in the business. Prices at the farm gate fluctuate regularly.

Challenges associated with the potatoes value chain include but not limited to climate change vagaries; diseases outbreak; unstable prices; lack of common measurements and standards; inadequate packaging materials and inadequate potatoes seeds for use by farmers (URT, *ibid*).

CHAPTER FOUR
SIGNIFICANT ENVIRONMENTAL AND SOCIAL IMPACTS

4.1 Overview

The overall objective of F3SRT is to increase smallholder farmers' horticultural productivity. This will be achieved through (i) increasing productivity and production of horticulture and food crops; (ii) enhancing value addition and marketing of horticultural crops grown by smallholder farmers, particularly women and youth; and (iii) promoting technologies to mitigate the impact of climate change on smallholder farming systems. Crops to be involved are ginger and potatoes.

4.2 Significant Positive Environmental and Social Impacts

Mobilization Phase

Socio-Economic Impacts – are likely to include employment opportunity for transporters of required building materials; experts in various skills such as engineers, masonry, plumbers etc; drivers of equipment machineries. Others to be get employment will be food vendors who will prepare food and drinks for workers during preparation of sites for each of the proposed sub-projects.

Construction Phase

Socio-economic impacts–there will be creation of employment to various individuals of semi and skilled levels. Increase of Income of local communities due to sell of products to workers. It is anticipated that the Governments will get revenue resulting from income tax and levies and VAT for materials to be procured during the construction of each of the sub-projects. Local Government Authorities will also collect service levies from procured contractors/force account operators during the construction.

It is anticipated that persons both skilled and semi-skilled persons will be employed during the construction of aggregation centres or the processing facility. Skilled persons to benefit will include architects, Civil and environmental engineers, quantity surveyors, drivers, food vendors, procurement and logistics experts, electrical engineers, local masonry etc.

Operation Phase

Socio-economic impacts

i) The operation phase of the processing facility will contribute to the Local and National Economy - Increased revenue to the central and local government through fees and levies such as industrial cess, service levy, income tax, VAT, export duty -Increased foreign currency through export of potatoe chips ana ginger;
ii) There will employment opportunities for those to be engaged in transportation of targeted products from farms to the bulking centres. There will be jobs for unskilled laborers women, girls and youth dealing with sorting and parking. There will be temporary or permanent employments for skilled and semi-skilled persons from surrounding communities.
iii) Increased income to enhance food security – as smallholder farmers will be able to sell their produce to raise income which they will use to have secure food for their families.
iv) Increased markets for raw materials near the community – this will happen as small holder farmers of targeted crops in the project areas will have secure markets for their crops. During consultation in Same District there was a significant concern over the production of ginger that goes unsold hence requiring more firms with capabilities to buy and process ginger.
v) The implementation of this project and in particular the operationalization of these sub-projects will act as learning opportunities for smallholder farmers, local communities on spice processing

technology and marketing strategies to be done by the MVIWATA. Private entrepreneurs such as Food vendors, private warehouse owners, transporters, agro-inputs sellers will generate income through selling of their products.

4.3 Significant Negative Environmental and Social Impacts

The Mobilization Phase

This is likely to entail

i) Influx of people especially youth searching for jobs which can result into spread of diseases such as HIV/AIDS, COVID-19;
ii) Sense of insecurity for local community where the proposed sub-project will be constructed for example in Wanging'ombe District for the processing facility. New faces are likely to arrive with different culture, norms and values from other areas;
iii) Transportation of materials to the site can result into air pollution depending on the season of mobilization
iv) Accidents can also occur as some vehicle can be moving to and from the site bring materials

Construction Phase of Potatoe or Ginger processing facility

Environmental Impacts

i) Erosion caused by removal of top soils during site clearing, leveling and extraction works;
ii) Impacts on surface water resources existing around the site due to uncontrolled release of solid and liquid wastes;
iii) Risks to the environment and public health due to construction waste consisting of excavation cart away material, construction in packaging materials and debris and other domestic solid waste generated by workers;
iv) Air pollution due to increased particulate and gaseous concentrations caused by the movement of heavy duty machineries, vehicles and other equipment.

Socio-economic impacts

iv) Impacts on public safety and security.
v) Impacts on Community health- increased HIV/AIDS and communicable diseases – create awareness among the community and workers and provide preventive measures.
vi) Impact of noise to residential receptors resulting from movement of heavy duty machineries, vehicles and other equipment nuisance along the site route and boundary;

Improvement of Productivity of Potatoes

i) Impacts on underground aquifer due to increased use of chemicals in the production of potatoes to meet demand of potatoes for chips processing;
ii) Encroachment of protected or reserved areas to increase production of potatoes and ginger,
iii) Impacts on environment and social health to smallholder farmers due to the use pesticides especially in potatoes production so as to increase production.

Operation Phase of potatoe Processing Facility

Risks and Negative Environmental Impacts

i) *Surface water resources* existing around the site could be affected due to uncontrolled release of solid and liquid wastes;
ii) Impacts on environment and social health for smallholder farmers due to the use pesticides so as to increase production of potatoesces needed as raw materials needed by the potatoe Processing Facility
iii) Impacts associated with the generation of solid waste during spice processing,

iv) *Risks associated with inadequate supply of targeted spices* for processing at the facility.
v) Generation of solid wastes from potatoes washing for processing.
vi) *Occupational safety and health impacts* such as fire outbreak; accidents caused by running processing machines.

Socio-Economic Impacts

i) *Health hazards* caused by inhaling and contamination – provide protective gears such as face masks, proper packing and labeling;
ii) *Increased HIV/IDS* and communicable diseases Impacts on public safety and security and on Community health;
iii) Pressure on needed land for further expansion of farms so as to increase production;
iv) Impacts associated with inadequate supply of crops needed for the functionality of the processing facility.
v) *Incidence of child labour* for working in small farms, aggregation and bulking of needed potatoes products and at the processing facility;
vi) Impacts associated with the supply of agro-raw materials of low qualities and of different species;
vii) *Loss of Income* – can result from the closure of the spice processing facility due to inadequate supply of types of potatoes.
viii) Gender based violence resulting from increased income at household level.

Operation Phase of Ginger Processing Facility

Risks and Negative Environmental Impacts

i) *Water demand as ginger requires water in farming process*;
ii) Impacts on environment and social health due to inadequate water due climate change
iii) Impacts associated with the generation of solid waste during ginger processing,
iv) Risks associated with reluctance of famers to sell their produce due to prices fluctuations.
v) Risks associated with decrease in the value of ginger due to delay in harvest caused by failure for buyers to pay agreed prices.
vi) Occupational safety and health impacts such as fire outbreak; accidents caused by running processing machines;
vii) Risks associated with failure to transport ginger from farms to processing facility due to poor road networks.

CHAPTER FIVE
ANALYSIS OF ALTERNATIVES

5.1 An Overview

The F3SRT Baridi Sokoni is a continuum of FSSP whereby in Njombe Region it targetted productivity of potatoes in Wanging'ombe District. During the conceptuaization of FSSP previous alternatives were considered for Tanzania Mainland and later on rejected.

The F3STR Baridi Sokoni based on the FSSP philosophy, proposes to scale up operations for two value chains, namely, potatoes (Solanum tuberosum) in Njombe Region, Southern Highlands of Tanzania and ginger (Zingiber officinale) in Same District, Kilimanjaro Region, Northern Tanzania.

The rationale for this selection included the nutritional, income-generating potentials and possibilities to make a long-term contribution to resilient and sustainable food system capable of improving and assuring food access for smallholder producers. Others to benefit are MVIWATA members and the poor urban and thus curbing the adverse effects of the multiple economic and climate shocks(MVIWATA).

5.2 Alternatives Descriptions

The reasons for rejection of other value chains during the FSSP, necessitated the continuation of the already selected value chains, namely, potatoes through processing and supporting ginger value chain based on its potential. Constrution of potatoe processing plant in Njombe Region is a continuation of the initiative done under FSSP to support its production and productivity in the region leaving out alternative of dealing with maize and other crops. Initiatives had been made by comparing alternatives in terms of potential environmental and social impacts and monitoring requirements.

According to the F3SRT Concept Note the design of the project was guided by comparative and competitive advantages of the existing value chains in the identified project areas. Ginger production is mainly done in Same District in Kilimanjaro Region. The district is the leader in ginger production in Tanzania, whereby it produces 14,500 tonnes annually, which is 70 percent of all the ginger produced nationally8. Although the demand for spices is vast and on the increase, the supply is such limited that it does not meet the demands. Accordingly, the global demand for spices, including organic ginger is anticipated to increase following the health benefits and global shift in diets and food consumption behaviors9. Ginger thus, has a potential in household income generation and therefore help families manage food security. Supporting productivity and processing of ginger was found as good alternative other than farming.

[8] Tanzania mulls increasing ginger production to meet global demands - Xinhua | English.news.cn (xinhuanet.com)

[9] Organic Spice Market Share | Global Forecasts 2027 (gminsights.com)

CHAPTER SIX
ENVIRONMENTAL AND SOCIAL MANAGEMENT

6.1 An Overview

This chapter presents the institutional roles and responsibilities for the management of environmental and social safeguards during the implementation of this project. It starts with the description of significant steps required in the environmental assessment process and procedure leading to the review and approval of sub-projects under food systems support project (F3SRT).

6.2 COMPREHENSIVE INSTITUTIONAL ARRANGEMENT

MVIWATA has a well-established organizational setting as summarised in Table 11 below.

Table 11: MVIWATA Level of Operational Structure

Level	Composition and Responsibility
National Level Network	• All members of the network as represented by the Annual General Meeting (AGM), the Council, the Board of Directors (BDs) and the Management Team (MT). • Roles and Responsibilities of BDs and MT • Oversee that the overall mission and strategic orientations of the network are adhered to and that services are provided to members. • Facilitates technical support and mobilization of resources. • The BDs has 9 elected members and Headed by the Chairperson. • The Council composes of BD Members and Leaders of Middle Level Networks. MT is headed by the Executive Director. It composes of Staffs with various disciplines.
Middle Level Networks	• Compose of farmers' networks at regional or district level. • A Steering Committee is responsible for mobilizing members in its area. • A Middle Level management is responsible for providing technical support to member and resource mobilization. • It liaises with the national level and local networks.
Local Networks	• These are farmers' groups organized in networks at village and ward levels. • They are building blocks of the middle level and national networks.

Source: https://www.mviwata.or.tz/about-us-2/ accessed 16/11/2022.

6.1.1 Institutional Arrangement for the Implementation of the Framework ESMP

As per Project Concept Note the institutions to engage in the implementation of this project are summarised below:

vi) *Project Steering Committee (PSC)* –will comprise of 9 MVIWATA Board Members – tasks to provide the strategic guidance and oversight on the Project.

vii) *Technical Advisory Committee (TAC)* – this will advise the project on technical areas and ensure synergy.

viii) *Project Implementation Entity (PIE)* is MVIWATA which will use her staff members to from the Project Implementation Team (PIT). PIT will be responsible for day to day implementation of the project. MVIWATA existing staff members and others to be recruited will make up the PIT.

ix) *Benefitting Local Government Authorities(LGAs*): these are Same and Ludewa, Makete, Njombe

and Wanging'ombe District Councils. They will provide advises and policy positions on agriculture matters, environment, land use and project construction based approvals such as issuance of building permits, village authority approvals of land use and development.

x) MVIWATA Middle and Local Levels Networks will engage with the project activities effectively.

6.1.2 Implementation of the Framework ESMP

This will be done by the PIT to be established within the PIE. The roles and responsibilities of each member in the PIT as presented below:

i) *Project Coordinator* lead the PIT to ensure all project activities are implemented as planned. Ensure development of sub-project specific ESMPs by facilitating the process through funding, field visits. Liase with regional coordinators on all issues related to environmental and social safeguards by facilitating the ESSS-PIE

ii) *Project Accountant (*PA-PIE*)* responsible for all financial management matters by keeping proper accounts on finance, expenditure by abiding to the AfDB financial management rules and those of the the Governt of Tanzania,

iii) *Agronomist* –will advise on agriculture and business focusing on the potatoes and ginger(PG) value chain in this project.

iv) *Value Chain and Marketing Officer* (VCMO-PIE)-follow up and sensitization on value chain for PG and marketing of the same after processing.

v) Regional Coordinators (RCs) for Njombe and Kilimanjaro –guide implementation of the planned activities in their respective regions.

*vi) Environmental and Social Safeguards Specialist (*ESSS-PIE*) ensure* compliance to the Tanzania policies, laws and regulations and AfDB policies on environment and social matters as per risk levels. Will facilitate environmental clearance with the NEMC through preparing recommended environmental instruments, sites verification visits and follow up for approvals;

vii) *Procurement specialist (*PS-PIE)-ensure procurement of goods and services are done according to the policies of the Bank and those established by the PIE; the Government of Tanzania;

viii) *Monitoring and Evaluation specialist (*M&E- PIE)-monitor implementation of the project by collecting data on progress made, expenditure, indicators based on the log-frame and theory of change for the project. The Project M&E Plan that is aligned with the Bank's Results Measurement Framework and the M&E framework for ASDPII will be used to ensure that everything is recorded and reported accordingly.

NB: For details in the Implementation see **Annex 5** to this report.

6.2 Roles and Responsibilities in the F3SRT

The main institutions with key roles and responsibilities for environmental and social management besides the Implementing Agency are:

a) The National Environment Management Council (NEMC)

The NEMC is responsible for ensuring that all development projects in Tanzania comply with all relevant environmental laws. Environment Management Act, 2004, specifically states that NEMC's role, among many other others is to review and recommend for approval/clear PESIAs. Therefore, the overall role of the NEMC will be to review PESIAs for all ERPP activities.

Specifically, NEMC will:

i) Review project registration forms and the project brief in order to undertake project screening;

ii) Review and approve the TOR for the preparation of the PESIA;

iii) Provide relevant information on policies and other administrative requirements;

iv) Review PESIA/AUDIT reports; and

v) Periodic oversight monitoring of the project performance in terms of environmental compliances.

b) Ministry of Agriculture - Environnent Management Unit (EMU)

This unit provides guidance for agriculture related projects. EMU collaborates with other line ministries to address the same issues sector wise. For F3SRT this unit can be consulted to assist in the following:

i) Ensure that the project complies with the requirements of this ESMF;
ii) Supervise preparation of project brief and registration forms;
iii) Monitoring and follow up on the implementation of the project environmental and social mitigation measures;
iv) Collaborate with the participating LGAs to train participating farmers on proper use of fertilizer and agro chemicals; and
v) Collaborate with LGAs to train farmers on proper disposal of used pesticide cans and bags.

c) District Environmental Coordinator (DEC)

All four participating districts, namely, Ludewa, Makete, Njombe, Wanging'ombe and Same have dedicated environmental officers. These officers will assist MVIWATA team in the implementation of the project.

DEC will carry out the following tasks:

i) Oversee the preparation of TOR for PESIA and PMP if applicable;
ii) Supervise the public consultation process for PESIAs;
iii) Review and approve sub-projects environmental and social management plan (ESMP);
iv) Ensuring that mitigation measures in the sub-projects ESMP contained in the cleared project design package is being sufficiently implemented.

d) Farmers Network

i) Oversee water management within the farming areas;
ii) Collaborate with other water users associations in the protection of water catchment areas;
iii) Comply to effective use of chemicals and handling of solid waste;
iv) Adhere to the comprehensive guidelines on irrigation operation and maintenance;
v) Adhere to proper use of fertilizers and other agro chemicals in potatoes production.

6.3 Environmental and Social Assessment Process

6.3.1 Screening Criteria and Forms

F3SRT "Baridi Sokoni" (the project) has expected two physical based sub-projects that will entail identification of sites for development. During the Consultation with MVIWATA Management and the shared documents, it was made clear that there will be construction and operation of potatoes processing plant in Njombe Region (specific district or a site has not been identified). There was no indication of construction and operation of a ginger processing facility in Same District although during the consultation with key informants in the district it was clearly explained that the critical issue in the ginger growth business in the district is the low capacity to buy from farmers all ginger harvested and process it. The available ginger processing facility can buy and process 5% of the harvested ginger (for details go to chapter seven).

6.3.2 Procedure for Screening of Sub-Projects

The project currently has one sub-project of the construction and operation of a potatoe processing facility to be located in Njombe Region. The site has not been identified.

a) Submission of a Sub-Project Brief

Proponent being assisted by a Registered Environmental Expert will prepare a sub-project brief (using standard form provided under Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018.). The brief will detail out the description of the proposed subproject and the Environmental Management Plan(EMP) and submit it on line to NEMC portal.

b) Screening Criteria and Methods

NEMC is the one to do the screening of the project using criteria stipulated in the law and regulations. A Registered Environmental Expert recruited by PIE can access these criteria as he/she prepares the Project brief for each of the sub-projects to ensure the sites are appropriate for the intended activities.

Screen Methods to be used in screening include but not limited to

i) Looking at the Checklist of activities that the subproject will undertake hence determine the category of the project. As per Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018

ii)

iii) Environmental and social characteristics - characteristics of the intended post-harvest and bulking infrastructure such as the receiving environment, capability of human/natural environment to cope with changes, confidence of predicted impacts, degree of public of interest, presence of planning and policy framework.

iv) Ensure adequate *assessment of the proposed site and the surrounding areas* –check the ecological importance –presence of people, land use, wind direction, landscape and terrain, values and norms. Assess the condition and the likely potential impacts

v) *Main sub-project characteristics* – project type, size, location and sitting, required resources and technology of production methods, waste generation and management, labour requirements,

vi) *Significance of Impacts* – here a look should be on areas of influence, duration of disturbance, effluent/emission quality, resettlement requirements, cumulative effects, reversibility, and infringement of any laws, regulations or directives.

vii) *Public Concerns, Views and Issues* – a need to assess if there are any controversial issues that can raise public concerns due to the development of the sub-project; sensitivity of the site, location, proposed technology, conflict of interest in land uses and any other social factor related to the sub-project.

6.3.3 Category of Projects

The Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018 categorizes projects as summarized below:

i) ***Type 'A' Projects*** these are ones with adverse environmental impacts hence requiring an in-depth study to determine the scale, extent and significance of the impacts and to identify appropriate mitigation measures.

ii) ***Type 'B1' Projects*** (Borderline projects) these are medium to high impact, therefore the process of screening the application shall be used to categorize the project as either Type "A" or "B2" project. A list of types of projects is provided under the EIA and Audit Amendments Regulation 2018, PIE will have to review the list as prepares to apply for environmental clearance of the sub-project in question. Construction and operation of a *multi-purpose potatoe processing facility* Category 9 Food and Beverage Industries (i) other agro-processing industries.

iii) ***Type 'B2' projects*** are small-scale activities and enterprises that require registration (application for clearance) but shall not require Environmental Impact Assessment. These projects shall not require screening and scoping, rather, the Project Brief shall be examined and issued with an Environmental Impact Assessment Certificate.

iv) **Special Projects** these are ones whose potential risks are uncertain thus require detail specialized study prior to EIA. They are treated as **Type "A"** projects.

v) NB: Screening of Category B1-Boarderline project can result into a project being categorised as type "B2" or Type "A" Specials.

6.3.4 Procedure for Conducting the ESA for Sub-Projects

6.3.4.1 Step 1: Identification of Sites

MVIWATA through the PIT guided by the recruited Environmental and Social Safeguards Specialist (ESSS) will visit Districts where the project proposes to construct the above mentioned sub-projects for the purpose of identifying appropriate sites guided by the principles such as the exclusion criteria explained below.

With the exclusion criteria the team will ensure the proposed sites do not:

i) In a land that is prone to disaster unless it is meant to mitigate flood disasters;
ii) in protected areas or buffer zones of protected areas;
iii) converting or degrading natural habitats such as wetlands; and
iv) Involve land reclamation (i.e., drainage of wetlands or filling of water bodies to create land).
v) In a land use not designated for other uses other than the intended one.

6.3.4.2 Step2: Steps After Sites Identification

Once the Sites have been selected the following steps will be followed by PIE using the dedicated SSSS. The sub-project upon passing the exclusion criteria will then be subjected to screening using a screening form whose template is attached as **Annex 4.**

PIE will recruit or procure a Registered Environmental Expert (ESSS-PIE) to assist in the Environmental Assessment studies for subprojects:

1. **Register the sub-Project** with the NEMC through online Project Management System which requires a registered expert to register himself and the developer of the project that he/she is providing service to. The registration is done by submitting a sub-project brief to NEMC at the Zone Office or Headquarters. These authorities will scrutinize the submitted documents and the Environmental Management plan (EMP) to determine the types of the project and the extent of environmental assessment required. Four categories of project types exist: Category "A"- EIA mandatory; "B1" category for Borderline projects; "B2" for non-mandatory projects and "Special Mandatory (EIA Amended Regulations, 2018.
2. **Approval Procedure for Type B2 Projects**

Under Regulation 7(1) of the EMA (Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018):

i) Environmental expert to prepare a project brief and application form with a fee of USD 86
ii) NEMC scrutinizes the form guided by the regulations and approves or disapproves the application
iii) For Type B2 within 14 days NEMC gives decision about the project by examining EMP to determine if it gives sufficient information about impacts and proposed mitigation measures
iv) For purpose of inspection or verification of the status of the situation on the environment and social safeguard; NEMC may visit the project site at the cost to be borne by MVIWATA.
v) If NEMC finds that the project will not have significant negative impacts on the environment and Application document (project brief) discloses sufficient mitigation measures; NEMC will recommend to Minister of State (Environment and Union Affairs) in the Vice President Office (VPO-DOE) to approve the project;
vi) VPO-DOE will, within 14 days approve or disapprove the project and Issue a Certificate or communicate his decision.
vii) For purpose of inspection or verification, NEMC may visit the project site at the cost to be borne by MVIWATA.

3. **Approval Procedure for Type "A" Special Mandatory and "B1" Projects**

Regulations 8-10 of the EMA (Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018) provide procedure. The ESSSS-PIE will seek guidance from NEMC in Morogoro Zone in case there is a sub-project that will be categorized as Type B1. Procedure for Application for EIA Certificate, screening and preparation of scoping report and Terms of Reference for EIA study are detailed very well in the regulations 8-10. NB: Based on the review of the F3SRT concept note and considering the nature of the sub-projects as described in the results framework these sub-projects do not fall under either A or B1.

i) Upon detailed review of the Submitted Application for Sub-project clearance, NEMC will determine about whether the sub-project is of which category among the four categories mentioned above. Online feedback will be given the Proponent (MVIWATA) through the log in account created by the Consultant (ESSS-PIE) https://eia.nemc.or.tz/experts/web/. Registration of the sub-project a fee amounting to TShs.200,000/= (USD 85.1) will have to be paid by PIE.

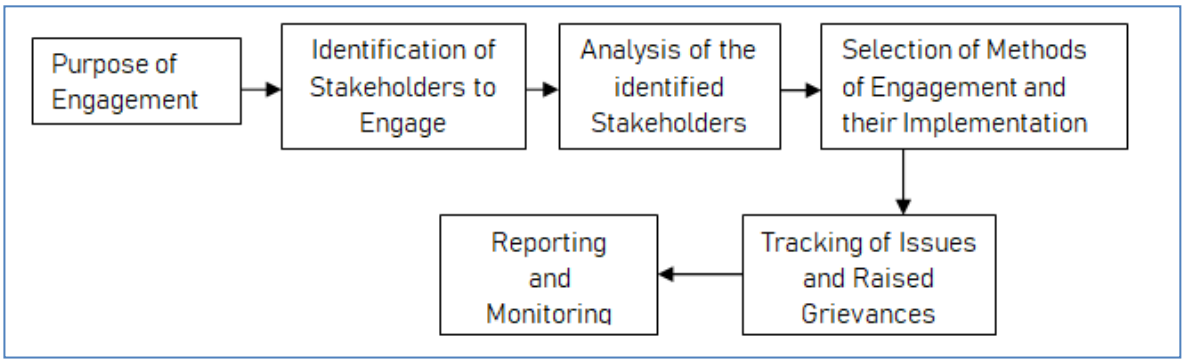
ii) If NEMC screen and find that a sub-project falls under Category "B2" then ESSS-PIE will prepare An Application for EIA Certificate using the Format presented in Regulation 6(1) of the Environmental Impact Assessment and Audit Regulations No. 349 of 2005 as amended in 2018. If decision is for other categories, then EIA preparation procedure will be followed. y may decide to send a Team of Experts to verify information provided in the submitted documents against the situation on the ground and local stakeholders. The cost of review of the documents including site verification visits is determined by the Sub- Project Construction cost.

6.3.5 Stakeholders Consultation

Engaging Stakeholders is a participatory and inclusive process that is supposed to be conducted throughout the project life cycle. Where properly designed and implemented, it supports the development of strong, constructive and responsive relationships that are important for successful management of a project's environmental and social risks and impacts. During the preparation of this report, we observed the existence of different categories of stakeholders ranging from those interested in the project and those likely to be affected by the implementation of the project.

To ensure a well-coordinated stakeholder engagement plan (SEP), it is recommended that MVIWATA and her representatives follow a 6-step process (Figure 4 below) in the implementation of this project (F3SRT).

Figure 4: Stakeholders Engagement Steps



Source: Adopted from URT 2022

This project has stakeholders who are mainly farmers of potatoes and ginger in these districts; The Government of Tanzania through the Ministry of Agriculture; President Office Regional Administration and Local Government(PO RALG) through the Regional Administrative Secretariats of Kilimanjaro and Njombe Regions and the District Commissioners Offices; The Local Government Authorities(including departments responsible for agriculture development, cooperative development and administration) in each of these Regions: namely Same in Kilimanjaro; Ludewa, Makete, Njombe and Wanging'ombe in Njombe Region. Others are Wards and Village Councils and households that are engaged in the production of potatoes and ginger. In the context of ginger growers there are Mamba Ginger Growers Cooperative Society(MGGCS); Mamba Ginger Processing Factory(MGPF) and Public Sector Social Security Fund(PSSSF).

6.3.6 Occupational Health and Safety

MVIWATA with the close support from the Contractor or the in-house environmental health and safety specialist will ensure regular training to permanent and temporary workers on occupational health and safety to workers and information relevant to health risk including malaria, yellow fever and pandemics like COVID-19 is provided to workers. During the construction period the contractor shall provide, equip and maintain adequate personal protective equipment (PPE), first-aid stations and sign boards directing where these services are situated and transport in case of emergency. MVIWATA through their sites agents will ensure provision of appropriate protective gear including, but not limited to helmets, heavy duty gloves, safety vests and boots to site workers and visitors.

6.3.7 Developing Site Specific ESMPs

PIE – Registered Environmental Expert will prepare ESMPs for each of the sub-projects as detailed below:

a) For all negative significant impacts, the PIE-ESSS will prepare impact mitigation measures either by elimination, reduction or to remedy them;
b) For all significant positive effects arising from each of the sub-project, PIE-ESSS will prepare enhancement measures for so as to increase the contribution from the project to social development and environmental conservation;
c) Also PIE-ESSS will prepare Mitigation and Enhancement Plan for all significant negative impacts and positive effects, with details about institutional responsibilities and costs were appropriate; and
d) A Monitoring Plan and Environmental and Social Management Plan will be prepared with details about institutional responsibilities, monitoring framework, parameters, indicators for monitoring, and costs of monitoring were appropriate.

6.4 Project Monitoring

The Project's M&E Plan will be aligned with the Bank's and GAFSP Results Measurement Framework. The Project M&E Plan will also be aligned with the overall M&E framework for ASDP II and specifically with the Agricultural Routine Data System (ARDS), which is designed to provide district and regional level agricultural data quarterly. A Project Mid-term Review (MTR) will be undertaken at the midway of implementation, and an Outcome Report as well as Project Completion Report (PCR) in the last year of the Project.

6.5. Environmental and Social Management Plan (ESMP)

The purpose of the Environmental and Social Management Plan (ESMP) is to provide guidance during the implementation of the Proposed MVIWATA F3SRT sub-projects regarding the institutional responsibilities and cost estimates for effective environmental and social management.

Therefore, ESMP will:

a) Ensure that proper appraisals on the effects of projects takes place and that proper measure are put in place to mitigate the effects;
b) Set out the basis for compliance and enforcement of terms and conditions for approval;
c) Design compliance strategies; and
d) Monitor compliance and managing of the environment.

Whilst detailed mitigation will be defined through the impact assessment process, international guidance is available that defines indicative mitigation measures that should be considered as Good International Industry Practice. Table 12 summarises.

Table 12: Environmental and Social Management Plans for F3SRT Sub-Projects

Name of Sub-Project	Potential Environmental and Social Impacts	Mitigation Measures	Responsible Agency
Njombe Region - Construction and operation of a small potato processing plant for value addition.	• Soil disturbance during excavation • Dust depending on the season during transportation of materials • Accidents during construction • Wastes generation during construction and operation such as potato peels and dirt water, • Wastes from fresh potatoes gathered for sorting, processing and packaging.	• Rehabilitate areas • Use water to minimize dust • Use proper PPE to workers • Recycle the potatoe peels	MVIWATA, MAFC/MANR-District Council where the Processing Plant will be located.
Same District - Improving Marketing by linking to the Current activitie-integration into the digital platform to be designed and constructed.	• Increased markets of ginger resulting into more water extraction in relation to permits and rights of downstream users; • Likely social unrest as a result of income increase hence, sexual harassment; • Competetion with available resources	• Confirm permits; monitor drainage in sensitive ecologies • Monitor inflow and outflow • Farmers training on sustainable water use and management	Ministry of Agriculture ,MVIWATA, Kilimanjaro Regional Administrative Secretary (RAS), Same District Council,
Agro-chemical usage			
Njombe – increased use of inorganic fertilizers and pesticides (herbicides, insecticides, fungicides, rodenticides)	• Water contamination with agro-chemical residues (fertilizer, residues) • Human health impacts if unsafe application/usage and handling (transportation, storage, disposal)	• Training of farmers in the safe use, handling and disposal of inorganic fertilizer and pesticides (esp. insecticide and herbicide) and Integrated Pest Management • Conduct refresher training for village level extension agents on safe use of agro chemicals	• DITS, EMU and LGAs/DADO • SMS-Env. & DADO/ EMU, DITS, LGAs • DITS, EMU and LGAs/DADA

		• Monitor quality of water runoff from potatoes farms.	

CHAPTER SEVEN
STAKEHOLDERS CONSULTATION AND PUBLIC PARTICIPATION

7.1 INTRODUCTION

In development projects it is vital to ensure that all stakeholders relevant to the activity are engaged adequately throughout the project phases. This chapter presents objectives of the consultations, consulted stakeholders, methods used in the consultation and summary of raised issues, challenges and suggested solutions. Series of field visits, analysis and engagement with various stakeholders was conducted for the period from November,2022 and March 2024 in the regions of Kilimanjaro and Njombe. For evidence of some consulted stakeholders with photo and signature (see **Annex 6** and **Annex 7)** respectively.

7.2 OBJECTIVES OF THE CONSULTATION AND PUBLIC PARTICIPATION

The objective of the consultation and public participation was to:

a) Disseminate and inform the stakeholders about the project with special reference to its key components and location;
b) Gather comments, suggestions and concerns of the interested and affected parties on the proposed project;
c) The establishment of a communication channel between the general public and the team of consultants, the project proponents and the Government; and
d) The document stakeholders concern and communicate them to Proponent and other interested parties.

7.3 PARTICIPATION OF STAKEHOLDERS

7.3.1 Stakeholders Identification and Analysis

We identified stakeholders based on their level of influence, roles and relevance to the proposed project. We have categorized them into three as follows:

a) Those who have mandate to ensure the project is implemented as planned – the Government through President Office Regional Administration and Local Government(PO-RALG)-represebted at the Regions and Districts; Ministries of Agriculture, Cooperatives - through respective Departments of Agricultural, Cooperatives. Vice President Office - NEMC – the Environmental Management Advisor in Regional and Districts Offices and finally MVIWATA, the Project Implementing Entity(PIE).

b) Those who are likely to be affected (positively or negatively) by the introduction of the project – they included the processors of ginger in Same District.

7.3.3 Data Collection Methods

In line with the ToR for this assignment, we conducted a Mission in Kilimanjaro Region in particular Same District where we administered semi structured interviews (face to face and by telephone conversation) and two focus group discussions(FGD). We held two FGDs with Senior Officials in Same District Council (District Executive Director; District Agriculture Extension Officer, Head of Department of Agriculture, Livestock and Fisheries; Head of the Copperative Management Unit, Agriculture Inputs Coordinator, Cooperative Officer) and the Senior Officer from Mamba Ginger Growers Cooperative Society.

Considering the fact that, in November 2022 we had a Mission in Njombe Region where we had a detailed consultations on potatoe value chain and associated issues facing farmers we opted to use the information for study. We had meetings with Regional Officials including the Regional Commissioner we found it not imperative to relevant another physical mission in the same area. We opted to use the previous contact to administer telephone interviews will senior officials in Njombe Regional Dministrative Secretariat – agriculture advisor on the proposed project. The Stakeholders' major views and concerns are incorporated into this report (ESMF). We used qualitative content analysis to reach get meaning from the gathered data from multiple sources. Consulted officials were Regional Commissioner, the Regional Agricultural Advisor, the Member of Parliament for Njombe Urban. Besides, we also adopted views raised by Wanging'ombe District Council through Senior District Officials lead by DED, District Agricultural Officer and the Environmental and Social Advisor(MVIWATA,2022).

7.3.4 Data Analysis

Analysis of the collected data was done by using qualitative content analysis (conventional approach). Conventional approach is by coding categories of responses from text data. All concerns raised by each category of stakeholders were coded so as to get patterns of concerns.

7.4 SUMMARY OF THE STAKEHOLDERS'VIEWS AND CONCERNS

Table 15 presents in details issues discussed, views, concerns and suggestions. The critical issue raised was associated with the ginger productivity and processing from stakeholders in Same District. It was proved beyond doubt that ginger growers are growing quantities of fresh ginger but they lack reliable buyers.. Besides, discussion with the Management of the existing Ginger Growers Processing Plant indicated clearly have low capacity of buying and processing the entire ginger harvested in the district.

Results from FGD with the Senior Officials from Same District Council showed that the Council collected TShs. 250 Million as a levy from the 5% of the produced ginger that is processed at the factory. The rest, as per the discussion went with inadequate notice of the Government. They showed a desire for more processing facility to be established in the district. **Table 13** presents summary of the concerns, views, and perceptions of consulted stakeholders concerning the proposed F3SRT in Tanzania.

Table 13: Stakeholders Views and Concerns in Relation to the Proposed F3SRT

S/N	Stakeholders	Discussed Issues, views, Concerns and suggestions
1.	**Kilimanjaro Region** - Same District Commissioner's Office; Same District Council – District Executive Director, Department of Agriculture; District Cooperative Development Officers, Agricultural Extension Officers; District Environment Management Officers	During the FGD members said that cinnamon and black pepper are grown in the Region and districts, but for Same District the critical crop is ginger. Processing of this crop stands at 5% of the production – so support to production, harvesting and processing is critical. • The District gets approximately TSHs. 250,000,000/= as revenue (industrial cess) from a charge of TShs.3000/= per bag of 100kgs. This, is approximately 83 Tonnes, which is 25% of the total ginger production. The remaining 75% of the produced ginger goes unnoticed. (Focus Group Discussion(FGD) with District Extension Officers, 20/03/2024). • Challenges for ginger value chain is the low capacity of the Ginger Processing industry at Mamba, which, currently can effectively process about 5% of the ginger harvested.

		• Ginger needs to be harvested within 5-6 months therefore, if not harvested it losses quality as fibre contents increases hence, farmers get loss; • Environmentally, ginger production is totally organic using livestock manure but needs very much water. • Socio-economic development – the growth of ginger has changed life style of farmers in all areas especially Mamba were it is significantly grown • Irrigation scheme needs further support so as to sustain growth especially during the dry season therefore, with inadequate water-currently the Government has dished in TShs.1.5 Billion to improve the irrigation system so as to transfer water from Chome Game Reserve to farmland (FGD –ibid). • Price fluctuation risks – farmers are likely to refuse to sell their ginger if prices become unfavorable for them, hence, coordination and price monitoring critical for sustainable processing. • **Ginger** is perishable thus become bad after harvest hence if not harvested within the specific time its quality goes down through increases of fiber contents. Suggested to MVIWATA to establish an effective Ginger Processing Facility (GPF) with capacity to timely buy ginger, aggregate and transfer to the GPF. • The current facility can process 5% of the produced ginger only (FGD -21/03/2024). Also, they can support the empowerment of the existing Cooperative of Ginger Farmers; TAHA has assisted Certificate of Global Gap hence support fresh ginger only. • Risks – if roads are not regularly maintained by the Government through TARURA there is a likelihood that produced and harvested ginger will not be transported to the processing facility- hence losses to farmers.
2.	**Ginger Growers Representation:** Mamba Ginger Processing Factory; Ginger Growers Cooperative Society	It is a small scale industry owned by Mamba Ginger Grower Company Limited. The company is formed by two partners which are PSSSF and Mamba Ginger Growers Cooperative Society at 73% and 37% share respectively. The which, currently can effectively process about 5% of the ginger harvested • **Operations –** harvested raw ginger is bought directly from farmers to the industry, and then washed, sliced and dried using electricity. For market purpose ginger is processed to powder or slices and sold with respect to purchased order. • **Production capacity** – The capacity of ginger growers' production is estimated at 25,000 tonnes per year. • **Purchase and processing capacity** – the factory can only purchase 360 tonnes of harvested raw ginger per year, which is equivalent to process 1ton per day, but the strategy was to process 10 tonnes per day. • **Waste products –** only dirty water is produced; thus it is harmless to environment since no chemicals or radiations are produced. **Benefits**

		• It is a trivial factory with a capacity of only 8 direct employments with 2 women and 6 men. • The price of ginger produce is not constant, thus the revenue from production fluctuates as estimated TZS. 540,000,000 /= per year for super processed ginger. **Challenges** • Market availability – the market reliability have also been critical in price determinant, hence price is controlled by buyers. • Marketing strategy – the factory run operations only when the order is available. • Higher operation costs – the factory sustain high costs to produce high quality ginger goods. • Unreliable electricity – fluctuations of electric voltage such as low voltage, cut off and on during factory operations. • Challenges with payment system – farmers need cash payment after trade, while the factory has to process payment through Local Government Authority systems. • Inadequate operation capital – the factory has inadequate fund to buy raw ginger from farmers. • Low capacity of the machines – operating machines is small taking two driers with a capacity to carry 500kg at once.
3.	**Same District Environmental Management Officer**	Construction Phase • *Positive impacts* - the positive impacts during construction phase will involve increase of income of local communities due to selling of goods to workers and collection of service levies from procured contractors which will increase revenue of the Local Government Authorities. • Movement of workers using local transport such as motorcycle and buses (bodaboda and daladala) will contribute to income generation to operators. • Likewise, employment opportunities to skilled and unskilled youth (male and female) in plumbing, carrying materials and other services will contribute to income generation. • *Negative impacts* - during construction phase of sub-project, more land will be needed which will lead to change of land uses, thus cause disputes and conflicts among the farmers. • Damage of infrastructures caused by movements of heavy loaded vehicles (trucks) may cause demolition of street roads and houses. • The construction phase may lead to pollution such as sound, air and soil during transportation of construction materials to the site and concentration of gaseous caused by movement of vehicles. • Influx of people especially youth searching for job which can result into spread of diseases such as HIV/AIDS, COVID-19. • The PIT to prepare SEA for Child labour

		Operation Phase • *Positive impacts* – contribution of income generation form VAT, export duty from different exported materials. Also there will be employment opportunities for unskilled and skilled labors (male and female) from surrounding communities. • *Negative impacts* - air pollution due to increased particulate and gaseous concentrations caused by the movement of heavy duty machineries and other equipment. • The process ginger can results into by products which need to be taken with sensitive disposal consideration. • Disease (such HIV-AIDS and STDs) – the increase of ginger production processes will cause influx of people with different traits and style of living in the region, thus such interaction will lead to erotic acts and prostitution. • Other negative impact of ginger production is gender based violence (GBV) discrimination of women and girl child at lower level of social relations perpetuated by income earned by men as well as physical violence.
4.	**Njombe** Regional Commissioner's Office; Regional Agricultural Advisor – Wanging'ombe District Council (WDC)-District Agricultural Officer, Environmental Management Officer.	• Project highly needed as potatoes is for both food and business; • Wanging'ombe is dry so irrigation is needed; • There is significant use of chemicals for weeds and growth so contamination of soils and waste from containers • They accepted the intervention on the potato value chain citing market as critical as there is reliable market hence price determined and controlled by buyers • Inputs currently supported by the Government. • Positive impacts of the project will be increase in income to beneficiaries • Storage facility for potatoes can increase value. • Negative impacts include destruction of reserved land due to expansion of farms. • Underground pollution, forest and water sources due further irrigation and clearing of land; • Further conversion of farms for potatoes production will reduce land needed for other crops. • Potatoes production needs support in the form of water use which is intensive; planting technology, seeds and infrastructure for storage and harvesting. • Handling chemical containers due to the intensive use of industrial chemicals from planting to harvesting.

Source: Field Data, November, 2022 and March 2024

CHAPTER EIGHT
GRIEVANCES REDRESS MECHANISM

8.1 The Needs of GRM

GRM provides a formal avenue for affected groups and those with interests to engage with the project implementor or owners on issues of concerns or unaddressed issues of impacts. Grievances which are any suggestions or complaints about the way the project is to go may take the form of specific complaints of damages, concerns about activities of the project or perceived incidents or injuries. AfDB outlines requirements for grievance mechanisms for some projects; therefore, GRM should receive and facilitate answers or redress for affected institutions of beneficiaries of the F3SRT Baridi Sokoni.

The redress mechanism for grievances is therefore an important component of the stakeholders' management and critical to risk management for this project. The execution of sub projects under this project may have a range of potential adverse impacts to the people and the environment in which it will be implemented, therefore, having in place a strong and effective mechanism that ensures timely resolution is very necessary for MVIWATA. The project anticipates development of processing facility in Same Kilimanjaro, and Njombe. However, when a project activities start, individuals, households and other actors come forward with concerns or grievances about their long ownership or use of land on which sub-projects are proposed to be implemented. Significantly, this project does not trigger issues related to land and resettlement as much of its activities are logistical in nature supporting aggregation of agro-products, transportation, processing and branding.

Besides, the implementation of sub-projects under F3SRT Baridi Sokoni will entail recruitments of various workers ranging from skilled to semi-skilled staffs, who, under the Labour and Employment relations, require a grievance redress mechanism to handle labour affairs. As per MVIWATA and the Concept note for this project, a little number of staff is likely to be recruited during the implementation of this short terms project. MVIWATA may prepare a GRM Manual to guide this.

8.2 Implementation

MVIWATA as Project implementation Entity (PIE) will be responsible for developing appropriate formats for complaints and redress as well as disseminating information about the grievance redress system (GRS) during the construction and operation of the project and the subprojects.

PIE will consult the Ministries responsible for Agriculture in both Tanzania Mainland through the Regional Administrative Secretariats (RAS) where Senior Advisors are stationed including the Sokoine University of Agriculture (SUA) to ensure that grievances raised can be addressed well. PIE has a well set network of its small farmers who are beneficiaries to this project, hence, the effective connectivity in handling grievances.

PIE through her administrative set up will engage with an officer responsible for Environmental and Social Safeguards who will work closely with Government at the Regions of Morogoro, Njombe and North Unguja to ensure smooth handling grievances that may arise.

Any person grieved with the Project activity from any village where F3SRT subprojects will be implemented will be advised to lodge his claim to Village Executive Officers (GROs) who will record the complaint and forward the same to MVIWATA coordinator at the Local Government Authority. GROs are to keep a record of grievances, and monitor the details of cases lodged, resolved cases, pending cases and action taken.

As per Labour and Employment relations law, where a processing facility is established, there will be a grievance redress mechanism to enable likely employed workers to raise their grievances related to occupation, health and safety and getting opportunities to have Workers Unions. Considering the nature of this project, no critical labour related matters are anticipated.

Therefore, we propose that Village Council – to be Village Grievance Redress Committee, Village Leaders – Village Chairperson (VCh) and Village Executive Officers (VEO) to be the Village Grievance Redress Officers (VGRO), in particular, the VEO who is an employee of the participating District Council- Same, Ludewa, Makete, Njombe and Wanging'ombe.

It is proposed that at each District Council close consultation and engagement of community development officer to assist in the handling of likely grievance. Review of the F3SRT documents and focus group discussion with the PIE made it clear that this project is purely too small to rise critical issues considering the networks that has been put in place by MVIWATA.

8.2.1 Submitting Grievances or Complaints

Complaints Forms will be made available at each local government office mainly the village councils where sub-projects will be implemented.

Any farmer or local community who will not be satisfied with the redress done to him will do the following:

a) Go to the office of his/her Village Executive Officer who will be tasked as Village Grievance Redress Officer and request a Complaint Form;
b) A person aggrieved with the project, will fill in a Complaint form and submit it to the VEO who will stamp it and sign one copy and give it to the complaint as evidence that the complaint has been received.
c) The filled in form will be submitted to the MVIWATA representative for detailed review and then provision of written feedback about the conclusion reached; If satisfied, this will be the end of the matter, however, if not satisfied, the Official will forward the matter to the PIU for further actions,
d) The village Executive Officer (VEO) or any proper officer will assist him/her in filling it in or any clarifications.

8.2.2 Grievance Redress Report

We propose that VEOs of villages or locations where sub-projects will be implemented with the support of the District Community Development Officer will prepare the report, address and record grievances through the GRM. So these will act as grievance redress coordination with a contractor or civil workers and other experts at the selected site for sub-project.

Format of the Report will present details of cases received (date, names of complaint, address, Mobile Phone Numbers, description of a case, status about the case (solved, not solved), pending cases, actions taken, feedback date (ref letter, date), acknowledgement. This database will then be forwarded to the MVIWATA for record keeping and reporting.

It needs to be noted the F3SRT does not trigger issues of land take and compensation. However, where a need will arise it needs to be noted that redress mechanism is set to start from village to Court of Appeal. It starts from the Village Council to Ward Tribunal, District Land and housing Tribunal, High Court and Court of Appeal. The Project has a component for coordination and management therefore, it will be the responsibility of the MVIWATA to assess adequately the adequate sum needed to assist in the implementation of the GRM. Consultation with the MVIWATA Team indicated categorically that valid budget would determine once the project receives finance.

8.3 GRM Cost

A review of the ESMF for Chad and Niger project adopted budget for GRM at USD 12,000 (AfDB (2020a). There were no details on how the figure was arrived at. AfDB's OS Requirements on Project Grievance and Redress Mechanisms especially AfDB's OS1 and OS5 emphasizes that the project should enable people fearing or suffering adverse impacts to be able to be heard and assisted. Considering the nature and magnitude of F3SRT Baridi Sokoni we estimate the cost fof GRM to be USD 2,000 only.

8.4 Summary

What is presented above is summary of a guide for handling grievances during the construction and operation of the sub-project on processing unit. As pointed out earlier, this project is too small to attract critical issues related to land take and compensation.

Since we do not take thing for granted, we recommend to the MVIWATA and those who will be involved in the administration of this project to ensure they prepare a detailed Grievance Redress Mechanism Manual in English and Kiswahili languages. The Kiswahili version is important for ease use by all communities. Such a standalone Document will have details, procedure for lodging complaints, forms to fill in, roles of public officers, flow of complaints submission, and contacts phone numbers for responsible officers at MVIWATA and with the local networks and farmers.

As per F3SRT Concept Note, the project will be implemented by MVIWATA through a dedicated Project Steering Committee (PSC), Technical Advisory Committee (TAC) and Project Implementation Team (PIT). Other institutions to participate will be Tanzania Bureau of Standards (TBS), Small-scale Industry Development Organization (SIDO), TanTrade, Ministry of Agriculture, Representative of the President's Office Regional Administration and Local Governments (PO-RALG); and one representative of local farmers' groups as deem necessary by MVIWATA.

CHAPTER NINE
CAPACITY BUILDING AND TRAINING FOR ENVIRONMENTAL MANAGEMENT

9.1 An Overview

This chapter presents critical capacity building or development and training that might be needed in the due course of implementing this project. This project is to be implemented in areas with different characteristics. Effective implementation of the ESMF and E&S requirements for all MVIWATA sub-projects will require all responsible staff to be adequately equipped with knowledge and resources on issues related to handling of agro-industrial chemicals likely to be provided to farmers, handling solid wastes to be generated during the processing of spices.

Specifically, training will be provided to the following

(i) Clearly define critical E&S roles and responsibilities to each of the appointed officials;
(ii) Define the E&S competency and training needs for E&S specific roles;
(iii) Ensure that all new staff are informed of the ESMF as part of their induction training;
(iv) Provide refresher training on the ESMF periodically during each phase of the Project;
(v) Inform staff of any significant updates of the ESMF and other aspects of E&S management; and
(vi) Provide specific and relevant training on E&S risks, impacts and management to members of the Project Implementation Team (PIT) as well as members of staff of the Project Companies, as appropriate.

9.2 CAPACITY BUILDING

Table 14 presents some specific training and capacity building in the form of training that MVIWATA through its dedicated Management Team will have to provide to ensure successful safeguards management of F3SRT sub-projects. Also, ESMF implementation training will be provided to key project stakeholders.

Table 14: Summary of Specific Training and Capacity Building

Training topics	Target Audience	Training Methods
Environmental laws and regulations on the risks of chemicals used in the farming; Handling and disposal of empty containers after chemical uses; use of PPE while using hazardous chemicals; Best practices in use of chemicals and promotion of traditional fertilizers. Effects of climate change on the abstraction of underground water in irrigation. Types of chemicals used and their effects on the environment and society. Pest Management practices.	MVIWATA Networks at Middle and Local levels: farmers' groups for potatoe and ginger, Extension Officers, Suppliers of Industrial chemicals. Same District there is Mamba Ginger Growers Cooperative Society- which owns a ginger processing facility in colaboration with PSSSF.	Training Workshops/seminar with Video organized at respective centres or villages in clusters based on the types of value chain dealt with.

Handling waste generated during the processing of spices.		

Source: Field data,2024

In the initial stage of project implementation two safeguards management start-up workshops in Njombe and Kilimanjaro Regions for all implementing agencies will be held to discuss and confirm F3SRT safeguards procedures, environmental and social management and monitoring arrangements as well as the ESMF work plan. These will be focused on the targeted value chain.

Moreover, training will be given to farmers on proper handling of various chemicals to be provided as part of this project so as to minimize incidence of underground water pollution and water borne diseases. The training program is to be implemented by the MAFC National Environment Management Council(NEMC). Additional training activities related to pest management will be included in the PMP work plan.

The MVIWATA designated project team will have to work closely with likely procured contractors/force account construction workers to ensure they abide to environmental and social management practices. All recruited construction workers will receive required training using non-technical language and in Kiswahili language.

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ANNEXES

Annex 1: Environmental and Social Screening Form

The Environmental and Social Screening Form (ESSF) has been designed to assist in the evaluation of sub-projects in the F3SRT that are to be implemented under this project. The form is designed to place information in the hands of reviewers so that mitigation measures, if any, can be identified and/or that requirements for further environmental analysis be determined

The ESSF contains information that will allow reviewers to determine if endangered or threatened species or their habitat, protected areas or forest are likely to be present, and if further investigation is, therefore, required. The ESSF will also identify potential socio- economic impacts that will require mitigation measures.

Name of Sub project: ……

Location: Ludewa, Makete, Njombe and Wanging'ombe

District: 1. Ludewa 2. Makete 3. Njombe 4. Same 5. Wanging'ombe [ ]

Village Name:…….

1. Description of Sub-project:

(F3SRT has sub-project for construction of potatoes processing plant 2. Ginger processing and marketing).

……
……
……
……
……
……
……
……
……
……

2. The Natural Environment

(a) Describe the vegetation/trees in/adjacent to the Sub project area

_____
_____

(b) Estimate and indicate where vegetation/trees might need to be cleared

_____
_____

(c) Are there any environmentally sensitive areas or threatened species (specify below)

that could be adversely affected by the sub project? 1. Yes 2. No

(i) Natural Forests Yes No

(v) Wetlands (swamps, polder areas, seasonally inundated areas) Yes No

(vi) Habitats of endangered species for which protection is required under

Tanzania laws and/or international agreements. 1.Yes 2. No [ ]

If

YES……explain……

……

……

……

……

……

……

3. River Ecology

Is there a possibility that, due to supply of agricultural inputs such as fertilizers or chemicals the river/stream ecology will be adversely affected? - Pay attention to water quality and quantity; the nature, productivity and use of aquatic habitats, and variations of these over time. 1. Yes 2. No [ ]

If Answer is 1 please explain

……

……

……

……

……

……

……

4. Protected areas

Does the sub project area (or components of the sub project) occur within/adjacent to any protected areas designated by government (national park, national reserve, world heritage site etc.)

1. Yes 2. No [ ]

If answer is 1 please describe……

……

……

……

……

……

……
……
……

1. If the site for F3SRT facility near any protected area, is it likely to adversely affect the ecology within the protected area areas (e.g., interference with the migration routes of mammals or birds)? 1. Yes 2.No [ ].

If Answer is 1. Yes please explain

……
……
……
……
……
……
…….

2. Based upon visual inspection or available literature, are there areas that have risks of large scale increase in soil leaching and/or erosion? 1. Yes 2. No [ ].

7. Invasive plant species along feeder road routes

Is the sub project likely to result in the spread of invasive plant species within the agricultural area)?

1.Yes 2. No [ ]

8. Noise pollution during Construction and Operations

Will the operating noise level exceed the allowable decibel level for that zone? 1. Yes 2. No

9. Will the project have adverse impacts on Natural Habitats that will not have acceptable mitigation measures according to OP 4.04 Natural Habitats.?

Yes…… No……

Annex 2: Environmental and Social Rules for Contractors Under F3SRT

1. General Introduction

This ESHS code of conduct shall be adopted and embodies the commitment of the Contractor (including Sub-Contractors and day workers) to conduct construction related activities in accordance with all applicable laws, rules and regulations with high ethical standards.

The Contractor and its subsidiaries shall comply with this Code of Conduct and in a manner consistent with high ethical standards. Failure to observe this Code of Conduct may subject you to disciplinary action by the firm, up to and including termination. Furthermore, violation of this Code may also be violation of the law and due result in civil and /or criminal penalties for you, your supervisors and/or the firm.

The Contractor employees, Managers and Directors shall take all responsible steps to prevent a violation of this Code, to identify and raise potential issues, and to seek additional guidance when necessary, if

you have any question's regarding the best course of action in a particular situation on this Code you should therefore promptly contact the project proponent for assistance.

2. Minimum Requirement of these Rules

This Code of conduct identifies risks associated with: environmental and social management, resettlement, labor influx, spread of communicable diseases, sexual harassment, gender based violence, criminal behavior, crime, child labour, and safety. The Code of Conduct contains obligations to all project staff (including sub-Contractors and day workers) in minimum specific requirements as follows:

(a) The Contractor and its subsidiaries shall comply with applicable Laws, Rules and Regulations of the jurisdiction;
(b) The Contractor shall prepares specific Health and Safety Management Plan (HSMP), Specific Environmental and Social Management Plan (ESMP), HIV/AIDS awareness programme, Occupational Health and Safety Awareness Programme of the proposed sub-project prior to the actual execution of the construction works based on the Design and the Project Brief or E&S Assessment Reports;
(c) The Contractor and its subsidiaries shall comply with applicable health and safety requirements (including wearing prescribed Personal Protective Equipment (PPE), preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment);
(d) The Contractor and its subsidiaries shall provide temporary speed calming measures, temporary speed limit signs to the highly populated areas such as at road sections under construction, approach to trading centers, villages, school premises and health centers and ensure that drivers observe speed limits for safety of other road users;
(e) The Contractor and subsidiaries are required to review the road levels before construction starts in order to blend aesthetically the horizontal and vertical alignment of the road with reference to the natural ground levels in order to allow communities to access their homes social amenities and businesses smoothly by providing proper access roads and crossing slabs to deep open drains to avoid storm water flowing into adjacent houses;
(f) The Contractor and its subsidiaries are required to avoid unnecessary clearance of trees and vegetation, avoid conflicts of water resources use with respective communities.
(g) The Contractor and its subsidiaries are required to make every effort to avoid water, air, soil pollution, land degradation and any related harmful that can damage the environment. Also all construction activities should strive to attain the high environmental standards;
(h) The Contractor and its subsidiaries are required to ensure safety of its workers and experts by providing them the required Personal Protective Equipment (PPE) to ensure safety. The standard safety signs and road marking should be provided during and after completion of road construction activities to ensure safety for all road users;
(i) The Contractor and its subsidiaries are required to provide sanitations facilities along the construction corridor (for example, to ensure workers use safe drinking water, specified decent sanitary services provided by their employer and not open areas);
(j) The Contractor and its subsidiaries are prohibited to practice any kind of discrimination (for example to job seekers on the basis of family status, ethnicity, race, gender, religion, language, marital status, birth, age, disability, or political conviction);
(k) The Contractor and its subsidiaries shall adhere to the labour laws during labour recruitment to ensure skilled and unskilled laborers are given specified work Contracts, registered with National Social Security Schemes and contribute to ''Pay As You Earn (PAYEE)'' tax;

(l) The Contractor and its subsidiaries are required to interact with the community members (for example, to convey an attitude of respect and non-discrimination);
(m) The Contractor and its subsidiaries are prohibited of the sexual harassment (for example, to prohibit the use of abusive language or filthy behavior, in particular towards women or children, that is sexually provocative, demeaning or culturally inappropriate);
(n) The Contractor and its subsidiaries are prohibited to conduct any violence or exploitation (for example, the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliation, degrading or exploitative behavior);
(o) The Contractor and its subsidiaries are required to protect children (including prohibitions against child labor, abuse, defilement, or otherwise unacceptable behaviors with children, and ensuring their safety in project areas);
(p) The Contractor and its subsidiaries are required to avoid conflicts of interest (such that benefits, contracts, or employment or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection);
(q) The Contractor and its subsidiaries are required to protect, provide safe equipment's and proper use of construction properties found along construction corridor and campsites (for example, to prohibit theft of construction equipment and material, carelessness or waste);
(r) Non retaliation against workers who report violations of the Code, if that report is made in good faith; and
(s) All workers and Contractor's Experts are responsible to read, accept and sign the requirements of this Code of Conduct as condition of employment and any violation of this Code can result to serious contractual measures to be taken including contract termination, dismissal, or referral to legal authorities.

CONTRACTOR CERTIFICATION:

I have read the rules. 1. I agree. 2. I do not Agree [ ]

Name of an Authorized Person of the Company……..

Signature of an Authorized Person of the Company…….…….

Name of the Company……

Address of the Company…….

Stamp of the Company …….

Witness's Name and Signature: ……..…..…….

……..

For MVIWATA Executive Director: ……

Date:
……

Annex 3: Checklist of environmental and social impacts for construction works

Phase	Land Degradation	Water	Bio-diversity, Natural Habitats and Wetlands	People

Planning	Soil Erosion: (i) Training of Subsistence and Cash Crop Farmers and Pastoralists on soil conservation methods. (ii) Rehabilitate anti-erosion infrastructure such as, micro-basins, micro dams, hill side terracing, soil bunds etc. (iii) Construct new anti-erosion infrastructure as listed in(ii) above. (iv) Introduce crop rotation management, use of fertilizers, tree planting and soil drainage. (v) Control bush burning and fires. vi) Protection of roadsides by planting of vegetation. vii) Protection of outlet of drainage canals and culverts to avoid gully forming downstream of the canal or culvert. viii) Prepare an effective and sustainable maintenance plan.	(i) Promote potable water and sanitation sub projects. (ii) Promote environmental health measures and public health education. (iii) Improve management of household and solid waste, including infrastructure for collection and treatment of liquid waste and waste water. iv)Review, update and enforce pollution control legislation. v) Strengthen enforcement capacity. vi) Develop and implement rural water supply and sanitation policy. vii) Locate sub projects at far/safe distances from water points and sources. viii) Increase public awareness.	i) Consideration of alternative locations/siting of sub projects. ii) Reduce biomass use through provision of alternative energy sources and construction materials (cooking stoves, photovoltaics). iii) Strengthen natural resource management capacities v) Promote agro forestry. vi) Wetlands management and small irrigation development. vii) Protect sensitive ecosystems such as forests and wetlands, prevent further encroachment in protected areas. viii) Enforce existing laws. ix) Locate sub projects appropriately. x) Training of communities of sustainable uses of resources. xi) Identify certain species of trees and animals that must be protected. xii) Exclude ecosystems that provided and important habitat for protected species. xiii) Establish buffer zones around protected areas and	i) Involuntary settlement due to land acquisition, denial or restriction of access to economic resources such as trees, buildings etc., used by members of communities should be avoided or, if not, properly compensated. ii) Provide social services in areas of : •Primary education •Primary health care •Water supply •Micro-finance •Feeder roads •Soil conservation and natural resources management. Basic and required training at district and community levels. Ensure that these services are equitably distributed throughout the districts and that as access is open to all ethnic groups irrespective of status. iii) Ensure that vulnerable groups in sub project areas are included in project activities

Construction	i) Construction in dry season. Protection of soil surfaces during construction. ii) Adequate protection from livestock entry by fencing the site perimeters. iii) Employ all unskilled labor from local districts and semi-skilled labor first from local districts when available there in. iv) Source goods and services from local districts first, when available. v) Control and daily cleaning at construction sites. vi) Provision of adequate waste disposal services. Proper disposal of chemicals and other hazardous materials. vii) Dust control by water, appropriate design and siting, restrict construction to certain times. viii) Appropriate and suitable storage of building materials on site. ix) Sitting of Latrines at safe distances from wells and other water points and using closed systems for sewage drainage. x) Restrict construction to certain hours xi) Minimize loss of natural vegetation during construction; alternative sites; various special measures for sensitive species xii) Restoration of vegetation; cleanup of construction sites. xiii) Safety designs (signage) xiv) Ensure availability of clean potable water for use in latrines, canteens and for drinking. xv) Use of appropriate building materials. No asbestos etc.
Day to Day Operations	i) Use facilities/infrastructure as designed and as intended. ii) Employ trained staff to man and secure facilities. iii) Log and report any damages done and repairs needed. xvi) Perform periodic monitoring of all aspects as contained in the sub project Environmental and Social Monitoring Plan.
Maintenance	i) Prepare and adopt suitable maintenance plan. ii) Maintain appropriate budget necessary to implement maintenance plan. iii) Implement maintenance plan in two stages : for activities requiring day-to-to maintenance such as repairs to damages done, regular inspections etc and longer/periodic term maintenance. iv) Have suitably trained staff to carry out maintenance and access to materials/goods/equipment

Source: Adopted from URT 2014 with Amendments, 2024

Annex 4: Content of Site Specific Environmental and Social Management Plan (ESMP)

The ESMP is an integral part of the overall implementation of the sub-project. The sub-project ESMP must include a set of mitigation, monitoring and institutional measures to be undertaken during implementation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The ESMP is a sub-project specific action plan presented in table format, which must include the actions needed to implement these measures, including the following features (Adopted from URT, 2014):

1. Description of adverse impacts: The anticipated impacts are identified and listed.
2. Description of mitigation measure and implementation schedule: Based on the environmental and social impacts identified through the screening process and PESIA for category B sub-projects each measure should be described as well as the schedule for their implementation (timing, frequency, and duration).
3. Description of monitoring and reporting arrangements: A specific description and technical details of the monitoring method, including the indicators to be measured, how they will be measured and by whom, the sampling locations, the frequency of measurements, detection limits (where appropriate), and the definition of thresholds that will signal the need for corrective actions, e.g. the need for on-site construction supervision, or the need to test and have a water quality monitoring

plan.

4. Description of responsibilities: The ESMP should include specific responsibilities for implementing the mitigation measures (i.e. who is responsible for implementing the mitigation measures and carrying out the monitoring regime for operations, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting and staff training.)
5. Cost estimates for mitigation and monitoring measures: Include an estimate of the costs of the implementation of the mitigation measures and monitoring activities as well as the source of funds.

Annex 5: Role and Responsibilities of the MVIWATA in Implementing the Project

No	Steps/Activities	Responsible	Collaboration	Service Provider
1.	Identification and/or sitting of the Potatoes Processing Plant in selected District in Njombe Region.	PIE	• District Local Government where the sub-project has been proposed to be located, Land Officer for land tenure issue, land use and land valuation in case of acquisition.	District Land Office.
2.	Screening, categorization and identification of the required instrument (national EIA procedure)	PIE-Environmental Specialist.	• Relevant Local Authority, Beneficiary; Social Safeguards Specialist (SSS) on the PIE; District Environmental Officer, Land Officer, Land Use Planner, Agriculture Officer.	NEMC Zonal Offices in the Southern Highland and Northen Zones.
3.	Approval of the classification and the selected instrument by the NEMC	PIE Coordinator	• ESS-PIE; SSS-PIE; District Environmental Officers.	• NEMC • The Bank
4.	Preparation of the safeguard document/instrument (ESIA, Env. Audit, simple ESMP, etc.) in accordance with the Tanzania environmental clearance procedure including requirements of AfDB policies.			
	Preparation and approval of the Sub-Project Brief as per EIA Procedure in Tanzania	ESS-PIE	E&S consultant at PIE	• NEMC • The Bank
	Preparation of the report		• Procurement specialist (PS-PIE); SSS-PIE; Relevant District Authority-depending on where the project is to locate.	• Consultant • NEMC
	Approval of Application for Environmental Clearance of a Sub-project.		• Procurement specialist (PS-PIE); SSS-PIE; Participating Local Authority	• NEMC • The Bank

	Disclosure of the document		Project Coordinator	• PIE-Media; The Bank; supervising engineer.
5.	Integrating the construction phase mitigation measures and E&S clauses in the bidding document prior they're advertised; (ii) ensuring that the constructor prepares his ESMP (C-ESMP), gets it approved and integrates the work breakdown structure (WBS) or execution plan.	Technical staff in charge of the sub-project (TS-PIE)	• ESS-PIE; PS-PIE; Supervision Consultant(if any)	Contractor. NEMC
6.	Implementation of the other safeguards measures, including environmental monitoring (when relevant) and sensitization activities	ESS-PIE	• SSS-PIE, PS-PIE; TS-PIE; Financial Staff (FS-PIE); Local authority	• Consultant; National specialized laboratories;
7.	Oversight of safeguards implementation (internal)	SSES	• Monitoring and Evaluation specialist (M&E-PIE); FS-PIE; Relevant Local Government Authorities in Tanzania.	• NEMC
	Reporting on project safeguards performance and disclosure	Coordinator	• M&E-PIE; ESS-PIE; SSS-PIE	NEMC
	External oversight of the project safeguards compliance/performance	PEA	• M&E-PIE; ESS-PIE; SSS-PIE; PS-PIE; Supervisor	NEMC
8.	Building stakeholders' capacity in safeguards management	ESS-PIE	• SSS-PIE; PS-PIE	• Consultant • NEMC or any qualified public institutions
9.	Independent evaluation of the safeguards performance (Audit)	ESS-PIE	SSS-PIE; PS-PIE	Consultant

Annex 6: Some Pictures Showing Consulted Stakeholders

Meeting with Njombe Regional Commissioner.

Photo: Meeting with the MVIWATA Management Team (November, 2022 source:AfDB,2023

In

Discussion with Njombe Region Agriculture Advisor(Left) and with Wanging'ombe Senior Officials in Agriculture and Environment (Right). Source: AfDB,2023

Photo: After Meeting with Agricultural Development Officers in Same District

Photo: Senior Cooperative Officers after the Meeting in Same District – 21/03/2024

Annex 7: Attendance Register for Consulted Stakeholders

THE UNITED REPUBLIC OF TANZANIA

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) STUDY
FOR FOOD SYSTEMS SUPPORT PROJECT (FSSP)
LIST OF CONSULTED STAKEHOLDERS

S/N	Names/Jina	Institution/Taasisi	Title/Cheo	Phone/Simu	Signature/Sahihi
1.	Stephen A Runge	MVIWATA	CEO	0787389247	
2.	REMMY URIO	MVIWATA	PO(Market + MFH)	0756980557	
3.	Theodore Pius	MVIWATA	HEAD OF PROGRAMS	0718 082120	
4.	Dr. Rozalia C.R	RS-Morogoro	AAS - Ec	0782484211	
5.	Venance Segese	RS-Morogoro	Afisa Mazingira	venasegese@gmail.com 0756-480302	
6.	Anthony Mtaka	RC-NJOMBE		0786414825	
7.	DEO P MWANYIKA	MP-NJOMBE	MP	0747555999	
8.	ELIUD F. NYAUHENGA	MWANANCHI	BINAFSI	0655101205	
9.	WILSON JOEL	RS NJOMBE	RAA-NJOMBE	0759976724	
10	Bernadeta Fivawo	DAICO	Wangingombe DC	0754 870409	

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S/N	Names/Jina	Institution/Taasisi	Title/Cheo	Phone/Simu	Signature/Sahihi
1.	Dr. Cairan Kisunga	Same DC	DALFO	0753478595	
2.	DEBORA S. MTATI	SAME DC	AO	0679250743	
3.	YULIA JOEL	SAME DC	PAFO	0759611528	
4.	MR KITWANA MUNGY	— " —	DEMO.	0713 856561	Phone Interview absent environmental + forestry Day. 21/3/24.
5.	JAMSON MHAGAMA	— " —	DED	0766 441202	Phone interview on the matter.
6.	Upendo Klella	DAS SAME	DAS	0754 092279	Phone interview- absent in office - Forestry day.
7.	JOEL MARANDU	Same DC	DCO	0767053473	
8.	JAMES SANINGO	Same DC	CO	0762695734	
9.	Emmanuel Christopher Kaswaka	Mamba Ginger Growers Co. Limited.	Ag Manager.	0757140466	Interview over Telephone Call. 28/3/24

S/N	Names/Jina	Institution/Taasisi	Title/Cheo	Phone/Simu	Signature/Sahihi
11.	MARYAM A. MUHAJI	DGD-WDC	DED	0767 140471	[signature]
12	KASNURI DAUD	MANGUNGAMBA	DNREO	0755635034	[signature]
13	EVODIA F MKANGALA	MVIWATA	PROJECT OFFICER (AGRIBUSINESS DVP)	0769071940	[signature]
14	LAMECK MLIMILWA	MVIWATA	M&E OFFICER	0766689266	[signature]
15	UKHTHUM A. WUSI	AFISA MRATIB KASK 'B'	MRATIBU 'B'	0778957293	[signature]
16	FATIMA BAKARI R. DHAN	AFISA HABARI	KASKAZINI "B"	0777441845	[signature]
17	KHAMIS POUM KHAMIS	A/MRATIBU KASK A'	KASKAZINI A'	0777431831	[signature]
18	JUMA KONA MOSI	KILIMO	DADO 'A'	0777878337	[signature]
19	YUSSUF F YUSSUF	MVIWATA	KASKAZINI	0777-421074	[signature]
20	MARYAM IMANI ALI	AFISA UGANI	KASKAZINI 'A'	0777165171	[signature]
21.	SULEIMAN A. HAMAD	WKUMM - D	AFISA UTAFITI	0776298161	[signature]
22	SEIF SEIF MOHAMED	WKUMM	KATIBU MKUU	0777 868306	[signature]

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