

UNITED REPUBLIC OF TANZANIA



VOLUME 1

ENVIRONMENTAL AND SOCIAL ASSESSMENT FOR THE PROPOSED AGRO-INDUSTRIAL PROCESSING HUB (APH) ON TANGANYIKA PACKERS SITE, SHINYANGA MUNICIPAL COUNCIL, DISTRICT, SHINYANGA REGION



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EXECUTIVE SUMMARY

The Government of the United Republic of Tanzania through her midterm development agenda, the Five Year Development Plan III (2021/2022- 2025/26) has strategized for a significant increase in agro-processing output. She has thus embarked in the development and operation of the Agro-Industrial Processing Hub (Mega Industrial Processing Hub) to be located on the land with approximately 226 Acres located in Old Shinyanga Town within the jurisdiction of Shinyanga Municipal Council in Shinyanga District, Shinyanga Region, Tanzania. It is located on the right hand side along the Shinyanga to Old Shinyanga Road approximately 10 Km from Shinyanga Municipality Centre. The hub also known as Agro-Industrial Parks, Agribusiness Parks, or Mega Food Parks is designed to concentrate agro-processing activities within areas of high agricultural potential to boost productivity and integrate production, processing and marketing of selected agricultural commodities. The Proposed hub is the brainchild of the African Development Bank (AfDB) through its Feed Africa Strategy aimed at establishment of Special Agro-Industrial Processing Zone (SAPZ) whereby Mega Industrial Processing Hubs, Agro-Transformation Centers (ATCs) and Aggregation Centers (ACs) and Fish Aggregation Centers (FACs) are developed.

It is anticipated that through the SAPZ, industrialization of agriculture will be speeded up by developing agricultural processing infrastructure that will lead to improved income and enhanced employment opportunities in the rural areas, especially targeting the youth.

This Project is coordinated from the Prime Minister's Office on behalf of the ministries responsible for agriculture, Livestock and Fisheries. Other ministries that are interested in this project are the Ministry of Trade and Industries, Ministry responsible for Labour and Employment, Ministry responsible for Gender and Inclusion, etc. There is a Plan to establish a Special Purpose Vehicle (SPV) to administer the Agro-Processing Zone. Name of the proponent and contact

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A brief description of the project environment

The Government zoned the land for agro-industrial processing during the era of Tanganyika Packers Limited (TPL) that is why the land is known as Tanganyika Packers. Currently the land is under the administration of the Government through the Treasury Registrar. Environmental Impact Assessment (EIA) study has considered the effects of the development and operation of the industrial processing park on the physical environment, the ecology, the socio-economic and cultural environments and significant aspects related to health, safety and risk management. To enhance the socio-economic and environmental effects, adverse impacts were identified and appropriate mitigation/enhancement measures recommended minimizing negative impacts and enhancing positive ones.

A plan for management of impacts has been prepared. Hence, the study has significantly addressed environmental and socio-economic aspects of this project as contained in the agreed upon Terms of Reference (ToR). The study, therefore, was conducted in accordance with the AfDB Risks Management and Tanzania Environmental Management Act (EMA) (EIA and Audit Regulations) of 2005 and EMA (EIA and Audit Regulations (Amendment) of 2018.

Project stakeholders and their involvement in the EIA process

Stakeholders from the Nation to the local levels had been involved through series of missions, feasibility study and validation workshops that the Proponent in collaboration with the financiers such as the United Nations Industrial Development Organizations (UNIDO) and African Development Bank (AfDB). At the Regional Level, the Shinyanga Regional Administrative Secretariat (RAS) and senior advisors and Officials from Shinyanga District and Shinyanga Municipal Council participated in the form of focus group discussions (FGD) whereby they presented their views and proposals. Stakeholders at the Division, Wards and Village levels especially those directly affected by the proposed project attended a FGD whereby they presented their views, concerns and expectations about this highly waited project in their locality.

Explanation on why some impacts are not addressed

As the project has only preliminary designs as per the feasibility studies conducted, there will be need to do further impact assessments, particularly during site-specific environmental and social impact assessments at the construction stage of the project.

Consulted Stakeholders

At the National level, results of the review of various documents related to this project such as the Aide Memoire, Feasibility Study, Validation workshops organized jointly by the Prime Minister's Office (PMO) in collaboration with the Project Sponsors (AfDB and UNIDO) under the guidance of the National Environmental Management Council (NEMC) Regulations showed various views, concerns and proposals towards the preparation and sustainability of the development and operation of the planned infrastructure under the SAPZ.

During the study, the Consultant consulted Government Organization in Shinyanga Region focusing to the Office of the Regional Administrative Secretary (RAS) with her technical advisors in Agriculture, Livestock, Environment and Economy. At the District Level, consultations were made with Shinyanga District commissioner and the other Senior Officials in the district such as the District Administrative Secretary and the Division Officer for Old Shinyanga Division which has been targeted as the site for the Project location. Consultations were also carried out at the Ward and Village Levels with the Ward Executive Officers, Village Leaders and Members to the Village Councils of Ihapa and Seseko. Being in the neighbourhoods of the project, these villages are likely to be directly impacted on by the project.

Results of the Public Consultation

Consulted stakeholders had different opinion about the proposed hub. For Stakeholders at the Ward and Village levels, they were concerned with the extent of the land that the project was use during the construction of the project. This was related to the past dispute concerning this land after Tanganyika Packers abandoned it. Clarification from the Regional and District leaders and the preliminary designs presented made it clear that the communities were not being affected as the design does not reach village residents. The consultant accompanied with leaders visited some villages around the site and proved that the project was outside the land currently used by residences of the villages.

Description of major significant impacts

- Increased employment opportunities for skilled and semi-skilled people among the community members and from the neighbouring districts.
- Serious influx of people in the locality of the project seeking jobs hence triggering insecurity and demand for housing facilities.
- Generation of wastes - significant generation of both solid and liquid wastes causing negative impacts during the construction and operation phases of the project. The operational phase will particularly lead to higher waste generation due to processing activities.
- There will be Occupational Safety and Health Issues such as accidents, air pollution, increased chances of HIV/AIDS infections particularly during construction and operational phases due to increased human interactions as a result of increased labour influx and economic activities.
- There will also significant increase in marketing activities of raw agricultural products and materials within the districts and regions of the project resulting in increased agricultural production.
- It is anticipated that due to increased agricultural production there will be improved household income and community well-being, especially during the operational phase of the project.
- There is also likelihood that increased agricultural production may lead to increased use of agro-chemicals hence resulting into land and water pollution.

Environmental and social management

A detailed plan to address the above impacts has been prepared.

- For Increased employment opportunities for skilled and semi-skilled people around the community and neighbouring districts it has proposed that awareness be made to local communities to tap these potentials through learning by doing mechanism and trainings.
- For the anticipated influx of people in the locality seeking jobs hence triggering insecurity and demand for housing facilities – it is proposed to the Shinyanga Municipal Council to deliver more serviced plots in the locality so that those in need of one can get them and construct houses in planned and serviced land; On security to ensure the proponent work closely with state organs. Old Shinyanga has a Military base, which, strengthens the security in the area;
- On Generation of wastes - Major significant impacts are generation of wastes both solid and liquid during the operation phase. This is the phase when processing of various final products will be done. There had been adequate proposal in the feasibility study which puts in place appropriate mechanisms for handling all anticipated wastes during the life span of the project. It is well elaborated in this report.
- On Occupational Safety and Health Issues such as accidents, air pollution, HIV/AIDS will also rise during the construction and operation phase. Here appropriate mitigation measures have been put in place including ensuring that the Hub is registered by OSHA as work place; ensure provision of appropriate protective gears and regular voluntary counselling and testing as provided for under the Labour and Work Relations Law.
- On the significant increase in demands of raw materials due to the market created by the Hub for community and in procurement zones during operation phase resulting into more production and more use of agro-chemicals. It is recommended to enhance this opportunity by expanding agro extension services and subsidizing inputs so that households produce more in a climate smart environment.

Resources evaluation

As presented below it is anticipated that USD 459,220,000 will be spent to turn the SAPZ into operation. Specific budget for APH has not been clarified but will be detailed when further bills of quantities will be prepared. Internal infrastructure for APH will also be elaborated by that time. As per feasibility study, significantly, many external infrastructures to the APH are in place in Shinyanga as roads are operational from proposed ATCs.

Component	Description	Amount (USD)
1	Develop infrastructure for agro-industrialization	96,220,000.00
2	External Infrastructure using Agencies -TARURA/TANROADS	2,000,000.00
3	Ecosystem Development Enablers	18,000,000.00
4	Investment By Private Sector	343,000,000.00
TOTAL		459,220,000.00

Source: AfDB- ToR,2021

Decommissioning

This hub will not decommission at one time as there will be various processing zones within the park, however, for cases where decommissioning will be required a decommissioning plan will be prepared and shared with NEMC for implementation.

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Old Shinyanga Division Officer, Ms. Neema K.Mukandala is thankful for organizing, within a short notice, a very useful focus group discussions and taking the Consultant around the entire site.

ACRONYMS AND ABBREVIATIONS

AC	Aggregation Centre
AfDB	African Development Bank
APH	Agro-Industrial Processing Hub
ASA	Agricultural Seed Agency
ATC	Agricultural Transformation Centre
	Corona Virus Disease -
COVID-19	2019
DAICO	District Agriculture, Irrigation and Cooperative Officer
DED	District Executive Director
EMA	Environmental Management Act
ESAP	Environmental and Social Assessment Procedures
ESIA	Environmental and Social Impacts Assessment
ESMP	Environmental and Social Management Plan
FAC	Fish Aggregation Centre
	Food and Agricultural Organization of the United
FAO	Nations
	Government of the United Republic of
GURT	Tanzania
MAIC	Ministry of Agriculture, Irrigation and Cooperatives
MD	Municipal Director
MLF	Ministry of Livestock and Fisheries
NEMC	National Environment Management Council
PMO	Prime Minister's Office
RAS	Regional Administrative Secretary
SAPZ	Special Agro-Industrial Processing Zone
SCPZ	Staple Crops Processing Zone
SPV	Special Purpose Vehicle
ToR	Terms of Reference
UNIDO	United nations Industrial Development Organization
	United Republic of
URT	Tanzania
VEO	Village Executive Officer
VPO-DOE	Vice President Office-Department of Environment
WEO	Ward Executive Officer

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1.0. INTRODUCTION

1.1. PROJECT BACKGROUND

The Government of the United Republic of Tanzania (GURT) through the Prime Minister's Office (PMO) is coordinating the implementation of the Agro-Industrialization Development Program (AIDP). This program is under the African Development Bank (AfDB) Feed Africa Strategy whose aims are to speed up the industrialization of agriculture by bringing infrastructure, income and employment opportunities to rural areas. Agro processing industries deal with post-harvest activities involved in the transformation, preservation and preparation of agricultural produce for intermediary or final consumption by adding values on the products to enhance farms and national income (URT, 2013).

Figure 1 below shows regions covered under the proposed Special Agro Industrial Processing Zone (SAPZ) in Tanzania. SCPZs are agro-based, spatial development initiatives designed to concentrate agro-processing activities within areas of high agricultural potential and to boost productivity and integrate the production; processing and marketing of selected commodities (FAO&AfDB, 2019). SCPZs include an agro-processing hub, a number of ATCs, and agricultural production areas.



Figure 1: Regions Making the Proposed Tanzania Special Agro Processing Zone (SAPZ)

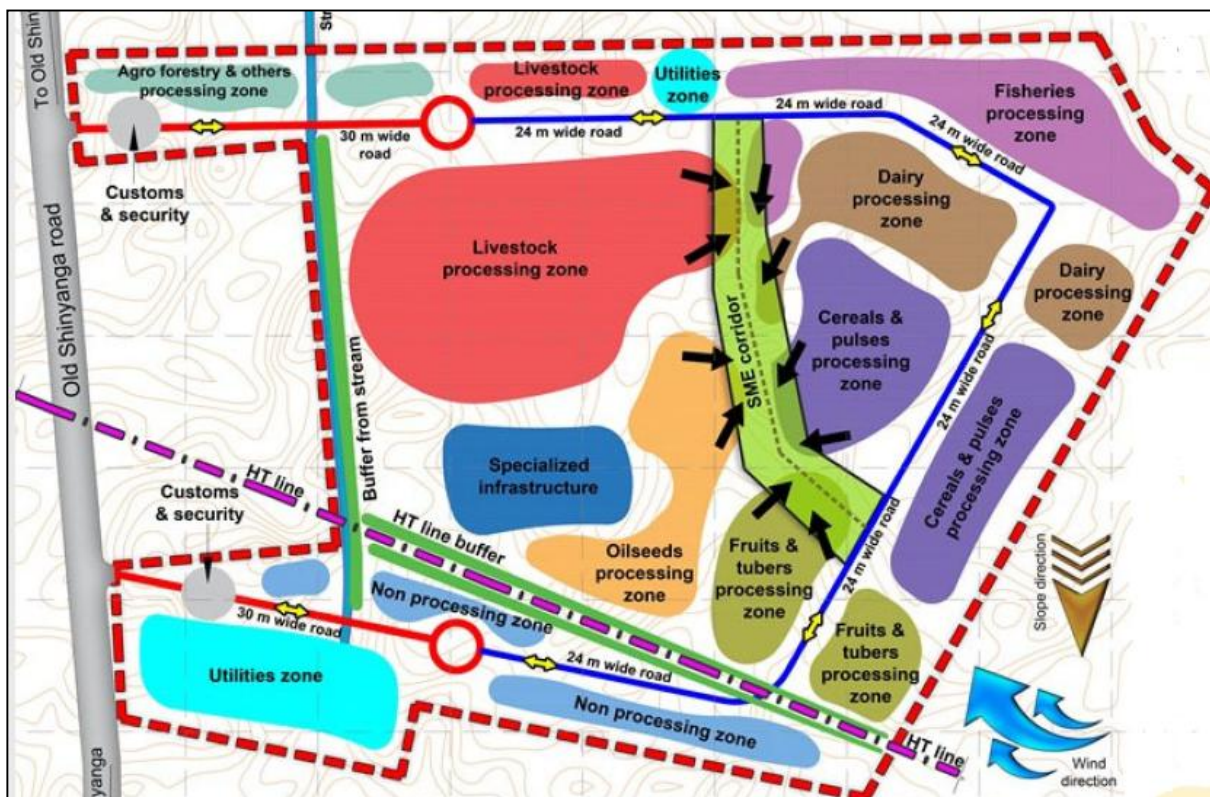
As shown in **Figure 1**, the program will support the establishment of the integrated Lake Zone Special Agro-industrial Processing Zone (SAPZ) comprising: i) a main agro processing hub (APH) to be located in Shinyanga; ii) three major agricultural transformation centres (ATCs) to be located in Geita, Tabora and Mwanza Regions; and iii) a network of Aggregations centres (ACs)

and Fish Aggregation Centres (FACs) to be located in the procurement zones around the ATCs. (see Appendix 1).

The GURT through Treasury Registrar plans to establish an Agro-Industrial Processing Hub (APH) on her land popularly known as Tanganyika Packers (TP) Site located along Shinyanga to Old Shinyanga Road in Shinyanga District, Shinyanga Region.

Agro-processing industry in Tanzania holds significant potential for future expansion as the country has abundant agricultural, livestock and fisheries resources. This puts the country in a good position to expand her crops, livestock and fisheries production while raising its domestic demand for processed food to boost local production (AfDB, 2021a). The Government of the United Republic of Tanzania through her midterm development agenda, Five Year Development Plan III (2021/2022- 2025/26) has strategized for a significant increase in agro-processing output. Amid new policy interventions and raising demand for products from Tanzania will raise investment flows in the near future (ibid).

In essence, the proposed Lake Zone SAPZ aims to turn the Tanzania rural landscape into economic zones of prosperity, hence lift millions of Tanzanians out poverty. In Tanzania, there had been outcry from farmers and fishermen on challenges associated the loss of their harvests due to inadequate processing capacity, marketing and resulting, hence demoralizing these rural communities.



Source: UNIDO/Mahindra Consulting Engineers (MACE), 2021.

a) Site Selection Phase

This entailed assessment of the suitability of the site for the intended use. Consultations were done with stakeholders so as to determine the likely issues related to the use of this site. Tanganyika Packers site together with all existing manmade infrastructure belong to the Government of Tanzania through the Treasury Registrar. It is free from any encumbrances hence there will not be any issue of land take and compensation neither preparation of the involuntary resettlement action plans.

b) Design Phase

This phase involved feasibility study whereby the entire site was examined so as to determine the design of the intended various processing sections, required non processing units such as infrastructure and services which make the APH an effective and sustainable ecosystem. As per Feasibility Study report a thorough site reconnaissance has been done including all assessment of the topography and wind directions so as to locate structures appropriately. Integrated design approach was adopted so that all structures and features to be constructed are regarded as a unit with interrelated functions (*ecosystem*).

The design has detailed processing and non-processing buildings and associated infrastructure such as roads. **Figure 3** presents the proposed design of the spatial distribution of the zones.

Figure 2: Design of the Cluster of Processing and Non Processing Zones



Source: UNIDO/MACE, 2021.

Meat factory is the existing structure that is to be integrated. Customs and security will ensure smooth in and outflow of processed products which require being charged taxes, fees and other duties.

Management and Responsibilities Issues

The Government of Tanzania through the coordination of the Prime Minister's Office (PMO) will ensure the construction of all infrastructures and associated facilities at the site. A

Project Coordination Unit (PCU) will be responsible for ensuring smooth construction of the APH. A Special Purpose Vehicle will be established by the Government to handle development, operation and maintenance of the Hub. External connectivity and offsite infrastructure will be handled by designated agencies such as Tanzania National Roads Agency (TANROADS) for the Highway from Shinyanga to Old Shinyanga; Tanzania Rural and Urban Roads Agency (TARURA) for all local roads around and near the Hub; TANESCO for electricity supply etc.

Mobilization Phase

Sourcing of Materials

This project is huge and will require both local and imported materials. Materials such as sand, stone and clay will be collected from authorised quarries available in Shinyanga and nearby areas. Building materials such as cement, tiles, steel, roofing sheets, paving blocks all will be procured in nearby towns particularly Dar es Salaam. Specialized machines for various processing will be imported as per specifications of the intended processing.

Transportation of Materials

The procured contractors will be responsible for the transportation of all required materials from the source to the site. There is adequate road network from all directions to the site. This means that for imported materials, they will be transported by train or roads to the site. Others may come by air cargo from Dar es Salaam to Mwanza then by road to Shinyanga.

Construction Team

Based on the tender documents (to be prepared before procurement of contractors), required expertise will be identified including engineers, quantity surveyors. A team of skilled and semi-skilled staff will be established. It is anticipated that employment opportunities, particularly unskilled labourers, will be hired from nearby communities especially the youth and girls in employment during construction.

Construction Phase

Types and Sources of Construction Materials

As seen in the layout plan with various structures, various materials of different standards will be required. The quantities for gravels, aggregates, sand, cement, steel structure have so far not been accurately determined. Tanzania has various factories in Dar es Salam for many of these materials; however, depending on the quantity and standard needed, some of these imports will be done.

Activities

The activities will include levelling, excavation of trenches for foundations, erection of wall structures, roofing, paving of surfaces with paving blocks, roadways within the Hub and fencing of the entire site. Due to site clearance, top soil and other remains will be used to back-fill other areas, hence, no debris will be left unhandled. Construction of borehole as part

of this project will require details so as to allow environmental clearance with permits from Lake Victoria Water Basin Office located in Mwanza.

Storage

Materials will be used as soon as they arrive at the site. Efforts to reduce piling up will be done especially for sand. On site workshop will be established to store materials not for immediate use. Also, temporary service bay and repair facilities will be established as part of minimizing oil spills and for handling other hazardous materials.

Construction Team

A contractor will be procured and will be supervised by a team of consultants or project manager on behalf of the Government (Special Purpose Vehicle). Temporary Construction camp will be established near or within the site.

Local Supplies and Services

These include but not limited to food, medical, fuel, water etc. Many of these will come from local suppliers from Shinyanga Town, Kahama or Old Shinyanga. Women and Girls groups operating as food vendors also known as 'Mama Lishe' will be encouraged to supply food to workers. Medical services will be from nearby dispensaries, health centres or at the Regional Hospital in Shinyanga. Fuel will be supplied from available fuel filling stations. Water will be supplied from the network provided by Shinyanga Urban Water Supply and Sanitation Authority (SHUWASA).

Water will be supplied from two batching plant comprising four bore wells.

Power requirement for welding and other electrical tools will lead to the requirement of 660 kW. Power demand is estimated will reach 500 Kilo Volt Ampere (kVA) including lighting, considering diversity (MACE, 2021). The source for this will be National power supply supplemented by other portable generators.

Operation Phase

This is the phase when the Hub will be receiving agricultural input materials from the three Agro-Transformation Centres (ATCs) and nearby ACs for processing and value addition including packaging as presented in **Figure 4** below.

Figure 3: Zones for Material Processing during Operation



Source: UNIDO MACE, 2021.

Management and Supervision

A Project Implementation Unit (PIU) will be established to oversee the implementation of the project and supervise the operation of the Hub. It will ensure proper operation of each processing zone in terms of handling of generated wastes, power and water use; and general welfare of workers. Each processing zone will be responsible for management of their unit including connectivity to the entire hub.

Water Demand - Shinyanga is an area with water scarcity challenges. There will be established a 24/7 treated water supply adopting national and global standards with sufficient quantities to meet the demands. Processed water demand for fruits and tubers, livestock, fisheries and dairy each will require 36 cum/ha/day of water. Honey & other products and specialized infrastructure each will demand 18cum/ha/day of water for processing. Social *Amenities* may require 36 cum of water per hectare per day while road and green are estimated to demand 1.8 cum of water per ha/day each. The water demand for *non-processing area* are residence(110 litres per capita), office(45 litres per capita), commercial(15litres per capita), utilities(45litres per capita) , schools(45litres per capita) , polytechnic(340 litres per capita). Total water demand at APH operations will be as presented below (Table 3).

Table 1: Water Demand for APH Processing Activities

S/N	Description	Utilization Zone (cum per day)		Total
		Processing	Non-processing	
1.	Average Demand	5276	325	5601
2.	Portable Water	3523	221	3744
3.	Non-Potable Water	1753	104	1857
4.	Fire Demand	168	6	174

Source: MACE Analysis, 2021

Waste water treatment plant will be developed at the site.

Solid Waste Generation

Review of the Feasibility study report (UNIDO, 2021) show that categories of solid waste to be generated will be:

- Industrial non-hazardous waste,
- Industrial hazardous waste: domestic waste – kitchen and wood waste plastic, paper and floor sweeping.
- Road sweeping and sanitary waste: human waste;
- Garden and Agriculture waste: leaves, branches, plants.
- Roads/building construction waste: earth, asphalt, concrete, brick, plaster, wood, glass and stones;
- E – Waste –computers, peripheral equipment, and mobile phone sets, TVs, audio sets and household appliances.
- Hospital and biomedical waste.

Quantities of Solid Waste

Results of the review of studies show that *quantity of solid waste* to be generated by processing and non-processing activities per person per day per zone are estimated as follows: Industries (200 gm/per person/day); Utilities (100gm/per person/day); Residential area (400gm/per person/day); Road (10.12kg/per person/day for street sweeping; Greenery (30kg/ha/day); Commercial and recreation (125gm/per person/day). Appropriate solid waste management technique will be envisaged during the operation of the APH.

Power Demand at APH power demand is estimated at 19.09 mega Volt Ampere (mVA) as per processing zones requirements. This will be supplied from the National Grid. It is anticipated that by the time the Hub is operational, electricity from Rusumo will have started (it is at the final stage).Electricity Needed and Source will be from the National Grid with the following parameter transmission line 33KV; 3 phases; system frequency will be 50 Hz while the Consumer supply voltage will be 11kv/22kv/400Volt/230 Volt (MACE, 2021).

The Proposed Lake Zone SAPZ will have independent but related operational points or projects as follows:

- (i). Tanganyika Packers APH (**TP-APH**) - a mega processing hub for materials received from three Major Agricultural Transformation Centers (ATCs) and ACs.
- (ii). Three Major Agricultural Transformation Centers (ATCs) to be located in Geita Bukombe Village-Bukombe District), Tabora (Iborogero-Igunga District) and Mwanza Regions; and a network of
- (iii). 10 Aggregation Centers (**ACs**) and One Fish Aggregation Centre (**FAC**) to be located in the procurement zones around the ATCs.

Agro-Industrial Processing Hub (APH) will be a purposely built shared facility that enables farmers, processors, aggregators and distributors to operate in the zones. It can be regarded as Agro-Industrial Parks, Agribusiness Parks, and Mega Food Parks etc. They are designed to concentrate agro-processing activities within areas of high agricultural potential to boost productivity and integrate production, processing and marketing of selected commodities (UNIDO, 2021).

1.2. OBJECTIVE OF EIA STUDY

We undertook an Environmental and Social impacts Assessment for the Proposed Agro-Industrial Processing Hub (APH) to ensure that the negative environmental and socio-economic impacts caused by the project are identified and mitigation measures as well as enhancement measures are put in place to address such negative impacts.

The Overall objective of this study was to ensure that potential environmental and social impacts associated with the development and operation of the **APH** are identified, assessed and appropriate management measures are put in place to meet the regulatory compliance of the Government of the United Republic of Tanzania and African Development Bank (AfDB) Integrated Safeguards System policies. Then, to develop Mitigation measures that are to be incorporated into the project plan so as to eliminate, minimize or reduce adverse impacts and when appropriate, to enhance benefits.

Specifically as per ToR, the study aimed to:

- a) Prepare a methodology that was used in the study,
- b) Provide a detailed description of the environmental and social baseline situation.
- c) Provide a description of the public consultation process.
- d) Identify and provide a description of the legal and institutional framework related to the project.
- e) Identify and evaluate possible environmental and socio-economic impacts.
- f) Prepare an Environmental and Social Management Plan providing detailed mitigation measures and costs for mitigation and ESMP monitoring.

1.3. EIA REQUIREMENTS

It is a national requirement under the Environment Management Act (EMA) of 2004 and the AfDB Safeguards and Compliance that all development projects have environmental and social impacts assessments so as to identify in advance all the possible negative impacts and propose mitigation measures against the negative impacts while proposing enhancement measures for the positive impacts. The assessments provide the risk categorization of the development projects. Environment Management Act, Cap.191 and its subsequent EIA and Audit Regulations of 2005 and the EIA and Audit (Amendment) Regulations, 2018 as per FIRST SCHEDULE the proposed Agro-Industrial Processing Hub (APH) under the SAPZ falls in different categories. The hub will have various processing of products falling under *Food and Beverages Industries* and Fisheries which are categorized as **Type A** projects. The number of tons to be processed per day per each processing zone determines categorization of the project for purpose of conducting EIA study.

1.4. METHODOLOGY USED TO CARRY OUT THE STUDY

The scope of work for carrying EIA study required collection of primary and secondary data. For each of the tasks different methods for collection and analysis of data were done and are presented in section 1.4.1 to 1.4.10 below. We also reviewed various policies, laws and regulations applicable in Tanzania and those by AfDB. We were guided by the EIA process as provided for by NEMC and AfDB.

1.4.1. Description of the Proposed Sub-Projects

The descriptions of proposed HUB were prepared by using project related information from various studies that have so far been conducted. These include feasibility studies, Memoire, Concept note and Missions. Among the information are detailed designs of planned infrastructure in terms of size, required materials and other estimated by-products. These pieces of information were required for assessing impacts of the project on the environment and the social and economic impacts on the society and social amenities.

1.4.2. Analysis of Alternative

We examined other options that were considered during the feasibility study. Feasibility study had justified the rationale for establishment of the APH to deal with agro –industry processing of various materials as received from the ATCs, ACs and FAC s as guided by the ATC Model. “No Action” as alternative is excluded definitely by this study. Sites for infrastructure were adequately assessed hence this study will not re-assess suitability of these sites.

1.4.3. Description of the Environment (Baseline Conditions)

We reviewed literature especially the description of the environment as collected during the feasibility study and other studies and assessment as conducted by the Funding Agencies (AfDB and UNIDO) and consultants. The secondary information was triangulated during the fieldwork through transect walk to the site, consulting key informants, interviews with key informants and stakeholders consultations and public engagements. Due to the limited time set for this assignment, we banked very much on the secondary data available from the Government website and other sources.

Source of data for baseline/existing situation was collected from the Feasibility study (UNIDO, 2021).

Data on Ecological resources and Socio-economic environment were collected from the Feasibility study, prior studies and Shinyanga Regional Profile. Consultations with Key informants, sampling and interviewing of farmers, crop traders, Agricultural Markets Cooperative Societies (AMCOS) leaders and communities surrounding the project sites were interviewed. As a response to *COVID-19* we limited face to face contacts thus used phone interviews for key informants.

1.4.4. Policies, Administration and Legal Framework

We reviewed all relevant policies, laws and regulations that are relevant to the development and operation of agro-processing hub or industrial parks so as to ensure it complies with the laws. SAPZ is categorized as **Category 1** project in accordance with the AfDB E&S risk categorization procedures. We reviewed the laws to get the appropriate categorization of APH as per Tanzania law, EMA and its subsequent EIA and Audit Regulations.

1.4.5. Scoping

Secondary data available was used to scope for environmental components of Tanganyika Packer (TP) site. Components of the project were examined in order to identify the likely negative impacts by the proposed APH and the sub-project at TP. Community level scoping sessions were conducted so as to gather perceptions and feelings of stakeholders about the project and its likely environmental and social impacts of the proposed infrastructure APH at TP and the surrounding environment..

1.4.6. Projects Boundaries

The existing information from the feasibility study was used so as to have boundaries of the proposed APH based on the impacts that its processing activities will cause during pre-construction, construction and operation phases. Boundaries of study area of the APH are those sites that are likely to be impacted on by the project.

1.4.7. Stakeholders Participation

Various reports were reviewed to gather the raised concerns. A checklist was developed for conducting consultations to maintain uniformity on points of discussion and recording views of stakeholders. Results of the consultation are presented in chapter 6 of this report. A

Stakeholder Consultation Plan was prepared to allow each category of stakeholders to raise their views and concerns on the proposed facility within their areas and business. Evidence in the form of attendance list was prepared for validity and reliability purpose.

1.4.8. Determination of Potential Environmental and Social Impacts.

The information obtained from review of literature, field investigation public consultation and expert judgment was used to screen the valued environmental and social impacts. The impacts and their depth and significance in relation to environmental and social settings of each sub-project are outlined on a temporal and spatial basis.

Identification of impacts– was carried out for each stage of the development of each facility- at mobilization, pre-construction, operation and decommissioning of the facility.

Assessment of impacts– based on occupational and health situation, purchase of materials, transportation, processing; air quality and noise at the APH, impacts were assessed. *Quantification of Impacts* for air quality, noise level was addressed used data gathered during the feasibility study as all these were addressed.

Evaluation of impacts – the identified potential impacts (Environmental and social) was done using EMA and her guidelines as spelled out in the regulations. All identified impacts were evaluated based on the nature, extent, spatial and temporal nature, likelihood and reversibility. Expert judgment was used.

1.4.9. Cumulative Impact Assessment

An assessment was conducted to identify if at the APH there were other presently operating facilities and future planned one that results into these impacts. Review of Feasibility study and site observation were used to assess the cumulative impacts associated with APH operation. Surrounding communities at the APH and other stakeholders such as crop traders, transporters, grain millers' owners were consulted where appropriate. To minimize direct contact, COVID-19 Response, we minimized contacts.

1.4.10. Development of Environmental and Social Management Plan (ESMP)

All identified significant impacts as identified during the assessment were consolidated. This report has proposed mitigation measures, identified responsible entities, proposed costs and monitoring timing. Organizational arrangement showing roles and responsibilities of various agencies and officials involved in monitoring of the performance of these facilities has been suggested.

1.5. FORMAT OF THE REPORT

This report is formatted based on the provisions of Regulation 18(2)(a) of EIA and Audit Regulations(2005)which states that the Environmental Impact Statement(EIS) shall closely be styled and contain the following information: executive summary, acknowledgement, acronyms and abbreviations, introduction, Project background and description, Policy, administrative and legal framework, Baseline or existing Conditions, Assessment of Impacts and Identification of Alternatives, environmental and social management plan, Consultations Results, Summary and Conclusion, References and Appendices.

2. BASELINE INFORMATION AND COUNTRY CONTEXT

2.1. COUNTRY CONTEXT

The Tanzanian economy is one of those with significant room for growth and expansion, especially in the agricultural sector. Despite the challenges posed by the insurgency of COVID-19 in 2020, Tanzania's economy remained resilient, avoiding a recession, but experienced a slowdown in economic activity and growth like all countries in the world. The Tanzanian Gross Domestic Product (GDP) growth slowed down to 2.1% in 2020 from the high of 6.6% in 2019, because of the adverse impacts of COVID-19 on the key sectors of the economy, particularly tourism, which was severely affected by restrictions to global travel. The impacts on tourism and related activities in the hospitality industry resulted in business shutdowns and loss of jobs, and about 1 million people are estimated to have fallen back into poverty due to COVID-19. The agriculture sector recorded slightly higher growth in 2020 (4.9%) compared to 4.4% in 2019 indicating the resilience of the Tanzanian agricultural sector. The agriculture sector in Tanzania has very high chance of growth and stimulating employment if agro-industrial processing and value addition are enhanced.

Tanzania was reclassified from a low-income to a lower-middle-income country (MIC) in July 2020, with a gross national income (GNI) per capita of USD 1,080 in 2019. However, structural challenges including widespread poverty, income inequality, a large infrastructure deficit, low labour quality, and declining industrial competitiveness continue to hold back structural transformation. Nevertheless, the outlook remains positive for 2022, with real GDP projected to grow 4.1% in 2021 and 5.8% in 2022, due to improved performance of the tourism sector and the reopening of trade corridors.

2.2. LOCATION AND ADMINISTRATIVE BOUNDARIES

2.2.1. Location

The proposed agro-industrial processing park (the Hub) will be developed on the site known as Tanganyika Packer's Site located on the right-hand side along Shinyanga to Old Shinyanga Town Highway. The site is located about 10 km from Shinyanga Centre and can be reached by driving along Old Shinyanga road.

2.2.2. Administrative Boundaries

The site falls in the jurisdiction of Ihapa and Seseko in the Old Shinyanga Ward, Division of Old Shinyanga, and Shinyanga Municipal Council in Shinyanga District in Shinyanga Region.

2.3. PHYSICAL CHARACTERISTICS

Abiotic (non-living entities) components observed around the site are presented below:

Climate

Climate conditions are critical for project in any particular location as variability of any variable can affect the performance of the project. Project infrastructures are affected by variability of climate parameters, rainfall patterns, wind and dry seasons.

Temperature

Temperature average is approximately 23.9°C with the hottest period is normally October where it reaches 26.0°C. In the month of July 2021 the lowest temperature recorded was 22.3°C (MACE,*ibid*).

Rainfall

Shinyanga has a tropical climate with clearly variability of rainy and dray seasons. The average rainfall ranges between 600mm and 900mm. Rainy season starts mid-October to December and ends in May of every year.

Hydrology and Drainage

There is a seasonal stream traversing through the site from North West to the South East of the site.

Elevation and Soils

The site is 1233 metres above sea level. Soil types mix of sandy loam, sand, loamy and sand loamy. Also aggregates are available as a borrow pit was observed during the field observation. Sand, gravel and aggregates observed in some areas indicating that the area has sometimes been used as borrow pit.

2.4. BIOLOGICAL CHARACTERISTICS

Biotic elements observed at the site include acacia woodlands; short grasses, small temporal paddy farms, acacia trees, thorn bushes, few baobab trees, sisals used as fence for small farms.

Fauna observed during the field transact walk included goats and cattle that were grazing within the site.

Abiotic Human Induced activities such as cultivation of paddy farms, livestock rearing and tree cutting for various uses such as source of energy have resulted into decrease of natural vegetation cover.

2.5. SOCIO-ECONOMIC CHARACTERISTICS

2.5.1. Administration

Shinyanga Municipal Council (SMC) is one of the local government authorities (LGAs) in Shinyanga Region. Other LGAs are Shinyanga District Council; Ushetu District Council, Msalala District Council and Kishapu District Council.SMC is within the administrative boundaries of Shinyanga District. Other Districts are Kahama and Kishapu.

Shinyanga Region is boarded to the North by Geita, Mwanza and Kagera Regions and to the South by Tabora Region while to the West by Kigoma and to the East by Simiyu Region. The Region is subdivided into three Districts of Shinyanga, Kahama and Kishapu. The Central Government is headed by the Regional Commissioner (RC) who is assisted by the Regional Administrative Secretary (RAS).

In each District, there is a Central Government and the Local Government Structure. The Central Government is headed by the District Commissioner (DC) who is assisted by the District Administrative Secretary (DAS). At the Central Government, A District is subdivided into a Division which is headed by a Division Officer. A division is further subdivided into Wards, which in turn is divided into a Village (for District Council or rural local government) or an *Mtaa* (in Urban Local Government).

In Tanzania, Local Government Structure is categorised into urban and rural local councils. Urban Councils are categorised into Cities, Municipals and Towns while for rural local councils they are categorised as District Councils and Townships.

2.5.2. Demographic Profile

According to the 2012 national Census, Shinyanga Region had a total of 258,981 private households, out of which 202,172 (78%) were in rural areas while 56,809 (22%) were in urban areas. Average household size was 5.7 persons per household whereby rural households had average household size of 6.3 persons per household which was bigger than urban ones (4.3% person per household).

Female headed households were 31%. The total population stood at 1,534,808. In terms of size, it has 50,781 square kilometres (19,607 square mile).

Seseko and Ihapa Villages are critical to the project. At the local level, data from Village Leaders of Ihapa showed that the village had 706 households, population of 4164 people with 2190 male and 1974 female. The village is subdivided into 5 halmets (sub villages). Seseko village which is located in the Eastern side of the targeted site had 406 households, a population of 2310 people with 1148 male and 1162 female.

In the context of vulnerability, Ihapa villge indicated that 90 households had vulnerable people due to age, female headed households. The rest that is 616 Households were capable of working and engaging in economic activities. For Seseko village, results of interview with Village leaders shown that, 280 Households were incapable while 126 households were capable.

2.5.3. Land Use

The land on which the Project is to be implemented in solely zoned for agricultural and livestock related activities. This is evidenced by the fact that from the past during the era of Tanganyika Packers Corporation, the site has slaughtering house. It is strategically located near the highway and the central railway going to Mwanza.

2.5.4. Main Industry

In Shinyanga Region, the main activities in which the working population is employed are agriculture, forestry, fishing, mining and quarrying, trade and commerce, public administration and education. As per 2012 PHC showed that 64% of the total population aged above 10 years and above were employed in the 12 months before census night. Besides, it showed that 2% of population was unemployed. These 64% of the employed persons were engaged in agriculture. This means that occupation for the majority of working Shinyanga residents was farming (61 percent).

The main economic activities are mining, rearing and agriculture. It is endowed with good land and minerals. It is centre for mining, agriculture and livestock development in the Lake Zone.

Agriculture - 80% of Shinyanga residence engages in agricultural activities. It provides food for consumption, sale within the country and for export and is the source of raw materials for agro-industrial development. Agriculture area that is potential for irrigation amounts to 221,896 hectares (RCO)¹. Irrigated area is 4899 hectare (2.2%) of the land suitable for irrigation. Main commercial agricultural crops are cotton, tobacco, sunflower, groundnuts, and sunflower.

Agricultural activities As per 2012 Census, 203,173 (79%) out of 258,981 private households in Shinyanga region engaged in agricultural activities with 90% in rural areas while 10% was in urban areas. Food crops are sorghum, rice, maize, sweet potatoes and cassava.

Mining is popular in Shinyanga with big mines such as Williamson Diamond; Buzwagi, etc. By 2012, data showed that in Shinyanga Municipal Council where APH is located, about 91.7% of the population engaged in agricultural activities. In *Livestock Keeping* data further show that by 2012, 53% of private households in Shinyanga kept at least one type of livestock by 2012. Fish farming is not common in Shinyanga region.

It is apparent that, the development of the SAPZ and in particular the APH will be unique opportunity for the residents of rural and urban areas in the region as they will sell their agricultural produce, secure new employment opportunity to be provided by the APH.

2.5.5. Infrastructure

It is well connected by railways and highways from Dar es Salaam. Good centre for connection to Simiyu, Mwanza and Kagera Regions then to neighbouring countries mainly Rwanda, Uganda, Kenya and DRC.

Mobile Communication like any part of the country, Shinyanga has the state run TTCL, plus other private operators such Vodacom, Airtel, TIGO, Halotel. *Airport* at Ibadakuli is operational whenever there is a need.

¹<http://www.shinyanga.go.tz/economic-activity/kilimo-cha-mpunga> accessed on 9th November, 2021

2.5.6. Social Services

Education and training education and training is highly decentralized to the ward levels. There are primary, secondary and institutions such as Shinyanga College of Education, Buluba Secondary School which provide educational services. There is also a branch of the Moshi University College of Cooperatives at Kizumbi Area.

Health facilities there are dispensaries and the nearby Regional Hospital in Shinyanga Municipality. The facility may also establish her own Dispensary to cater for emergency issue especially by providing first aid services.

Water Supply - the Shinyanga Urban Water Supply and Sanitation Authority (SHUWASA) and the newly established Rural Water Supply Authority (RUWASA) will facilitate the supply of water for use at the facility.

Waste Management

There is no existing system for wastes disposal near the site. In the design it is proposed to have in place systems for dealing with the treatment of solid and liquid wastes.

Electricity the national utility company Tanesco will supply electricity to the Hub. Standby generators will also be installed to ensure uninterrupted power supplies during the processing of various materials.

Security Services

In the design of the Hub provision for security services has been considered. Fire and rescue services, police are decentralized to the level of the District.

Labour market

The market for skilled, semi-skilled and unskilled is readily available from all parts of Shinyanga and nearby districts. Specialized training will be required through technical and Vocational training in areas of processing, etc

3. PROJECT DESCRIPTION

3.1. BACKGROUND

As per the Third Five Year Development Plan (FYDP III) (2021/22 – 2025/26), agriculture accounts for 29.4% of Tanzania's Gross Domestic Product (GDP) and provides employment for the majority of the nation's population. The crop sub-sector accounted for 15.4% of GDP, while livestock, fisheries, and forestry accounted for 7.1%, 1.7%, and 2.7% respectively. The sector is the main source of employment, food production, raw materials for industries, as well as foreign earning in the country. The livestock subsector is the major source of animal protein, contributes to food security, is a source of cash income to households, provides manure for land improvement and increased the crop fields and are used as draught animal power, among several other economic values and fulfilling a number of other socio-economic functions. The fisheries sector provide, among others, a source of high-quality protein and is a major source of income. Most Tanzanians engaged in agriculture are smallholder farmers who grow a wide variety of annual and perennial crops such as paddy, maize, sorghum, beans, cowpeas, green gram, groundnuts, sunflower, etc. In addition, farmers also grow wide varieties of fruits and vegetables such as tomatoes, onion, cabbage, amaranth, orange, mango, banana, pawpaw, watermelon, etc. Cash crops including cotton, tobacco, sisal, cashew nuts, coffee, and tea are mainly grown by smallholders and commercial large-scale farmers for export. For the livestock subsector, the majority are smallholders engaged in rearing indigenous cattle, sheep, goats, and chicken, while fishing and fish farming is practiced at a small scale.

3.2. OPPORTUNITIES FOR AGRO-BUSINESS

Opportunities exist for agricultural businesses and agricultural value addition across board in the local communities, within the regions and in the international markets, for both traditional and new products. However, productivity is low with modest progress over the past two decades since most farmers, livestock keepers, and fisher folks still using rudimentary production technologies. As a result, production, productivity, and the level of commercialization remain very low even by East African regional standards. According to the preliminary results of the 2019/20 agriculture census, only about 20% of the 13.5 million hectares planted used improved seed and only 2.8 million hectares (about 20%) used mineral fertilizers. Agriculture is dominated by smallholder farmers who are dependent on rain-fed production, limited use of improved seeds and fertilizers, and the low share of cultivated arable land. The low use of improved technologies also makes crop and livestock production susceptible to climate-induced risks such as failing and reducing rainfall, longer dry spells, intense rainfall and flooding, and pest and disease outbreaks. According to Tanzania's NAPA2, the increasingly unpredictable rainfall, shifting agro-ecological zones, and increased

dry periods could reduce the production of certain crops (such as maize) while boosting the production of other crops (such as coffee).

Despite the sector's sizeable potential for youth and human capital development, youth's involvement in this sector remains a challenge. Fortunately, this is being addressed within the Government's agenda through the National Strategy for Youth Involvement in Agriculture (NYSIA), but there are still some challenges such as the lack of appropriate skills, low labour productivity, limited access to information, market and adequate infrastructure specifically in rural areas. Despite the Government's emphasis on commercial agriculture, access to financing amongst youth for agricultural investments is still limited. The SAPZ project aims to unfold agricultural employment opportunities for the youth in Tanzania through: i) capacity-building for business development service providers via innovative mechanisms (promoting high-tech cultivation, precision farming, farm mechanization and technology transfers for value addition and processing); ii) provision of training and mentorship programs to promote technical and entrepreneurship skills through dedicated TVET Centers, thereby increasing the availability of a skilled workforce in targeted locations; iii) supporting financial intermediaries and business incubation hubs for SMEs led by Youth and Women to enable access to financial services.

Agriculture possesses a huge potential for fostering broad-based growth and poverty reduction in the country. Tanzania Development Vision 2025 (TDV 2025) emphasizes three goals as being national priorities, namely: (i) ensuring basic food security; (ii) improving income levels; and (iii) increasing export earnings. The Agricultural Sector Development Program II (ASDP-II), 2017/18-2027/28 is the current national sector strategy and seeks to transform the sector (crops, livestock & fisheries) towards higher productivity and commercialization, increased incomes for smallholder farmers, improved livelihood and food and nutrition security.

3.3. OPPORTUNITIES FOR AGRO-PROCESSING

3.3.1. Location and size

The proposed agro-industrial processing hub (APH) will be developed on the land covering 445.02 Hectares (Ha) located along road from Shinyanga to Old Shinyanga. The land is popularly known as Tanganyika Packers Site. It is surrounded by villages of Ihapa, Seseko, Ndembezi and Chibe. The project site was planned and designated by the Government of Tanzania for agricultural and livestock activities by the then Tanganyika Packers, a defunct state owned firm established to deal with beef processing in Tanzania. There is a slaughtering house covering area of 80 acres. The site is fenced with barbed wire nailed on poles.

3.3.2. Accessibility

The site can be accessed by using Shinyanga to old Shinyanga Road for one coming from Shinyanga. It is approximately 10 KM from Shinyanga Urban Area.

3.3.3. Existing Structures

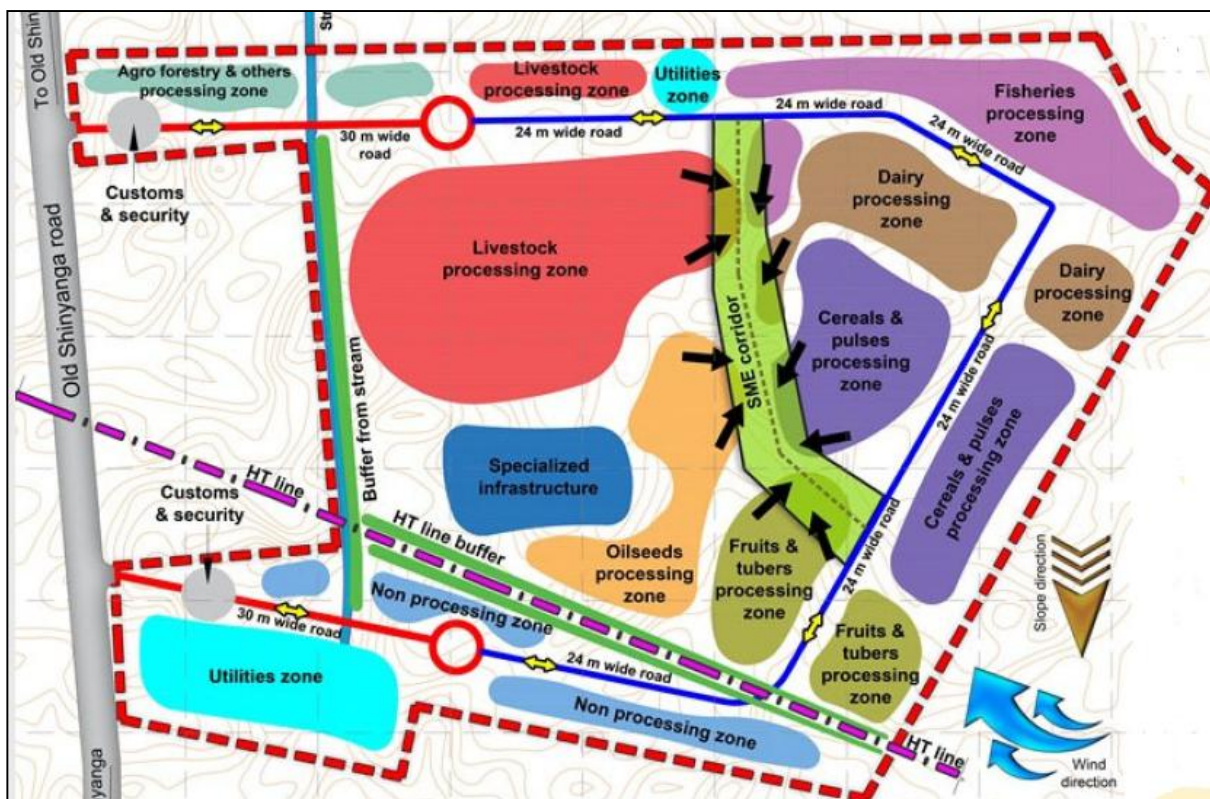
There is a building used as a slaughtering house, fence, vegetation of various types.

3.3.4. Proposed APH Components

The proposed Park will compose processing and non-processing zones. **Processing Zones**

The Park will consist of various divisions or zones dealing with processing of various materials as received from nearby ACs and the ATCs. Figure 2 presents a schematic view of the cluster of processing and non-processing zones. The figure shows the design of the proposed the project site.

Figure 4: Agro Processing Hub Showing Proposed Processing Zones



Source: UNIDO/Mahindra Consulting Engineers (MACE), 2021.

Areas of impacts were distinguished into three: core, the immediate and areas of influence.

Core Impact Area is an area that is immediately and directly affected by the actions to be undertaken during the project implementation. It covers 426.2 Ha of the Investment area.

Immediate Impact Area is one that includes that environment that is immediately surrounding the project. These areas were expected to be directly affected by the project development through dust and noise pollution. The four villages surrounding the site are core impacted ones.

Area of Influence this refers to the greater area that is not subject to direct contact with the development but may be indirectly affected by, for example, traffic movements, sourcing construction materials and labour.

As Presented in **Table 1** there will be buildings earmarked for processing and non-processing activities. APH will be an ecosystem with all subsystems.

3.4. PROJECT SCOPE AND ACTIVITIES

3.4.1. The scope of the project

The project encompasses the development of a unique agro-industry park with the new model of agro processing industry in Tanzania. The total area to be utilized by the project structures is 445.02 hectares. The project will facilitate the construction of a cluster of agro-industrial processing factories dealing with the processing of products from Dairy, Cereals & pulses, Oil seeds, Fruits & tubers, Livestock, Meat factory and Fisheries. The Park will have utility zone to cater for sustainability of the hub operation. There will be customs and security gate for taxation purposes.

3.4.2. Project Design (Components and Activities)

The proposed project will have 4 components including; development of infrastructure for agro-industrialization; Value chain development, Capacity Building, community resilience and land management; Policy and institution arrangements, Investment Promotion and marketing; and project management and coordination. The infrastructure development related component will include a PPP arrangement during implementation.

Discussions will continue with the government regarding the exact nature of the PPP, and final options will be firmed up during appraisal in line with the country existing PPP policy.

Component	Component Description and activities
<p>Component 1: Development of infrastructure for agro-industrialization</p>	<p>1.1 Offsite infrastructure development</p> <p>Offsite connectivity: Road/ Water/ Telecom/Power connectivity to APH, ATC, AC and FAC through the designated nodal agencies. Rehabilitation of infrastructure linking APH, ATCs, ACs, and FACs: Fish landing centers, abattoirs and existing meat factories</p> <hr/> <p>1.2 Development within APH, ATCs, ACs, and FACs</p> <p>1.2.1. Construction of climate-resilient general infrastructure (horizontal) - Site grading, boundary wall and fencing, road, surface drainage with CD works, sewerage/effluent network, STP/ETP and treated water distribution, gas distribution network, solid waste management, water treatment plant, potable & non-potable water supply, power supply & energy efficiency, dedicated sub-station with feeder station and backup power for critical areas, Wi-Fi connection and telecommunication, rainwater harvesting, summer storage, greenery & sustainability infrastructure, signage, walkways, street lighting interspersed with conventional & eco-friendly solar power systems, dedicated security system and fire detection & firefighting systems in critical areas, safety, security, disaster management, early warning system, and automatic vehicle & traffic monitoring system, environmental monitoring system including air quality and emissions, sewage, effluent, solid waste, water etc., and ICT & SCADA monitoring system.</p> <p>1.2.2. Ready built factories within APH suitable to the needs of the select targeted industries who prefer plug-n-play facilities</p> <p>1.2.3. Specialized infrastructure within APH and ATC (vertical infrastructure common to all units) - one Stop Shop (single window for approvals and facilitation), QA & QC lab, warehousing facilities, agri-logistics, Agri input & equipment center, R&D, market intelligence cell, admin block capacity building & training facilities, multi-chamber cold storage, boiler, chiller & compressor, Centre of Excellence (CoE), zone-specific infrastructure, demo farms, centralized processing centers, and IQF facilities.</p> <p>1.2.4. Social amenities within APH (vertical infrastructure common to all units) - residential, commercial spaces, restaurants & cafeterias, health care centers, mini dispensary, and first aid, school, creche & nursing mother's room, and place of worship</p> <p>Development of AC and FAC specific infrastructure</p>
<p>Component 2: Value chain development, Capacity Building, community resilience and land</p>	<p>2.1 Support to production, productivity and the development of agricultural value chains</p> <p>2.2. Modernization of agricultural production (extension services, improved input supplies, research and development, irrigation systems)</p> <p>2.3. Development of Agro-industrialization capabilities focusing on fisheries and livestock value chains</p> <p>2.4. Commercialization and value chain coordination for key</p>

<p>management</p>	<p>staples and export commodities (domestic & international market linkages, identification and traceability, chain of custody and certification)</p> <p>2.5. Support to financial intermediations and business incubation hubs to support SMEs led by women and youth</p> <p>2.6. Capacity building, TVET skill development and community resilience</p> <p>2.7. Enhance access to market and trade facilitation policies for Agro-industrialization clusters including legal and regulatory frameworks.</p> <p>2.8. Capacity building and skills development for Agro-industrialization clusters through specific value chains for youth and women, provision of training and mentorship programs to promote technical and entrepreneurship skills development</p> <p>2.9. Design and Implementation of E-wallet Framework including (i) identification, e-registration and mapping of key value chain actors through the E-wallet technology, and (ii) linkage and service provision to various value chain actors through E-Wallet technology and others</p> <p>2.10. Job Creation - Fostering partnerships for innovation and technology transfer (promote high-tech cultivation, precision farming, farm mechanization and technology transfers for value addition and processing)</p> <p>2.11. Enhance access to market and trade facilitation policies for Agro-industrialization clusters including legal and regulatory frameworks.</p> <p>2.12. Capacity building & skills improvement for Agro-industrialization clusters and value chains among farmers, youth and women, entrepreneurship training, strengthen out grower models, capacity building of actors in selected agricultural value chains, promote high-tech cultivation, precision farming, farm mechanisation and technology transfers for value addition and processing</p> <p>2.13. Fostering partnerships for innovation and technology transfer</p> <p>2.14. Protect agriculture land by developing land use maps around ATCs and ACs that allocated the catchment areas for agriculture</p> <p>2.15. Implementation of mitigation measures for E&S safeguards, including ESMP, RAP, PMP and their compliance audits.</p>
<p>Component 3: Policy Support, Investment Promotion and marketing</p>	<p>3.1. Support to the establishment and strengthening of the policy, legal and institutional framework governing the Lake Zone SAPZ</p> <p>3.2. Review and harmonization of incentives schemes with EAC/AFCFTA</p> <p>3.3. Enhance marketing and trade facilitation policies for Agro-industrialization clusters including legal and regulatory frameworks.</p> <p>3.4. Attracting private investments in SAPZ implementation and</p>

	<p>agroprocessing</p> <p>3.3. Investment promotion and market sounding activities for the identification of the private developer</p> <p>3.4. PPP Transaction support: Technical and legal advisory services during negotiations with the private developer</p> <p>3.5. Branding, marketing, roadshows, private sector attraction, meetings and anchor development/tenant identification, investment promotion tools and docketts for the attraction of tenant companies and awareness raising regarding the Lake Zone SAPZ</p>
<p>Component 4: Project Management and Coordination</p>	<p>4.1 Support the establishment of structures required for project implementation coordination</p> <p>4.2. Establish and equip the Project Coordination Unit (PCU)</p> <p>4.3. Governance System – Project Steering Committee</p> <p>4.4. Operationalize a project monitoring and evaluation framework</p> <p>4.5. Implement a knowledge management system</p> <p>4.6. Install a Financial management system and procurement system</p>

4. POLICY, ADMINISTRATIVE AND LEGAL FRAMEWORK

4.1. AN OVERVIEW

This chapter provides policy, administrative and legal framework for the management of environmental and social aspects in relation to the proposed project Tanzania. Also, Tanzania's legal, regulations and institutional framework for environmental management are presented so as to ease assessment of their adequacy. AfDB Integrated Safeguards Systems (ISS) crafted under Safeguards and Sustainability Series are presented under section 3.7 with the description of Operation Safeguards *that are likely to be triggered* by the development of the mega agro-industrial park (APH).

4.2. POLICY FRAMEWORK

4.2.1. National Environment Policy, 1997

The National Environment Policy of 1997 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. It emphasizes the importance of EIA as a planning tool in development projects and requires the study to be done so as to ensure that unnecessary damage to the environment is avoided. The policy applies to all development projects that are likely to impact the environment.

4.2.2. National Land Policy, 1997

The National Land Policy of 1997 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.

4.2.3. 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.

4.2.4. 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.

4.2.5. National Strategy on Climate Change (URT, 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.

4.2.6. Summary of Policies and Strategies in Support of Industrialization in Tanzania

Table 4 presents a summary of policies and strategies that are supportive to industrialization initiatives in Tanzania (NEMC, 2017).

Table 2: Policies and Strategies in Support of Industrialization in Tanzania

Policy/Strategy	Description
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.
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.
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.
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.

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.
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.

Source: NEMC, 2017.

4.3. ADMINISTRATIVE FRAMEWORK

Administration of environmental risks associated with the development projects are guided by the Constitution of Tanzania through various legislations and are provided in the Environment Management Act, Cap 191 of 2004. According to Part III, Section 13(1) of EMA (2004) the Minister of State in the Vice President Office (VPO) (Environment and Union Affairs) is the overall in-charge of all matters related to environment. He/She is responsible for articulation of policy guidelines necessary for the promotion, protection and sustainable management of environment in Tanzania. At the VPO there is also the Director of Environment who is assisted by Assistant Directors for environmental Impacts Assessment, Strategic Environmental Assessment.

National Environment Management Council (NEMC) – provides services ranging from implementation of the environmental policy and laws through monitoring, enforcement review of EIS, planning and research, communication through awareness campaigns. It registers all development projects for EIA studies, screening, reviewing, verifying sites and recommending to Minister Issuance of EIA Certificates and Provisional EIA Certificates. NEMC now is decentralized to the level of Zones. NEMC is answerable to VPO

Other institutions include National Environmental Advisory Committee –it advises on National environmental matters;

Sector Ministries – all of the Government Ministries have Environmental Departments ensuring implementation of the Environmental Policy and Laws through formulation of sector specific Guidelines.

President Office, Regional Administration and Local Government (PO-RALG) guides all **Regional Administrative Secretariats**, Local Government Authorities (LGAs) to ensure effective management of environmental affairs in their areas of jurisdictions.

Local Government Authorities (LGAs)– They are categorized from the level of the Cities, Municipalities, Towns, District, Township, Ward, Village, Hamlets (rural) and *Mtaa* in urban areas. Each of these has a Standing Committee and a Department that is responsible for Environmental management at various levels.

Prime Minister's Office (PMO) being the Coordinator and a tentative **'Proponent or Developer'** of the proposed mega Agro-Industrial Processing Park (TP-APH) in Shinyanga, is committed to using this admin framework in ensuring environmental sustainability of this project.

4.4. LEGAL FRAMEWORK

This section presents briefly description of existing legislation on environmental management in Tanzania with special focus on EIA administration and industrialization. Several legislations and regulations and guidelines have been formulated. The umbrella law is the Environmental Management Act, Cap 191, 2004, which through her subsequent EIA and Audit Regulations, 2005 provided EIA administration in the country. Besides, in 2018 amendments to the 2005 EIA regulations was made to speed up industrial development in the country.

4.4.1. The Constitution of the United Republic of Tanzania

This is the paramount legislation, the 1984 constitution as amended puts in front environmental consideration in all proposed development projects. It commits the Government to ensure sustainable development. The Bill of Rights (**Article 14**) that every person has a right to life and to the protection of life by the society. As per this Constitution, the Government is required to that national resources are harnessed, preserved and applied towards the common good.

4.4.2. 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.

The Act has Regulations relevant to industrial establishment such as EIA and Audit Regulations 2005, EIA and Audit Amendment Regulations 2018, Bio-safety Regulations 2009; Waste Management Regulations 2009; Strategic Environmental Assessment Regulations 2009; Solid Waste Management Regulations 2009; Environmental Inspectors Regulations, 2011; Noise and Vibration Standard regulations, 2011; and Hazardous Waste Management regulations, 2009. This law and her regulations will be used in the management of the proposed APH.

4.4.3. 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 who are supply their products to the proposed APH will have to abide to these

guidelines to ensure they harvest healthy products. It proposes ESMP for handling agro based impacts per phases.

4.4.4. Land Disputes Court Act. No.2 of 2002

Every dispute or complaint concerning land shall be resolved in the Court with jurisdiction in the given area (Section 3). The Courts with jurisdiction include:-

- (i). The Village Land Council,
- (ii). The Ward Tribunal,
- (iii). District Land and Housing Tribunal,
- (iv). The High Court (Land Division), and
- (v). The Court of Appeal of Tanzania.

Although land for APH is owned by the Government, there can happen unanticipated land related disputes, which, by using the provision of this law, a solution can be sought.

4.4.5. Local Government (Urban Authorities) Act of 1982

This law establishes the urban local government councils in Tanzania. Accordingly, the proposed APH is within project area that falls under the jurisdiction of Shinyanga District Council in Shinyanga Region. 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 Shinyanga Municipal Council.

4.4.6. Occupational Health and Safety Act No. 5 (2003).

This Act makes provisions for the safety, health and welfare of persons at work in factories and all other places of work. It provides protection third parties against hazards to health and safety resulting from activities of those at work. Part IV and Section 43 (1) – provides safe means of access and safe working places; and Part V on health and welfare provisions, which include provision of a clean and safe environment for workers, sanitary conveniences, washing facilities and first aid facilities. Section 50 deals with fire prevention issues. Section 15 gives powers to the Registrar of factories and workplaces to enter any such site to perform his duties as provided by the Act. Section 16 requires that factories and workplace should register with the OSHA before commencing operations. It is related to *Operation Safeguard 5: Labour conditions, health and safety.*

4.4.7. 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.

4.4.8. Land Use Planning Act, 2007(Cap 116)

This law replaced the National Land Use Planning Commission Act, 1984. The former law established the National Land Use Planning Commission (NLUPC) with the aim of 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;

The Proponent of the SAPZ will have to consult the Commission so as to get advises related to land use planning in areas near the proposed TP-APH and others.

4.4.9. The Engineers Registration Act (1997)

This requires all practicing engineers in Tanzania to be registered with the Engineers Registration Board (ERB). Foreigners should seek for registration before they start to practice. The developer will adhere to the provision of this law when engaging registered engineers during the construction of the APH.

4.4.10. Contractors Registration Amendment Act No. 15 of 2008

The Act establishes the Contractors Registration Board (CRB) with authority to register contractors, to regulate the conduct of these contractors. CRB is empowered to take legal action against unregistered contractors who undertake construction, installation, erection or alteration works. CRB is also required to inspect and ensure that all construction sites are adequately contained and that labour laws and occupational health and safety regulations in the construction industry are adhered to.

The Government through the PMO or any agency will ensure that construction activities are executed by registered contractor and that there is adequate compliance to the law.

4.4.11. Employment and Labour Relations Act No 6 of 2004

This Act guarantees fundamental labour rights and establishes basic employment standards. The Act provides broad protection against discrimination. Specifically, the Act 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.

4.4.12. Workman Compensation Act No. 20 of 2008

The Act provides for compensation of employees for disablement or death resulting from injuries sustained or diseases contracted in the course of employment. It established the

Workers' Compensation Fund (WCF) which administers and regulates workers' compensation and related matters. It aims to protect of workers by ensuring that employers pay their employees adequate and equitable compensation in cases when one suffers occupational injuries or contract occupational diseases arising out of, and in the course of their employment and in the case of death, for their dependants.

It requires provision of rehabilitation of employees who have suffered occupational injuries or contracted occupational diseases in order to assist in restoring their health, independence and participation in society; Give effect to international obligations with respect to workers' compensation; and promote prevention of accidents and occupational diseases.

During the construction and operation of the APH, all responsible employers will have to abide to the provision of this legislation.

4.4.13. Land Act No.4, 1999

Enacted in 1999 it categorizes land into three, namely, village land, general land and hazardous land. All land which are hazardous such as wetlands, land within 60 meter from the highest water marks of water bodies, roads, railway, forestry, game reserves, national parks, small islands are all protected. Agencies have been established to protect these land, for example the Tanzania national Parks, Tanzania Wildlife Management Agency(TAWA), Tanzania Forestry services(TFS). APH site is a general land legally owned by the Government under the law.

4.4.14. The Tanzania Investment Act, 1997

It established the Tanzania Investment Center (TIC) which is under the PMO. The Centre liaises with appropriate agencies to ensure investment projects use environmentally sound technologies and restore, preserve, and protect the environment. This legislation is relevant as it will enable the Special Purpose Vehicle which will run the proposed APH to contact and facilitate investors in some processing zones to secure required permits for importation of various materials hence, support the sustainability of the SAPZ and in particular the APH. TIC issues certificates of Inceptives to registered investors, hence promoting the participation of the private sector in the agro-industrialization in Tanzania.

4.4.15. Mining Act 2010

This provides environmental aspects in the mining of building materials such as sand mining, aggregates all of which are to be mined from designated quarry sites. This is critical for this project to ensure that procured sand minerals come from approved quarries so as to avoid degradation of the environment.

4.4.16. HIV and AIDS (Prevention and Control) Act of 2008

The law provides for public education and programmes on HIV and AIDS. It requires Ministry responsible for Health, health practitioners, workers in the public and private sectors, Non-government Organizations (NGO) to disseminate information and awareness to the public regarding HIV and AIDS (section 8(1)). Section 9 states that It requires every employer in

consultation with the Ministry (Health) to establish and coordinate a workplace programme on HIV and AIDS for employees under his/her control and such programmes to include provision of gender responsive HIV and AIDS education(section 9).

PMO and the intended Proponent of this project will abide with the provision of this law during the tenure of this project.

4.4.17. Public Health Act, 2008

The law provides modalities for the promotion, preservation and maintenance of public health so as to ensure that there are effective and sustainable public health services to the public and other related matters. It sets roles and responsibilities of various actors in the health sector in facilitating effective provisions of public health services in the country.

The Act empowers the Local Government Authorities (LGAs) to promote, implement and enforce public health standards within their areas of jurisdictions. LGAs are also empowered by this law to make by-laws for the smooth operation of public health services.

Part IV which is on sanitation and hygiene will be used by the Proponent of this project (PMO) to set in place appropriate infrastructure. The proponent will further ensure appropriate designs to control nuisance, waste management, sewerage and drainage. Practices such as direct discharges of wastewater to public drainages will be controlled.

4.4.18. The Plant Protection Act No.13 of 1997

An Act to make provisions for consolidation of the Plant Protection Act, to prevent 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 fulfillment of international commitments, to entrust all plant protection regulatory functions to the Government, and for matters incidental thereto or connected therewith.

4.4.19. 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 SAPZ entails 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.

4.5. AfDB INTEGRATED SAFEGUARDS SYSTEM

AfDB under its Environmental and Social Assessment Procedures defined ESIA as an instrument that assesses environmental and social effects accruing from the proposed project or program particularly those focusing on a certain country or region. During the phase of identifying a project, screening exercise focuses on the environmental and social

dimensions of a project in order to provide an appropriate category among four categories, namely:

Category 1: projects that is likely to have the most severe environmental and social impacts and require a full ESIA;

Category 2: projects that are likely to have detrimental and site-specific environmental and social impacts which can be minimized by the application of mitigation measures included in an Environmental and Social Management Plan (ESMP);

Category 3: projects that shall not induce any adverse environmental and social impacts and therefore do not need further ESA studies; and

Category 4: projects that involve investment of the Bank's funds through Financial Intermediaries (FIs) in subprojects that may result in adverse environmental or social impacts.

AfDB Integrated Safeguards Systems (ISS)

These are developed under the Safeguards and Sustainability Series. The tools are banked on the two previous safeguards policies, namely, Involuntary Resettlement (2003) and Environment (2004) and on three cross-cutting policies and strategies: Gender (2001), the Climate Risk Management and Adaptation Strategy (2009) and the Civil Society Engagement Framework (2012). These tools are useful in identifying risks, reducing development costs and improving project sustainability. They promote best practices, encourage transparency and accountability and protect most vulnerable communities.

AfDB Operating Safeguards (OSs)

There are five OSs whose aim is to achieve the goals and optimal functioning of the ISS.

1. *Operational Safeguard 1: Environmental and Social Assessment:* it is for determining projects environmental and social category and the resulting environmental and social assessment requirements.
2. *Operational Safeguard 2: Involuntary Resettlement, Land Acquisition, Population Displacement and Compensation:* this emphasizes policy commitments and requirements contained in the AfDB's policy on involuntary resettlement, and incorporate a number of refinements designed to improve the operational effectiveness of those requirements.
3. *Operational Safeguard 3: Biodiversity and Ecosystem Services:* this seeks to conserve biological diversity and promote the sustainable use of natural resources with a focus on integrated water resources management in operational requirements.
4. *Operational Safeguard 4: Pollution prevention and control, hazardous materials and resource efficiency:* this covers the range of key impacts of pollution, waste and hazardous materials for which there are agreed international conventions. Also, there are comprehensive industry-specific and regional standards, including greenhouse gas accounting. There is new screening tool for climate change risk that helps in screening and categorizing a projecting terms of its vulnerability to the risks of climate change.

5. *Operational Safeguard 5: Labour conditions, health and safety*: this relates to workers conditions, rights and protection from abuse or exploitation.

This project is considered as Category 1 under the AfDB ISS guidelines because of the potential cumulative environmental and social impacts that will be associated with the construction and operation of structures and infrastructure development that could be significant and irreversible.

In essence, Lake Zone Special Agro-Industrial Processing Zone (LZ-SAPZ) in Tanzania is a geographical area with various regions regarded as procurement zones in the context of buying agricultural, livestock and fisheries products. Critical issues are the construction of APH, ATCs and ACs and FACs. These are geographically based and as per results of the feasibility study conducted by UNIDO all sites belong to the Government of Tanzania. Field observation found that already there are roads infrastructure for connecting APH and ATCs; APH and ACs and ACs and ATCs, and Farmers and ACs. These roads owned and managed by the relevant roads maintenance agencies, TANROADS and TARURA. This means that there will be no resettlements of any kind in the development of the LZ-SAPZ.

Assessment of the AfDB Operational Safeguards Triggered in APH

Table 5 presents the operational safeguards that will be trigger during the implementation of the proposed Tanganyika Packers- APH, a mega processing park in Shinyanga Region, Lake Zone, Tanzania. Reasons or descriptions for decisions are also presented.

Table 3: Applicable AfDB’s Operational Safeguards Policies in the Proposed APH in Tanzania

Operational Safeguards(OS)	Triggered?	Description
OS.1: Environmental and Social Assessment.	YES	SAPZ will finance the construction and operation of APH- mega processing parks with various infrastructures including the construction of buildings, roads access, installation of water and waste treatment plants. As per design, the APH falls into category 1, hence, ESIA and a plan for managing environmental and social issues (ESMP) is critical. The location has been identified and design at global level in place.
OS.2: Involuntary Resettlement, Land Acquisition, Population Displacement and Compensation.	No	Feasibility study conducted and the Verification conducted on the suitability of proposed site for the APH has proved that Tanganyika Packer’s site with 426 Ha belongs to the Government of Tanzania, hence no land take and compensation is required. Resettlement Action Plan is not required.
OS3: Biodiversity and	No	APH is to be developed in a Land earmarked and zoned for agro-industrial development. It is away

Ecosystem Services.		from natural or critical habitats.
OS.4: Pollution prevention and control, hazardous materials and resource efficiency.	YES	The residual impacts of the APH may have the potential impacts to the surrounding environment and health if applicable environmental standards are not met during the phases of the APH.
OS.5: Labour conditions, health and safety.	YES	The APH Phases (construction and operation and even decommissioning) will entail recruitments of temporary and permanent workers, skilled and semi-skilled. Therefore, compliance to occupational, health and safety issues is critical to the project.

Source: Adopted from AfDB, 2018 with Amendments.

As presented in Table 4, only 3 OSs out of 5 OSs will be triggered during the implementation of the project. OS.1, OS.4 and OS.5 are applicable in the implementation of this project while OS.2 and OS.3 will not be triggered.

5. PROJECT ALTERNATIVES

5.1. ANALYSIS OF PROJECT ALTERNATIVES

The EIA procedure stipulates that an environmental investigation needs to identify main project alternatives for any proposed development. Therefore, it is required that several possible proposals or alternatives for accomplishing the same objectives be considered. In principle, these should include an analysis of the location, timing, input and design alternative as well as the Do- Nothing option.

5.2. NO PROJECT ALTERNATIVE

The no-action alternative (i.e. no construct & operation of the APH) suggests that the identified environmental, social and economic impacts would not occur. Hence, the direct and indirect economic and social benefits that should be accrued by the local communities, the region and by extension the nation through the project implementation including increased agro-industrialization, social and economic empowerment of rural agricultural communities, food security, decentralization of infrastructural development, logistics and processing, establishment of regional agricultural hubs, expansion of financial institutions, job opportunities and reduced poverty would not be realized. Henceforth, without the Project, many Tanzanians will continue to live in abject poverty and hunger with the presence of abundant natural land resources available to cultivate for food crops and empower the fabric of the society which is ironical.

5.3. ALTERNATIVE FOR PROJECT LOCATION

Several alternatives for the proposed located were assessed to ensure that the location that guarantees environmentally and socially sound and sustainable implementation. The PMO office has designated the ACs, FAC, APH, and ATC areas preferred location for the SAPZ project. It is understood that the preference for the SAPZ project sites are based on the aim to accelerate economic development in the respective districts of Biharamulo, Bunda, Bunda town council, Maswa, Bariadi, Uyui, Mkalama, Msalala, Nyag'hwale, Buchosa, and Geita district and Shinyanga region the APH. The choice of the APH was based on the centralness of the location, improved communication and road network system that would ease accessibility.

5.4. DESIGN ALTERNATIVES

The potential site options and design that have been considered or recommended based on the feasibility analysis for SAPZ project. The economic objectives of the SAPZ project would make certain location more suitable and sustainable than others.

The potential make-up of the Buchanan SEZ may be broadly categorized into two types.

1. **Outward-looking SAPZ:** Such a project SEZ would aim to produce exports for the external market and generate foreign exchange earnings to improve Tanzania's economic balance. The outward-looking SAPZ project would rely on seamless trade connectivity and would therefore, likely be located in an area accessible.
2. **Inward-looking SAPZ:** This type of project for the SAPZ would serve the domestic market primarily, probably focusing on substituting imports to improve the national income. In this case, the locational decision is a logistics cost trade-off to reduce the transport and related costs of moving and handling raw materials versus similar costs for the finished goods produced.

6. POTENTIAL IMPACTS

6.5. OVERVIEW AND ASSESSMENT CRITERIA

This chapter presents assessment of impacts and alternatives identification for the project. The criteria for predicting and judging the extent of impacts of this project include: (a) The likelihood and magnitude of the impact and its spatial and temporal extent, (b) The likely degree of recovery of the affected environment; and (c) The value of the stakeholders concerns and consequence of this project. We assessed the significance of potential impacts using checklists/matrices, expert judgment, results of EIA of similar projects, project preliminary designs and details of the feasibility study.

Evaluation of each parameter was based on the following: (a) Potential Impact – refers to change to the environment, whether adverse or beneficial, wholly or partially resulting from the proposed activities, products or services; (b) Environmental receptor – sensitive component of the ecosystem that will react to or be influenced by the environmental stressors; (c) Magnitude – a measure of how the adverse or beneficial n impact or effect may be; (d) Duration – the period of time needed to complete the activity, and (e)Significance – a measure of an importance the effect.

Table 6 summarizes the criteria of impacts analysis based on magnitude/significance.

Table 4: Criteria for Impact Analysis on Magnitude/Significance

Criteria	Description	Possible Results		
		Term	Description	Score
Impact Significance	Indication of severity of the impact + or -	<i>Very High</i>	Extreme effect- where natural, cultural or social functions or processes cease permanently.	5
		<i>High</i>	Severe effect -where natural, cultural or social functions or processes are altered and temporarily cease.	4
		<i>Moderate</i>	Moderate effect – affected environment is altered but natural, cultural or social functions continue, albeit in a modified way.	3
		<i>Low</i>	Minimum effect – affects the environment in such a way that natural, cultural or social functions are not affected.	2
		<i>Very Low</i>	Minimal or negligible effect	1
		<i>Unknown</i>	Magnitude of the Impact Unknown	5
Duration of	An	Permanent	Remains permanently	5

the Impact	indication of the duration or time frame over which the Impact will be experienced.	Long Term	Extends into the post-closure phase but not permanent	4
		Medium	During the operational life of the project	3
		Short Term	Shorter than the operational life of the project	2
		Transient	Very Short duration	1
		Unknown	Duration of the impact Unknown	5

Source: Adopted from AAL, 2012 with Amendments.

Guided by the above criteria (**Table 6**) then follows impacts analysis of this project per phase.

6.6. POTENTIAL POSITIVE IMPACTS

In line with the guidelines provided by the Ministry of Agriculture (URT, 2013), views raised by stakeholders, expert judgement and results of review of literature the positive impacts accruing from agro industrial processing at different phases are as follows:

6.6.1. Mobilization Phase

Socio-Economic Impacts

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.

6.6.2. 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 Revenue for Government will increase through income tax and levies.

6.6.3. Operation Phase

Socio-economic impacts

- Impacts on the Local and National Economy - Increased revenue to the government local and national such as industrial cess, income tax, VAT, export duty -Increased foreign currency through export of value added products;
- *Creation of Employment Opportunities* - the park will create direct or indirect temporary or permanent employments for skilled and semi-skilled persons from various areas in Tanzania. It is anticipated that persons both skilled and semi-skilled persons will be employed to construct various proposed processing zones. These will include architects, Civil and environmental engineers, drivers, food vendors, procurement and logistics experts, electrical engineers etc.

- Increased income to enhance food security – as sellers of agro-materials will raise income which they will use to have secure food for their families.
- Increased markets for raw materials near the community and in procurement zones – this will happen as farmers of targeted crops in the zones will have secure markets for their raw materials. Of recent they had been a cry by farmers through the Parliament that the National Food Reserve Agency(NFRA) had inadequate budget to buy agro-products especially maize;
- *Learning opportunities* for students in technical and vocational institutes – there are students in these institutions who, through the existence of the hub will get opportunity to learn by doing in various processing.
- Private entrepreneurs such as Food vendors, private warehouse owners, transporters, agro-inputs sellers will generate income through selling of their products.

6.7. POTENTIAL NEGATIVE IMPACTS

6.7.1. Mobilization Phase

- *Influx of people* searching for jobs are likely to result into spread of diseases such as HIV/AIDS, COVID-19;
- *Sense of insecurity for local* community: this will happen in Old Shinyanga and the Municipality in general due to arrival of new faces with different culture, norms and values from other areas other than Shinyanga.
- Air pollution due to dust caused by movement of vehicles within the project area.

6.7.2. Construction Phase

Environmental Impacts

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

Socio-economic impacts

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

6.7.3. Operation Phase

Environmental Impacts

- Surface water resources existing around the site could be affected due to uncontrolled release of solid and liquid wastes;
- Impacts on underground aquifer due to increased use of water for processing;
- Impacts on environment and social health as farmers will use pesticides so as to increase production of raw materials needed by *processing hub*
- Impacts associated with the generation of solid waste during processing.

Socio-economic impacts

- Occupational safety and health impacts such as fire outbreaks; accidents caused by running processing machines
- Health hazards caused by inhaling and contamination – provide protective gears such as face masks, proper packing and labeling.
- Increased HIV/IDS and communicable diseases Impacts on public safety and security and on Community health;
- Pressure on needed land and housing as a result of Influx of people seeking jobs at the processing hub in Old Shinyanga Township;
- Impacts associated with inadequate supply of raw materials from targeted procurement areas;
- Incidence of child labour
- Impacts associated with the supply of agro-raw materials of low qualities and of different species;
- Loss of Income as a result of closure of any processing unit within the Park.
- Impacts of processing raw materials with toxins from aflatoxin.

7. IMPACTS MITIGATION AND MANAGEMENT

7.1. OVERVIEW

This chapter presents how environmental mitigation measures. The Study developed an environmental and social management plan (ESMP) which will enable management of residual environmental and social impacts emanating from the project works as per the identified and analyzed potential environmental and social impacts. The plan contains mitigation measures, implementation costs, responsible officers/agencies, monitoring indicators and frequencies of reporting. These are critical for monitoring performance and compliance by the project actors.

7.2. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

The Prime Minister's Office (PMO) as a coordinating agency (or the Special Purpose Vehicle (SPV) to be established will be responsible for overall implementation of the ESMP and will establish an organizational structure with clearly defined lines of authority, areas of responsibility and accountability. Assigned staff shall be responsible for day to day follow ups (supervision and liaising with key stakeholders). The designated staff's primary responsibilities will be to ensure that all Project activities comply with applicable environmental regulations and that ESMP commitments are honoured. Also the proponent shall ensure that qualified expertise is provided in a coordinated manner.

The estimated costs for implementing the mitigation measures are just indicative. Appropriate bills of quantities shall clearly give the actual figures. The consultant used informed judgment to come up with these figures.

The summary of the key issues of the TP-APH and its management are shown in **Table 7** below: it combines management and monitoring.

Table 5: Environmental and Social Management and Monitoring Plan (ESM&MP)

Potential Environment & Social Impacts	Proposed Mitigation Measures	Responsible for		Time Horizon	
		Mitigation Measures	Monitoring Implementation of Mitigation Measures	Mitigation	Monitoring
Site clearing, levelling and exaction works will remove top soils of the fertile farm land and enhance erosion.	<ul style="list-style-type: none"> • Demarcate the area to be stripped clearly, so that the contractor does not strip beyond the demarcated boundary. • The topsoil should be uniformly spread onto the rehabilitated areas and care should be taken to minimize compaction that would result in soil loss and poor root penetration. • Access and haul roads should have gradients or surface treatment to limit erosion, and road drainage systems should be provided. • al roads routes should be clearly demarcated and adhered-to on site to restrict soil compaction to certain areas. • Once soil is well-compacted, little further damage rehabilitation can be done. 	PMO/SPV -Site Supervision Consultants -Construction Contractor	PMO/SPV Environment Safeguard unit Regional Environment agencies	Mobilization, Construction phase	Construction phase
Increased employment	<ul style="list-style-type: none"> • Enhance it by disseminating information to local community, • improve training capacity in vocational and technical for communities to tape the chance; • Give priority to local communities with relevant skills or teaching through learning by doing. 	PMO/SPV,	PMO – Division of Labour.	Construction and Operation	Operation

Site clearing and levelling works will remove terrestrial vegetation	<ul style="list-style-type: none"> • Make maximum effort to retain natural vegetation in all parts of the proposed project area. • Plant indigenous trees in open spaces / green buffer areas. • Sensitize the maintenance of remnant vegetation so as to stabilize the site microclimate and surrounding areas. 	PMO/SPV Site representatives/ site supervision consultants. -Construction Contractor	NEMC Zone Office PMO/SPV safeguard Unit	During construction and operation phase	During construction and operation phase
Increased particulate and gaseous concentrations and noise nuisance to nearby communities due to movement of heavy duty machineries, vehicles and other equipments.	<ul style="list-style-type: none"> • During suppression by water spraying, or other suitable means, in dry seasons, particularly in the areas close to sensitive residential and community receptors. • Using noise control devices, such as temporary noise barriers and deflectors for high impact activities, and exhaust muffling devices for combustion engines; • Ensuring equipment is well-maintained to avoid additional noise generation. 	PMO/SPV-Site supervision consultants -Construction Contractor	NEMC PMO Safeguard unit	During construction phase	During construction phase
Increased revenue to the government local and national; Increased income to enhance food security.	Improve tax collection mechanisms.	PMO/SPV	TRA	Operation	Operation
Increased foreign currency through export of value added products	Improve cross border trade.	PMO/, Ministry of Trade and Industry	Ministry of Trade and Industry	Operation	Operation
Accidents caused by running processing machines	Provide appropriate working tools and protective gears; enforce rules and regulations at working places as per OSHA-register working places with OSHA, ensure workers health examination by OSHA,	PMO/SPV	OSHA	Operation	Operation

<p>Surface water resources existing around the site could be affected due to uncontrolled release of solid and liquid wastes</p>	<ul style="list-style-type: none"> • Establish proper waste management, especially liquid effluents so as not to pollute the recipients such as streams and seasonal rivers that pass in close proximity to the project areas. • Provide sufficient temporary ablution facilities for staff so they do not relieve themselves in the fields. • Provided dedicated bins for hazardous waste, located on hard standing within the construction camp. • Placement of drip trays under vehicles and relevant equipment when stationary; • Fuel, lubricant and waste oil storage, dispensing and operating facilities must be designed and operated in a way to prevent contamination of water. 	<p>PMO/SPV - Site supervision consultants</p> <p>-Construction Contractor</p>	<p>NEMC</p> <p>PMO safeguard Unit</p>	<p>During construction and operation phase.</p>	<p>During construction and operation phase</p>
<p>Construction waste consisting of excavation cart away material, construction in packaging materials, debris and other domestic solid waste generated by workers would create risk to the environment and public health unless properly managed.</p>	<ul style="list-style-type: none"> • Provide segregated waste receptacles within the construction camp. • Provide dedicated bins for hazardous waste, located on hard standing within the construction camp. • All staff must be responsible to keeping all food and packing waste on them to be disposed of at the waste bins within the construction camp. • Provide sufficient temporary ablution facilities for staff so they do not relieve themselves in the fields. • Vehicles hauling dirt or other construction debris from the site shall cover any open load with a tarpaulin or other secure covering to minimize dust emissions and 	<p>PMO/SPV - Site supervision consultants</p> <p>Construction Contractor</p>	<p>NEMC</p> <p>PMO safeguard Unit</p>	<p>During construction and operation phase</p>	<p>During construction and operation phase</p>

	dropping debris.				
Impacts on public safety and security	<p>-The project site is to be fenced, while any activities outside the main footprint are to be appropriately signposted. This will help ensure that accidents associated with new infrastructure will be minimized.</p> <p>-Traffic Management Plans which will need to be prepared by Contractors during the construction phase will further minimize the potential risk of accidents, injuries and near misses.</p> <p>-The project Health, safety and Security Management Plan is to provide to, and implemented by, all Contractors and subcontractors.</p>	<p>PMO/SPV Site supervision consultants</p> <p>Construction Contractor</p>	<p>Shinyanga Regional Police Commander-Traffic Management and Control Unit)</p> <p>PMO Safeguard Unit</p>	During Construction and operation phase	During construction and operation phase
Impacts on Community health	<ul style="list-style-type: none"> As part of the induction process for new employees and workers, the contractors are to provide training for all workers on the transmission routes and common symptoms of communicable diseases. This training will be supported by an on-going awareness campaign (posters located in common areas within the camp). These measures can help reduce the potential for workers to unknowingly transmit communicable diseases. The workers camp is to include an internal first-aid ward and medical staff being present at the camp which to some extent will help minimize the interaction between the workforce (particularly temporary construction workers) and local residents. 	<p>PMO/SPV - Site supervision consultants</p> <p>-Construction Contractor</p>	<p>Occupation Safety and Health Agency(OSHA)</p> <p>Shinyanga Regional Hospital and Old Shinyanga Health Centre.</p> <p>PMO/SPV safeguard Unit</p>	During Construction and operation phase	During Construction and operation phase

<p>Pressure on needed land and housing as a result of Influx of people seeking jobs at the processing hub in Old Shinyanga Township.</p>	<ul style="list-style-type: none"> • Ensure adequate supply of planned land and housing so as to ensure new comers get decent housing and thus reduce likelihood for growth of informal settlements around the APH and entire community 	<p>Shinyanga Municipal Council PMO/SPV safeguard Unit</p>	<p>NEMC</p>	<p>During Operation phase</p>	<p>During Operation phase</p>
<p>Impacts associated with the Increased need of water for processing hence affecting underground aquifer.</p>	<ul style="list-style-type: none"> • Ensure consultation with the Water Resources Authority to seek water rights and guidance. 	<p>PMO/SPV safeguard Unit</p>	<p>Lake Victoria Water Basin</p>	<p>During Construction and Operation phases</p>	<p>During Operation phase</p>
<p>Impacts of HIV/AIDS and COVID-19</p>	<ul style="list-style-type: none"> • Sensitize workers in dangers of the diseases so that for HIV/AIDS ensure Voluntary Counselling and testing at the working area; provide safe gears at the appropriate location within the Hub or at the Camp. • For COVID-19 response insist wearing of face masks, social distances where necessary, ensure availability of running water so that workers wash their hands. Provide Sanitizers in cases where running water is a challenge. 	<p>PMO/SPV safeguard Unit</p>	<p>NEMC</p>	<p>During Construction and Operation phases</p>	<p>During Construction and Operation phases</p>
<p>Impacts associated with inadequate supply of raw materials from targeted procurement areas.</p>	<ul style="list-style-type: none"> • The Hub will require consistent supply of raw materials for various processing activities as per design. Since there have been incidence where existing factories failed to get adequate raw materials such as sunflower, it is vital to ensure sustainable agro production so as to ensure sustained supplies of targeted raw materials. • Advice farmers in procurement area to use climate resilient agro techniques based on agro ecology. • Provide agro-inputs with subsidized prices 	<p>Ministry of Agriculture through Extension Officers, Regional Commissioners of Shinyanga, Geita, Mara, Tabora, Sngida and Simiyu.</p>	<p>Ministry of Agriculture.</p>	<p>During construction and Operation phases.</p>	<p>During construction and Operation phases.</p>

	to farmers so as to increase and motivate more production.				
Impacts associated with the supply of raw materials of low qualities and of different species.	<ul style="list-style-type: none"> • Peasants in the procurement zone grow rice of different types resulting into having rice of different types in various areas hence complicating processing. This can be addressed by agro research institutions which can research appropriate types of crops to grow. • Advise farmers to use modern seeds approved by the Government. 	PMO/SPV Ministry of Agriculture through Extension Officers, TAGRI, Sokoine University of Agriculture(SUA)	Ministry of Agriculture through Extension Officers, TAGRI,	Operation Phase.	Operation Phase
Impacts of processing products contaminated with aflatoxin	<ul style="list-style-type: none"> • The government to ensure that all raw materials with risks of aflatoxin are tested in advance before they are transformed and processed at the park 	PMO/SPV Ministry of Agriculture	Tanzania Food and Drug Authority, TBS	Operation Phase	Operation Phase
Loss of Income as a result of closure of any processing unit within the Park	<ul style="list-style-type: none"> • Ensure monthly remission of contribution to the relevant social security fund – NSSF 	PMO/SPV	NSSF	Operation Phase	Decommissioning
Impact of inadequate supply of raw materials for processing at the hub	Improve extension service and farming technologies.	PMO, Ministries of Agriculture, Livestock, Fisheries	Ministry of Trade	Operation	Operation

Source: Consultant, 2021

7.3. DECOMMISSIONING PLAN

The Environmental Management Act, 2004 of Tanzania requires the Proponent of a project to incur cost to decommission the project when it reaches its end. The decommissioning exercise involves several activities ranging from removal of all structures in the project area. This exercise entails rehabilitation and restoration of the environment. When the proponent fulfils this condition adequately, then the environmental performance bond that is deposited with the Government can be discharged.

Decommissioning Phase - activities will entail demolition of all processing structures, dismantling of all machines, and removal of unused materials.

Positive impacts – workers go with skills gained during the work period;

Negative impacts – *social-economic* - loss of employment; improper or illegal use of materials;

Environment – accumulation of solid wastes around the abandoned site and habitat change.

Mitigation measures – abide to the decommissioning plan; pay appropriate terminal benefits from the NSSF; Use authorized disposal firms (NEMC gives permits) to dispose hazardous wastes; Habitat change – rehabilitation change.

7.4. TENTATIVE BUDGET FOR ESMP IMPLEMENTATION

In this ESIA we have not managed adequately to have in place a realistic budget for mitigation measures for APH as this will be assessed and internalized by the relevant SPV when in place as part of the overall investment project cost. It is extremely difficult at this stage to estimate the proportion of the project costs that be expected to be devoted to mitigation measures for the proposed Park. However, a rule of thumb is that they should be expected to costs between 2% and 5% of the total project cost (AfDB, 2018). The Project is estimated at USD 459 Million with a contribution of USD 343 Million anticipated to emanate from participation of private sector. This means that budget for mitigation measures may range between USD 9,180,000(2%) and USD 22,950,000(5%) of USD 459 Million.

8. STAKEHOLDERS CONSULTATION AND PUBLIC PARTICIPATION

8.1. INTRODUCTION

This chapter presents results of the consultation with stakeholders on the proposed APH at Tanganyika Packers in Shinyanga. It is a result of the field visit that we conducted from the 15th of November 2021 to 23rd November, 2021 starting from Shinyanga Regional Commissioner's Office especially Regional Administrative Secretary(RAS), Shinyanga District Commissioner(DC); Senior Officials from Shinyanga Municipal Council; Project Affected Communities from the Old Shinyanga Division and the surrounding villages. We employed three methods, interviews, discussions and transect walk to the site where the project is proposed. For the sustainability of the APH we conducted interviews and focus group discussions (FGDs) with stakeholders from locations of ATC and ACs in Bukombe and Msalala, Geita and Nyangwale Districts respectively to determine their perceptions on the location of the APH and ATCs and the model in general.

8.2. 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 concerns and communicate them to Proponent and other interested parties.

8.3. PARTICIPATION OF STAKEHOLDERS

8.3.1. Identification of Stakeholders

Stakeholders were identified based on their roles and relevance to the proposed project. We have categorized them into three as follows:

- 1) Those who have mandate to ensure the project is implemented as planned – the Government through PMO, Ministries of Agriculture, Livestock and Fisheries, Ministry of Finance and Economic Planning-Treasury Registrar –Land Owner(**The Proponent – impacts causers**).
- 2) Those who are likely to be affected(positively or negatively) by the introduction of the project – they include farmers of targeted crops, agro-industry processors,

transporters, owners of warehouses, Agro-market cooperative society (AMCOS), communities near the site, contractors, utility company, Shinyanga Municipal Council-(**area of influence stakeholders**). Those who have mandate to intervene in case of misunderstanding – Regional and local Government, Security Organs.

3) Those who are interested in the Project Model - TARI, TPSF, UNIDO, AfDB.

8.3.2. *Sampling technique*

We used non-random sampling methods (convenience and purposive) to identify representative of stakeholders to be consulted. Those who were easily available were consulted. As response to COVID -19 we minimized direct contact during the fieldwork, so we requested contacts of key experts of absent key informants. For local stakeholders at the communities surrounding the site we directly conducted face to face contacts maintaining social distances.

8.3.3. *6.3.3 Data Collection Methods*

Stakeholder Consultation Plan – it started from 15th November, 2021 to 23rd November, 2021. We started in Shinyanga by paying a courtesy call to the Regional Administrative Secretary (RAS) who also gave a views, concerns and perceptions concerning the SAPZ and the proposed APH. We had focus group discussion with District Senior Officials from Shinyanga Municipal Council focusing on the objective of the Mission. We had interview with Senior Officials from Shinyanga District (the District Commissioner and the Administrative Secretary).

We visited Tanganyika Packers Site where we inspected the site surroundings, focusing on the land cover, vegetation and flora and fauna and the topography. At the site we physically inspected its suitability, by transact walk within the site, and took photograph of observed features.

We had a focus group discussion with representative of the Villages that surround the site to get their views, concerns and perceptions touching their culture, social and economic norms related to the proposed project. For qualitative data we used interviews (face to face, telephone conversations) and focus group discussion.

Sources of primary data were household farmers, observed owners of storage facilities, local transporters, village leaders, and experts at the Regional Secretariats in the sectors of agriculture, livestock and fisheries.

Data Collection Tools had questions aimed at getting extent of awareness about the project, expected benefits to the nation at large. Depending on the category of stakeholders – each was asked to explain what he or she perceived as negative or positive impacts of the

intended project. They were also asked to explain what they perceived as the appropriate solution to the impacts that each has described.

8.3.4. 6.3.4 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.

8.4. SUMMARY OF THE STAKEHOLDERS ENGAGEMENT

Table 8 presents summary of the concerns, views, and perceptions of consulted stakeholders concerning the proposed APH under the SAPZ in Tanzania.

Table 6: Stakeholders Views and Concerns in Relation to the Proposed APH

Stakeholders	Views/ Concerns
Shinyanga Regional Commissioner’s Office – Regional Administrative Secretariat (RAS).	<ul style="list-style-type: none"> • The Proposed Model is important for the development of Shinyanga Region and in particular Old Shinyanga Area and the Town at large. • This land has remained idle for many year as they only fenced 80 acres only • Ministry responsible for agriculture, livestock should strategize for increase of production of more products to be needed by the proposed hub- there is inadequate materials even for existing factories. • Training of youth in areas related to the planned processing so as to ensure local youth tape this potential. • Income will increase to targeted beneficiaries-transporters, farmers, workers. • Wastes generation will be high –smell and smoke. • <i>Risks</i> include inadequate materials, for example, sunflower is inadequate to the extent of existing processing factories to fail to operate at their capacities. • <i>Advise:</i> Ministries of Agriculture to strategize for industrial based agro production so as to ensure sustainable materials supply. • Influx of people as workers – HIV AIDS issues. • Capacities of existing infrastructures to be compromised.
Shinyanga Commissioner’s Office – District Commissioner (DC),	<ul style="list-style-type: none"> • Employment creation for youth and women – timely as the District had proposed the site for industry park;

Stakeholders	Views/ Concerns
<p>District Administrative Secretary (DS) and Old Shinyanga Division Officer (DO).</p>	<ul style="list-style-type: none"> • They accept the project as will revive the utilization of the land that remained idle for 70 years; • Influx of people resulting into HIV-AIDS and other diseases; • The APH will reduce likelihood for encroachment by using Tanganyika Packer’s land – e.g. CHIBE Holding Ground is unused hence uneconomic. • Risk of raw materials for some types of crops; • There are already connectivity and infrastructure in Shinyanga such as SGR plan, warehouses for storage; • Revival and promotion of Shinyanga Municipality towards City status • Extra ATC needed in Shinyanga District • Addition of values for raw materials to be processed. • Revenue for the Municipality through industrial cess, service levy.
<p>Shinyanga Municipal Council Focus Group Discussion with 5 Officials</p>	<ul style="list-style-type: none"> • Environmental degradation of the area during the construction and operation. • It will assist the provision of social services through private sector engagement; • Risk of inadequate supply of some types of raw materials that the APH will required, - operating factories such as SANICO and Ji-Long are facing inadequate supply of sunflower seeds from farmers. • Unreliable productivity by farmers can affect continuity of the operation of some processing units within the HP – when farmers are disappointed by low prices or delays in payments they tend to stop from farming of the affected crop hence reduced production.
<p>Nearby Communities (20) – Old Shinyanga and Mwamalili Wards, Seseko and Ihapa Villages Leaders – Village Chairpersons, Village Executive Officers, Members to the Village Councils, Hamlet Chairpersons.</p>	<ul style="list-style-type: none"> • Collectively they accepted the project as they were already aware of it. • They do not understand the actual boundaries of the Tanganyika Packers site because there had been several changes resulting the past conflict between surrounding communities and the Owner of the site. • They are worried that some of the land on which come communities reside are likely to be within the project area due to unclear boundaries. • The project will create employment for all especially women, girls and youth as per skills. • For the proposed industries to be sustainable more or modern livestock keeping technology need to be brought them <ul style="list-style-type: none"> • The Government should clear the boundaries of

Stakeholders	Views/ Concerns
	the proposed needed land and if possible leave others to the nearby villages.

Source: Field Data, 2021.

The project is acceptable at the proposed site because of the expected positive significant impacts that it will bring not only to the residents of Shinyanga Region but to the nation at large. The significant concerns are related to land which because of remaining unused for more than 70 years, there is likelihood that some households might be using or residing within the site. During the discussion, they recommended to the Government to execute actual boundaries verification and clarify the matter.

Since the proposed APH will have various processing units that require different types of agro-related raw materials, there were risks related to adequate supply of raw materials because even the existing processing factories, for example, sunflower are facing shortage of supply sunflower seeds. *Influx of People* - Other issues included impacts caused by influx of people which can results into HIV- AIDS problem; *Wastes Generations* – will need appropriate plan. Many of issues are manageable and can be mitigated during the project operation.

Generally, the proposed APH and the entire model are acceptable. There are still other stakeholders will be benefit following the introduction of the APH in Shinyanga. However, and as per discussion with the Shinyanga Regional Government, efforts were underway to embark on stakeholders’ engagement campaign to ensure critical stakeholders such as the Regional Business Council and the TPSF in Shinyanga are engaged and further sensitized.

9. GRIEVANCES REDRESS MECHANISM (GRM)

9.1. THE NEEDS OF GRM

Although the Feasibility Study, Missions conducted proved beyond reasonable doubt that land earmarked for SAPZ activities, TP-APH, belongs to the Government of Tanzania, experience has shown that, when project activities start, individuals, households and other actors come forward with concerns or grievances about their long ownership or use of land on which a project is proposed to be implemented. This, brings grievances related to land and resettlement, and can result into delays in project implementation.

Besides, when the APH will start operations, there will be recruitments of various experts with different skills. These, under the Labour and Employment relations, require a grievance redress mechanism to handle labour affairs. These include freedom to gathering, forming workers organizations at work, etc. The Proponent (PIU) or the SPV will have to prepare GRM Manual to guide this.

9.2. IMPLEMENTATION

The Government of Tanzania through the PMO and the planned Special Purpose Vehicle (SPV) will be responsible for developing appropriate formats for complaints and redress as well as disseminating information about the GRS during the construction and operation.

For SPV and responsible Ministries of Agriculture and that of Livestock Development it is proposed that the grievances to be redressed well, there are to be GRSs from Village to participating local government authorities involved in the SAPZ.

Currently, there will be a Project Implementation Unit (PIU) at the Prime Minister Office, in Dodoma; therefore, there should be an Officer to handle Grievances as they might rise in the course of implementation of this project in Shinyanga (APH).

When, the intended SPV takes off, there would a officers responsible for Environmental and Social Development Officer who will work closely with Regional Administrative Secretaries of Shinyanga through the SAPZ Coordinators and Wards and Village Leaders to ensure smooth handling grievances that may arise.

Any person grieved with the Project activity from village where the APH site is located can lodge his claim to *Village* Executive Officers (GROs) who will record the complaint and forward the same to SAPZ 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, within the APH there will be formed Grievance redress mechanism to enable all workers in all zones to raise their grievances related to occupation, health and safety and getting opportunities to have Workers Unions.

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 Shinyanga Municipal Council.

At the Shinyanga Municipal Level, it is proposed that a member from the Project Implementation Unit (PIU) in particular the Community Development Officer (CDO) who, among other daily duties, to be tasked as Municipal Grievance Redress Officer (GRO) to handle grievance redress issues. The GRO at the MC level will receive grievances from the Sub- Ward Executive Officer (MtEO) with the report on how the complaints were handled.

9.2.1. Submitting Grievances or Complaints

Complaints Forms will be made available at the Old Shinyanga Division Officer, the Ward Executive Officer and in the Offices of the Villages within which the Project will be implemented.

Any 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) MtEOs of a Sub Ward where a subproject is to be implemented will give a Grievance Redress Form (GRF) to any individual or household head that seem to be affected by the SAPZ- APH in her/his areas.
- c) 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 complain has been received.
- d) A GRC at the *Village Level* will immediately review and make decision on the received complaints and thereafter give feedback in writing about the conclusion reached; If satisfied, this will be the end of the matter, however, if not satisfied, the MGRO will forward the matter to the PIU for further actions,
- e) Where the matter is proved to be valid then appropriate redress actions such as further re-assessment will be done and then valid redress done.
- f) All individuals grieved by act related to the SAPZ-APH implementation will VEO to assist him/her in filling it in or any clarifications.

9.2.2. Grievance Redress Report

VEOs of the 4 surrounding villages and the Shinyanga Municipal Grievance Officer (MGRO) will prepare the report, address and record grievances through the GRM. So these will act as grievance redress coordination with contractors and other experts at the APH.

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 SPV Manager for record keeping and reporting to Prime Minister's Office of Responsible Ministry.

In Tanzania, the Grievance Redress Mechanism related to land take and compensation has been 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.

9.3. SUMMARY

What is presented above is summary of a guide for handling grievances during the construction and operation of the project. We recommend to the PMO and those who will be involved in administration of this project (PIU or SPV) 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 and institutions surrounding the SAPZ sub-project areas such as TP-APH in Shinyanga and other areas for ATCs and ACs and AFC. Such a standalone Document will have details, procedure for lodging complaints, forms to fill in, roles of public officers, flow of complaints submission, contacts phone numbers for responsible officers(SAPZ coordinators at Region and District levels, PIU Coordinators, contractors, etc).

10. SUMMARY AND CONCLUSION

10.1. SUMMARY

The proposed APH or mega agro-industrial processing park will contribute significantly to the development of the Lake Zone in terms of adding values to agricultural, livestock and fisheries products, which, hitherto, have been facing challenges associated to markets and processing. The proposed facilities and infrastructure that are to be developed will not cause significant impacts that the Government cannot manage. The EIA study is satisfied that proposed mitigation measures for dealing with wastes (liquid and solid) during the phases of the project are adequate provided the planned Special Purpose Vehicle (SPV) to manage the Park is effective and efficient. The project as the feasibility study found out is unique in Tanzania. It will significantly create employments to the vulnerable groups especially women, girls and youth in all intended cluster of processing zones. The APH will be a point of supply of materials from all nearby aggregation centres (ACs), agro transformation centres (ATCs) hence creating jobs to transporters, drivers, loaders, women vendors in all locations where materials will be procured. The Economy is anticipated to grow because there will be increase in government revenue, influx of new traders.

Risks of inadequate supply of some types of raw materials need to be mitigated upon by ensuring that there are sensitization of the production of certain types of crops rather than depending on peasants whose practice depend on rains---climate change

However, the EIA study has established that the proposed project will also come along with several negative impacts. Negative impacts may include HIV/AIDS due to arrival of new faces during the construction and operation, for the park will require many staff of different skills, sex, age etc. Others are noise and air pollution, dust emissions, solid waste generation, generation of exhaust emissions, workers accidents and hazards during construction, possible exposure to workers to diseases, accidents during the loading and offloading processed products. However, all of these can be sufficiently mitigated.

10.2. CONCLUSION

We concludes that the Proposed Mega Agro Industrial Processing Park referred to here as APH can be implemented without any significant challenges provided the commitments proposed in the Environmental and Social Management Plan (ESMP) as implemented accordingly. Regular review, monitoring of the performance of each of the agro processing zones and non-processing zones will make this facility a model in the in Tanzania in terms if performance and standards. The project can be implemented provided the identified positive significant impacts are enhanced while those which are negative are mitigated upon as per the ESMP.

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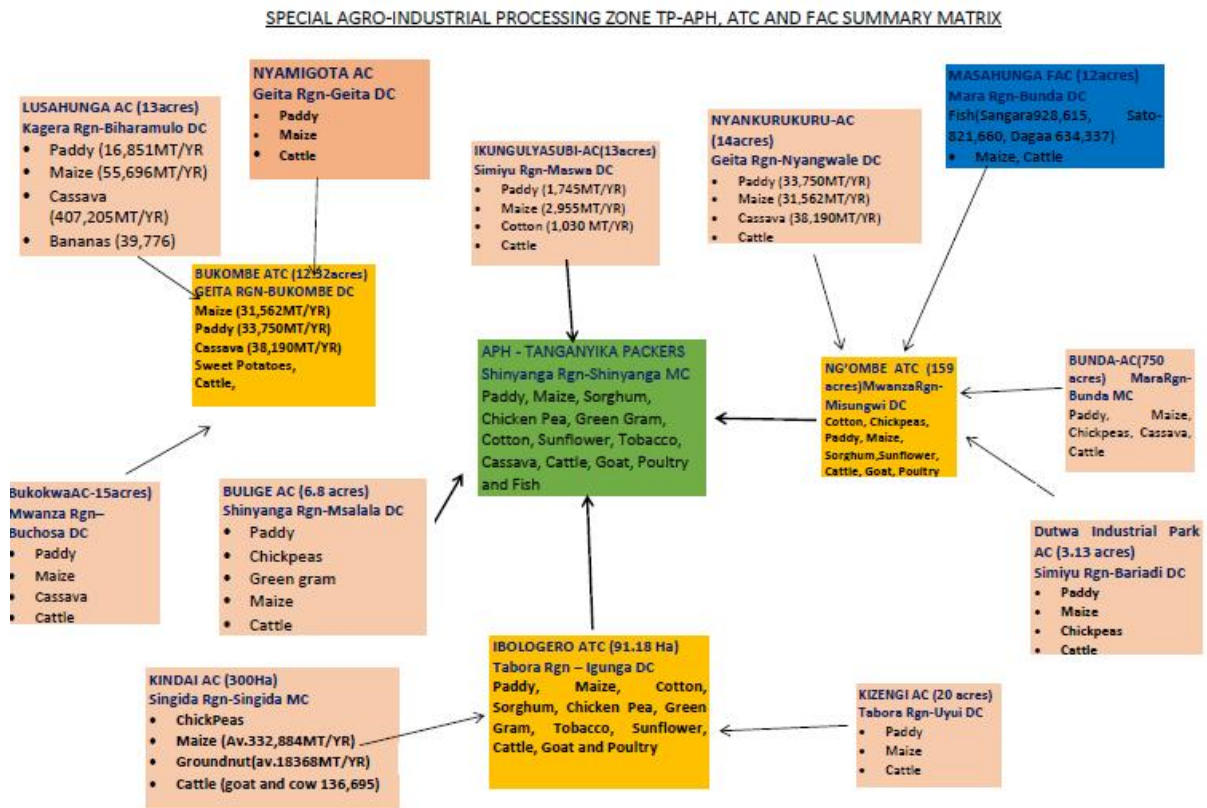
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12. APPENDICES

Appendix 1: Location Matrix for the APH and Linkage with ATCs



Source: Matrix Prepared By PMO, 2021

Appendix 2: AfDB Terms of Reference for Environmental and Social Impacts Analysis

UNITED REPUBLIC OF TANZANIA
 THE AGRO-INDUSTRIAL DEVELOPMENT PROGRAM,
Standard Terms of Reference

Environmental and Social Impact Analysis - August 2021

Introduction

The African Development Bank supports the Agro-industrial Development Program which is a comprehensive program that is geared to create an enabling environment in which the private sector, young men and women will be capacitated to undertake agricultural value additions activities along the entire value chain ecosystem. The latter is expected to improve program beneficiaries' income level as well as address the youth unemployment challenge. The Government of the United Republic of Tanzania (URT) is among the countries on the continent that expressed strong interest in participating in agro-industrialization development through Special Agro-industrial Processing Zones (SAPZ) and requested Bank's support for financing.

The main objective of the proposed SAPZ in Tanzania is to support structural transformation of Tanzanian economy through agro-industrialisation with a view to increasing production and

productivity, adding value, household income, generating employment, and increasing domestic consumption and exports. Specifically, the program will support the establishment of the integrated Lake Zone Special Agro-industrial Processing Zone comprising: i) a main agro processing hub (APH) located in Shinyanga; ii) three major agricultural transformation centres (ATCs) tentatively located in Geita, Tabora and Mwanza regions; and iii) a network of Aggregations centres (ACs) and Fish Aggregation Centres (FACs) to be located in the procurement zones around the ATCs.

In other words, the proposed SAPZ will be developed in accordance with best industry practices and using eco-industrial parks standards. To ensure its social, economic and environmental sustainability, the proposed design will take into account all external dependencies and will seek to (i) establish agro-industrial infrastructure; (ii) build capacity of stakeholders in entrepreneurship; (iii) strengthen institutional capacity and develop innovative marketing incentives; (iv) identify potential and existing risks for development of sustainable agribusiness; (v) enhance the quality of procurement zone in terms of youth employment and skills development; (vi) create youth employment opportunities; (vii) create feasible business opportunities for SME's; (viii) help towards achieving food security; and (ix) leverage private sector resources for investments within the SAPZ.

The Project will be implemented in selected districts through the development of APH, ATC, AC and FAC with, Shinyanga, Tabora, Geita, Simiyu, Mwanza, Mara, Singida, Kagera, Arusha, Kigoma and Manyara to be considered as procurement zones for the programme. The beneficiaries will include; crop farming households, livestock farm households, fisher folks, Small and Medium Enterprises (SMEs) involved in crops, livestock and fisheries processing, other agro-allied industries, traders, transporters, consumers, youth & women entrepreneurs, among others. Other beneficiaries are expected to include; agricultural extension workers, research institutions, government institutions, traders; financial institutions and private sector companies dealing in agricultural technologies and inputs; veterinary extension workers, consumers, local government through enhanced revenue, contractors, input suppliers and the general public.

NOTE: see annex one for detailed description of project components, sub-components and activities and annex two for the SAPZ concept note.

Based on the AfDB's quality at entry requirements and in line with the environmental and social assessment procedures (ESAP), the United Republic of Tanzania (the borrower) is required to ensure the proposed program comply with the environmental regulations and policies of the United Republic of Tanzania and the African Development Bank's Integrated Safeguards System. Hence, the United Republic of Tanzania with support from AfDB, is seeking to engage 3 National Environmental and Social Safeguards Consultants to carry out the detailed Environmental and Social Impact Assessment with respect to the safeguards requirements of the program.

Study Description

This being a category 1 project in accordance with the AfDB E&S risk categorization procedures, the consultants will conduct a full Environmental and Social Impact Assessment (ESIA) and prepare an Environmental and Social Management Plans (ESMPs) in accordance with the lenders' policies and Environmental and Social Assessment Procedures. This will comprise all the tasks that are required for a full environmental assessment, as described hereafter. The Consultants will be responsible for gathering, reviewing and analyzing all necessary data and information. Where these are insufficient, the Consultants shall make all practical efforts to produce the missing information/data including professional estimates and predictions based on the most likely conditions at the project area, reliable information and data from similar situations and conditions, etc.

The Consultants shall characterize the extent and quality of available data and describe the key data gaps and the uncertainties associated with estimates, predictions, and data used from similar situations. The methods of accommodating these gaps and uncertainties in the ESIA should be well stated and presented by the Consultant. When estimated values are used in place of data, the Consultant will be required to provide the uncertainty limits associated with these values and perform an appropriate sensitivity analysis. The work will also include thorough consultations and meetings with all parties concerned affected population or their representatives; local, regional, and national authorities; representatives of the scientific community; NGOs; etc.); in strict accordance with the requirements of the Palestinian Authority the (donor name or other) policies and procedures.

Structure and scope of the ESIA's

Because of the nature, structure and scope of the proposed activities, the ESA work will be divided into three volumes as follows;

No.	Document	Area of coverage/Scope
1.	ESIA Volume 1	APH & Connectivity Infrastructure
2.	ESIA Volume 2	3 ATC's & Connectivity Infrastructure
3.	ESIA Volume 3	AC's/FAC's & Connectivity Infrastructure

Each of these work streams will be assigned to one individual consultant.

Scope of the Consultancy Services

The consultants are expected to undertake investigations on social aspects, economic activities and conservation of natural resources, historical and anthropological heritages, public consultations and disclosures. The proposed project site and associated facilities will be provided to give a guideline of the facilities to be studied. The scope of services to be undertaken by each Consultant shall include the following tasks.

Task 1. Detailed Desktop Review

The Consultant will review all existing documentation, and any previous feasibility reports, EIA, RAP and ESMP reports. The consultant shall further undertake a detailed study of the proposed (project), mapping on actual map of appropriate scale. The Consultant shall then concisely describe each facility assessed, its geographic, ecological, general layout of facilities including maps at appropriate scale where necessary information on size, capacity, facilities and services should also be provided

Task 2. Description of the Baseline Environment

The Consultant is required to collect, collate and present baseline information on the environmental characteristics of the existing situation around each facility. This description should involve but not limited to:

Physical environment (topography, land cover, geology, climate and meteorology air quality, hydrology, etc.)

Biological environment (i.e., flora and fauna types and diversity, endangered species, sensitive habitats etc.)

Social and cultural environment, including present and projected. Where appropriate (i.e. population, land use planned development activities, community social structure, employment and labor market, sources and distribution of income, cultural/religious sites and properties, vulnerable groups and indigenous populations, etc.) Economic activities, agriculture, livestock, fisheries, small scale industries etc.

Task 3. Legislation and Regulatory Framework

The Consultant shall identify and describe the pertinent regulations and standards – both local and international, governing the environmental quality, health and safety, protection of sensitive areas, land use control at the national and local levels and ecological and socioeconomic issues. Thereafter, the Consultant shall identify the project activities that should comply with the identified regulations.

Task 4. Determination of impacts of project facilities and activities

From the detailed field study, the Consultant shall analyze and describe all significant changes brought about by each facility/activity. These would encompass environmental, ecological and social impacts, both positive and negative, as a result of each facility/activity intervention that are likely to bring about changes in the baseline environmental and social conditions discussed in Task 2.

The Consultant will make a prioritization of all concerns identified and differentiate between short, medium, long-term and cumulative impacts during construction, operation and decommissioning. The Consultant shall also identify both temporary and permanent impacts. A detailed outline and discussion of specific conditions that might affect the environment which are unique to the type of facility and/or operation being assessed should be provided.

Task 5. Occupational health and safety concerns

The Consultant shall analyze and describe all occupational health and safety concerns brought about by activities during all the phases of the project. The Consultant shall make

recommendations on corrective and remedial measures to be implemented under the environmental management plan.

Task 6. Development of management plan to mitigate negative impacts

We shall develop The Consultant shall develop a comprehensive environmental management plan. The plan should recommend a set of mitigation, monitoring and institutional measures to eliminate, minimize or reduce to acceptable levels of adverse environmental impacts and/or maximize socio-economic benefits. The Consultant should provide cost outlays for the proposed mitigation measures as well as their institutional and financial support, time frame and responsibility. This shall be provided for all the project phases.

Task 7. Development of monitoring plan

The Consultant is required to give a specific description, and technical details, of monitoring measures for both ESMP and **RAP**, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, definition of thresholds that will signal the need for corrective actions as well as deliver a monitoring and reporting procedure. The Consultant should provide a time frame and implementation mechanism, staffing requirements, training and cost outlays

Task 8. Comparison

The consultant shall undertake a comparison of any other options that have been considered and studied. These other alternatives shall be compared to the proposed final concept; and pros/cons of each proposal detailed.

Task 9. Study Reports

The output will be an Environmental and Social Impact Assessment report prepared in accordance with the regulatory provisions. The report shall be in the English and be clear and concise. The report/s should be in a format acceptable to local competent authorities, international environmental standards and development partners. The Consultant shall present the reports to relevant environmental authorities for approval in the required number of copies.

Task 10: Approvals

The Consultant shall present the report prepared under Task 9 for approval by the relevant authorities. The Consultant shall be responsible for making any modifications that the authorities may demand before approval of the report.

Counterpart Staff

For the purpose of capacity building the Consultant shall undertake the study together with counterpart staff seconded by the United Republic of Tanzania.

4. Additional Details on Tasks

ESIA Methodology used

As a chapter of the ESIA report the consultant will describe the methods used for conducting the ESIA (scoping and bounding, impact analysis and public consultation process, etc.). The

consultant will include a public participation plan to include stakeholder identification process, stakeholders identified, stages within the ESIA process where stakeholders have participated, and the different levels of participation used. Identification of impacts will include the identification of the important environmental components, and selection criteria used for identifying the significant impacts (positive and negative) whenever possible. Significant levels may be determined through the application of scoring system if the consultant is of the opinion that such an approach is warranted. The consultant will employ environmental economic analysis where applicable, particularly to justify significant impacts to be mitigated.

Public consultation process: The consultant will:

Identify all affected people (e.g. people affected by construction activities and during operation) and will facilitate dissemination of information to relevant authorities and interested and affected parties (IAPs) concerning the proposed project NGOs and government departments and agencies that may have a stake in the Project and its effects should be consulted.

Prepare a Stakeholder Consultation Plan, providing an opportunity for the relevant authorities and IAPs to raise issues and concern pertaining to the proposed project and allow the identification of the additional alternatives and recommendations.

Describe a schedule for public consultation with these different groups, including number and timing of public input, and the methods to be employed (e.g. media announcements, town hall meetings, questionnaires, one-on-one meetings, engagements with public Executive Administration steering committees). Public consultation should occur, at least, during the inception and collection of baseline information, and at the draft report stage. An annex of ESIA should summarize the Public consultation process and the results of the consultation process.

Gather more detailed information through which the study team could anticipate issues not raised by the IAPs that will be addressed by the environmental impact assessment report.

Focus the study on relevant issues and recommend specific investigations, such that the resulting ESIA is useful to decision makers and it addresses the concerns of IAPs.

Legal and Administrative Framework

The Consultant will describe the pertinent regulations and standards governing environmental quality, health and safety, protection of sensitive areas, protection of endangered species, land use control, etc., at national and local levels.

Describe the current administrative arrangements for environmental regulation, enforcement and management in the Tanzania, and more specifically, within (name governorate or other government agency).

Provide a general assessment of the (name of agency who will be managing the project) and relevant government agencies involved in environmental and social management issues, to

ensure that the EMP will be effectively implemented. The agencies may need strengthening through capacity building measures to be specified in the Environmental management Plan.

Description of the environment/project setting

The Consultant will assemble, evaluate and present baseline data on the relevant environmental and social characteristics of the study area. In addition to the data being used for determining and assessing impacts it will be used as a baseline against which future changes caused by the Project can be measured and monitored. The data should include any information on changes anticipated before the Project commences. The description should contain relevant descriptions of the following:

Physical environment: geology, topography, soils, climate and meteorology; groundwater and surface hydrology

Biological environment: flora; fauna; forests; rare or endangered (maybe name anything specific, if known, or create Appendix) significant natural sites, etc.; species of commercial importance, and species with potential to become nuisances, vectors or dangerous.

Socio-cultural environment: (include both present and projected where appropriate); population affected (numbers and subsistence systems), land use where appropriate and property (including houses, crops trees, plants, other properties. etc.); planned development activities; public health; cultural characteristics (including cultural property and heritage); and gender differentiation.

Economic activities: livelihood; employment; gender composition cross border migration. Some examples of the specific activities are: recording plant species that may be affected, based on field surveys; identification of any species of special concern, namely species with conservation status or endemic to the area; commentary on conservation status of specific species; compilation of a broad scale vegetation or habitat map of the area indicating the extent to which the project would affect each vegetation or habitat type; description of current land use and compilation of a broad land use map.

The Consultant will take a systematic approach to identification mitigation and evaluation of all impacts and will identify potential changes which the Project may cause. These would include, but not be limited to, changes in the following:

Physical environment; Biological Environment; Socio-cultural Environment; Economic activities; Employment opportunities.

Safety issues, including (i) measures to assure safety of local residents with respect to exposure to electromagnetic radiation, (ii) measures to ensure transformers and equipment at the substations do not contain PCBs; (iii) ensure that the safety and health concerns of temporary and migrant workers are addressed, and (iv) an HIV,AIDS program for workers and affected communities.

Construction phase impacts

Impacts of work camps.

Waste management for the entire project, including the work camps and construction sites. Changes in land use, land tenure patterns and land grabbing as a consequence of improved access: (i) residential patterns; (ii) agricultural practice; (iii) livestock management (pastoralism); (iv) commercial use; (v) traditional use (herb, firewood collection, sacred sites etc.); (vi) access to public services (health, education etc.).

Impacts of access roads and how to manage these impacts and if needed closure or immobilization of access roads. In case of improved access to sensitive natural and critical natural habitats through access road to be constructed under the project, an Induced Access Management Plan needs to be prepared, in order to manage longer term impacts on natural habitat.

Traffic density, safety and dust control Land acquisition and settlement and per (donor /Bank) Guidelines

The Consultant will analyze

Analysis of Positive and negative impacts

Direct and indirect impacts, short term and long term

Impacts those are avoidable/unavoidable - reversible/irreversible

Pre-construction actions to avoid or minimize negative impacts

Construction and operational phase impacts

Cumulative impacts occurring as a consequence of other activities in the project area: existing activities, projects under construction or planned activities within a reasonable time frame.

Impacts in critical and non-critical habitats.

Identify the potential risk of the spread of HIV/AIDS and other sexually transmitted diseases during the construction period, and prepare a detailed plan for awareness and prevention including resource implications.

Wherever possible, the consultant will describe impacts quantitatively. In terms of environmental costs and benefits, and assign economic values when feasible. Impact analysis should be divided between construction and operation impacts.

Environmental and Social Management Plan

An Environmental and Social Management Plan (ESMP) that addresses the following aspects should be prepared and should include:

Predicted adverse environmental and social impacts (and any uncertainties about their effects) for which mitigation is necessary should be identified and summarized. Effective measures to prevent or reduce significant negative impacts to acceptable levels during (i) construction and (ii) operation. Estimate the impacts and costs of those measures. Estimate the costs of any residual impacts. Another area of impacts that could contribute substantially is the cumulative effects of construction and operational phases of the Project. Most of these, if not all, can be avoided by following a set of best practices that the consultant will prepare

Description of implementation and monitoring program

Prepare detailed institutional arrangements (responsibilities) for implementing and for monitoring implementation of mitigation measures and the impacts of the project during construction and operation and maintenance. This will include a description of monitoring methodology, specific operations and features to be monitored, monitoring reporting relationships, and arrangements to ensure that monitoring is effective and leads to modifications where required to ensure minimal impact on the environment. Include in the plan an estimate of costs and description of other inputs such as training and institutional strengthening to ensure effective monitoring. An indication of what performance indicators to be used is to be provided.

Institutional strengthening and training

Identification of institutional needs to implement environmental recommendations: Review the authority and capability of (implementing agent) and other relevant institutions and recommend steps to strengthen or expand these institutions to ensure that effective environmental management and monitoring will occur.

Reports

The consultant will produce the following reports in draft and final versions:

Inception Report including a detailed work plan (if completed)

Environmental and Social Impact Assessment

Induced Access Management Plan (If needed)

Environmental Management Plan

Resettlement Action Plan (if needed)

Stakeholder Consultation Plan

Others (to be specified)

ANNEX 1

Project Components: The proposed components of the Project are: (i) Development of infrastructure for agro-industrialisation including; the APH, ATC and AC/FAC, (ii) External infrastructure & linkages to the APH, ATC, AC) and FAC) (iii) Ecosystem development/SAPZ program enablers; and (iv) Project Coordination and Management. Thus, the following provisions under these components have been agreed for implementation under the Program:

Component 1: Development of infrastructure for agro-industrialization (Budget US\$ 96.22 Million): The components include the development of infrastructure including all APH, ATC, AC and FAC as well as rehabilitation of the existing abattoirs and meat processing factory as detailed below.

Agricultural Processing (Hub)APH: The Project will establish an APH along the Old Shinyanga road. The site is spread across an area of 426.08 ha and it is located within the Tanganyika Parker, Shinyanga District, Shinyanga region.

Agricultural Transformation Centre (ATC): Three ATCs are planned to be established at Ng'ombe, Iborogero and Nyamigota in Mwanza, Tabora and Geita regions respectively and the detailed indicative locations is shown below:

Particulars	Nearest town/village/division	District	Region	Distance from APH in Shinyanga (kms)
ATC - I	Nyamigota	Geita	Geita	253 km from TP-APH
ATC - II	Ng'ombe	Misungwi	Mwanza	105 km from TP-APH
ATC - III	Ibologero	Igunga	Tabora	122 km from TP-APH

However, the Tabora regional administrative government requested to be given time to carry out additional consultations in view to proposing an alternative ATC site. The final site will be communicated to the PMO's office as soon as possible.

Aggregation Centres (ACs): For ensuring adequate supply of raw material to the proposed APH, it is required to create a network of ATC's and AC's/FAC's in the production zone. The indicative locations of ACs, which will be verified during field visits to take place in the coming weeks are proposed below:

S/N	Nearest Town/ Ward/Village	District	Region
1	Ushirombo	Bukombe	Geita
2	Ruhuma	Chato	Kagera
3	Kalebezo	Sengarema	Mwanza
4	Bunda	Bunda	Mara
5	Bariadi	Bariadi	Simiyu
6	Nyankurukuru	Ilemea	Geita
7	Kisengi	Uyui	Tabora
8	Iguguno	Iramba	Singida
9	Igombe	Kahama Rural	Shinyanga
10	Mbalagane	Maswa	Simiyu

Fish Aggregation Centre (FACs) - The concept of FAC is uniquely configured for leveraging the enormous potential of the fisheries sector in Tanzania and the locations are as below: The PMO's office requested the mission for some time to confirm if the fisheries sector will be covered under this program, given the limited resources under this program but also given that the government is already working with the IFAD funded AFDP project targeting the fisheries sector.

Sn	Nearest town/ village/ Traditional authority/Sub chief	District	Region
1	Kasalazi	Buchosa	Mwanza

2	Kayenze	Magu	Mwanza
3	Masahunga	Bunda	Mara

Component 2: External Infrastructure & linkages to APH, ATC, AC and FAC (Budget US\$ 2 Million): The external infrastructure is one of the pre-requisites for the development of an SAPZ and the required linkages are envisioned to be provided by the government through their nodal agencies which includes enhancing and improving (i) road connectivity (ii) water connectivity (iii) telecommunication and (iv) power connectivity to the APH, ATC, FAC and AC.

Component 3: Ecosystem development/SAPZ program enablers (Budget US\$ 18 Million): This component will (i) enhance production, productivity and support the development of agricultural value chains, (ii) enable policy environment, institutional capacity smallholder farmers and TVET skills/agripreneurship development for youth employment, and (iii) provide for governance.

Component 4: Program Management and Coordination; a PCU with dedicated staff will be established within the PMO's office for project implementation including monitoring and evaluation, procurement, financial management and a project coordinator. Investment promotion will also be coordinated through this component.

Investment by private sector within APH, ATC, AC and production farms (Budget USD 343 million) – This component depends on the outcome of the previous components in order to achieve the required investment by the private sector. However, the budget is an estimate and can vary with the extent of branding and marketing done for the project as well as depending upon the extent of incentives offered to attract the private sector into the SAPZ.

Appendix 1: Consulted Stakeholders at the Shinyanga Regional and Municipal Senior Officials.

S/N	Name	Institution	Title	Phone	Signature
1	Zuwera Omar	Shinyangs	RAS	0752259494	
2	Maligisa Datto	Shinyanga RS	AGRD-ENGINEER	0759676445	
3	HEEMA K. MUKANDALA	DC Shinyanga	AFISA TABAKA	0659363821	Mukandala
4	MAYALA K. IBRAHIM	SHY MC	WEO - OLD SHY	0762 46 5573	
5	RAJABU V. MASMEU	SHY MC	DEWA KILIMO	0752-627979	
6	FORTUNATUS JILALA	SHY MC	WEO - M/CILI	0755003048	
7	Mohamed M. Chamehim	SHY MC	MLFD O	0784591078	
8	Salu P. Ndaga	SHY MC	MUPO	0758381988	
9	JASINTA V. MBONEKO	SHINYANGA	DC	0754688528	Jlboneko
10	BONIPHACE M. GANDU	SHINYANGA	DAS	0763361523	

Appendix 2: List of Consulted Stakeholders at the Villages Levels in Old Shinyanga Division

SHINYANGA DISTRICT

S/N	Name	Location	Title	Phone	Signature
1	HELENA H. MUMBA	VEO	WAZIRI	0753351221	[Signature]
2	FORTUNATE M. MUMBA	VEO	WAZIRI	0753351221	[Signature]
3	Simon H. MUMBA	VEO	WAZIRI	0753351221	[Signature]
4	Lucas E. MUMBA	VEO	WAZIRI	0753351221	[Signature]
5	ANTHONY M. MUMBA	VEO	WAZIRI	0753351221	[Signature]
6	WILLIAM MUMBA	VEO	WAZIRI	0753351221	[Signature]
7	JAMES MUMBA	VEO	WAZIRI	0753351221	[Signature]
8	KIRILLO MUMBA	VEO	WAZIRI	0753351221	[Signature]
9	ISAAC MUMBA	VEO	WAZIRI	0753351221	[Signature]
10	JOHN MUMBA	VEO	WAZIRI	0753351221	[Signature]
11	SALVATOR MUMBA	VEO	WAZIRI	0753351221	[Signature]
12	AMOS MUMBA	VEO	WAZIRI	0753351221	[Signature]
13	JACOB MUMBA	VEO	WAZIRI	0753351221	[Signature]
14	GEORGE MUMBA	VEO	WAZIRI	0753351221	[Signature]
15	THOMAS MUMBA	VEO	WAZIRI	0753351221	[Signature]
16	ESTHER MUMBA	VEO	WAZIRI	0753351221	[Signature]
17	MARSHAL MUMBA	VEO	WAZIRI	0753351221	[Signature]
18	HELENA MUMBA	VEO	WAZIRI	0753351221	[Signature]
19	JUSTINE MUMBA	VEO	WAZIRI	0753351221	[Signature]
20	JESSE MUMBA	VEO	WAZIRI	0753351221	[Signature]
21	ROBERT MUMBA	VEO	WAZIRI	0753351221	[Signature]

Appendix 3: Stakeholder Meeting at Old Shinyanga



Appendix 4: Observed Features at the TP –APH Site at Old Shinyanga



