

PROGRAM FOR RESULTS

**Tanzania Food System Resilient Program
(P179818)**

**ENVIRONMENTAL AND SOCIAL SYSTEMS
ASSESSMENT (ESSA)**

Prepared by the World Bank

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LIST OF ACRONYMS

ASA	–	Agriculture Seed Agency
ASDP	–	Agricultural Support Development Program
BOOST	–	Boosting of Primary Education Project
CPF	–	Country Partnership Framework
CSA	–	Climate Smart Agriculture
CVC	–	Commodity Value Chain
DADP	–	District Development Plans
DADPS	–	District Agriculture Development Programs
DALFO	–	District Agricultural Livestock and Fisheries Offices
DLIs	–	Disbursement Link Indicators
EIA	–	Environmental Impact Assessment
EMA	–	Environmental Management Act
EMU	–	Environmental Management Unit
ERPP	–	Expansion of Rice Production Program
ESIA	–	Environmental and Social Impacts Assessment
ESMF	–	Environmental and Social Management Framework (ESMF)
ESRS	–	Environmental and Social Review System
GBV	–	Gender Based Violence
GN	–	Government Notice
GRM	–	Grievance Redress Mechanism
HIV/AIDS	–	Human Immunodeficiency Virus / Acute Immunodeficiency Synd.
IPF	–	Investment Project Financing
IPMP	–	Integrated Pest Management Plan (IPMP)
JICA	–	Japan International Cooperation Agency
LGA	–	Local Government Authority
MIVARF Program	–	Marketing Infrastructure Value Addition and Rural Finance Program
MLHSD	–	Ministry of Land Housing and human Settlement Development
MoA	–	Ministry of Agriculture
NEMC	–	National Environmental Management Council
NGO	–	Non-Governmental Organizations
NIRC	–	National Irrigation Commission
PforR	–	Program for Results
PAD	–	Project Appraisal Document
PADEP	–	Participatory Agricultural Development and Empowerment Project
PO-RALG	–	President’s Office-Regional Administration and Local Government

SAGCOT	–	Southern Agriculture Growth Corridor of Tanzania
SCD	–	Strategic Country Diagnosis
SEA	–	Sexual Exploitation and Abuse
SEQUIP	–	Secondary Education Quality Improvement Project
SESA	–	Strategic Environmental and Social Assessment
TA	–	Technical Assistance
TARI	–	Tanzania Agriculture Research Institute
TOSCI	–	Tanzania Official Seed Certification
TFSRP	-	Tanzania Food Security and Resilience Program
WB	–	World Bank

EXECUTIVE SUMMARY

This document presents results of an Environmental and Social Systems Assessment (ESSA) carried out by the World Bank for the proposed PforR –Tanzania Food System Resilient Program (TFSRP). Tanzania is preparing an agricultural program consistent with its poverty reduction visions, national development guidelines and the Country Partnership Framework. The current Country Partnership Framework (2018 - 2022) identifies agriculture (and agro-processing) as a strategic sector where additional productive jobs can be generated in the efforts to promote more inclusive, diversified, and equitable growth in Tanzania. The Strategic Country Diagnosis (SCD) emphasizes the need to address challenges related to increased climatic variability, pressure on natural resources, rapid urbanization, limited institutional capacities, and the need to create employment. SCD also pinpoints the need for a transformational approach to investment in the agricultural sector, built around diversification, market linkages, technological change, agro-industry, and agro-processing. The proposed operation takes these elements into full consideration and will contribute to inclusive, sustainable, and private sector-led agricultural growth, including small-scale farming.

The program is aligned with the first CPF strategic focus area (enhancing productivity and accelerating equitable and sustainable growth), which promotes agricultural commercialization, market orientation, removal of gender productivity gaps, and improvement of the sector's resilience to climate change. Specifically, the program will support CPF: (i) Objective 1.1: Strengthening the business environment for job creation in agribusiness by promoting commercialization of selected value chains and service delivery systems in agriculture (ii) Objective 1.2: Improving access to credit, particularly for MSMEs and Women by supporting an agriculture-enabling environment, with focus on women, and (iii) Objective 1.3: Managing natural resources for resilient economic growth by supporting the innovation and knowledge systems, and dissemination of climate-smart agricultural technologies (CSA), including modern irrigation infrastructure and water management practices needed for ensuring resilience of the 'country's resource base.

The program will be among key interventions to support the aim of building resilience in agriculture, infrastructure, and natural asset-based growth and contribute to meeting the corporate priorities of green growth, social inclusion, and resilience to climate change. The program will also support overall CPF targets on gender by supporting women through 'women's access and adoption of improved agricultural technologies and women's participation in different value chains and marketing practices. The proposed project is in line with the Food Systems Resilience Program for Eastern and Southern Africa (MPA, P178566) which was approved by the World Bank Board on June 21, 2022. It targets to rationally address challenges in the food systems. Regional partnerships, coalitions, and investments in public goods can amplify scarce public resources and scale up the benefits to partner countries more cost-effectively than national approaches.

The ESSA was conducted as per the World Bank Guidance on Program-for-Result on Assessing Borrower Capacity for Addressing Environmental and Social Issues Associated with Investment Projects supported by the World Bank and the Bank Guidance Program-for-Results Financing Environmental and Social Systems Assessment, issued in September 18, 2020. The ESSA identified the key environmental and social risks (E&S) that may affect the achievement of the implementation of the PforR operation, assesses the borrower's ability to manage those risks, and

recommends additional measures if needed. Under ESSA, the Bank assesses—at the Program level—the potential E&S effects of the PforR (including direct, indirect, induced, and cumulative effects as relevant); the borrower’s capacity (legal framework, regulatory authority, organizational capacity, and performance) to manage those effects; and the likelihood that the proposed operation will achieve its E&S objectives.

ESSA was conducted in consistence with the six core principles, namely: 1. Program E&S management systems designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program’s E&S effects; 2. Program E&S management systems designed to avoid, minimize, or mitigate impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing; 3. Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards; 4. Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring their livelihoods and living standards; 5. Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to Program benefits, paying special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, and to the needs or concerns of vulnerable groups; and lastly; 6. Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

The Environmental and Social System Assessment (ESSA) covered the Ministry of Agriculture (MoA) and its institutions namely the Tanzania Agriculture Research Institute (TARI), Agriculture Seed Agency (ASA), and the National Irrigation Commission (NIRC). It also covered the President’s Office-Regional Administration and Local Government (PO-RALG) and the six selected Local Government Authorities (LGAs) namely; Meru in Arusha region, Hanang in Manyara region, Mkalama in Singida region, Kilosa in Morogoro region, Kilolo in Iringa region and Mbalali in Mbeya region. The assessment focused on Policy and legal frameworks, operational structures, experience in implementing World Bank and other donor-funded projects, availability of unit/department/team for the E&S and the staffing capacity, conflict resolution, E&S mainstreaming and performance, Grievance Redress Mechanism (GRM), budgeting for E&S activities, gender inclusion, handling of Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA), interactions with the public, private sector and other stakeholders.

The ESSA has found that the country and the MoA in particular have adequate policies and legal frameworks, operational structures, and experience in implementing and working with WB and other donor-funded projects. A case in point is the Agriculture Support Development Program (ASDP) and Expansion of Rice Production Project (ERPP) which were funded by WB. It has GRMs and established conflict resolution mechanisms. MoA and NIRC have units responsible for E&S and appropriate staff capacity. However, some of its institutions such as TARI, and ASA have no dedicated units or staff to oversee E&S issues. This ESSA recommends all implementing institutions for this project to have E&S teams with the appropriate staff before

commencement of the program.

For PO-RALG and LGAs, the ESSA found that the systems are in place for implementing the E&S under PforR programs, but they will need strengthening in some areas. Generally, LGAs have experience in implementing E&S issues under PforR programs in education and health and the Investment Projects Financing (IPF) for projects like Secondary Education Quality Improvement Project (SEQUIP) and Boosting Primary Education Project (BOOST) financed by the WB. Some of the LGAs, such as Kilosa, Kilolo, and Mbalali, had implemented WB financed agriculture and natural resources projects, namely Expansion of Rice Production Project (ERPP) and Resilient Natural Resource Management for Tourism and Growth Project (REGROW), respectively. LGAs also have systems for Grievance Redress Mechanism (GRM), budgeting for E&S activities, gender inclusions, handling of Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA), interactions with the public, private sector and other stakeholders. It was however noted that there is weak collaboration between MoA, its institutions (TARI, ASA and NIRC) and LGAs during mainstreaming of E&S in agricultural activities. Although the LGAs are responsible for E&S matters in their areas and have access to the communities, E&S personnel from LGAs are considered as participants and not partners in the implementation of agricultural projects by NIRC, TARI and ASA. This situation deprives them the decision-making power on environmental and social issues during the implementation of agricultural programs. It is important for the collaboration between the MoA, its institutions and the LGAs to be strengthened and each actor's roles and responsibilities must be clarified during the implementation of the proposed PforR program. As a necessary measure to ensure transparency and wider stakeholders consultation ESSA report will be disclosed before appraisal. The analysis also identifies a number of actions that will ensure satisfactory performance of environmental and social due diligence in the program (TFSRP). These measures are linked closely with the Disbursement-linked Indicators (DLIs) for the PforR operation. The measures are defined in **Table 1**. Key actions from the table will be embedded in the Program Action Plan for the TFSRP.

Table 1: Measures to Strengthen System Performance for Environmental and Social Management

Target Objective	Measures to be taken
<p>Ensure effective implementation of the Tanzanian environmental and social management system for the PforR program</p>	<p>To strengthen the capacity for monitoring, supervision and enforcement of HSSE management measures by ensuring that each implementing institution has E&S staff.</p> <p>Strengthen monitoring capacity of E&S departments/Units at LGAs through supplying them with equipment and vehicles.</p> <p>To ensure that ESIA's approved for irrigation infrastructure development, rural infrastructure, construction of marketing infrastructure, including construction of feeder roads adequately address Health and Safety issues, hydrology, stream ecology, and downstream use/users, pollution and soil and land degradation.</p> <p>MoA and other implementing agencies (TARI, ASA, NIRC and LGAs) will make consultation with the Bank during the review. The implementing institution will monitor ESMP implementation and E&S impacts and ensure ESMP compliance accordingly.</p> <p>E&S personnel to be in place (ASA&TARI).</p> <p>E&S training given to the E&S staff to all implementing institutions (MoA, TARI, ASA, NIRC and LGAs).</p>
<p>Ensure collaboration between MoA, its institutions and LGAs on E&S matters through signing Memorandum of Understanding (MoU) between them. The</p>	<p>Sign Collaborative MoU between the MoA, its institutions (TARI, ASA, NIRC) and PORALG (LGAs). The MoU to clarify each actor's role and responsibilities during the project implementation.</p>
<p>Protect project workers and local communities against exploitation of labour, communicable diseases, GBV and SEA</p>	<p>MoA, ARI, ASA, NIRC and LGAs will maintain effective collaboration with OSHA and PMO-LEYD on health, safety, and labor management issues.</p> <p>Operationalize the Workers' code of conduct including GBV/SEA prevention and response.</p> <p>Engage a representatives from the Tanzania Female Police Network and sensitize workers on GBV and SEA issues.</p> <p>All FSRP project to get registered with OSHA to enable them get statutory inspections.</p>

	<p>To mainstream Ministry of Health COVID-19 Management Protocol in all civil works and public consultation and engagement</p> <p>To train contractors on basics of the Employment and Labour Relations Act, No. 6 of 2004. Ensure employment contracts are consistent with the Act</p> <p>To ensure project' GRM is publicized to all affected people and contract workers.</p>
<p>Ensure land and way leave acquisitions proceed in accordance with Tanzania law and Regulations</p>	<ul style="list-style-type: none"> • To conduct due diligence on all proposed sites where construction of irrigation infrastructure, rural infrastructure, marketing infrastructure, and feeder roads are planned to be constructed. • In case land acquisition is required, the government will have to conduct assessment of the value of land and effect prompt and fair compensation of all project affected people (PAP) in the case land acquisition is required
<p>Promote sensitivity to safeguard issues among all implementing institutions.</p>	<ul style="list-style-type: none"> • To provide safeguard training to all implementing team including top management to widen their understanding on E&S and PforR financing.
<p>Strengthen procedures to promote equitable allocation of benefits and impacts of TFSRP</p>	<ul style="list-style-type: none"> • To provide guidance for screening to detect the presence of vulnerable or disadvantaged groups, and measures for their consultation and participation so that that project plans and designs take into consideration their needs, priorities, and preferences; • To define mechanisms whereby vulnerable and disadvantaged groups will be provided with relevant project information in local languages and in form and manner socially acceptable to them; • To specify that any project planning to acquire land in an area where vulnerable groups are present will undertake free, prior and informed consultation leading to broad community support.

CHAPTER ONE: INTRODUCTION

1.1. Country Context

The United Republic of Tanzania is a union between Tanzania Mainland and Zanzibar. It has a population of 61,741,120 people, comprised of 30,053,130 males and 31,687,990 females. Tanzania mainland has a total population of 59,851,347 while Tanzania Zanzibar has 1,889,773 people. Much of the population is young, putting Tanzania among the countries with the fastest population growth rates globally, which is partly due to the high total fertility rate and reduction in childhood mortality. The country is undergoing rapid urbanization. In 2020, about 34.5 percent of its population (46 percent for Zanzibar) was designated as urban compared with 19 percent in 1988.

The national poverty rate in Tanzania has declined from 34.4 to 26.4 percent between 2007 and 2018.¹ Over the same period, poverty in rural areas dropped from 39.1 to 33.1 percent, compared to 20.0 to 15.8 percent in urban areas. While there has been an overall drop in poverty, a large proportion of the population remains vulnerable to falling back into poverty. In 2018 almost half the population was living below the international poverty threshold of US\$1.9 per day. Owing to the rapid population increase in the nation, the absolute number of poor people increased from 12.3 million in 2011 to about 14 million in 2018.

Prior to the outbreak of the novel coronavirus disease (COVID-19), Tanzania was experiencing robust and sustained economic growth. With an economy growing at an annual average of over 6 percent for two decades, Tanzania in 2020 graduated to a lower-middle-income country (LMIC) status. Although the government did not impose mobility restrictions, the COVID-19 pandemic inflicted a shock on the Tanzanian economy, adversely impacted livelihoods, increased uncertainty and slowed the gross domestic product (GDP) growth rate to 2.5 percent in 2020, in contrast with 6.9 percent in 2019. Moreover, Tanzania's performance in terms of human development is low. The Human Capital Index (HDI) in Tanzania in 2020 was estimated at 0.39, which is below its expected level for development, and places it among the bottom 35 countries globally.

Tanzania's economy is recovering after the COVID-19 crisis derailed its positive growth trajectory. Two decades of steady growth enabled Tanzania to access the status of a lower-middle-income country in 2020. The COVID-19 pandemic reduced its GDP growth rate from 5.8 percent in 2019 to 2.0 percent in 2020, with per capita GDP contracting by 1.0 percent. 2021 witnessed fragile signs of economic recovery as the real GDP growth rate reached 4.3 percent. The trend will strengthen in 2022, with estimates at 4.5–5.5 percent, driven by the recovery of exports and domestic demand. However, to reach the ambitious development goals stated in Vision 2025², Tanzania needs an annual GDP growth rate of 8 percent³. This will require the government "to revise, strengthen, and expand its existing efforts to support struggling firms while implementing structural reforms to address longstanding constraints on private

¹ World Bank, Tanzania Mainland Poverty Assessment, 2018. The national basic needs poverty line for 2018 was TZS 49,320 per adult per month and the food poverty line (extreme poverty) was TZS 33,748

² The United Republic of Tanzania (1999) The Tanzania Development Vision 2025, <http://www.tzonline.org/pdf/theTanzaniadevelopmentvision.pdf>.

³ World Bank (2021). Tanzania Economic update. Raising the bar: Achieving Tanzania's Development Vision. February 2021, Issue 15. Washington, D.C.: World Bank Group.

investment and 'women's access to economic opportunities" (2022 World Bank Tanzania Economic Update).

The current macroeconomic situation calls for investments in growth-creating activities and increased efficiency of public spending. Achieving 'Tanzania's Vision 2025 will depend on creating 8 million jobs and sustaining improvements in social indicators², requiring growth in labor-intensive sectors such as agriculture, particularly agro-processing. Yet the fiscal deficit expanded to 4.2 percent of GDP in 2020/21, above the 2.7 percent national target, driven by increased spending on service delivery and the implementation of capital projects. The deficit was largely funded by increased domestic borrowing, with the cost of debt service now consuming nearly 40 percent of domestic revenue. Tanzania's risk of external debt distress thus increased from low to moderate (TEIMF-World Bank Debt Sustainability Analysis September 2021). On the positive side, the Tanzanian shilling (TZS) remained relatively stable, and inflation was among the lowest and least volatile in the EAC in 2021 (4.1 percent in November). This macroeconomic situation calls for efficient and well-targeted public spending and increasing levels of private funding.

Malnutrition and household spending on food are persistently high. Currently, 32 percent of children under 5-year-old are stunted, and 55 percent of the total population were either moderately or severely food insecure between 2017 and 2019. However, food production is on an upward trend. Tanzania now produces about 18 million tons of food against a 13 million tons' food demand per year. Yet, among households in the lower income quintiles, spending on food staples still consumes more than 30 percent of total household spending².

Tanzania is likely among the 20 countries most affected by climate change. Temperature and extreme events are projected to increase significantly⁴. The incidence of extreme temperatures and climate-related disasters, such as floodings or droughts, has increased over the last decades. Weather-related disasters account for 69 percent of Tanzania's recorded disasters since 1872, and 73 percent of these events occurred between 2000 and 2019⁵. Impacts of climate change particularly hit the poorest and increase pressure on food systems, calling for urgent investments to build adaptation and resilience⁶ capacity.

1.2. Sectoral (or multi-sectoral) and Institutional Context of the Program

The Government of Tanzania recognizes the agri-food sector as one of its core sources of inclusive economic growth and rural poverty reduction. Agriculture accounts for about 26.9 percent of GDP, 30 percent of exports, 65 percent of inputs to the industrial sector, 61 percent of the workforce, and 90-95 percent of the food requirements for the country. Its stable supply has been instrumental in maintaining low inflation.

Tanzania has a robust policy framework to guide public expenditure in the agri-food sector. The Development Vision 2025 and the third Five-Year Development Plan recognize the centrality of agriculture to reach national objectives and set ambitious goals for transforming the sector. The development goals envisioned in these frameworks are articulated in the sector strategies and policies and implemented through the Second Agriculture Sector Program (ASDP II)⁷. Launched

⁴ World Bank (2019). Building a Climate-Resilient Agrifood System in Tanzania - A Note in Support of ASDP II

⁵ Msemo et al., 2021, *What Do Weather Disasters Cost? An Analysis of Weather Impacts in Tanzania*, Frontiers in Climate 3; the United Republic of Tanzania, 2021, *National Climate Change Response Strategy (2021-2026)*.

⁶ Defined as the ability to recover from shocks transmitted through productive systems, natural resources, markets and policies.

⁷ The United Republic of Tanzania (2017), *Agricultural Sector Development Program Phase II (ASDP II)*.

in 2018, ASDP II is a ten-year program that guides investments in the agriculture sector. The government will implement ASDP II in two phases, each divided into a five-year implementation period. It prioritizes enhanced (i) agricultural productivity and profitability, (ii) commercialization and value addition, (iii) sustainable water and land use management, and (iv) strengthening sector enablers. In April 2022, the government launched the "Agenda 1030 initiative," which targets a 10 per cent growth for agriculture by 2025 via the revitalization of the extension services program, rebranding the sector image, and encouraging private sector investments.

Tanzania demonstrated a strong commitment to reforming public finance mechanisms that support the Agri-food sector. Tanzania moved away from general agriculture input subsidies⁸, with only 5 per cent of budgetary transfers directly supporting producers (with distortion input subsidies) over 2017/18-2020/21. It stopped using export bans for maize and rice in 2017. Efforts to improve the business environment include removing over one hundred fees and charges to reduce production costs, promote investments, and protect domestic industries.

Private sector investment remains a challenge. Private sector investment remains constrained by limited access to long-term capital, low-capacity levels, and business skills. However, agriculture GDP growth picked up during the period of recent policy reforms. Interestingly, the upturn in growth overlaps the period of policy reforms and reallocations of the public sector budget to agriculture. This indicates that Tanzanian agriculture's growth rate is responsive to policy reforms.

Further steps to strengthen the private sector's engagement could accelerate progress towards increased productivity and resilience. Immediate reform areas include: addressing rice distortions, taxation, and high access costs, which disincentives producers from investing in new technologies to improve efficiency and productivity. Reducing or eliminating distortive trade measures and reducing the cost of on-farm fixed capital formation would help increase efficiency. Improving access to rural finance could also foster private farm and cooperative innovation. Protecting innovation also implies counterfeit fighting inputs; this requires the development of government laboratories, strengthening Tanzania Official Seed Certification Institute (TOSCI) 's role in seed quality control, and scaling up its current initiatives against fake seeds.

The allocation of public funds to the agri-food sector in Tanzania's agri-food sector budget has been low and volatile⁹. Since 2017/18 and until 2021, agriculture has been averaging 2.25 per cent of its national budget and about 0.5 per cent of its GDP. The tight agricultural budget left little fiscal space for development expenditures and has hampered the implementation of ASDP II, slowing down the agricultural transformation needed to materialize Vision 2025 and deteriorating critical aspects of public service delivery (see text box 1). Acknowledging the need for additional resources, the government increased budget commitments to the Ministry of Agriculture by 13 per cent in 2021/22 and 2022/23 by 155 per cent.

⁸ The GoT has introduced a \$ 65 Million temporary (one season) agriculture input subsidy to support farmers address high fertilizer prices and sustain food production in FY 2022/23. The program will be evaluated by the end of the year.

⁹ World Bank and FAO, 2022, Tanzania Agriculture Public Expenditure Review.

Box 1: Impact of low and volatile budget

Irrigation: Irrigated areas cropped by farmers went down from a low 3 percent to 2 percent of all farmed areas between 2008 and 2020. Irrigation systems remain rudimentary, with extremely low efficiency (over half of it is hand water buckets), and lack maintenance, monitoring, rehabilitation, and modernization.

Knowledge Services: Access to extension services collapsed from 67 to 7 percent, with women being the most affected.

Research: Funding for agricultural research shrank to rank among the four lowest in Africa. Despite its importance, public varietal development is crucially underfunded, as witnessed by the drop in public variety released since 2020. (World Bank, PER 2022).

Competitiveness: The competitiveness of Tanzania's agri-food value chains is constrained by underdeveloped markets, market infrastructure, farm-level value addition, and poor rural infrastructure, including rural roads, telecommunications, and electricity (Global Center on Adaptation 2021).

Climate change adaptation and mitigation are urgent and crucial for Tanzania and require significant scale-up of investments in climate-smart agriculture research, training, and extension.

Tanzania is vulnerable to climate change due to the range of projected impacts, multiple stresses, low adaptive capacity, and high dependence on climate-sensitive sectors. The rural communities, for instance, in Tanzania, are most vulnerable to climate change due to several reasons, including limited access to technologies and resources to adapt, high dependence on climate-sensitive sectors for their livelihood, and lack of knowledge on how to address the impacts of climate change. This has led rural communities to practice activities such as keeping many cattle, shifting cultivation, overgrazing, and extractive utilization of forest resources that further increase their vulnerability to climate change.

Ambitious climate change adaptation plans for the agri-food sector exist but have not been implemented due to insufficient public financing (World Bank-FAO 2022¹⁰). Consequently, adaptation to climate change has barely progressed since 2014, as well as sustainable intensification. Yet the cost of climate inaction in agriculture in Tanzania is estimated to be at least USD 1.41 billion by 2040. On the mitigation side, agriculture *per se* contributed to 38 per cent of the country's GHG emissions in 2019. Yet as the growth of Tanzania's national agricultural output (+58 per cent in real terms between 2007/8 and 2016/17) is almost entirely due to expansion of the cultivated area (+ 57 per cent between 2008 and 2020) over forests, Land Use Change and Forestry (LUCF) – overwhelmingly due to agricultural land conversion – amount to 46 per cent (Climate Watch, 2022). The sector thus produces 84 per cent of the country's emissions. Large potential for climate change adaptation and mitigation exists through significant upscaling of investments in

innovation (including seeds), sustainable intensification of existing farm areas, reducing land conversion, and dissemination of CSA practices such as agroforestry and efficient water-uses¹⁰.

There is a significant and persistent gender gap in agricultural growth and poverty reduction. The gender gap in agricultural productivity is estimated at 20-30 per cent, and a full 97 per cent of the gap is explained by women's diminished access to male family labour. In contrast, the remaining per cent reflects lower agricultural implements and pesticide access. In 2017, 44 per cent of men had a mobile-money account versus just 33 per cent of women. About 25 per cent of men are sole landowners versus just 8 per cent of women. Tanzania's rates of landownership are below the average for Sub-Saharan Africa due mainly to low rates among women.

Tanzania is not maximizing its potential as a food exporter. Agriculture exports have steadily decreased from USD 2.9 billion in 2014 to USD 1.7 billion in 2019 (-8 per cent per annum). According to the Observatory of Economic Complexity (2021), vegetable products (coconuts, Brazil nuts, cashews, raw tobacco, sesame, coffee, etc.) and dried legumes and foodstuffs are, respectively, the second and third largest (in value) categories of products exported by Tanzania in 2019. Vietnam, China, India, and Kenya are the main destinations. Tanzania aims to increase its food crops exports to seize the opportunity from the growing food market in the region. Under the Agenda 1030 initiative, Tanzania targets to increase its food crops exports from USD 500 Million in 2022 to USD 3 billion in 2030. Specifically, exports of maize, rice, soy, and cashew nuts are projected to double from USD 500 million to USD 1 billion within those seven years. Realizing its commercialization potential would require Tanzania to rebuild regional trade partnerships and invest in innovation, value addition, storage, and feeder roads.

Tanzania is strategically positioned to be a breadbasket for the East Africa region, significantly contributing to regional food security. Out of 7.8 million tons of maize produced annually, Tanzania consumes 90 per cent. It exports the rest mainly to Kenya (8 per cent) and the remaining 2 per cent to Somalia, Burundi, South Sudan, Rwanda and Uganda. Under the Agenda 1030 initiative, Tanzania has opened physical markets in South Sudan and DRC to fast-track and simplify grain export in these countries. With increase production in the country, exports are projected to increase, contributing to regional food security with potential positive impacts in reducing conflicts caused by food insecurity within the region.

1.3. Relationship to Country Partnership Framework (CPF)

The current Country Partnership Framework (2018 - 2022) identifies agriculture (and agro-processing) as a strategic sector where additional productive jobs can be generated to promote more inclusive, diversified, and equitable growth in Tanzania. The Strategic Country Diagnosis (SCD) emphasizes the need to address challenges related to increased climatic variability, pressure on natural resources, rapid urbanization, limited institutional capacities, and the need to create employment. The SCD also pinpoints the need for a transformational approach to investments in the agricultural sector, built around diversification, market linkages, technological change, agro-industry, and agro-processing. The proposed operation takes these elements into full consideration and will contribute to inclusive, sustainable, and private sector-led agricultural growth, including small-scale farmers.

¹⁰ CIAT and World Bank. 2017. Climate-Smart Agriculture in Tanzania. CSA Country Profiles for Africa Series. Washington, D.C: International Center for Tropical Agriculture (CIAT); World Bank.

The program is aligned with the first CPF strategic focus area (*enhancing productivity and accelerating equitable and sustainable growth*), which promotes agriculture commercialization, market orientation, addressing gender productivity gaps, and improving the sector's resilience to climate change. Specifically, the program will support CPF: (i) Objective 1.1: *Strengthening the business environment for job creation in agribusiness* by promoting commercialization of selected value chains and service delivery systems in agriculture (ii) Objective 1.2: *Improving access to credit, particularly for MSMEs and Women* by supporting the agriculture enabling environment, focusing on women, and (iii) Objective 1.3: *Managing natural resources for resilient economic growth* by supporting the innovation and knowledge systems, and dissemination of climate-smart agriculture technologies (CSA), including modern irrigation infrastructure and water management practices needed to ensure the resilience of the 'country's resource base.

The program will be among the critical interventions to support the aim to build resilience in agriculture, infrastructure, and natural asset-based growth and contribute to meeting corporate priorities of green development, social inclusion, and resilience to climate change. The program will also support overall CPF targets on gender by supporting women through 'women's access and adoption of improved agricultural technologies and women's participation in different value chains and marketing practices.

1.4. Linkages with the Regional MPA

The proposed project is in line with the Food Systems Resilience Program for Eastern and Southern Africa (MPA, P178566), which the World Bank Board approved on June 21, 2022. It targets to address food systems challenges regionally. Regional partnerships, coalitions, and investments in public goods can amplify scarce public resources and scale up the benefits to partner countries more cost-effectively than national approaches. For example, sharing knowledge and adaptive research on CSA can be an input to extension scale-up (RA1). Cross-boundary management of (irrigation) water resources (RA2). Regional trade integration (under AfCFTA) and policy coordination (under CAADP) can contribute to RA3. In addition, managing pests and zoonotic diseases and coordinating food crisis prevention and risk diversification can be more cost-effective at the regional level than a national approach. Regional and cross-border collaboration in agricultural innovation systems and providing hydrometeorological (hydromet) and early warning information to farmers can generate positive technology and knowledge spillovers. Aower-capacity countries can learn from leaders to adopt new technologies and build effective forecasting capabilities (including for flood and drought).

Under the Food Systems Resilience Program (FSRP), MPA Tanzania will benefit from; (i) better-informed coordination and more effective management of cross-boundary issues such as including coordination of interventions among upstream and downstream countries, e.g., cross-boundary management of (irrigation) water resources (RA2), (ii) a more focused and relevant knowledge agenda, including peer-to-peer exchanges on implementation modalities, and agriculture innovation and spillovers through regional R&D and technology dissemination. Sharing knowledge and adaptive research on CSA can be an input to extension scale-up (RA1), (iii) strengthening strategic food value chains to seize the growing food market in the region. Regional trade integration (under AfCFTA) and policy coordination (under CAADP) can contribute to RA3, (iv) improved regional coordination of hydromet infrastructure modernization and climate and early warning information sharing, which helps to build forecasting capabilities (including for flood and drought). In addition, coordinating food crisis prevention and risk diversification can be

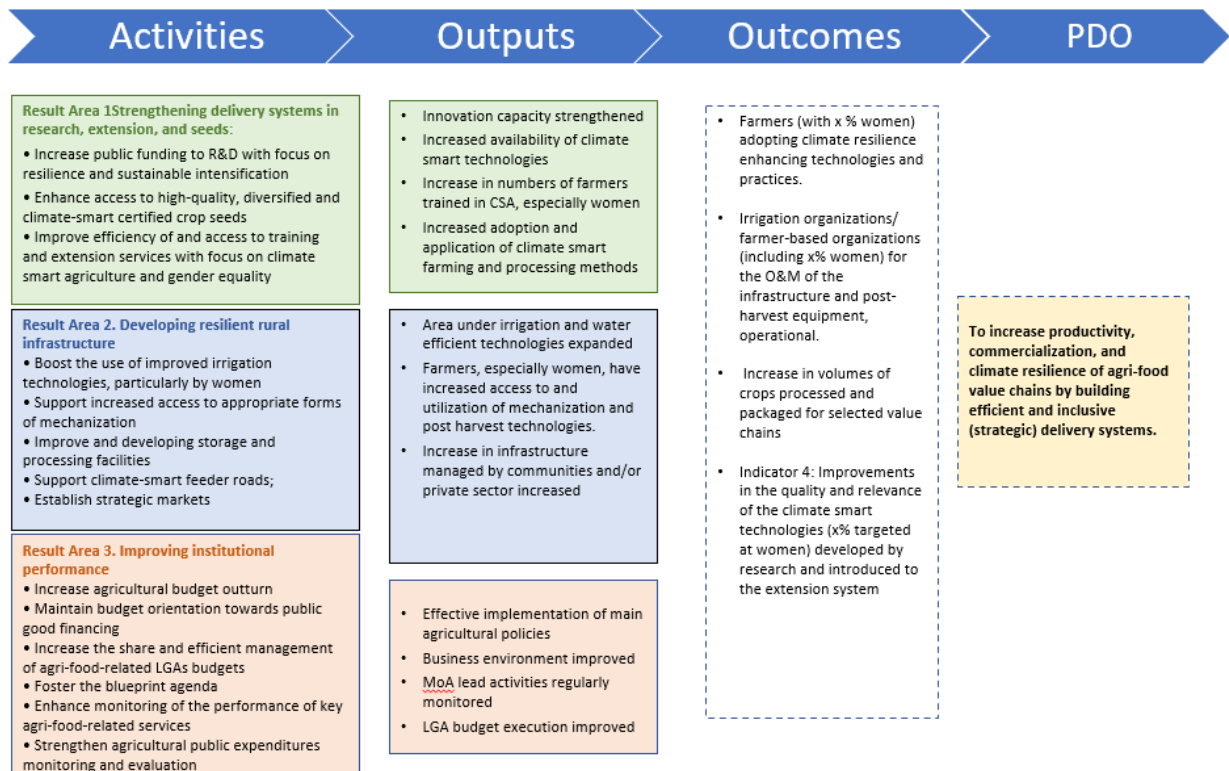
more cost-effective at the regional level than a national approach. The Program is well positioned (e.g., with support from regional organizations) to generate positive spillover effects through its regional dimension by supporting technology dissemination while recognizing the 'agroecological distance' between countries and the fragmentation of agricultural research centres within Sub-Saharan Africa.

Envisioned regional coordination will build on previous Government efforts to make Tanzania a regional food basket and strengthen regional food security. The program will strengthen Tanzania's position to become a regional food exporter, as articulated in Agenda 1030. It will build on ongoing programs such as the Southern Agricultural Corridor of Tanzania (SAGCOT), which designed the corridor as a breadbasket of Tanzania and beyond. A key element of this coordination will be the harmonization and alignment of trade policies to facilitate increased food/grain trade and quality assurance, which have been limiting factors to trade.

CHAPTER TWO: PROGRAM DESCRIPTION

Tanzania Food System Resilient Program (TFSRP) targets to increase food systems' stability and food insecurity preparedness in the participating countries. This will be achieved through strengthening agricultural service delivery, adopting climate-resilient technologies and fiscal performance in the agricultural sector. It will support MoA in delivering ASDP II by expanding access to knowledge, services, inputs, and critical infrastructure. The program's strategic focus will be on strengthening systems that have historically been a bottleneck to enabling access. Transforming these systems will contribute to building the resilience and competitiveness of the agri-food sector and enhancing the efficiency, effectiveness, and impact of the MoA's public investments. The theory of change in Figure 1 outlines the alignment of actions against the results.

Figure 1: Theory of Change



2.1. Project Development Objectives

The TFSRP objectives and components are implemented under three (3) result areas as detailed below:

Result Area 1. Improving service delivery in research, extension, and seeds

The program seeks to support the delivery of ASDP II by accelerating access to climate-smart technology, knowledge, and critical inputs by addressing system bottlenecks in the following three areas:

Research: The ESSA team in partnership with the management of the Tanzanian Agriculture Research Institute (TARI), identified that unpredictable, fragmented, and volatile financing of Agriculture Research has been a challenge for the past decade. Agriculture research relies heavily on projects (financed by donors or international research agencies). Providing TARI with a predictable budget over the next five years would allow Tanzania's research agencies to significantly increase their contributions to delivering ASDP II by improving productivity, building resilience, and responding to the challenges of climate change. Predictable financing would allow investment in refurbishing critical infrastructure (greenhouses), developing new technologies, and the building skills development required to accelerate the growth of technology and knowledge. This new approach to financing agriculture in Tanzania would strengthen the region's approach to resilience and food security through improved partnerships and exchange of knowledge. The funding of TARI would be guided by a new five-year plan to be developed by the end of 2023. The ESSA team agreed that the predictable expenditure and the new strategy would be formulated into a Disbursement Linked Indicator (DLI).

Seeds: In consultations with ASA, TOSCI and TARI, the ESSA confirmed that limited access to quality improved seeds varieties adapted to climate change, insufficient quantities and at the right time and conditions accessible to small farmers is one of the main challenges for improving agricultural productivity in Tanzania. Limited access to improved seeds was attributed to insufficient financial resources for the seed sector. Low irrigation capacity in seed farms is a significant constraint, recently aggravated by climate change with prolonged drought conditions. Out of the 16/17 public seed farms, only one seed farm (Kilangali) is equipped with irrigation infrastructure (400 ha out of 600ha). Specifically, operational constraints affecting seed production include; a lack of mechanization, processing and storage facilities, standard packaging materials, and logistics infrastructure. Insufficient inspectors and laboratory analysts also affect seed quality control and effective management of piracy risks. Low farmers' awareness and demand restricts improved seed restrict private sector investments in the seed production business.

Consequently, relatively high seed prices affect access, especially for women farmers, due to limited affordability. To this effect, a DLI to incentivize increased quality seed production is proposed. The indicator will monitor increased; (i) funding to the seed system (seed research, seed production, seed control, seed extension and seed marketing), (ii) quantities of seed produced, and (iii) seed quality control. Increasing seed availability will support seed availability (and other TIMPs) in Tanzania and within the region, especially for commodities where Tanzania is the regional centre of excellence for Eastern and Central Africa (e.g. paddy/rice).

Extension and ICT: Under ASDP II, the MoA has prioritized the cost-effective expansion of agriculture extension services as a strategic priority. As part of this process, the MoA seeks to

accelerate farmers' access to climate-smart technologies and weather-related messages, including early warning systems and predictive models for pest and disease outbreaks. The MoA highlighted that the farmer register, when combined with other data platforms (e.g., weather forecasting, pest and disease identification, and monitoring, market pricing, and access to finance), would allow the Ministry, Local Government Authorities (LGA), private sector, and farmers to identify and to better prepare for shocks. Developing approaches to exchange information on these data platforms could also play a critical role in strengthening the region's resilience to shocks. It was designed and agreed on a DLI to expand the MoA ICT capacity. In parallel, the ESSA team decided that extension workers need increased awareness and understanding of using data-driven solutions and help deliver climate-smart solutions to farmers. In this context, the MoA agreed to provide ICT skills training to all extension workers. As a result, extension training and ICT expansion have been incorporated into one DLI.

Result Area 2: Developing resilient rural infrastructure

The program will support significant performance improvement in managing key irrigation and storage facilities. A summary of key performance areas is as follows:

Irrigation:ASDP II highlights the need for expanded investment into irrigation. The government has responded by increasing budget allocations for the National Irrigation Commission (NIRC) by nearly eight times from FY21-22 (USD 20 Million) to FY22-23 (USD 157 Million). A further doubling of the budget is anticipated for FY 23-24. As a result, the area under irrigation will significantly expand. However, the ESSA noted that half of the public irrigation infrastructure is dysfunctional (2020 Agriculture Sample Census data). In this context, the ESSA team agreed that the result area should focus on sustainable Operation, Management, and Maintenance (OMM). Concentrating on OMM arrangements would maximize the impact of the government's investment in irrigation.

The ESSA noted that, as provided in the 2013 National Irrigation Act (NIA), in the majority of cases, the OMM role is assigned or assumed by IOs (or proxy cooperatives), supported by the District Irrigation Department at LGAs, with NIRC coming in when major breakdowns occur. The operational capability of the Irrigator Organizations (IOs) and the District Irrigation Departments is a recurrent problem, and NIRC is increasingly assuming the responsibility of bulk service provision. In this context, the ESSA proposed a DLI to establish and implement performance-based contracts for Operations, Management, and Maintenance (OMM) in irrigation schemes.

The proposed DLI aims to incentivize the establishment of clear roles and responsibilities among stakeholders involved in the OMM of public irrigation schemes through the joint of a document. The goal is to move away from the prevailing ad-hoc OMM modalities towards more systematic and explicit irrigation service provision on the scheme through increasing the irrigation water service's reliability, reducing farm risk, and ensuring the infrastructure's operational integrity in the long term. The DLI would apply to both existing and new schemes. The successful implementation of this DLI would create an institutional model for irrigation management that could be used in countries across the region.

Agriculture Markets - Warehousing: ASDP II highlights the strategic importance of post-harvest management (particularly value addition). One of the critical conditions for agriculture to be profitable and thrive is functional marketing systems, including well-managed warehousing infrastructure. The ESSA noted that while Tanzania has established a functioning

Warehouse Receipt System, the majority (close to 60 - 70 per cent) of publicly owned warehouses are not operating due to ownership and governance challenges. Efficient management of public warehouse facilities will increase the volume of crops passing through Government warehouses, improve value chain commercialization, and reduce post-harvest losses, which currently stand at 30 – 40 per cent for cereals and as high as 60 per cent for horticulture crops. In this context, the ESSA proposed a DLI in the efficient management of public warehouse facilities through an improved management model, which will (i) clarify ownership, (ii) introduce an operational model (by the private sector or cooperative) through a leasing arrangement with private sector processing units (iii) Signing of MOU to clarify roles and responsibilities for parties involved. The government will pilot and roll out successful models based on lessons learned. Delivering this DLI could increase the volume and quality of food available for export and therefore impact food security and resilience across the region.

Result Area 3: Strengthening fiscal performance to enable delivery on the priority investment areas

ASDP II highlights the need to improve overall institutional performance. Improved budgeting, strengthening district level investment and repurposing public support mechanisms will enable services to be delivered in a more effective and impactful way, ensure improved localized planning, and strengthen investment into natural resource management. As a result, farmers and other value chain actors will be less vulnerable to climate related shocks. A summary of the key activities to be supported includes:

DLI 6: Improved agricultural budget monitoring and predictability. Improved budget and fiscal performance in the agricultural sector can have an impact at scale to strengthen food security and resilience of farming systems by boosting the delivery of key agricultural services by national and local governments. In Tanzania, over 2018/19-2021/22, the tight budget allocation for ASDP II left little fiscal space for development expenditures. It led to insufficient support for critical public services needed to catalyze agriculture transformation. As a result, agricultural public service delivery critically deteriorated over the past decade in Tanzania (ex., research, extension services, irrigation). Yet increasing budget allocation will only boost service delivery if it effectively translates into additional timely and relevant investments. Scaling-up budget predictability and budget outturn are needed for agricultural plans and policies to materialize and deliver planned outcomes. In addition, improved monitoring will provide greater accountability and management of public funds. To support the improvement of budget management activities, this DLI will support the following: i) improved budget outturn, measured by timely release of monthly approved cash plans and end-of-year budget outturn; ii) strengthening budget data collection and analyses to monitor budget management closely, iii) identifying and promoting at national and regional levels best practices. This DLI will provide the incentive for MOFP to honor the allocation approved for agricultural agencies (MoA, NIC, TARI, etc.).

Locally sustainable financing contribution for District Agriculture Development Plans (DADPs) implementation : The ESSA assessed that enhancing public financial sustainability for the agriculture sector relied not only on improvements at the central level but also at the local level. Local Government Authorities (LGAs) raise revenues by taxing the agriculture sector, which they mostly reinvest in other sectors. Budget guidelines from the Ministry of Finance and Planning (MoFP) recommend that at least 20% of LGA’s revenues be reinvested in the agriculture sector through the District Agriculture Development Plans. However, the ESSA notes that that most LGAs do not adhere to the guidance. Yet the MoA team indicated in LGAs where the guidelines have been applied. There are indications of significant

improvements in the agriculture section engagement with more robust, more substantial private sector investment, more dynamic markets, and improved service delivery. A DLI designed to incentivize the expanded application of the MoFP guidelines. The ESSA team agreed that finalizing this DLI would require further discussion with MoFP, PO-RALG, in charge of LGAs coordination. These discussions will be held and concluded by December 15th, 2022.

They are repurposing agricultural public support to respond to shocks. Since phasing out fertilizer subsidies in 2015, the agriculture budget has been low and volatile but relatively well-targeted on the good general provision. The reintroduction of fertilizer subsidies in 2022 is considered a temporary measure to cushion farmers from increasing prices and safeguard food production. The ESSA team agreed that repurposing public support mechanisms would buffer farmers against economic shocks while reducing the fiscal burden on the government in the medium term. The ESSA proposed a DLI (Table 2) that would include (i) the phasing out of existing fertilizer subsidies within three years while (ii) developing and piloting alternatives (for example, e-vouchers, cash transfers, Input Development Fund (IDF)) to respond to shocks (including economic and climatic). This DLI requires further discussion with the MoFP. These discussions will be held and concluded by December 15th, 2022

The successful implementation of these DLI can improve food security and resilience of farming systems by making national and local government services more accessible, timely, predictable, and relevant. For instance, enhancing the management of budgets allows extension workers to plan and execute farmer field schools and demonstration trials, have access to operation and maintenance of motorcycles for reaching farmers. Improved monitoring will provide greater accountability and management of public funds. The lessons generated through the delivery of these DLIs will be highly relevant to building resilience regionally and across nations. The GoT could share these lessons through CAADP and REC-driven processes.

Table 2: Proposed Disbursement-linked Indicators

Results Area (RA)	Disbursement-Linked Indicator (DLI)	Year 1	Year 2	Year 3	Year 4	Year 5	DLI amount (US\$ million)
Strengthening Delivery Systems in research, extension and seed	Better delivery of services along the research-seeds-extension- farmer nexus						
	DLI 1. Sustainable financing for the development and dissemination of climate-resilient technologies in agriculture	TARI research strategic11 plan reviewed and approved, including medium-term budget 'TARI's budget outturn in 2023/24 is 60%	'TARI's budget received meets the budget committed in the strategic plan (Scalable)	'TARI's budget received meets the budget committed in the strategic plan (Scalable)	'TARI's budget received meets the budget committed in the strategic plan (Scalable)	'TARI's budget received meets the budget committed in the strategic plan (Scalable)	
	DLI 2 Extension outreach strengthened, including through ICT solutions for promoting climate smart practices	E-agriculture guidelines for deploying ICT solutions for agricultural development approved.	Integration of e-agriculture functionalities in one platform: Technical Integration of farmer registry with m-kilimo12	Delivery outreach of e-agriculture solutions # of farmers receiving early warning	Delivery outreach and quality of e-agriculture solutions Mid-term review of guideline implementation 13	Extension coverage Total # of Farmer reached with e-extension services	

¹¹ Priority given to CSA and gender technologies and address regionality agenda

¹² demonstrating deepened availability and accessibility of key e-service functions, i.e., digital recognition of pests, early warning on pest, diseases, weather information, market prices and marketing opportunities, targeting of public support mechanisms (e.g.,e-voucher)

¹³ Includes assessment of quality and relevance (incl % of Farmer satisfied with hybrid /e-extension services received)

			-> # of new service functions rolled out Training: xxx of extension staff trained on (i) climate-smart practices and (ii) e-agric solutions	messages about (i) pests & diseases, (ii) weather, (iii) and market Training: xxxx of extension staff trained on (i) climate-smart practices and (ii) e-agric solutions	Training: xxx of extension staff trained on (i) climate-smart practices and (ii) e-agric solutions		
	DLI 3 Improved functional linkages in the Seed value chain TBD – still pending seed expert input	e.g., - Improved quality control mechanism established, # of inspectors increased	Amount of certified seeds production by ASA (tons)	Amount of certified seeds production by ASA (tons)	Amount of certified seeds production by ASA (tons)	Amount of certified seeds production by ASA (tons)	
More resilient agricultural infrastructure	Improved management of irrigation schemes and warehouse facilities						
	DLI 4. Performance-based Operations, Management and Maintenance (OMM) contracts/constitut	# of performance-based OMM contracts/constitutions signed ¹⁴	# of performance-based OMM contracts/constitutions signed	Area (ha) operated under performance-based OMM contracts/constitutions	Area (ha) operated under performance-based OMM contracts/constitutions	Area (ha) operated under performance-based OMM contracts/constitutions	

¹⁴ The Performance Based Constitutions will include (i) operation plan (clarifying roles and responsibilities for NIC/LGA/IO, repairs/rehabs, IFS arrangements), (ii) IO by law (iii) Agreement statement (to be signed by NIC&IO and witnessed by LGA).

	ions introduced and implemented						
	DLI 5. Efficient management of public warehouse facilities	Warehouse utilization guidelines specifying improved management model ¹⁵	# of MOUs/agreements signed under the improved management model	Roll-out improved management model # of warehouses leased by the private sector or operated by cooperatives	Roll-out improved management model # of warehouses leased by the private sector or served by cooperatives	Utilization of public warehouses (in tons)	
Strengthening fiscal performance to enable delivery of the priority investment areas	Improved fiscal performance of the agricultural public sector						
	DLI 6. Improved agricultural budget monitoring and predictability from the national to the local level	Agric. Budget outturn ¹⁶ : Annual % change in budget outturn (Target xx%)	Agric. Budget outturn: Annual % change in budget outturn (Target xx%)	Agric. Budget outturn: Annual % change in budget outturn (Target xx%)	Agric. Budget outturn: Annual % change in budget outturn (Target xx%)	Agric. Budget outturn: Annual % change in budget outturn (Target xx%)	

¹⁵ Improved management model will clarify (i) warehouse ownership, (ii) operational model (private sector/cooperative/service provider) including leasing arrangement with private sector with processing units (ii) Signing of MOU between MoA/LGA/Operator/Owner) with clear roles and responsibilities. Existing draft guideline to be improved and used/rolled out.

¹⁶ Sum of votes 5, 43 and LGA votes

	DLI 7. Locally sustainable contribution of financing for DADPs implementation	Stocktaking Review: Identification of LGAs that reinvest at least 20% of their revenue into financing District Agricultural Development Plans (DADP) and/ or MoA proposes reform to Local Financing Act to establish a 20% provision for agriculture	LGA financing for DADP implementation: # of LGAs that reinvest at least 20% of their revenue into financing District Agricultural Development Plans (DADP) implementation	LGA financing for DADPs implementation: # of LGAs that reinvest at least 20% of their revenue into financing District Agricultural Development Plans (DADP) implementation	LGA financing for DADPs implementation: # of LGAs that reinvest at least 20% of their revenue into financing District Agricultural Development Plans (DADP) implementation	LGA financing for DADPs implementation: # of LGAs that reinvest at least 20% of their revenue into financing District Agricultural Development Plans (DADP) implementation	
	DLI 8.1. Repurposing agricultural public support to respond to shocks	Phasing out Fertilizer Subsidy Program: Budget Reduction for Fertilizer Program (%)	Phasing out Fertilizer Subsidy Program: Budget Reduction for Fertilizer Program (%)	Phasing out Fertilizer Subsidy Program: Budget Reduction for Fertilizer Program (%)	-	-	
	DLI 8.2 Developing alternative public support to respond to shocks	Evaluation of alternative policies for shock responses prepared, including the plan for piloting the most promising		Alternative support delivery system for crisis response piloted ¹⁷ :	Alternative support delivery system for crisis response piloted:	Report: Lessons learnt/ Policy toolbox to answer to shocks recommended to ASDP III	

¹⁷ e.g. e-voucher,

		options commissioned by the Ministry of Agriculture		, The pilot, launched in x # district using the farmer registry	, The pilot, launched in x # district using farmer		
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2.2. Geographic Area of Intervention and Target Groups

The proposed TFSRP is expected to be implemented in all 184 LGAs of Tanzania's mainland in all 21 regions. The eligibility of the 184 LGAs will depend on the proposed activities for each component which will be used to determine where the activities should be implemented based on the LGA's geographical conditions, including weather, types of crops grown, and the availability of potential areas for irrigation, among other factors.

2.3. Project Implementation Arrangements and Responsible Entities

The implementation of TFSRP is guided by the Government institutional arrangements organized for sector dialogue, strategic leadership, and program implementation at national and LGA levels. Two sector-lead ministries, the Ministry of Agriculture (MoA) in the Mainland and the Ministry of Agriculture, Irrigation, Natural Resources and Livestock (MAINL) in Zanzibar, will jointly lead the implementation and coordination of the Program at all levels.

Joint Steering Committee: The Program will have a Joint Steering Committee (JSC) bringing together the Permanent Secretaries of MoA and President's Office-Regional Administration and Local Government (PO-RALG) in Mainland, and MAINL and President's Office (Regional Administration) for Zanzibar. The JSC will provide oversight for Program implementation. It will meet quarterly, and its leadership will alternate between Mainland and Zanzibar. When the Joint Steering Committee (JSC) is held in the Mainland, the Permanent Secretary of MoA will Chair the JSC, and the Principle Secretary of MAINL Zanzibar will be Co-chaired. When held in Zanzibar, the PS of MAINL will chair the JSC, and PS MoA will Co-chair

The mandate of JSC will be to review and assess the progress and performance of TFSRP and approve fund releases, specifically: (i) approve the annual PforR work plan and budget for the following year, (ii) approve bi-annual fund release requests, (iii) approve annual reports, (iv) review progress in achieving Disbursement Linked Indicators (DLIs), (v) interrogate and endorse reports substantiating and validating the performance assessment including the Independent Verification Reports, (vi) approve annual work plan and budgets for the PforR technical assistance program, (vi) approve Program Operation Manual (POM) and its amendments. The JSC will also review lessons derived from Program implementation and advise on any significant changes in budgets or implementation plans.

Members of JSC will include the Permanent Secretary of the Ministry of Finance and Planning (PS MoFP), the Permanent Secretary of the President's Office in charge of Regional Administration and Local Governments (PS PO-RALG), the Permanent Secretary of the Ministry of Investment, Industry and Trade (PS MIIT), and the Permanent Secretary of the Prime Minister's Office. The Director of Policy and Planning of the MoA will be the Secretary of the JSC, and the Director of Policy and Planning of PO-RALG will be Co-Secretary. From Zanzibar, the JSC member will include members congruent with the planning systems for the agricultural sector.

National Project Implementation Team (PIT) will be established in MoA Mainland and led by its Director of Policy and Planning. They were also assisted by senior management from Tanzania Agricultural Research Institute (TARI), Tanzania Agricultural Seed Agency (ASA), the Tanzania Official Seed Certification Institute (TOSCI), the National Irrigation Commission (NIRC) and PO-

RALG, and comprised of specialists in financial management (accountant), procurement, safeguards (one environmental and one social with Gender-Based Violence knowledge), monitoring and evaluation, inclusion and diversity. The PIT will also comprise one technical staff from the Directorate of National Food Security (DNFS), one from the Directorate of Management Information Systems (DMIS) responsible for ICT and two technical teams from the Directorate of Crop Development (DCD) and Directorate of Training and Research (DTR) responsible for extension and training. The PIT will be responsible for managing and coordinating the TFSRP PforR.

The PIT will convene DLI working groups from relevant departments/institutions of MoA: TARI (RA1:DLI1), DCD/DRT (RA1:DLI2 and RA3:DLI8), ASA/TOSCI (RA1:DLI3), NIRC (RA2:DLI4), DNFS (RA2:DLI5), PO-RALG (RA3:DLI7), and Local Government Authorities to ensure program planning and implementation as needed. Day-to-day responsibilities for implementing various activities of the project will remain with the relevant departments of the MoA in Mainland (DPP, DCD, DMI, DNFS, DRT, TARI, ASA, TOSCI and NIRC) and Zanzibar, respective departments will be responsible for implementing components falling under their docket.

In Zanzibar, the PIT will be established within the MAINL and led by the Director of Policy, Planning and Research (DPPR). The director will be assisted by focal persons from the Irrigation Department, ZARI, Seed Unit, Department of Agriculture and specialists in financial management (one accountant), procurement, safeguards (one environmental and one social with Gender-Based Violence knowledge), monitoring and evaluation, inclusion and diversity, and ICT.

The Directors of Policy Planning in Mainland and Zanzibar will ensure the coordinated delivery of financial and technical progress reports for both sides. The PIT will also facilitate the JSC meetings and work closely with development partners and technical assistance consultants.

At the local level, project implementation will be guided by Local Government Authorities (LGAs) working through the District Agricultural Livestock and Fisheries Offices (DALFO). Each district will be responsible for procurement, contract administration, supervision of project activities, and reporting on progress for activities under its jurisdiction, as required in District Development Plans (DADP). At the Irrigation Scheme level, irrigator organizations (IOs) will foroversee rehabilitation works and mobilization of community resources, including labour, under the supervision of the District Irrigation Officer.

2.4. Project implementing entities

From the implementation arrangement, the project will be implemented by the Ministry of Agriculture (MoA) as a central implementing entity. Other implementing agencies will be the institutions operating under MoA, namely Tanzania Agriculture Research Institute (TARI), National Irrigation Commission (NIRC) and Agriculture Seed Agency (ASA). MoA and its institutions will collaborate with LGAs and other institutions where possible based on the type of proposed activities for each component of the project.

CHAPTER THREE: SCOPE AND METHODOLOGY

2.5. Objectives and scope of the Environmental and Social System Assessment

The scope of ESSA focused on (i) identify the potential environmental and social impacts/risks applicable to the project interventions; (ii) review the country's policy and legal frameworks related to the management of environmental and social impacts of the project interventions; (iii) assess the institutional capacity for environmental and social impact management within the project system; (iv) prescribe institutional arrangements for the identification, planning, design, preparation and implementation of the proposed activities under the project to adequately address environmental and social sustainability issues; (v) specify appropriate roles and responsibilities and outline the necessary project management and reporting procedures for managing and monitoring environmental and social concerns related to the proposed project; (vi) assess the consistency of the client's systems with six core principles and attributes defined in the Bank's Policy – Program for Results Financing, to include assessment of monitoring and evaluation systems for environmental and social issues; and (vii) describe actions to fill the gaps identified that was an input into the Program Action Plan to strengthen the project's performance concerning the core principles of the PforR instrument. The ESSA was conducted to ensure consistency with the six Core Principles outlined in the World Bank's Operational Policy Directives as revised in 2022 - Program-for-Results Financing. Thus, it presents the findings of the ESSA exercise and makes recommendations.

2.6. Environmental and Social System Assessment Core Principles

The ESSA was conducted to ensure consistency with the six “core principles” outlined in paragraph 8 of the World Bank's policy on how projects under the Program-for-Results Financing should effectively manage Program risks and promote sustainable development. The six core principles are:

Core Principle 1: Program E&S management systems are designed to (a) promote E&S Sustainability in the Program design; (b) avoid, minimize, or mitigate impacts; and (c) promote informed decision-making related to a Program's E&S effects.

Core Principle 2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical, and cultural resources resulting from the Program. Program activities involving significant conversion or degradation of critical natural habitats or critical physical, cultural heritage are not eligible for PforR financing.

Core Principle 3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Core Principle 4: Program E&S systems manage the land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving or restoring their livelihoods and living standards.

Core Principle 5: Program E&S systems give due consideration to the cultural appropriateness or equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities and the needs or concerns of vulnerable groups.

Core Principle 6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

2.7. Data Collection Approaches

This ESSA focuses on highlighting the capacity of the MoA and other implementing institutions for the proposed Tanzania Food System Resilient Program (TFSRP) to meet project environmental and social requirements. The ESSA report was prepared following the applicable WB principles for PforR and the country's environmental and social policies, laws and guidelines. In order to prepare the ESSA, the following activities were undertaken:

- a) Review of the relevant national laws, regulatory frameworks, and guidelines.
- b) Assessment of the potential environmental and social risks of the proposed TFSRP.
- c) Review and assess the institutional roles and responsibilities for environmental and social management and analysis of current capacity and performance to carry out those roles and responsibilities, consistent with the Bank Policy and Directive principles. The primary focus of these activities is MoA, TARI, ASA, NIRC, and participating LGAs.
- d) Identification and analysis of potential environmental and social impacts that the implementation processes of the proposed activities will likely trigger and generate within and around the TFSRP program sites.
- e) Consideration of public participation included Government Institutions; Private agricultural sector; Donors, Community representatives and CSOs working with Vulnerable Groups, NGOs working with people living with disabilities; Regulatory authorities and Ministries.
- f) Review of existing literature on agriculture. PforR program such as the draft PAD, concept stage Environmental and Social Review System (ESRS), institutional arrangement for the implementation of Agric. PforR program, environmental and social aspects of agriculture projects and existing GRM system, the guidance note for the performance of the Technical Assistance (TA) for the proposed Investment Project Financing (IPF). It also covered the review of the draft PAD and the implementation approach and process for the proposed activities and development initiatives within the TFSRP.

- g) Undertake field visits, and conduct meetings and discussions with Project implementing institutions (TARI, ASA, NIRC, and LGAs). The world bank E&S team conducted site visits to the selected project areas which have been implementing projects by MoA and its institutions, namely TARI, ASA and NIRC. Site visits were carried out in October 2022. It enabled the identification of the past projects' environmental and social settings and issues to be covered in the proposed actions for TFSRP, such as existing physical conditions and social settings of the areas.
- h) In addition, the site visits allowed consultations with district officers from MoA and the LGAs sector experts who form part of the MoA district team, local leaders and representatives. The field visit was conducted strategically to understand vulnerable groups such as women, children and the disabled in districts visited who have faced various challenges while implementing other government agricultural projects, including those financed by the WB. Apart from the MoA offices in Dodoma and its agencies (ie. TARI in Makutupora, Dodoma region, Selian in Arusha region and Uyole in Mbeya region, ASA in Morogoro and NIRC in Dodoma), the field visits also covered selected Local Government Authorities namely Meru in Arusha region, Hanang in Manyara region, Mkalama in Singida region, Kilosa in Morogoro region, Kilolo in Iringa region and Mbalali in Mbeya region.
- i) Programing environmental and social inputs to the Program Action Plan was necessary for recommending appropriate measures for capacity building to assist the implementing entities to address environmental and social impacts during the implementation, operation and maintenance of the TFSRP project activities.

2.8. The system analysis.

The analysis was conducted using the Strengths-Weaknesses-Opportunities-and- Threats (SWOT) approach. The “weaknesses,” or gaps with the Bank Policy and Directive, are considered on two levels: (i) the system as written in laws, regulations, procedures, and applied in practice; and (ii) the capacity of Program institutions to effectively implement the system. The analysis focuses on the strengths, gaps, potential actions, and risks associated with the systems currently in use in the agricultural sector to address the environmental and social effects commensurate with the nature, scale and scope of operations. This is structured to examine arrangements for managing the environmental and social consequences (i.e., benefits, impacts and risks) of the Program.

The analysis also examines how the system, as written in policies, laws, and regulations,, is used at the national and local levels. In addition, the analysis examines the efficacy and efficiency of institutional capacity to implement the system as demonstrated by performance thus far. The study reviewed the questions of whether the current system: (i) mitigates adverse impacts; (ii) provides transparency and accountability; and (iii) performs effectively in identifying and addressing environmental and social risks. The overarching objectives are to ensure that the risks and impacts of the TFSRP activities are identified and mitigated and to strengthen the system and build capacity to deliver the Program sustainably. This ESSA also proposes measures to enhance the system.

CHAPTER FOUR: THE ENVIRONMENTAL AND SOCIAL POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK RELEVANT TO THE AGRICULTURE PROGRAM FOR THE RESULT

2.9. Introduction

The existing policies, laws, regulations and the institutional framework within the country responsible for managing environmental and social issues have been analyzed. The umbrella provisions for managing environmental and social problems are stipulated in the country's constitution, which states that a clean and safe environment is the constitutional right of every Tanzanian citizen. Regulation on environmental management in the country is mainly vested in one public institution, the National Environment Management Council (NEMC) and the Division of Environment (DoE) in the office of the Vice President.

National Environmental Management Council (NEMC) undertakes enforcement, compliance, and review of environmental impact statements. In contrast, the DoE provides the policy formulations and technical back-up and executes the overall mandate for ecological management in the country. There are many policies and legislation on environmental management in Tanzania. The relevant ones to this project are briefly discussed below.

Environmental awareness in the country has significantly increased in recent years. The government has been developing and reviewing national policies to address environmental management in various sectors. Among others, se policies aim to regulate the development undertaken within respective sectors so that they are not undertaken at the expense of the environment.

A legal and regulatory framework is required to provide broad guidelines on areas of focus in undertaking environmental management activities in the proposed PforR program and develop mitigation plans. The framework is essential for delivering a mandate, allocating specific responsibility and accountability to key fundamental factors and stakeholders, and prescribes prescribing and enforces enforcing specific operating environmental procedures and standards to be undertaken during the agriculture PforR program. Finally an institutional framework is required to develop policies, guidelines and plans; to ensure compliance with laws and regulations; and to monitor, review and adapt policies, plans and rules in the light of experience and as a platform for monitoring compliance.

Tanzania is one of the countries in Africa with rich policy and legal framework addressing various challenges facing community livelihoods. In implementing the proposed PforR program assessment of the environment, social and agriculture policy, legal and institutional framework has indicated that the country is well equipped with the necessary policies and laws in the respective areas for the implementation of the PforR program. There are several environmental, social and agriculture agricultural policies, laws and guidelines which will be key to ensuring that the PDO is achieved. This chapter addresses policies, laws, regulations, strategies and institutional arrangements that are already in place and relevant for undertaking the proposed activities under the PforR program.

2.10. Policy Framework

Clarifying relevant policies is essential in setting boundaries for the environmental assessment in line with national interests and prospects of the proposed PforR program. The following are applicable sectoral and cross-sectoral policies, which show the preparedness of the GoT to implement the proposed activities under PforR program to improve agriculture in Tanzania. The MoA program and its institutions responsible for implementing the proposed PforR program, namely ASA, TARI and NIRC, the PORALG and other stakeholders, will need to observe these policies in the course of designing and implementing the proposed project activities. The policies that address environmental management as far as this project is concerned and which form the cornerstone of the present study include among other things.

2.10.1. Agriculture Policies

National Agriculture Policy 2013

The National Agricultural Policy takes cognizance of the growing youth unemployment and the importance of addressing the shrinking agricultural labour force by catalysing youth participation in agriculture, agro-processing, and trade. Of immense value is the fact that the policy eyes the agricultural sector as one of the critical pathways for achieving the set national aspiration based on the fact that it has forward and backward linkages with industrialization as the leading supplier of industrial raw materials. The envisaged agricultural sector transformation in Tanzania is enshrined in the National Livestock Development Policy of 2006 and the National Fisheries Development Policy of 2015. The preparation of the proposed PforR program is also in line with the Agriculture Policy to improve agricultural productivity in the country. This policy provides guidance on where the country is headed with regard to guidance on where it is headed regarding improving food security and commercial agriculture with the overall focus on improving the livelihood of its citizens.

2.10.2. Environmental Policies

The National Environmental Policy, 2021

The policy serves as a national framework for planning and sustainable management of the environment in a coordinated, holistic and adaptive approach, taking into consideration the prevailing and emerging environmental challenges as well as national and international development issues. It is worth noting that effective implementation of this policy requires mainstreaming of environmental issues at all levels and sectors, including agriculture, strengthening institutional governance and public participation in the environmental management regime. The long-term vision of this policy is geared towards realising ecological integrity, assurance of food security, poverty alleviation and increased contribution of the environmental resources to the national economy.

The National Environmental Policy of 2021 replaces the NEP of 1997, whose objective was to implement a range of strategic interventions to address the identified priority areas of environmental concerns by involving Government sectors and other stakeholders. This approach was preferred on the understanding that all stakeholders would take priority actions to address the ecological challenges because the environment is a cross-cutting issue and, as such environmental

challenges affect all sectors. To implement the Policy, the Government enacted the Environmental Management Act (2004) to provide a legal and institutional framework for sustainable management of the environment. In addition, the Government, in collaboration with other stakeholders, implemented several strategies, programs, plans and projects through which the policy objectives were implemented. The policy shows how the government has enough tools to ensure proper management of environmental and social issues during the implementation of the proposed activities under the PforR program.

The specific objectives of the National Environmental Policy of 2021 which are also embedded in the proposed PforR program are:

i) To strengthen coordination of environmental management in sectors at all levels, including agriculture; ii) To enhance environmentally sound management of land resources for socio-economic development; iii) To promote environmental management of water sources; iv) To strengthen conservation of wildlife habitats and biodiversity; v) To enhance conservation of forest ecosystems for sustainable provision of environmental goods and services; vi) To manage pollution for the safe and healthy environment; vii) To strengthen the national capacity for addressing climate change impacts; viii) To enhance conservation of aquatic systems for the sustained natural ecosystem; ix) To ensure safety at all levels of application of modern biotechnology; x) To promote gender consideration in environmental management; xi) To promote good governance in environmental management at all levels; and xii) To ensure predictable, accessible, adequate and sustainable financial resources for environmental management.

The objectives of the NEP of 2021 direct the preparation of the proposed activities under PforR to ensure that they cause no harm to the environment and people. The goals also show that if the NEP 2021 are well executed, the proposed PforR activities will move without harming the environment and people. The discussion with the E&S focal persons at MoA indicated how committed the government is to ensuring that the PforR program is implemented in a manner consistent with the provisions of the NEP.

2.10.3. Social Policies

The National HIV/AIDS Policy 2001

The policy is intended to raise the level of HIV/AIDS as a significant development crisis that affects all sectors, including construction agriculture. Significant sections of the policy include Chapter 4 deals with the rights of people living with HIV/AIDS, and Chapter 5 deals with the prevention of HIV/AIDS. It recognizes HIV/AIDS as an impediment to development in all sectors, regarding social and economic development, with severe and direct implications on social services and welfare. The mitigation of HIV/AIDS within the project period has been developed, taking cognisance of this policy. The policy is also essential for implementing the PforR because in most cases agriculture activities bring together people of different behaviours and can lead to the spread of HIV/AIDS. Preparing the proposed activities under the agriculture PforR program will ensure that the HIV/AIDS policy is vital to the provision of services by the MoA.

National Gender Policy (2002)

The key objective of this policy is to provide guidelines that will ensure that gender-sensitive plans and strategies are developed in all sectors and institutions. While the policy aims at establishing strategies to eradicate poverty, it emphasises 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. The proposed activities under the agriculture PforR program will respond to the policy provisions by ensuring equal opportunities in employment during implementation and operation phases of the facilities and other opportunities which the program will put in place. Additionally, the issue of GBV should be highlighted at every opportunity during all phases of the proposed agriculture PforR program implementation and reflected in the planning, designing and implementation of project components. GBV will be among key issues to consider while designing the agriculture PforR program.

The National Water Policy (URT, 2002)

This policy approaches water as an essential element for human health and the proper functioning of ecosystems. The policy promotes the conservation of water resources in river basins and catchments and in areas where agriculture is carried on. The main objective of this revised policy is to develop a comprehensive framework for sustainable development and management of the Nation's water resources, in which an adequate legal and institutional framework for its implementation will be put in place. The policy ensures that beneficiaries participate fully in the planning, construction, operation, maintenance, and management of community-based domestic water supply schemes. This policy seeks to address cross-sectoral interests in water, watershed management and integrated and participatory approaches to water resources planning, development and management. Also, the policy lays a foundation for sustainable development and management of water resources in the changing roles of the Government from service provider to that coordination, policy and guidelines formulation, and regulation. The policy will also guide implementing the proposed activities under the agriculture PforR program.

2.11. Legal Framework

2.11.1. Agriculture

Seeds Act, No. 18 of 2003

The Act consists of 33 sections divided into five Parts, i.e. Preliminary provisions (I); Establishment of the National Seeds Committee (II); Importation, exportation, and sales of seeds (III); Registration of seeds dealers; (IV) Miscellaneous provisions (V).

The National Seeds Committee is established under section 3 as a technical committee. The National Seeds Committee shall be a Stakeholders' Forum responsible for advising the Government on all matters relating to the development of the Tanzania seed industry (sect. 5). Section 8 concerns the appointment of the Chief Seed Quality Controller and inspectors and analysts for purposes of this Act. While holding the office of Seed Quality Controller, Inspector, or Analyst, no person shall engage in any business connected with the production, processing, sale or importation of seed. However, the Chief Seed Quality Controller may permit a specified private producer, processor, seller or distributor to employ an analyst appointed under section 8 to effect the internal seed quality control.

The Tanzania Official Seeds Certification Institute is established as a corporate body under section 10. Section 10 concerns the powers of delegation of the Minister, whereas section 12 defines the powers of the Minister to issue Orders. Any person who intends to deal with importation, exportation, production, processing, distribution, sale or advertisement for sale of seeds shall obtain a permit from the Director (as defined by section 2). Before granting the permit, the Director shall ensure that the standards and conditions for importation, production, processing, distribution sale or advertisement for the sale of seeds, as provided for in the Plant Protection Act and in this Act, have been complied with. The Minister shall, for this Act, prescribe the plant varieties and standards of the seeds for importation, exportation, production, processing and distribution (sect. 13). Section 14 defines other requirements regarding grades and marking of seeds. Other provisions of this Act deal with registration of sources dealers by the Director, powers of inspectors and sampling and prescribing offences.

Seeds Regulations, 2007 (G.N. No. 37 of 2007)

These Regulations implement provisions of the Seed Act, 2003, in respect of the registration of varieties of seed and seed dealers and makes provision concerning seed classification and standardization for plant species, the labelling, packaging, marketing and use of seed and seed sampling and testing. They establish a National Variety Release Committee (NVRC) and a National Performance Trial Technical Committee (NPT-TC) within the National Seed Committee. An application for registration as a seed dealer shall be submitted to the Director in the form set out in the Fifth Schedule to these Regulations. No variety shall be released in Tanzania unless it has passed Distinctness, Uniformity and Stability (DUS) test, evaluated through the National Performance Trial and recommended for release by the National Seed Committee. The National Variety Release Committee shall be responsible for reviewing recommendations from the National Performance Trial Technical Committee and recommend for variety release to the National Seed Committee. The Director shall register and issue a Certificate of Registration to the Applicant once his or her variety is approved by Minister according to the Act. The Seed classes and standards for plant species for these Regulations shall be as set out in the tables of the class standard set out in the First Schedule to these Regulations. No person shall mark or label a package of seed with a

variety name unless that seed is of the variety to which the variety name refers. Every package of seed marked with a class name shall have on its label a description that specifies the seed standard as provided for in these Regulations. Specific labelling requirements for seed are set out in the First Schedule of these Regulations. No seed shall be certified unless it has been produced, inspected, sampled, tested, and complied with the standards set out in the First Schedule to these Regulations. Every seed grower or his agent shall, within thirty days after a seed crop is planted, apply for field inspection. The seed grower shall ensure that the seed quality is maintained during harvesting and transportation to the processing plants. A registered seed processor shall process only seeds from the approved fields or seeds permitted to be imported into Tanzania. The Regulations also provide some rules concerning the importation and exportation of seeds. The seeds set out in the Eighth Schedule to these Regulations shall be deemed as prohibited, restricted and noxious weed seeds for these Regulations.

National Irrigation Act No. 5 of 2013

An Act to establish the National Irrigation Commission; to provide for the development, operation and maintenance of irrigation and drainage system; to provide for effective implementation of the National Irrigation Policy, the National Irrigation Development Strategy and to provide for other related matters. This Act makes provisions concerning the management, use and maintenance of irrigation systems. It establishes the National Irrigation Commission and defines its functions and powers. The Commission is designated as a corporate body and shall be an independent department of the Government under the Ministry responsible for irrigation. The Commission shall be responsible for coordination, promotional and regulatory functions in the development of the irrigation sector. It shall, among other things, advise the government in the implementation and review of the National Irrigation Policy and other policies and plans and invest in irrigation and drainage systems. For the betterment of carrying out the provisions of this Act, the Minister responsible for local government may, in consultation with the Minister, establish an Irrigation Department in a District Authority on the advice of the Commission. A District Irrigation Department shall assist the Commission in the execution of its functions.

The Minister may declare irrigation areas for this Act. Land may be acquired for purposes of irrigation development. Where a declaration affects existing land rights, the holder of affected land shall be entitled to be a shareholder or compensated in accordance with relevant Land Law or as may be agreed upon. The Commission may, upon the recommendation of the Director General, classify all land within an irrigation area for its suitability for specific crops and irrigation methods. The Act further makes provisions for irrigation works and irrigation schemes and the Irrigation Development Fund, which is established under this Act. The Commission shall ensure that all irrigation development be integrated with other natural resources development and management activities such as catchment management to protect the environment. the Commission shall undertake various measures and carry out control to protect the environment.

Fertilizers Act No. 9 of 2009

An Act to make provisions for regulation of manufacturing, importation, exportation, sale and utilization of agricultural fertilizers to repeal the Fertilizers and Animal Food Stuff Act, Cap. 378 and to provide for other related matters. This Act establishes the Tanzania Fertilizer Regulatory Authority as a corporate body. It provides rules relative to the manufacturing, importation and use

of and trade in fertilizers, or fertilizer supplements, e.g. growth stimulators and regulators and similar products. It also provides for fertilizer quality control.

The Authority shall be the regulatory body in the fertilizer industry and, among other things, register all fertilizers and fertilizer supplement dealers and their premises.; The Authority shall also license fertilizer dealers; issue permits for the importation and exportation of fertilizer and fertilizers supplements; and implement policies, strategies and programs relating to fertilizer industry development. The Act requires fertilizer dealers to ensure that fertilizer or fertilizer supplements are packed and labelled in the manner prescribed in the Regulations and prohibits the sale or distribution of adulterated or substandard fertilizer or fertilizer supplements. It also restricts the manufacture and use of fertilizer substances made of (diseased) animals.

Fertilizers Regulations, 2011 (GN. No. 350 of 2011)

These Regulations implement provisions of the Fertilizer Act, 2009 and provide in particular for - the registration of fertilizer and fertilizer supplements and sterilizing plants; the registration and licensing of fertilizer dealers; sampling and testing of fertilizer and fertilizer supplements; packaging and labelling of fertilizers; storage of fertilizers; importation and exportation of fertilizer and fertilizer supplements; handling and transportation of fertilizer and fertilizer supplements. Animal and vegetable manures sold in their natural condition are exempted from these Regulations. Every fertilizer or fertilizer supplement sold or imported under a name specified in the Twelfth and Thirteenth Schedule shall meet the requirements of the standard of that fertilizer or fertilizer supplement. The Executive Director of the Tanzania Fertilizer Regulatory Authority shall take decisions on applications made under these Regulations. Any person who intends to set up a sterilizing plant or manufacturing fertilizer or fertilizer supplement from an animal carcass shall obtain an Environmental Impact Assessment Certificate from the relevant authority.

2.11.2. Environment

The Environmental Management Act (2004)

The Environmental Management Act (EMA) provides the legal and institutional framework for managing the environment and implementing the nation's Environment Policy. For effective implementation of the national environmental policy objectives, the Act has identified and outlined specific roles, responsibilities and functions of various key players and provided a comprehensive administrative and institutional arrangement comprised of:

- National Advisory Committee
- Minister Responsible for Environment
- Director of Environment
- National Environmental Management Council (NEMC)
- Sector Ministries
- Regional Secretariat
- Local Government Authorities (City, Municipal, District and Town Councils)

The National Environment Management Council (NEMC) was established under the provisions of the National Environmental Management Act of 1983. NEMC is charged with enforcing compliance, reviewing and monitoring enforcing compliance, reviewing and monitoring environmental reports, and facilitating public participation in environmental decision-making. The Sector Ministries are supposed to establish environmental management sections to liaise with the Ministry responsible for environmental matters. In particular, the Environmental Section of each Ministry is responsible for ensuring that environmental concerns are integrated into the Ministries' developmental planning and project implementation to protect the environment. Each Ministry is required to appoint a Sector Environmental Coordinator for all activities and performance of functions related to the environment for the Ministry. In addition, there is (at the regional level) a Regional Environmental Management Expert (REME) who advises Local Authorities on matters relating to the Act.

Each city, municipality, district or town council has an appointed Environmental Management Officer (EMO) and an Environmental Management Committee (EMC). The EMOs report to the Environment Director on implementing the Act within their area of jurisdiction. The Act is relevant to the agriculture PforR program because it will have some impacts on the environment. Thus, environmental management and monitoring of the effects arising from the program, especially the generation of agricultural waste, would require adherence to the environmental provisions of this Act.

Institutionally the act provides for the continuation of the legally mandated National Environmental Management Council (NEMC) and creates the National Environmental Advisory Committee. The Act outlines projects that require a full EIA or those that may be subjected to full EIA, after the screening by NEMC. Under this Act, some of the construction activities of the irrigation schemes and post-harvest facilities under the proposed agriculture PforR program will call for full EIAs. The Act also defines institutional responsibilities for environmental management. In that regard, NEMC is charged with the enforcement, compliance, review, and monitoring of environmental impact assessment and facilitating public participation in

environmental decision-making and supervision of all matters relating to the environment assigned to the Council. Amongst its functions, NEMC has the roles to (1) carry out the screening of projects for which environmental assessment or monitoring must be conducted, (2) review EIAs and recommends them (or not) for approval.

It is noted that under the Act, NEMC may “delegate to any sector Ministry, environmental body, employee or agent of the Council, the exercise of any of the powers or the performance of any of the functions or duties of the Council under the Act” (EMA para 26). All relevant Ministries, including the Ministry of Agriculture (MoA), are to establish environmental management sections which liaise with NEMC on environmental matters. The Division of Environment (DoE) is responsible for policy and legal formulation and implementation, development and implementation of strategic environmental assessments. Within each ministry, it is the Environmental Unit/Section’s responsibility to ensure that environmental concerns are integrated into Ministry's developmental planning and implementation in a way that protects the environment. The Environmental Management Units/Sections of sector ministries oversee the preparation of EIAs required for investment in their sectors (EMA para 31 (k)). Each sector Ministry is required to appoint a Sector Environment Coordinator to coordinate and report on all activities and performance of functions relating to the environment and the Ministry. The MoA has a unit responsible for managing environmental issues, which is also adequately staffed. And at the Regional and district level, there are experts to advise local authorities on matters relating to the Act. These officers at the regional and district level will be key during the implementation of the proposed agriculture PforR program.

NEMC is responsible for the review of projects and deciding on whether they need to undertake EIAs and prepare Environmental Impact Statements (EISs). The study will also apply to all activities implemented under the agriculture PforR program.

The Water Resources Management Act No. 11 of 2009

This Act repeals the Water Utilisation Act of 1974 and its subsequent amendments. It provides the right to water for domestic use by any person from any surface water sources and rainwater without a permit as long as no works are constructed for the purpose. The Act indicates the need for a water use permit for any works for water abstractions or for uses other than domestic ones. The Act further prohibits the discharge of waste streams into any water body, including rivers (e.g. small rivers within the project areas), without a written permit from the water officer. The Act requires adherence to current environmental standards of receiving water bodies when legally discharging waste water. The proposed project intends to use water for purposes other than domestic and wants to remove waste water therefore, the act is relevant. The proponent and contractor shall observe this legal provision throughout construction, operation and decommissioning phases.

Environmental Impact Assessment and Audit Regulations of 2005 and its amendments of 2018

The Environmental Impact Assessment and Audit Regulations No.349 of 2005 were made pursuant to Sections 82 (1) and 230 (h) and (q) of the Environmental Management Act Cap 191 of 2004 and its amendment in 2018. The regulations provide the procedures and requirements for undertaking ESIA for various development projects with significant environmental impacts. In addition, the Regulations provide a list of projects that qualify for Environmental Assessment

procedures in Tanzania. Regulation 46(1) classifies projects into two types: (i) Type A Projects requiring a mandatory ESIA; and (ii) Type B projects requiring a Preliminary Environmental Assessment (PEA). The First Schedule lists typical examples of Type A and B projects. The Regulation was amended in 2018, and project categorization was changed to Type A, Special category, Type B1 and B2 based on the risk levels. Some of the proposed construction of the irrigation schemes and post-harvest facilities may fall under the category of projects that require mandatory Environmental Assessment (after screening) as per the categorization stated in the Amended EIA and Audit Regulations of 2018.

Environmental Management (Soil Quality Standards) Regulations (2007)

The objective of this standard was to set limits for soil contaminants in agriculture and habitat. It enforces minimum soil quality standards prescribed by NEMC to maintain, restore and enhance the sustainable productivity of the soil. The standards prohibit the discharge onto ground of any material which will interfere with its natural quality or be polluted unless the person obtains permission to be exempted or obtain a soil pollutant discharge permit. Heavy metals contaminants in habitat and agricultural soils shall comply with parameters and upper limits specified in the standards.

Elevated levels of heavy metals may occur naturally within the soil surrounding. However, any proposed expansion projects will be designed to avoid the release of contaminants, with elevated levels of heavy metals, to the environment. Since the proposed activities under the agriculture PforR program anticipate generating significant waste, especially under component 2 during construction and rehabilitation of irrigation scheme and post-harvest facilities, it will need compliance with this regulation to ensure that the wastes are not disposed into the soil and affect its quality.

Environmental Management (Water Quality Standards) Regulations (2007)

The objective of this standard is to enforce minimum water quality standards prescribed by the NEMC. It ensures all discharges of pollutants take into account the ability of the receiving waters to accommodate contaminants without detriment to the uses specified for the waters concerned to protect human health and conservation of the environment. The standards prohibit discharges above the prescribed standards unless the emitter obtains permission to be exempted or obtain a water pollutant emission permit. The regulation recognizes the requirement to obtain a water user permit as detailed Water Resources Management Act, 2009 and attaches additional conditions to securing the permit, requiring an EIA statement of the permit application to be submitted to NEMC. These regulations also include effluent standards (First Schedule – Permissible Limits for Municipal and Industrial Effluents), drinking water standards, specific effluent standards for particular industries and distances from pollution sources to water sources with which the agriculture PforR program must comply.

Environmental Management (Solid Waste Management) Regulation (2008)

These Regulations guide persons who own or control a facility or premises which generates waste to minimize the waste generated by adopting the cleaner production principles as detailed in the regulations, including:

- (a) Improvement of the production process through conserving raw materials and energy by-
 - Eliminating the use of toxic raw materials
 - They are reducing toxic emissions and wastes to a level prescribed by the applicable national environmental quality standards.
- (b) Monitoring the product cycle from beginning to the end by-
 - Identifying and eliminating potential negative impacts of the product
 - Enabling the recovery and re-use of the product where possible; and
 - Reclamation and recycling

Regulation 9 provides permits to operate solid waste disposal sites. The agriculture PforR program will generate e-waste, and the disposal will be contracted to an authorized vendor per the regulations.

Environmental Management (Hazardous Waste Control and Management) Regulations (2009)

The Regulations control all categories of hazardous waste and address the generation, storage, transportation, treatment and disposal of hazardous waste and their movement into and out of Mainland Tanzania. They require hazardous waste management to be guided by principles of environment and sustainable development, namely, the precautionary principle; the polluter pays principle; and the producer extended responsibility. The Regulations assign the generator of hazardous waste for the sound management and disposal of such waste and shall be liable for damage to the environment and injury to human health arising thereby. The regulations further recognize management and control of pesticides, radioactive and industrial and consumer chemical waste to be regulated under respective legislation. The Division of Environment issued 2013 the Guidelines for Management of Hazardous Waste. The e-wastes anticipated to be generated in the course of implementing this project are considered hazardous, and their disposal will have to adhere to these regulations.

Other Regulations under EMA also include:

- a) Environmental Impact Assessment and Audit Regulations (2005),
- b) Environmental Impact Assessment and Audit (Amended) Regulations (2018),
- c) Registration of Environmental Experts Regulations (2005),
- d) Fees and Charges Regulations (2007),
- e) Ozone Depleting Substance Regulations (2007),
- f) The Biosafety Regulations (2009),
- g) Strategic Environmental Assessment Regulations (2009),
- h) Air Quality Standards Regulations (2007),
- i) Noise and Vibrations Standards Regulations (2009),
- j) Environmental Inspectors Regulations (2011),
- k) Control of Plastic Bags Regulations (2015),

Environmental Management (Solid Waste Management) Regulations of 2009

The Environmental (Solid Waste Management) Regulations of 2009 provide principles for the management and control of solid wastes, including administration and institutional arrangement, licenses and permits. Regulation 5 (1) states that any person who owns or controls a facility or premises which generates waste shall minimize the waste generated by adopting cleaner production principles, such as improvement of the production process through conserving raw materials and energy by:

- a) Eliminating the use of toxic raw materials within such times as may be prescribed by the Minister; and
- b) Reducing toxic emissions and wastes to a level prescribed in the applicable national environmental quality standards. Regulation 17 (a) prohibits particular solid wastes in receptacles. The regulation states that no person shall deposit hazardous substances, including asbestos or asbestos-containing material, explosives, fireworks, firearms, batteries, hot ashes, flammable liquid, highly flammable materials, infectious material, pressurized containers (other than a pressurized container commonly used for containing domestic products such as fly spray, hair spray and similar materials), or radio-active material.

Regulation 17 (b) prohibits any person from depositing particular solid wastes of corrosive, carcinogenic, flammable, persistent, toxic, explosive, or radioactive nature materials into receptacles. The regulation 17 (c) prohibits any person from depositing any liquid, acid, paint, printers' ink, oil, oil sludge, asphalt emulsion, viscous fluid or similar product into receptacles which, if spilt in a public place, may cause damage or injury or result in pollution of the environment. PART VI of the regulations is on plastic waste management. Under the duty to segregate solid waste, regulation 35-(1) requires any person to ensure that plastic materials are separated from non-plastic materials and deposited into receptacles prescribed by the local government. Regulation 35-(2) states that duties to segregate waste apply to all stages of waste management, including collection, transportation and final disposal.

2.11.3. Acts Related to Social Issues

The HIV and AIDS (Prevention and Control) Act No. 28 of 2008

The Act generally require that adequate information on the acquisition, transmission, prevention and post-infection of HIV/AIDS is provided to the public, including workers at workplaces. It is required by this Act that every employer (here, the Contractor), in consultation with MJNUAT, to establish and coordinate a workplace program on HIV/AIDS. The program must include, among other things, the provision of gender-responsive HIV/AIDS education and protection gear, including condoms, which meet Tanzanian standards as certified by TBS. As a consideration of the right to privacy, the Act prohibits compulsory HIV testing for any person as a condition necessary to obtain its requirements, including a job. It further requires total confidentiality of results of HIV tests of any person against their own will except for exceptional cases involving children, disabled persons, spouses or sexual partners or court. To ensure persons living with HIV/AIDS are not discriminated against, the Act prohibits any forms of such discrimination. It requires that no person is denied admission, participation or continual job place after being

diagnosed with HIV and consequently living with HIV/AIDS. The Contractor shall therefore adhere to these provisions during the recruitment of employees and executing construction activities. Alongside measures to combat the spread of HIV/AIDS the threat of Covid 19 should also be given priority as it is the new entrant in the global pandemic burden. Facilities for hand washing at every entrance to buildings should be installed and preventive approaches include wearing face masks and mass sensitization and inoculation.

The Employment and Labour Relations Act, No. 6 of 2004

The Act provides labour rights and protections, particularly against Child labour, forced labour, discrimination in the workplace, and promotion of freedom of association. Section 7 of the Act states that every employer shall promote equal employment opportunities and strives to eliminate discrimination in any employment policy or practice. The Act also provides for the basic employment standards to include: core labour rights, establishes basic employment standards, framework for collective bargaining, prevention and settlement of disputes and other related matters.

The Act prohibits forced labour and discrimination in the workplace as well as the prohibition of discrimination in trade unions and employers. It provides employees' right to freedom of association and rights of trade unions and employers' association. It provides employment standards such as contracts with employees, work hours, remuneration, leave, unfair termination of employment and other incidents of termination. The Act prohibits discrimination, being direct or indirect, in any employment policy or practice on any of the following grounds; colour, nationality, tribe or place of origin, race, national extraction, social origin, political opinion nor religion, sex, gender, pregnancy, marital status, or family responsibility, disability, HIV/Aids, age or situation of life. It is an offence for this provision to be contravened by any employer.

Law of the Child Act (2009)

The act provides standards for identifying, referring, and responding to cases of child abuse and other forms of violence. They incorporate the essential elements required to build a protective environment, including a child-friendly justice system. Child abuse is defined in detail as "contravention of the rights of the child which causes physical, moral or emotional harm including beatings, insults, discrimination, neglect, sexual abuse and exploitative labour." Section 78 providing that no person "shall not employ or engage a child in any kind of exploitative labour" Whilst night work by a child and forced labour are also prohibited in Section 79 and 80 respectively.

Sexual exploitation is prohibited through Section 83 and is comprehensively defined to include any work/trade (paid or unpaid) that exposes the child to activities of a sexual nature. In terms of character, this would include inducement or coercion in the encouragement of a child to engage in any sexual activity; children in prostitution or other unlawful sexual practices or children in pornographic performances or materials. The punishment is a fine of not less than 1 million shillings and not more than 5 million or to imprisonment for a term of not less than 1 year and not more than 20 years or both. In instances where a child is a witness on sexual offence, the Act complements the Evidence Act by noting that "Notwithstanding the provisions of this section,

where in any criminal proceedings involving sexual offence the only independent evidence is that of the child or victim of the sexual offence, the court shall receive the evidence and may after assessing the credibility of the child or victim of sexual offence, on its own merits, notwithstanding that such evidence is not corroborated, proceed to convict for reasons to be recorded in the proceedings, if the court is satisfied that the child is telling nothing but the truth” To support the implementation of the Act four regulations have been developed including Children Court Rules, Foster Care Regulation, Children Care and Protection Regulation and Approved Residential Establishment Regulation. Tanzania Food System Resilient Program (TFSRP) will require to abide to all directives as stipulated in this law.

Workers Compensation Act, 2008

The Act established a fund known as the Workers Compensation Fund, consisting of the assessment paid by the employers under this act; any other money paid by employers to the fund under this Act. The penalty imposed under this act other than a court; any interest on investments of the fund, any observation from the Government, and any additional money legally acquired. The Act also established a board of trustees of the workers’ compensation which is capable of suing and sued, purchasing or otherwise acquiring, holding, charging and disposing of property, movable or immovable; and entering into contracts and performing all such other acts for the proper performance of its functions under this Act which may lawfully be performed by a body corporate. The Act has the right to compensation and protection whenever an employee has an accident resulting in the employee’s disablement or death and related to the rule and conditions of the Workers Compensation Act.

Occupational Health and Safety Act of 2003

The law deals with the protection of human health from occupational hazards. It further requires employers to provide a good working environment to workers to safeguard their health and ensure safety at the workplace. Employers need to perform medical examinations to determine fitness before engaging employees. Employers must also ensure that the equipment used by employees is safe and provide personal protective equipment (PPE) as appropriate. Part V of the Act emphasizes the provision of adequate clean, safe and wholesome drinking water, sufficient and suitable sanitary conveniences and a washing facility. This shall be adhered to by all consultants and contractors who will be employed under the agriculture PforR program. During the implementation of the PforR program, especially the construction of irrigation schemes and post-harvest facilities, all contractors will be required to strictly adhere to the Occupational Health and Safety Act to ensure that no accident or fatality occurs and that all social concerns surrounding communities in construction areas, such as issues of HIV/AIDS, pregnancies, gender discrimination and GBV are well addressed.

Land Act No. 4 of 1999

All land in Tanzania shall continue to be public land and remain vested in the President for citizens of Tanzania. For the management of land under this Act and all other laws applicable to land, public land shall be in the following categories: General land, Village land and reserved land. The President may, subject to the provisions of this part, by order published in the Gazette, transfer or

exchange land from one category of land described in the subsection. One of the fundamental principles the Act has safeguarded is to ensure that land is used productively and that any such use complies with the principles of sustainable development. The Act provides the declaration of hazardous land in section 7 (1) of this Act; hazardous land is the one which is likely to pose a danger to or to lead to the degradation of the environment or destruct the environment on that or contiguous land and includes but is not limited to-

- (a) Land within sixty meters of river banks
- (e) Land on a slope with a gradient exceeding any angle which the Minister shall, after taking account of proper scientific advice, specify;
- (f) land specified with the appropriate authority as land which should not be developed because of its fragile nature or environmental significance.

The Water Supply and Sanitation Act No. 5 of 2019

The Water Supply and Sanitation Act No. 5 of 2019 has been enacted to provide for sustainable management, adequate satisfactory operation, and transparent regulation of water supply and sanitation services to effect the National Water Policy (2002). The Act penalises defaulters or people who may cause water pollution or dump any waste into water bodies. MJNUAT will comply with this Act's requirement by constructing a waste water collection septic tank and sock away pit. No wastewater will be allowed to flow into open spaces or natural waterways.

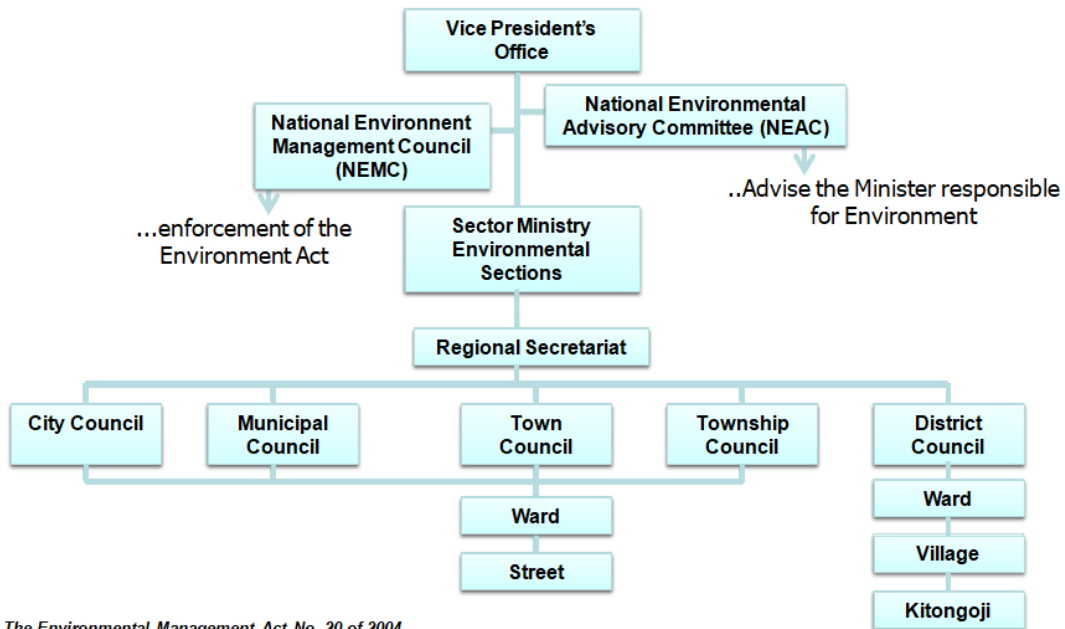
2.12. Institutional Framework for Environment Risk Management

Tanzania is among the countries in East Africa with an Act for environmental management legislation. Environmental Management Act (EMA) (2004) provides a legal and institution framework that guides the implementation of environmental management activities. The framework offers a pre-requisite for the effective implementation of Environment Policy at all levels (National, Region, Council, and Village/Mtaa/Hamlet). According to the Environmental Management Act (EMA) (2004), there is the Environmental Management Committee established at the Hamlet/Village/Mtaa, Ward, Council and at the National level with the responsibility for the proper management of the environment in respect of the area in which they are established. The functions and responsibilities of these committees are well explained in the Act. Moreover, section 36 (1), (2) of EMA stipulates that each City, Municipal, District and Town council shall designate or appoint an Environmental Management Officer (EMO) who shall perform the following functions:

- i) Advise the environmental management committee to which he/she belongs on all matters related to the environment.
- ii) Promote environmental awareness in the area he/she belongs on protecting the environment and conserving natural resources.
- iii) Monitor the preparation, review and approval of Environmental Impact Assessments for local investments.

The Institutional set up presented in **Figure 2**, explains the layers of decision-making from national to Village/Mtaa/Hamlet levels.

At the national level, the Vice President’s Office has the overall mandate to oversee environmental issues in Tanzania. The EMA Cap.191 Section 13 gives powers to the Minister for Environment to issue guidelines and regulations relating to the environment, including the articulation of policy guidelines for its promotion, protection and sustainable management and designate duties to relevant entities. The Director leads the Division of Environment (DoE) within the Vice President Office. The EMA, Cap. 191 Section 14 direct the Director for the Environment to coordinate and report on environmental-related aspects and activities in the country. Consequently, the Division is responsible for overseeing and coordinating environmental policy, the Environmental Management Act and EIA Guidelines; approving, signing and issuing Environmental Certificates; advising the government on all environmental matters; enforcing and ensuring compliance with national environmental quality standards; and providing policy direction and leadership on all environmental issues.



Source: The Environmental Management Act No. 20 of 2004

Figure 2: Institutional Set Up for Environmental Management in Tanzania Mainland of which the proposed activities under the agriculture PforR will use.

4.4.1 The National Environment Management Council (NEMC)

NEMC is a corporate body established under EMA (2004) Section 161. It has mandated for enforcement, compliance, review and monitoring of EIAs, including facilitating public participation in environmental decision-making. NEMC has five key divisions, each on the relevant aspects of environmental management (Compliance and Enforcement; Environmental Impact Assessment; Environmental Information, Communication and Outreach; Environmental Planning and Research).

To ensure compliance, the project must be issued an environmental license or permit, which confirms that all necessary environmental and social due diligence requirements have been fulfilled. NEMC also provides periodic oversight, monitoring the national portfolio of activities to ensure no cumulative adverse impacts result. NEMC provides supervision and technical assistance at the district level when required. Overall, NEMC performs three critically essential roles:

- (i) Oversee the Environmental and Social Impact Assessment (ESIA) process;
- (ii) Train district officials to carry out environmental and social due diligence monitoring; and
- (iii) Monitor implementation of environmental and social safeguards.

4.4.2 NEMC Capacity to Oversee Environmental Matters

Since its establishment, NEMC has substantially expanded its capacity to carry out its functions, especially the third one related to monitoring implementations of environmental and social E&S management. There are nine (9) Zonal Offices, namely: (i) Northern Zone - Arusha, Kilimanjaro and Manyara regions; (ii) Lake Victoria Zone - Mwanza, Mara, Shinyanga, Geita and Simiyu; (iii) Central Zone - Dodoma, Singida and Tabora; (iv) Western Zone - Kigoma, Kagera and Rukwa; (v) Southern Highlands Zone - Mbeya, Iringa, Njombe and Songwe; (vi) Southern Zone - Ruvuma, Mtwara and Lindi; (vii) Eastern Zone (North) - Tanga, Bagamoyo, Chalinze; (viii) Eastern Zone (South) - Kigamboni, Temeke and Ilala; and (ix) Morogoro and Rufiji Special Zone. In a change since 2016, there are now four or five environmental officers in each of the nine NEMC zonal offices. The proposed Tanzania Food System Resilient Program (TFSRP) will benefit from this decentralized capacity.

4.4.3 Institutional Gaps

Although the NEMC officers at the head office and zonal offices are well qualified and possess the requisite skills necessary for ensuring that environmental assessments (i.e. ESIA, Audit) are compliant with regulatory requirements, the inadequate staffing and funding limit the agency's capacity to supervise all on-going projects scattered over a large geographical area and enforce compliance with license obligations and regulations through on-site monitoring.

2.13. Institutional Framework for Social Risks Management in Tanzania

4.5.1 Prime Minister's Office Labour, Youths, Employment and Persons with Disabilities (PMO-LEYD)

The PMO-LEYD provides oversight and coordination on labour matters in Tanzania. The Occupational Safety and Health Authority (OSHA) was set up in 2001 under the PMO-LEYD to administer occupational health and safety at workplaces in the country. It provides directives, and technical advice, enforces legislation, proposes amendments, allocates resources, oversees all activities carried out by OSHA and ensures that OHS rules and regulations are adhered to and maintained at workplaces. Therefore, the ministry defines role of each stakeholder in respect of occupational health and safety matters that OSHA enforces.

The enforcement of occupational health and safety standards is accomplished through workplace registration, undertaking statutory inspections (electrical inspection, pressure vessels inspection and lifting equipment inspection); risk assessment; training and information on occupational health and safety, and scrutiny and approval of workplace drawings/ plans. Other activities include; diagnosis of occupational diseases; occupational health surveillance, work environment monitoring, investigation of accidents; authorization of private OHS Providers.

4.5.2 Institutional Capacity

The OSHA has three main directorates, each headed by a director: The Director of Training, Research and Statistics; The Director of Technical Support (Health and Safety); and the Director of Business Support Services. OSHA is represented in six (6) zones across the country: Coastal Zone, Northern Zone, Lake Zone, Central zone, Southern highlands zone and Southern zone. The officers at these zones are qualified and possess the requisite skills to manage health and safety risks. However, OSHA is experiencing limited financial and human resources to cover their regions within the zones as required. Due to capacity problems, monitoring and enforcement by OSHA are mostly missing in many projects, with many active construction sites not being registered or visited by an officer as required by the national framework on safety.

In fulfilment of its responsibility of identifying hazards at workplaces and assessment of risks with a view to preventing accidents, diseases and damage to property, the Authority will play a vital role in the program by inspecting and auditing workplaces to promote best practices and ensure compliance with safety and health standards as set out in Occupational Health and Safety Act, 2003 and its subsidiary legislations.

4.5.3 Institutional Framework for Environment and Social Risks Management in Tanzania

Tanzania is among the countries in East Africa with an Act for environmental management legislation. Environmental Management Act (EMA) (2004) provides a legal and institution framework that guides the implementation of environmental management activities. The framework offers a pre-requisite for effective implementation of Environment Policy at all levels (National, Region, Council, and Village/Mtaa/Hamlet). According to the Environmental Management Act (EMA) (2004), there is the Environmental Management Committee established at the Hamlet/Village/Mtaa, Ward, Council and at the National level with the responsibility for the proper management of the environment in respect of the area in which they are established. The functions and responsibilities of these committees are well explained in the Act.

Moreover, section 36 (1), (2) of EMA stipulates that each City, Municipal, District and Town council shall designate or appoint an Environmental Management Officer (EMO) who shall perform the following functions:

- iv) Advise the environmental management committee to which they belong on all matters related to the environment.
- v) Promote environmental awareness in the area he/she belongs on protecting the environment and conserving natural resources.
- vi) Monitor the preparation, review and approval of Environmental Impact Assessment for local investments.

4.6 National Mechanism on Gender-Based Violence/Sexual Exploitation and Abuse

4.6.1 The Ministry of Community Development, Gender, Elderly and Children (MCDGEC)

This newly-established ministry is responsible for overseeing and coordinating the implementation of five policies and two laws that foster social protection and address vulnerability issues. The policies and laws are: Community Development Policy (1996); the Women and Gender Development Policy (2000); National Non-Governmental Organization Policy (2001); National Aging Policy (2003), and Child Development Policy (2008). At the same time, Laws include the Non-Governmental Organization Act No.24 (2002) and Law of the Child Act No.21 (2009).

Together, these policies and strategies emphasize and provide strategies for gender equity in all aspects of social, political, and economical life; gender equity in decision making; rights of the girl child to education; protection of minors against sexual abuses and other forms of violence; and establishment of anti-VAWC platforms at the community level.

In addition, the ministry is responsible for overseeing institutions that are designed to foster social development namely, Tengeru Institute of Community Development, Community Development Training Institutes, Elders Homes, Kurasini National Children's Home, Retention Homes, Irambo Approved school, Institute of Social Work and Kisangara Institute of Social Work. These institutions have been established to advance and promote development issues related to gender, the elderly and Children.

According to Government Notice No. 144 of 22nd April 2016, the CDGEC is mandated for: (i) Policies on Community Development, Gender, Elderly and Children and their implementation; (ii) Coordination of NGOs dealing with the functions under this Sector; (iii) Facilitate collaboration with International Organizations mainly: UNICEF and UN-WOMEN; (iv) Performance Improvement and Development of Human Resources under this Ministry; as well as (v) working in collaboration with Extra - Ministerial Departments, Parastatal Organizations, Agencies, Programs and Projects under this Ministry.

In summary, the ministry has been entrusted with coordinating gender-related work in Tanzania.

The other central bodies at the national, regional and local levels which provide services for survivors of GBV and social protection are:

- i) The Prime Minister's Office (PMO); The President's Office - Regional Administration and Local Government (PO-RALG); The Ministry of Home Affairs (MoHA - Police, Prison and Immigration - Human trafficking); The Ministry of Constitution and Legal Affairs (MoCLA); Registration, Insolvency, and Trusteeship Agency (RITA); The Ministry of Education, Science and Technology (MoEST); Tanzania Social Action Fund (TASAF); Commission for Human Rights and Good Governance (CHRAGG); The Ministry of Agriculture, Livestock Development and Fisheries (MoALF), Ministry of Industry, Trade and Investment (MoITI), the Ministry of Energy(MoE), The Ministry of Finance and Planning (MoFP - Commissioner of Budget); Tanzania Commission for AIDS (TACAIDS); Tanzania Food and Nutrition Centre (TFNC), National Bureau of Statistics (NBS), and representatives of development partners.
- ii) At the Local level (inclusive of regions, districts, wards, and villages)¹⁸. There is also a National Plan of Action to End Violence against Women and Children in Tanzania

¹⁸ United Republic of Tanzania 2011, Violence Against Children in Tanzania: Findings from National Survey 2009, Page 26

2017/8-2021/2 (NPA-VAWC 2017/18 – 2021/22). The NPA-VAWC Protection Committees have been established at the National, Regional, District, Wards and Village levels to lead the operationalisation of NPA – VAWC¹⁹.

The government has established One Stop Centres with this initiative to provide free counselling and legal aid services to GBV survivors. There are also designated centres within Hospitals in Tanzania Mainland at; Amana Hospital in Dar es Salaam Region, and the Regions of Kilimanjaro at Hai, Mbeya, Iringa, Simiyu, Mwanza and Shinyanga and it is expected to open another one soon in Kibaha, in coastal region. To ensure effective implementation of NPA-VAWC, the government work in partnership with development partners, NGOs, CSOs, and FBOs through a range of programs and initiatives, including public awareness activities, such as commemoration of 16 Days of Activism against Gender-Based Violence, the International Day of Families, International Women’s Day, the Day of African Child, and International Day of Girl Child. The Judiciary has also been working with other institutions like the police, prosecutors, and investigators to prosecute, where possible, the perpetrators of GBV and VAC cases.

The Tanzanian Police Force (TPF) has strengthened its response to cases of VAWC, including establishing the Tanzania Police Female Network. The network was established in 2007 to advance interests of its members including: building and maintaining solidarity among women police officers, other police forces and society in general with a purpose of fostering close ties and ultimately improve service delivery. The TPF has also developed comprehensive guidelines for the establishment of these desks. Both State and Non-State actors have played critical roles in providing various support services to survivors of GBV and violence against children, including legal aid services, shelters and counselling services, civic/awareness education, children’s services such as paying school fees, feeding services and sanitary services and now providing Coronavirus protective materials. Through an Umbrella Coalition (Mkuki) Non-state actors are engaged with government implementation of NPA-VAWC from the national, regional district, wards and village levels.

¹⁹ United Republic of Tanzania, Beijing Plus 25, Page 15

CHAPTER FIVE: POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS OF THE PROGRAM

2.14. Introduction

The potential environmental and social risks of the program are rated to be **Substantial**. It is expected that the implementation of the Program activities might have both positive and negative environmental and social impacts. The environmental and social effects of the program activities are not anticipated to be irreversible. The program is not likely to cause negative land use patterns and/or resource use changes. Positive changes in resource use would be promoted through new sustainable irrigation infrastructure development and value addition sub-projects included in the operation. With its hills and rivers, Tanzania has a vulnerable terrain to environmental degradation from soil erosion. Good environmental practice needs to be closely monitored and mainstreamed into soil conservation programs, watershed management, marshland irrigation schemes, and inorganic fertilizers and pesticides.

Rural feeder roads must be rehabilitated using sustainable practices to minimize impacts from runoff and soil erosion. Climate change is expected to generate more extreme events in the region, including increased temperatures producing droughts and high rainfall producing floods and possible landslides. It is, therefore, vital to plan for adaptation measures to address the expected impacts of climate variability in all development investments. The extension workers and local level staff need to maintain the focus on, including additional training in sound environmental management in agriculture and related assets.

The Assessment notes that although the individual investments have substantial environmental and social risks and impacts, each needs to be screened for cumulative effects and potential sensitivities of each proposed investment site. However, such risk can be readily managed given the Government of Tanzania's (GoT) environmental and social systems in place and diligent attention to monitoring and enforcement of government policies.

2.15. Potential Environmental Benefits

The risk screening suggests that the Program is attributed with potentially significant environmental benefits. The potential environmental benefits will be obtained through implementation of the proposed PforR program components, which are: (i) research and innovation on seeds program - contributing to more sustainable land and water management and decreased erosion; (ii) resilient infrastructure and post-harvest management and (iii) fiscal performance through budget support for the implementation of agriculture activities

Examples of specific potential environmental benefits include:

- The project will support the MoA, PORALG and its institutions with capacity-building interventions, including environmental risk management.
- The program will improve food security through increased agricultural productivity caused by the expansion of the irrigation schemes.

- The program will also improve food reserve and quality and reduce post-harvest loss by constructing post-harvest facilities.
- Income of the local communities will improve through the implementation of the construction activities where labourers will be obtained from within the communities.
- Improved budget support to agricultural staff will impact farmers through adequate and timely provision of extension services including those related to environmental risk management and conservation of biodiversity.

Other environmental benefits include reduced greenhouse gas emissions; improved soil health; water resource and soil conservation; habitat restoration; reduced chemical runoff; increased energy efficiency; biodiversity conservation; promotion of integrated pest management practices; climate change adaptation; deforestation prevention; and pesticide and fertilizer reduction.

2.16. Potential Negative Environmental Impacts

Although the program implementation activities are associated with significant environmental benefits, however, it is expected that implementing the program activities might also have negative environmental impacts. The potential environmental risks and impacts of the program are likely to be associated with implementing commodity value chain (CVC) activities, irrigation infrastructure development, rural infrastructure, marketing infrastructure construction, feeder roads, etc and value addition sub-projects.

The predicted environmental impacts include but are not limited to:

- **Water contamination:** One of the subprograms under PforR is dedicated to irrigation infrastructure development. In addition, the water resources can be negatively affected by other sub-programs, such as the construction of marketing infrastructure and feeder roads. Other potential impacts include water quality and quantity degradation (surface and groundwater) due to the spillage of agrochemicals (pesticides and fertilizers) or wastewater from processing facilities, surface water sedimentation, and the spread of waterborne diseases.
- **Natural habitats:** Potential impacts include the introduction of invasive flora species, which may become invasive and harm native species; loss of high-value trees, especially those with medicinal value; potential damage to aquatic habitats; and habitat destruction and loss of biodiversity. The program will need to ensure that ecologically important areas are not negatively affected, according to GoT environmental regulations. Such areas of ecological sensitivity may include National Parks and other protected areas, such as forests, and lakes.
- **Soil erosion and land degradation:** Potential adverse impacts include soil erosion and land degradation owing to overuse of land mainly through monoculture, intensive tillage, and excessive use of chemicals, which can lead to soil degradation and loss of productivity of the land and increase the risk of erosion. Soil erosion may also result in sediment load into the nearby water bodies, change in soil salinity, and deforestation. Soil conservation, however, has been identified as a key priority for the agriculture sector, based on experience in implementing World Bank and donor funded projects such as the Agriculture

Support Development Program (ASDP) 1 and Expansion of Rice Production Project (ERPP).

- **Land conversion:** The conversion of natural habitats, such as forests and other vegetation, grasslands, or wetlands, into agricultural land can negatively impact the local ecosystem and wildlife. It can also contribute to soil erosion and degradation.
- **Construction Phase Impacts:** Potential adverse impacts include air pollution from dust and exhaust; noise pollution during construction of irrigation schemes and blocking access paths; increased run-off; water and soil pollution from the accidental spillage of fuels or other materials associated with construction works, as well as solid and liquid wastes from construction sites and worker campsites; occupational safety and health risks linked to construction workers, pathogen breeding ground; borrow pit impacts; deforestation of the construction sites; and accidental damage to infrastructure such as electric, wastewater, and water facilities. These types of effects, however, are generally site-specific and temporary. For the most part, such construction impacts can be prevented or mitigated with the implementation of Environmental Management Plans (EMPs) and good construction management practices. Such procedures are usually included in the technical manual, and environmental management plans are incorporated into contractors' bidding documents.
- **Other issues:** Other environmental impacts include an increase of wildlife poaching especially during construction phases. However, this will happen if projects will be closer to the protected areas; health hazards from agrochemicals, rodent or pest infestation including malaria, schistosomiasis, trypanosomiasis etc.; possible flooding and landslides; excessive water usage if not appropriately managed; greenhouse gas emissions; and deforestation. Therefore, the program consider these potential impacts and implement measures to minimize them. These may include using sustainable agricultural practices, such as conservation tillage and integrated pest management, and adopting water-efficient irrigation systems.

2.17. Potential Negative Social Impacts

The project does not anticipate resettlement activities. However, the proposed construction of irrigation infrastructure, post-harvest facilities, and marketing infrastructure, thus including feeder roads may result in potential social impacts that must be mitigated. The predicated social impacts from the program include but not limited to:

- **Land disputes:** There might be possible -related impacts particularly exceptionally if there is construction of irrigation schemes and post-harvest facilities. Also, local communities may feel that their land rights are being violated.
- **Gender and vulnerable group discrimination:** There might be possible discrimination against certain groups, such as women and ethnic minorities, leading to social inequality. Also, the possible exclusion of female organizations and farmers in using farming technologies and practices is due to high illiterate levels among women. Likewise, long-standing gender gaps in agriculture productivity could impose challenges, exclusion of disabled women and girls in the process because of social stigmatization.

- **Spread of diseases:** Possible spread of communicable diseases such as covid-19 and HIV/AIDS due to migrant worker influx. Also, community health and safety risks may be encountered due to construction activities.
- **Traffic interruptions and accidents:** Traffic interruptions and accidents during construction of roads, irrigation schemes and post-harvest facilities and the implementation of other subproject activities, may be observed.
- **Social tensions:** The program can lead to social tensions within communities, as different groups may have other interests and agendas.
- **Other issues:** Other social impacts include visual deterioration due to dust and other effects caused by the construction of irrigation schemes and post-harvest facilities; the constructions activities might give access to workers, contractors, or local fundis, thus imposing risks of GBV and sexual exploitation to the young girls and local communities; loss of livelihood; loss of cultural heritage, and disruption of social networks, etc.

The program must minimise these adverse impacts and maximise the potential benefits for local communities. This often involves engaging with local communities and stakeholders to ensure that their concerns and needs are considered.

2.18. Potential Social Benefits

The assessment of the program reveals that the program is attributed with positive social benefits. Some of these benefits include but are not limited to:

- **Poverty reduction:** The program will increase productivity and commercialization of agriculture, as well as improved quality and accessibility of agriculture services, thus improving the incomes and overall welfare and quality of life of citizens, especially the rural poor and vulnerable. Thus, aiming at poverty reduction.
- **Increased food security:** The program will increase agricultural production and productivity, thus contributing to both a reduction in poverty and an increase in food security. Food security is essentially a function of poverty and low incomes. Any measures that contribute to a reduction in poverty will increase food security.
- **Job creation and gender equality:** The program will create employment opportunities for the local population, thus helping to reduce unemployment and poverty. Moreover, the program can contribute to gender equality by providing women employment opportunities and training and promoting gender-sensitive policies and practices.
- **Improved infrastructure:** Irrigation infrastructure development, rural infrastructure, construction of marketing infrastructure, including the construction of feeder roads, and value-addition sub-projects will be implemented during the program.
- **Economic development and community development:** The program can stimulate economic growth in rural areas, increasing income and improving living standards for the

local inhabitants. Also, the program will help to build strong and vibrant communities, improving social cohesion, and quality of life for the local people.

- **Other issues:** Other social benefits include improved access to markets. The program will ensure the inclusion of vulnerable groups in the project design and implementation, hence developing projects that target people with disabilities and the elderly, youth groups, and women's groups. Furthermore, the program will help to strengthen LGA's planning and accountability.

2.19. Exclusion Criteria

The exclusion principle applies to Program activities that meet these criteria, regardless of the borrower's capacity to manage such effects. In the PforR context, the concept of exclusion means that an activity is not included in the identified program of expenditures. Also, an activity is not included if it requires the completion of a non-eligible activity to achieve its contribution to the Project Development Objective (PDO) or any specific Disbursement Linked Indicators (DLI). The six Core Principles under the PforR Policy will apply to all investments as a mechanism for avoiding, minimizing, or mitigating adverse environmental and social impacts. The program shall exclude projects that are likely to involve:

- a) Significant conversion or degradation of critical natural habitats or cultural heritage sites.
- b) Air, water, or soil contamination leads to significant adverse impacts on the health or safety of individuals, communities, or ecosystems.
- c) Workplace conditions expose workers to significant health and personal safety risks.
- d) Activities that warrant land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people or the use of forced evictions without demonstration of mechanism to mitigate it.
- e) Large-scale changes in land use or access to land and/or natural resources.
- f) Adverse environmental and social impacts covering large geographical areas, including transboundary impacts or global impacts such as greenhouse gas (GHG) emissions.
- g) Significant cumulative, induced, or indirect impacts.
- h) Activities that involve the use of forced or child labour.
- i) The marginalization of, or conflict within or among, social groups; or
- j) Activities with a high risk of GBV and SEA.
- k) Activities that would involve the handling, storage and disposal of hazardous waste;
- l) any activities that would lead to significant loss of income generation among project affected people.
- m) Activities that would (a) have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation; (b) cause the relocation of VMGs from land and natural resources that are subject to traditional ownership or under customary use or occupation; or (c) have significant impacts on cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected communities.

CHAPTER SIX: OPERATIONAL PERFORMANCE AND INSTITUTIONAL CAPACITY FOR PROGRAM IMPLEMENTATION

6.1 Introduction

This section summarises the extent to which the Tanzanian safeguards system is consistent with World Bank safeguards principles for PforR financing. The assessment is based on the screening of environmental and social effects (benefits, impacts and risks) of the Program and the consultations and discussions with stakeholders. It also reviews the implementing agencies' capacity and aspects where gaps exist between Bank policy requirements and the country systems. Several Actions to strengthen the existing system are integrated into the relevant DLIs and DLRs as well as the Program Action Plan (PAP). The proposed TFSRP will include: (i) Improving service delivery in research, extension, and seeds by accelerating access to climate-smart technology, knowledge, and critical inputs; (ii) Developing resilient rural infrastructure through improvement in managing key irrigation and storage facilities; and (iii) Strengthening fiscal performance to enable delivery on the priority investment areas. Based on the type and scale of the investment, they are expected to have moderate to low and site-specific environmental and social impacts, which can be readily mitigated during implementation.

The ESSA concludes that, in general, the national regulatory framework for environmental and social management in Tanzania is consistent with the Bank PforR Policy and Directive regarding principles and critical elements. The legal framework provides a reasonable basis for addressing environmental, health, safety and social issues likely to arise in the proposed Program. Procedures, technical guidelines, and national plans/programs exist for environmental and social due diligence concerning the potential impacts of the Program and risks to the Program's achieving its results. However, the human and financial capacity to enforce specific environmental and social regulations and guidelines are inadequate. Similarly, some implementing institutions under MoA such as TARI, and ASA have no dedicated units or staff to oversee E&S issues. The situation is complicated by inadequate coordination between MoA, including its institutions and local government authorities on environmental and social issues. While the latter have some E&S capacity and personnel, their participation in decision making on E&S issues during joint implementation of agricultural projects in collaborations with the institutions under the Ministry of Agriculture, namely TARI, ASA and NIRC is inadequate. As a necessary measure to address shortcomings, this ESSA have made several recommendations at program level to strengthen system performance for Environmental and Social Management.

The contents of the tables reflect the capacity of the safeguards system applicable to TFSRP in its present form – i.e., incorporating the capability of implementing institutions, national regulatory bodies (NEMC & OSHA), and other relevant national policy, legislation or regulations, all of which have been described in the preceding sections of this ESSA. The main findings are presented using the SWOT (Strengths-Weaknesses-Opportunities-Threats) approach, which is adapted and applied to the PforR context in the following way:

- Strengths of the system, or where it functions effectively and efficiently and is consistent with the Bank Policy
- Inconsistencies and gaps (“weaknesses”) between the principles espoused in the Bank policy and Directives and the countries/implementing institutions' environmental and social systems and capacity constraints
- Actions (“opportunities”) are required to strengthen the existing system within implementing institutions to address social and environmental issues.

- Threats (Risks) that are likely to affect program implementation and performance.

Table 3 summarises the country’s environmental and social system and institutional capacity assessment based on the WB PforR core principles.

Table 3: Environmental and Social System and Institutional Capacity Assessment

Core Principle 1: General Principle of Environmental and Social Management

<p>Bank Policy for Program for Results Financing: Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in Program design; (b) avoid, minimise, or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program’s environmental and social effects.</p>	
<p>Bank Directive for Program for Results Financing: Program procedures will:</p> <ul style="list-style-type: none"> • Operate within an adequate legal and regulatory framework to guide environmental and social impact assessments at the program level. • Incorporate recognized elements of environmental and social assessment good practice, including (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the “no action” alternative); (c) detailed assessment of potential induced, cumulative, and trans-boundary impacts; (d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support the implementation of plans; and (f) responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and responsive grievance redress measures. 	
<p>The Core Principle No. 1 is Applicable The project aims to increase the stability of food systems and preparedness for food through strengthening agricultural service delivery, adopting climate resilient technologies and fiscal performance in the agricultural sector. This will be done through expanding access to knowledge, services, inputs, and key infrastructure along with construction of irrigation infrastructure development, rural infrastructure, marketing infrastructure, and feeder roads. These systems will contribute to building the resilience and competitiveness of the agricultural food sector.</p>	
<p>Summary Findings There is an adequate national regulatory framework in Tanzania, and a procedure exists for environmental and social due diligence concerning the potential impacts of the Program. The Environmental Impacts Assessment (EIA) process outlines the required screening procedure for environmental and social impacts and calls for risk mitigation plans before project implementation. Processes for conducting Environmental Impact Assessment are included as Annex IV. There is Occupational Health and Safety Act to deal with related issues during construction. However, implementation and enforcement of the regulations has not been up to standards, and the assessed weaknesses are systemic, related to insufficient resources (both financial and workforce) for overseeing monitoring, and reporting of environmental and social measures environmental and social measures and enforcement implementation.</p>	
<p>System Strengths</p> <ul style="list-style-type: none"> • The EMA, the Environmental Assessment and Audit Regulations, and the procedures established by NEMC provide the basis for achieving the objectives defined for this core principle. One of NEMC’s 	<p>Gaps Weak implementation:</p> <ul style="list-style-type: none"> • Although the NEMC has -qualified staff at the headquarters and zonal offices, insufficient staffing and funding limit the agency’s capacity to

functions is to promote clean energy in Tanzania. It has recently gained experience on the job and through study tours with environmental aspects of small solar power plants and solar-powered mini-grids. NEMC has strengthened its capacity by posting additional personnel in its nine zonal offices. It has refined its risk categories, screening procedures, and ESIA/ESMP preparation processes in a 2018 revision to the Environmental Assessment and Audit regulations.

- MoA and its institutions' agencies (TARI, ASA, NIRC, and ASA) and LGAs recognise the importance of environmental sustainability.
- MoA and NIRC have units responsible for E&S and appropriate staff capacity. This also applies to all LGAs with Environmental Departments and dedicated staff to oversee E&S issues at the district/council level.
- Environmental Policies under the Vice President's Office and regulations under National Environment Management Council (NEMC) are in place, and these are applicable at all government levels, MoA and its implementing agencies
- MoA and LGAs have experience working with the World Bank. For instance, MoA has implemented the Agriculture Support Development Program (ASDP) and Expansion of Rice Production Project (ERPP). Some of participating LGAs have experience in implementing E&S issues under PforR programs in education and health and the Investment Projects Financing (IPF) such as Secondary Education Quality Improvement Project (SEQUIP) and Boosting Primary Education Project (BOOST) financed by the WB. The gained experience will be extended to this project.
- LGAs Grievance Management systems (GRM), and set the budget for handling E&S activities, gender inclusions, Gender

supervise all ongoing projects scattered over a large geographical area.

- TARI, and ASA have no dedicated units and staff to oversee E&S issues. Thus, it is unclear how they will meet Program's E&S requirements. The planned construction of feeder roads and irrigation schemes will likely cause moderate environmental and social impacts, especially during the construction phase, including Gender Based Violence, potential transmissions off HIV/AIDS and other STDs, and further spread of COVID-19 due to interaction between construction workers and communities. Violation of Workers' rights, Health and Safety Hazards, Accidents and Emergencies are also likely to occur during project construction and implementation phases.
- The absence of an environmental section/department within some implementing agencies can contribute to inadequate management of E&S issues.
- Lack of coordination between the MoA and its institution agencies with the LGAs on E&S matters.

<p>Based Violence (GBV) and Sexual Exploitation and Abuse.</p> <ul style="list-style-type: none"> • The government has recently enacted Environmental Policy (2021) which put much stress on climate issues. The policy has a specific chapter that addresses climate change. • Health and safety issues during the construction of feeder roads will be managed by the Occupational Health and Safety Act of 2007, which is applied in all construction activities within the country. 	
<p>Actions and Opportunities</p> <ul style="list-style-type: none"> • TARI and ASA to improve their capacity to integrate environmental and social issues in their operation. This should be done by including seeking the assistance of the environmental and social experts from within the government system to assist in implementing the project activities. MoA, PORALG and LGAs to enhance and spearhead cooperation in monitoring and implementing environmental and social issues during the implementation of agricultural projects. 	<p>Risks</p> <ul style="list-style-type: none"> • Lack of budget at the LGAs and incentives might hinder E&S personnel from engaging in monitoring and supervising TFSRP activities.

Core Principle 2: Natural Habitats and Physical Cultural Resources

Bank Policy for Program for Results Financing: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing.

Bank Directive for Program for Results Financing: As relevant, the program to be supported:

- Includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas.
- Supports and promotes the conservation, maintenance, and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats; and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities.
- Considers potential adverse effects on physical, cultural property and as warranted, provides adequate measures to avoid, minimize, or mitigate such impacts.

Core Principle No 2 Applicable
Summary Findings: Although the Program investments would not involve activities that convert critical natural habitats some of proposed investments such as irrigation infrastructure rehabilitation and expansion might negatively affect natural habitats. In addition, the introduction of invasive flora species, might lead to loss of

high-value trees, especially those with medicinal value; potential damage to aquatic habitats; and habitat destruction and loss of biodiversity.

The program will need to ensure that ecologically important areas are not negatively affected, according to Government of Tanzania environmental regulations. Such areas of ecological sensitivity may include National Parks and other protected areas, such as forests, and lakes. As a necessary measure to meet this core principle, the program shall exclude projects that are likely to involve significant conversion or degradation of critical natural habitats or cultural heritage sites including accommodation of invasive species.

System Strengths	Gaps
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The EMA, the Environmental Assessment and Audit Regulations, and the procedures established by NEMC provide the basis for achieving the objectives defined for this core principle.

NEMC has strengthened its capacity by posting additional personnel in its nine zonal offices. It has refined its risk categories, screening procedures, and ESIA/ESMP preparation processes in a 2018 revision to the Environmental Assessment and Audit regulations.

MoA and its institutions' agencies (TARI, ASA, NIRC, and ASA) and LGAs have experiences in implementing similar programs and have integrated E&S in their operation.

There is Seeds Act, No. 18 of 2003 and Seeds Regulations, 2007 (G.N. No. 37 of 2007) are available and key in governing importation, exportation, production, processing, distribution, sale or advertisement for sale of seeds. This will help to mitigate impacts related to invasive species.

- TARI, and ASA have no dedicated units and staff to oversee E&S issues can contribute to inadequate management of E&S issues.
- Inadequate human and financial capacity can contribute to lack of effective enforcement of certain environmental guidelines.

Actions and Opportunity	Risks
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TARI and ASA to improve their capacity to integrate environmental and social issues in their operation. This should be done by including seeking the assistance of the environmental and social experts from within the government system to assist in implementing the project activities.

MoA, PORALG and LGAs to enhance and spearhead cooperation in monitoring and implementing environmental and social issues during the implementation of agricultural projects.

The risks is low as the Program is unlikely to involve activities that convert critical natural habitats.

<p>MoA and other implementing agencies (TARI, ASA, NIRC and LGAs) will consult with the Bank during the review of ESIA so that they meet the required standards. Implementing institution will monitor ESMP implementation and E&S impacts and ensure ESMP compliance accordingly</p>	
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Core Principle 3: Public and Worker Safety

Bank Policy for Program for Results Financing: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

- Bank Directive for Program for Results Financing:**
- Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed.
 - Promotes the use of the recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated through program construction or operations; promotes the use of integrated pest management practices to manage or reduce pests or disease vectors; and provides training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals following the international guidelines and conventions.
 - Includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events.

The Core Principle No. 3 is Applicable
 Physical infrastructure and civil works proposed under the program including Construction of irrigation infrastructure development, rural infrastructure, construction of marketing infrastructure, including the construction of feeder roads, can expose the public and workers to risks such as dust, air pollution, noise, water pollution, solid waste, and toxic or hazardous materials at sites during civil works, which might directly or indirectly result in occupational safety impacts. In addition, the activities mentioned above can contribute to the further spread of coronavirus disease (COVID-19), and HIV/AIDs, let alone the exploitation of labourers by contractors.

<p>Strengths</p> <ul style="list-style-type: none"> • MoA and other implementing agencies recognize the importance of environmental sustainability. • Environmental Policies and Legislations under the Vice President’s Office and regulations under National Environment Management Council (NEMC) are in place, 	<p>Gaps</p> <ul style="list-style-type: none"> • The TARI and ASA structure does not an Environmental and Social Expert nor a section dedicated to overseeing environmental and social issues. No clear guidelines indicate how these institutions handle environmental and social issues.
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<p>and these apply to the proposed civil works in the program.</p> <ul style="list-style-type: none"> • The Government of Tanzania (mainland), through its Ministry of Health (MoH), has developed several guidelines on how to limit the further spread of Coronavirus, e.g. (i) Guideline on How to Manage the Spread of Covid 19 through Intervention of Control of Public Gathering without Affecting Economic Activities, Second Edition, July 2021. The guideline can be customized to suit construction activities. • Availability of the Occupation Health and Safety Act of 2003. This law will be instrumental in guiding Health and security issues. All employers will be required to provide a good working environment to workers to safeguard their health and ensure safety at the workplace. During the implementation of the PforR program, especially the construction of irrigation schemes and post-harvest facilities, all contractors will be required to strictly adhere to the Occupational Health and Safety Act to ensure that no accident or fatality occurs and that all social concerns surrounding communities in construction areas, such as issues of HIV/AIDS, pregnancies, gender discrimination and GBV are well addressed. 	
<p>Actions and Opportunities</p> <ul style="list-style-type: none"> • All PIT to maintain close collaboration with OSHA to support the Agency on Occupation, Health and Safety risk management and national OSHA requirements including: workplace registration, undertaking statutory inspections, risk assessment; training and information on occupational health and safety, diagnosis of occupational diseases especially at work camps; occupational health surveillance, work environment monitoring, investigation 	<p>Risks</p> <p>The absence of a safeguarding expert at TARI, and ASA can compromise the operationalisation of suggested measures.</p>

<p>of accidents; and authorization of first aiders.</p> <ul style="list-style-type: none"> • All PIT to maintain close collaboration with Labour Department at the PMO-LEYD to foster workers’ rights, especially for unskilled labourers. • All PIT will ensure that MOH COVID-19 Guidelines are followed in all civil works, public consultation, and engagement. • All PIT to mainstream code of conduct with special attention to GBV/SEA. 	
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Core Principle 4: Land Acquisition

Bank Policy for Program for Results Financing: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards.

Bank Directive for Program for Results Financing: As relevant, the program to be supported:

- Avoids or minimizes land acquisition and related adverse impacts.
- Identifies and addresses economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy.
- Provides compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses paid before taking of land or restricting access.
- Provides supplemental livelihood improvement or restoration measures if the taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment); and
- Restores or replaces public infrastructure and community services that may be adversely affected.

Core Principle 4: Land Acquisition is Applicable
 Construction of irrigation infrastructure development, rural infrastructure, marketing infrastructure, and feeder roads might involve land take of private individuals or institutions to some extent. However, such impacts are expected to be minimal. In many cases, construction of feeder roads will involve improving existing roads. To ensure social protection and avoid displacement of people and conflict over land, it is essential to carry Due Diligence to determine land tenure conditions in all proposed project activities.

<p>System Strengths Clear land laws, policies, and regulations: The land acquisition and compensation, including their dispute resolution and grievance mechanisms, are governed under the following land laws and regulations.</p> <ul style="list-style-type: none"> • Land Acquisition Act, Cap. 118 (R.E 2002); • Land (Assessment of the Value of Land for Compensation) Regulations (2001); 	<p>Gaps: While there are policy gaps between Bank Policy Program-for-Results Financing and the Tanzanian system for land acquisition and resettlement, there are no direct conflicts between the Tanzanian land laws and Bank Policy Program-for-Results Financing, which indicates that gap-filling measures in the Program (if required) will not be contrary to the law should it be required.</p>
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- Land (Compensation Claims) Regulations (2001);
- Courts (Land Disputes Settlements) Act, Cap. 216 (2002).

Clear staff roles and responsibilities. There is a fairly straightforward designation of roles and responsibilities between agencies responsible for land management from the community to the national level.

Grievance procedures and dispute resolution There is a system where complaints are channelled upward, starting with the *Mtaa*²⁰, Ward Executive Officer, District Commissioner, then to the Region, and up to Ministry of Agriculture (MoA). If still unsatisfied Project Affected people (PAP) can seek recourse for grievances in the courts.

Consultations: Community land consultations are an internal process, followed at the community level to ensure there is consensus on the donated land. If there are impacts to any group, community mitigation measures are undertaken. For land acquisition, the valuation process includes a sensitization meeting with PAPs, which must also be attended by local leaders. The intent is to explain the program, the valuation process, valuation rates, and arrangements for the physical inspection of properties.

Analysis and Guidance There is good guidance on resettlement and compensation in Tanzania that goes beyond the Land Act and Regulations – and all of the Core Principle 4 are visible in any existing Resettlement Policy Framework for Bank-supported projects.

In addition, Part III of the Environmental Management (Environmental Impact Assessment and Audit) (Amendment) Regulations, 2018 on Project Registration and Screening directs that ‘in preparing ESIA, the project description shall include the proof of land ownership; and the Minister shall issue the Provisional Environmental Clearance if he is satisfied that the developer or proponent has attached proof of land ownership from relevant authorities; and that there is a clear explanation on land Acquisition Process (Relocation or Compensation) and has attached Resettlement Action Plan.

Tenure: Tanzanian law has clear procedures for landholders and generally extends eligibility for compensation to recognized or customary land users or occupiers lacking a full title but does not recognize tenants, squatters or encroachers as entitled to assistance or any allowances for transportation, disturbances, etc.

Market value: Tanzania law provides for the calculation of compensation based on the market value of the lost land and unexhausted improvements, plus a disturbance, movement, and accommodation allowance, and loss of profits where applicable. However, the depreciated replacement cost approach is used, which does not result in the full replacement cost of the lost assets. Additionally, market values and valuation procedures tend to be outdated and there is little baseline data for land values, which risks the valuation being at the discretion of the Land Valuation Officer.

Lost Assets and Livelihood Restoration: “Replacement assets” under the Land Act in Tanzania are restricted to land and developments on ground, and where relevant, loss of profits. Bank Policy Program-for-Results Financing goes beyond physical assets and includes livelihoods and standard of living, seeking to improve them or restore them to pre-displacement levels. While profit losses are included in Tanzanian law, these are more narrowly defined as formal business profits and crop compensation. While the Land Act entitles compensation for business losses, there are no legal provisions requiring the government to restore livelihoods or to help restore such livelihoods. Land users such as tenant farmers are only entitled to crop compensation (the valuation method is outlined in the 2001 Regulations).

Payment of Compensation: Legally, compensation for the acquired land is to be paid “promptly” but it does not have to be paid before possession of land is taken.

²⁰ A small urban area or geographical division of a ward.

	<p>Community Infrastructure: It does not appear that public infrastructure is addressed explicitly in the Land Act and Regulations. For projects/programs prioritized and implemented by the community, the risks that community infrastructure will be impacted is low.</p> <p>Consultation and Disclosure: As resettlement in practice is done as part of the ESIA, consultation and disclosure generally follow this process with the addition of a sensitization meeting with PAPs as part of the valuation process. PAPs are also publicly informed toward the end of the process when they can collect their compensation payments.</p> <p>Community Development Officers also have a role during this process, as do Ward Officers. However, this process is geared only toward the land valuation process. It may not include tenants, informal land users, and other types of resettlement and compensation not covered by Tanzanian law.</p> <p>Measures to be taken to meet the spirit of this core principle 4 concerning voluntary provision of the land for the wayleave is presented in the Action column,</p> <p>There is no clear budget or source of finance stipulated for paying compensation, hence a challenge to project implementation.</p> <p>Affected businesses should be given enough compensation to establish their business elsewhere; this usually includes the payment for land, inventory and 36 months profit.</p>
<p>Technical Guidance and Implementation Capacity</p> <p>PIT’s Environment and Social Focal point persons will ensure that local legal and regulatory requirements are followed. For this case, they will ensure that environmental and social due diligence for all proposed project sites are undertaken. E&S due diligence will clarify the land tenure status of all proposed project areas and submit the report to the bank.</p> <p>Addressing Resource Constraints:</p> <ul style="list-style-type: none"> • All PIT should designate Environmental and Social officer for the Program who will oversee the land acquisition process in cases where there 	<p>Risks</p> <p>Land acquisition and this risk is low since the land required for the civil works is already owned by the Government.</p>

<p>is no land available within existing project areas and is within the acceptable risk in the exclusion criteria.</p> <ul style="list-style-type: none"> • The PIT is to share land ownership legal documents on the proposed sites with the Bank before the commencement of construction. • All Activities that warrant land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people or the use of forced evictions without demonstration of mechanism to mitigate it will be excluded. 	
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Core Principle 5: Indigenous Peoples and Vulnerable Groups

Bank Policy for Program for Results Financing: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, and to the needs or concerns of vulnerable groups.

Bank Directive for Program for Results Financing:

- Undertakes free, prior, and informed consultations if Indigenous Peoples are potentially affected (positively or negatively) to determine whether there is broad community support for the program.
- Ensures that Indigenous Peoples can participate in devising opportunities to benefit from the exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the Indigenous Peoples.
- Gives attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. Special measures are taken to promote equitable access to program benefits.

The Core Principle 5 is Applicable

Assessment summary: Core Principle 5 is applicable. Resettlement and environmental degradation tend to impact the poor and vulnerable groups disproportionately, documented in both academic studies on environmental justice in Tanzania as well as operational documents for other Bank projects/programs.

The analysis confirmed that, at present, there is currently no specific legislation or policy in place in Tanzania on or for Indigenous Peoples. While considering the applicability of this Core Principle, the analysis found that it was relevant in terms of ensuring that vulnerable groups are included in the planning process (especially needs prioritization), implementation and monitoring of program activities; that vulnerable groups have access to program benefits; and that the needs of vulnerable groups are considered for the Programs impacts. For the ESSA, the analysis of vulnerable groups focused on children, persons with disabilities, youths (unemployed, females, kids with unreliable incomes), people living with long illnesses (e.g. HIV/AIDS, and TB), women (female-headed households, widows and those not able to support themselves), drug addicts and alcoholics, and disadvantaged communities such as pastoralists and hunters. The approach of the Government is to ensure that all vulnerable groups are consulted and benefit from Government programs.

<p>System Strength</p> <p>Tanzania has a longstanding practice of extensive consultation and participation at local levels, consistent with the principle of free, prior and informed consultation leading to broad community support. This approach is enshrined in legislation, such as the Local Government Act of 1982, which promotes public meetings at the local level and encourages village residents to “undertake and participate in communal enterprises” and to “participate, by way of partnership or any other way, in economic enterprises with other village councils.”</p> <p>Part of NEMC’s screening criteria for ESIA is to assess if impacts vary by social group or gender and if resources are impacted that vulnerable groups depend upon. Additionally, there is currently an initiative within NEMC supported by donors to better mainstream social issues such as gender and HIV/AIDS in the ESIA process.</p> <p>Tanzania also has policies specific to some vulnerable groups, such as the National Gender Policy and National Policy on HIV/AIDS, to prevent discrimination and promote equity. There is also strong guidance for participatory community planning by PMO-RALG through the “Opportunities and Obstacles to Development Handbook”, which promotes the inclusion of some vulnerable groups throughout the planning and implementation process. Such a process is being followed by the Tanzania Social Action Fund (TASAF) to support the poor in participating communities across the country.</p> <p>Weaknesses</p> <p>No system defines Indigenous Peoples in Tanzania. Even though some vulnerable groups are covered under the above policies and guidance, there is no specific policy for them that might be affected by different projects, including proposed TFSRP.</p>	<p>Gaps</p> <p>The analysis identified several critical gaps in the system as written, including:</p> <p>Identification of Vulnerable Groups: While vulnerable groups are generally included in the screening process for ESIA through EMA or in the Tanzanian system for land acquisition and resettlement, there is some risk that this may not be adequately handled in the program.</p> <p>Resettlement: While the Tanzanian ESIA process includes an analysis of impacts on vulnerable groups, there are no specific requirements for considering gender and vulnerability in resettlement and compensation processes beyond compensation for lost land.</p> <p>The experience with vulnerable groups of PAPs could benefit from further information and action – it is clear that at least in donor-funded programs with Environmental and Social management/and or Resettlement Action Plans, vulnerability is screened for and taken into consideration; however, there is little information on how the vulnerability is considered in the actual practice of compensation and/or relocation where necessary.</p> <p>Monitoring: Monitoring of gender, poverty, economic and social vulnerability, and HIV/AIDS in the development planning process needs strengthening.</p>
<p>Actions and Opportunities</p> <p>Technical Guidance and Implementation Capacity: While there are some criteria for vulnerable groups in the ESIA process, these need to be strengthened. If requested by the Government, the project may</p>	<p>Risks</p> <p>It is clear from the analysis that if the gaps identified and opportunities presented in this core principle (where applicable) are not addressed, the Program would be at risk of not generating the desired</p>

<p>support the current undertaking by NEMC to better mainstream vulnerability, gender and HIV/AIDS in the environmental and social assessment process and ensure socially appropriate benefit-sharing.</p> <p>Addressing Resource Constraints: E&S personnel at all Project Implementation Teams (PITs) should be trained to provide inputs on identifying, consulting with, and assisting vulnerable groups that may be impacted by the types of activities that will be financed by this program and/or promoting social inclusion in the development planning process. The Program capacity building and training plan can include measures for good practices on inclusive consultations, monitoring and feedback of all groups of people.</p>	<p>environmental and social effects for all potentially-affected people and would remain inconsistent with the guiding principles of the Bank Policy.</p>
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Core Principle 6: Social Conflict

<p>Bank Policy for Program for Results Financing: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.</p>
<p>Bank Directive for Program for Results Financing: Considers conflict risks, including distributional equity and cultural sensitivities.</p>
<p>The Core Principle 6 on Social Conflict is Not Applicable</p> <p>The Program will not entail social conflict in fragile states, post-conflict areas or areas subject to territorial disputes, nor will the Program cause social conflict or impact distributional equity or associated cultural sensitivities. As such, the ESSA did not consider the Program with regards to Core Principle 6 as this Core principle and key element do not apply to the Program</p>

CHAPTER SEVEN: FIELDWORK AND STAKEHOLDERS CONSULTATIONS

6.1. Description of the ESSA Process

The ESSA process involved extensive consultations, fieldwork, and discussions with project implementing institutions and other relevant partners, including MoA and the National Irrigation Commission (NIRC); the Tanzania Agriculture Research Institute (TARI); and the Agriculture Seed Agency (ASA). The assessment also covered PO-RALG and the six selected Local Government Authorities (LGAs), namely: The Meru District Council (Arusha Region), the Hanang District Council (Manyara Region), the Mkalama District Council (Singida Region), the Kilosa District Council (Morogoro Region), the Kilolo District Council (Iringa Region), and the Mbarali District Council (Mbeya Region).

In total, the ESSA Team met 74 professionals working in the agricultural sector and local government authorities, including Environmental and Social Officers at the MoA, Agricultural Researchers, Agricultural Engineers, Procurement and Accountants. Others were District Executive Directors, District Agriculture and Irrigation Officers, District Community Development Officers, District Livestock Officers, District Human Resource Officers, Social Welfare, Gender Focal Point, Environmental Experts, Economists, District Planning and Coordination Officers, District Legal Officers, District Natural Resource Officer, District Treasurers, Land Surveyors, Agriculture Field Officer- Dabaga, Community Groups Representatives, and Politian (Member of Parliament- Kilolo). The lists of stakeholders met, and their profiles are included in annex I.

The fieldwork and consultations were conducted in October 2022 and mainly focused on (i) understanding the experience of participating institutions in implementing donor-funded and World Bank Projects; (ii) significant lessons obtained by the MoA through the implementation of donor-funded projects; (iii) Presence of Unit for management of environmental and social and the availability of staff. Other issues of interest were (v) their experience in collaboration with development partners and the private sector; opportunities and challenges; (vi) experience of participating institutions in the implementation of civil works and the management of environmental and social issues; (vii) operational structures, availability of unit/department/team for the E&S and the staffing capacity, conflict resolution, E&S mainstreaming and performance; the existence of bylaws guidelines and environmental and social documents for project implementation; and (viii) existence of Grievance Redress Mechanism within the participating institutions. In addition, issues related to gender inclusions, budgeting for E&S activities, handling of Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA), and interactions with the public, private and other stakeholders were covered.

Findings from the consultations and field work highly informed ESSA and particularly reported the suggested measures to strengthen system performance for E&S management for implementing the FSRP. Generally, the following are key findings from the fieldwork and stakeholders' consultations:

- The MoA and its institutions (i.e. ASA, TARI and NIRC) have a vast capacity to implement donor and WB-financed projects. For the past, five to ten years, the government of Tanzania, through the MoA, has implemented various donor and WB-financed projects such as Agriculture Support Development Program (ASDP) I&II, Marketing Infrastructure, Marketing Infrastructure Value Addition and Rural Finance Program

(MIVARF), Participatory Agricultural Development and Empowerment Project (PADEP), Expanding of Rice Production Program (ERPP) and District Agriculture Development Plans (DADPS). These projects were financed by different financiers such as the World Bank, Japan International Cooperation Agency (JICA) and Bill and Melinda Gates. These organizations have strict guidance on how to implement E&S in its projects.

- MoA and one of its institutions, namely the NIRC have units that oversee environmental and social issues. The NIRC have units that manage environmental and social problems known as the Environmental Management Unit (EMU). The Units are staffed with people with relevant qualifications to oversee E&S matters. However, TARI and ASAs have no dedicated E&S department and personnel.
- Participating institutions demonstrate strong collaboration with development partners, including the private sector. Such experience is vital as it can inform project implementation, especially in the agricultural value chain.
- MoA and participating institutions have experience working with stakeholders, including vulnerable groups. For example, in all collaborations between the MoA and the private sectors, communities are involved as essential stakeholders and beneficiaries. Gender inclusion is critical to delivering services in the agriculture sector.
- The MoA and participating institutions have been implementing various activities related to the construction of irrigation schemes, warehouses, laboratories and office buildings all over the country. Some of these construction activities have been implemented through World Bank financing, such as those implemented under the Expanding of Rice Production Project (ERPP).
- The MoA has been implementing E&S activities in all the construction activities stipulated in various policies and acts.
- The MoA has a desk special for grievances management focusing on internal issues. For outsiders, all complaints are directed to the Permanent Secretary, where each is directed to a respective division or unit to resolve it and report again to the PS, who will provide clarification to the complainant.
- ASA has guidelines on seed production which govern contracted seed growers and agro-dealers. It also uses the country's OHS guidelines to implement its activities.
- ASA has no specific Grievance Redress Mechanism. The established Customer Care and quality control system has resolved all complaints and concerns related to seed quality and supply issues. In contrast, the human resource department addresses human resource and labour issues. Land-related complaints are resolved through the legal system.
- All visited LGAs have a dedicated department and staff to deal with environmental, social development and safeguards issues. The 2022 approved organizational structure for all LGAs by the PORALG indicates that environment and social development are among the key department for service delivery at the district council.
- LGAs have vast experience working with WB in sectors such as education, health and agriculture, some of which are implemented under the PforR program. Currently, all LGAs are implementing World Bank-financed projects in education, namely Secondary Education Quality Improvement Project (SEQUIP) and Boosting of Primary Education Project (BOOST) where the projects are responsible the construction of classrooms and new schools in all LGAs. These projects are implemented under the PforR financing mixed with Investment Project Financing (IPF) for some project components and activities. These

projects will go for five years, starting in 2019 and 2021, respectively. Other World Bank and donor-funded projects implemented at the LGAs level are ASDP I&II, DADPS, MIVARF and PADEP to mention a few. These projects were financed by the World Bank and other donors, namely JICA and Bill and Melinda Gates.

- All LGAs set Budgetary to cater for E&S works at the district level. However, budget allocation for E&S issues is low and varies from one council to another due to its own source capacity. Currently a large part of the council's budget is allocated to Health and Education.
- Some LGAs experience conflict over land, especially between large investors and local communities where investors were given large chunks of land which they failed to develop, causing villagers and between one village and another within the same district and between different districts over boundaries issues.
- Almost all visited districts have an established and functional Grievance Desk under the Human Resource Department and, in a few cases, under the Legal Unit.
- The LGAs collaborate with other government agencies responsible for agricultural inputs and services such as TARI, ASA, NIRC and agricultural forums '*Majukwaa ya Kilimo*'. Agricultural Forums are instrumental in bringing together agricultural stakeholders, including the government, its agencies, NGOs and private sectors and other stakeholders, in discussing various issues surrounding the sector.

6.2. Challenges in Implementing E&S

Despite the experience mentioned above demonstrated by TFSRP implementing institutions in terms of meeting the project's E&S requirements, this ESSA has noted several shortcomings which are required to be improved to enhance the environmental and social system, as explained below:

Weak collaboration between MoA and its institutions and LGAs: As noted above, MOA and its institutions have an adequate policy, legal frameworks, operational structures, established conflict resolution mechanism, guidelines, and manuals for implementing the projects. LGAs have bylaws that guide implementing E&S safeguards where MOA frameworks, guidelines and bylaws are not adequate. The assessment, however, found a weak collaboration between MoA and its institutions and LGAs during mainstreaming E&S in agriculture activities. Although the LGAs are responsible and have access to the communities, their E&S and other teams are considered stakeholders and not partners, lacking decision-making power and ownership of the agriculture programs, such as those implemented by TARI, ASA, and NIRC. The collaboration between the MoA, its institutions and the LGAs needs to be strengthened, and the roles and responsibilities of each actor must be evident during the implementation of the project.

Available staffs for Environmental and Social Service Delivery: The MoA and the NIRC have a unit responsible for E&S and appropriate staff capacity. However, its institutions have no unit or staff dedicated to E&S issues. Following this assessment, the ESSA recommends that the implementing institutions for this project have a dedicated E&S team in place with the appropriate staff before the commencement of the project. For PORALG and LGAs, the

assessment found that the systems are in place for implementing the E&S under PforR programs. However, they will need strengthening significantly on the IPF component.

Adequate knowledge and skills among the environmental and social risk management staff: E&S staff at the MOA and its institutions and the PORALG and LGAs, should be trained more on ESF and PforR. The training should be conducted periodically to bring them up to speed. They must know program E&S requirement during project implementation. It is also important that they are equipped with the requirement of PforR for agricultural projects since this will be the first time for the MoA to implement the project under PforR financing. LGAs implement projects under PforR in the education and health sector.

Budget allocation for environmental and social management: Budget is needed, especially for the MOA and its institutions and the LGAs for supervision of E&S issues. E&S staff at the district level do not have a specific budget for supervising E&S safeguard issues on the field.

Perception of top management on environmental and social based on their understanding: Although top management is aware of E&S issues as described by the MoA officers, it is still important to train them, especially on the ESF (IPF financing) and PforR financing to widen their understanding and win more support. Given their time limit, a half-day training on ESF requirements can help improve their perception of projects' E&S.

Availability of equipment for environmental and social risk management activities: MoA uses a computer system to store its information, including those on E&S. Staff, including those for E&S at the LGA level, do not have equipment such as computers and GPS. GPS will be for locating agriculture project areas sensitive to E&S issues. Few computers, handheld GPS and other minor equipment must be bought to facilitate E&S staff at the LGA (district) level.

Effective implementation of environmental and social management documents at the lower level: The MoA has prepared several safeguard documents in the past to guide the implementation of the Agriculture Support Development Program (ASDP) and Expansion of Rice Production Project (ERPP) projects. Apart from ESMF and RPF, the MOA had also prepared several safeguard documents in the past, such as the Environmental and Social Management Plan (ESMP) and Integrated Pest Management Plan (IPMP). Under the proposed PforR financing for the agriculture project, the MoA will be required to prepare E&S risk management documents using government policies, laws and guidelines. The following are recommended to ensure the effective implementation of the above-mentioned documents at the lower level:

- Guidelines for E&S risk management should be prepared in a language that is easily understandable even to low cadre community members in LGAs.
- They should not be bulky and/or confusing and must be friendly for local users, primarily using Kiswahili where possible and necessary.
- Pictures and Images should be used to replace the text where possible and appropriate for easy understanding.

7.3 Actions required for capacity building

- Conduct safeguard training for each district team in all participating LGAs and other participating institutions at MoA to enable them to meet Project's safeguard requirements,
- Conduct at least one safeguard training for the MOA management team
- Follow-up safeguard pieces of training for district E&S officers should be conducted at least once a year

Note: In Annex II, detailed discussion, issues and information provided during the field visits and meetings with various stakeholders.

7.4 Multistakeholder Consultation Meetings on Tanzania Food Systems Resilient Project

The World Bank safeguard team conducted stakeholders' consultation meetings for TFSRP covering implementing institutions and other stakeholders. The first group were covered during field work in October 2022 and 74 professionals working in the agricultural sector and local government authorities, including Environmental and Social Officers at the MoA, Agricultural Researchers, Agricultural Engineers, Procurement and Accountants were covered. Consultations with implementing institutions were followed by a multistakeholders consultation which was held virtually in Dar es Salaam on 15th February 2023 where about 10 participants attended. These participants represented academic institutions, development partners, NGOs and CSO working with pastoralists and people living with disabilities (PwDs) (Annex V).

The overall objective was to share the draft ESSA to the key Stakeholders and thus obtaining their comments and suggestions to meet environmental and social safeguards requirements. In particular, the consultations aimed to seek stakeholders' contributions on how TFSRP can be implemented without adversely affecting the environment and people. The key areas for consultations were: stakeholders perception of the project; environmental and social issues relevant to program; potential threats/risks or challenge associated with the program; steps to be taken to address those threats/challenges; the role stakeholders can play during execution of the program; environmental and social programs that should be executed by the project implementers; stakeholders' specific needs to be considered during project designs or in the implementation process; and steps to be taken by the project implementers to enhance the grievance handling process. Another consultation meeting targeting on other lime ministries, regulatory authorities, key government departments and local government authorities is planned on early March, 2023.

Overall Findings and Key Observations: Stakeholders' participants highly commended the TFSRP and agreed with ESSA's findings. Indeed, participants indicated that, there is a strong need to improve Tanzania food systems resilient especially during this time when agricultural sector is heavily hit but climate change risks and impacts. The Table 4 below provides issues raised and the corresponding comments. Some comments were in terms of advice/suggestions/recommendations and not requiring response but were noted to be addressed in the course of the program preparation.

Table 4: Key Observations, Comments, Concerns and Suggestions

S. No	COMMENT/CONCERN	RESPONSE
1.	The essence of PforR for this Program	It was provided by the TTL as it is reflected in the PAD.
2.	Coverage of the Program. Where specifically will the activities be undertaken?	The program is still being prepared. Overall, the whole country will benefit, but the specific project sites will be identified in due course.
3.	In addressing soil quality issues, there is need to acknowledge the role of Soil Science Institutions e.g., Mlingano Research Institute	There is a need to bring on board the mentioned Research Institute and other relevant ones as well.
4.	Strengthening fiscal performance - Ensure crop sales are harmonized across all LGAs.	Suggestion to be worked-on
5.	Some LGAs do not have in place District Agricultural Development Plans (DADPs)	For those LGAs not having DADPs, they will be motivated to develop them.
6.	Collaboration between the Ministry of Agriculture and the Ministry of Minerals regarding adjustment of prices of some minerals used in enriching the soils (e.g., gypsum and lime)	Further to adding minerals to the soils, the Govt has started testing the soils and the program will incentivize more testing and come with recommendations on what is needed beneficial to the farmers. The long-term plan is to have improved soils that will even be carbon-sink and benefit from carbon markets.
7.	How to ensure that money coming from CESS should be re-invested to incentivize policy change.	The program will work with LGAs to incentivize them to make fare collections which will be re-invested into the crop sub sector.
8.	There is need for harmonization of crop sales across LGAs	Suggestion to be worked-on
9.	Livestock sector is not included in the program currently. Why?	Since this is PforR, and currently the Government is working with Livestock sector on analytical work – preparing a roadmap for investment in the sector. This might culminate into a program that supports the Livestock sector.
10.	The role of Data and Statistics.	The nature of program activities definitely requires appropriate Data Management, that’s why the role of NBS is crucial.

11.	The Role of Research in championing technologies. Using ICT in extension as a way to enable outreach to farmers.	Research is one of the Disbursement Linked Indicators (DLI) and therefore one of the areas of focus. Research findings will be disseminated through ICT and digital platforms like M Kilimo. Research leads to innovations and more technologies, and the Country might reach a stage of championing best practices as it has done for rice.
12.	There is need to enhance awareness to farmers on the use of agro- chemicals	Awareness and dissemination are reflected in one of the DLIs.
13.	How will the program take on board interests of small farmers?	The overall objective of the program covers this concern.
14.	There is need to take stock of existing infrastructure in the program areas.	This will be done in the process of applying for the required various permits for the program.
15.	Weak links between the Government and the participating LGAs	The program will motivate and champion close collaboration between the Central Government and the participating LGAs.
16.	How is the Government prepared to offset environmental and social risks e.g., pollution, soil erosion, loss of biodiversity that might be caused by the program	There are Policies, Laws and Regulations in place that will be complied with. Also, Institutional Framework exist, though with challenges on funding and capacity.
17.	What methodologies were used in assessing capacity of the Government and the Institutions during the ESSA study	Face to face consultations (guided by questionnaire) including reference to Strategic Plans. For future, it was recommended to also use <i>Automated Monitoring & Evaluation Methods</i> .

7.5 Integrated Risk Assessment

The overall environmental and social risk of the Program is considered substantial. The potential environmental and social risks and impacts of the program are likely to be associated with implementing commodity value chain (CVC) activities, irrigation infrastructure development, rural infrastructure, construction of marketing infrastructure, and construction of feeder roads, and value addition sub-projects. The predicted environmental and social risks associated with the program include (i) water-source contamination, due to spillage of agrochemicals or wastewater from processing facilities, (ii) possible soil erosion, land degradation, and increased loss of soil fertility and other issues from inappropriate use of agricultural inputs, (iii) spread of diseases (such as HIV/AIDS), especially during construction phase of sub-projects as well as construction workers and community exposure to COVID-19, (iv) noise and air pollution, (v) construction wastes and other related solid wastes, (vi) possible soil and groundwater contamination owing to the generated wastes, (vii) traffic congestion and possible road accident resulting from the

transportation of materials from source to site, (viii) occupational safety and health risks linked to construction workers, (ix) health hazard from agrochemicals, rodent or pest infestation including malaria, schistosomiasis, trypanosomiasis etc. (x) biodiversity impacts, (x) visual landscape deterioration, (xi) possible flooding, (xii) GBV (SEA/SH), and (xiii) community health and safety during construction. Moreover, Irrigation infrastructure rehabilitation and expansion appear most critical as it could lead to degradation of river catchments and ecosystems/biodiversity, soil salinization, loss of forests and other vegetation diversity, reduction of environmental flows, degradation of ecologically sensitive areas in the wetlands, increased water-borne diseases, and water contamination due to non-appropriate use of agrochemicals. Based on the findings of the ESSA Analysis, Table 5 aggregates the risks discussed above and proposed measures to mitigate those risks.

Table 5: Risk Assessment and Management

Risk Description	Risk Management
<p>Construction of irrigation infrastructure, rural infrastructure, marketing infrastructure, and feeder roads are likely to be associated with Health and Safety Hazards, Accidents and Emergencies, and dust and air pollution.</p> <p>The program is also likely to contaminate water-source due to the spillage of agrochemicals or wastewater from processing facilities: soil erosion and land degradation from inappropriate use of agricultural inputs and flooding and landslides.</p>	<p>TFSRP environmental, health and safety risks are moderate overall.</p> <ul style="list-style-type: none"> • ESIA is required to determine the environmental and social impacts of the proposed construction (irrigation infrastructure, rural infrastructure, marketing infrastructure, and feeder roads). • Prepare site-specific environmental management plan (ESMP) to guide construction activities.
<p>Presence of workers in construction sites are likely to escalate the spread of coronavirus disease (COVID-19), HIV/AIDS other STDs, as well as GBV and SEA</p>	<ul style="list-style-type: none"> • Observe MoH Covid-19 Guidelines to guide construction activities to limit the spread of the virus. Also, consideration is to be made to the WB’ ESF/Safeguards Interim Note: Covid-19 Considerations in Construction/Civil Works Projects, issued on April 7, 2022. • Determine GBV prevalence in all regions where construction activities will be carried out. • Develop a Code of Conduct on GBV to avoid the project escalating GBV and sexual harassment. • The code of conduct shall clearly state that ‘the project will not tolerate any forms of gender violence and will constitute grounds

	<p>for penalties and/or termination of employment’.</p> <ul style="list-style-type: none"> • All project employees, including contractors, shall be required to sign a code of conduct before the commencement of work. • Providing GBV/SEA requirements in bid documents and signing and adherence to the Workers’ Code of Conduct. • Training all construction workers and stakeholders on GBV and sexual harassment. • Awareness raising within the local community and labour force on sexual exploitation and abuse and avenues to report such cases if they arise. • Establishing and operationalizing GRM, whose approach is sensitive to issues of GBV and SEA
The challenge related to land take.	<ul style="list-style-type: none"> • Conduct due diligence on all proposed sites where the construction of irrigation infrastructure, rural infrastructure, marketing infrastructure, and feeder roads are planned to be constructed. • In case of land acquisition is required, the government will be necessary to conduct an assessment of the value of land and effect prompt and fair compensation of all project-affected people (PAP) in the case land acquisition is required
Low sensitivity to safeguard issues among some top officials.	<ul style="list-style-type: none"> • Enhance positive attitudes on E&S among all implementing institutions and agencies. This is to be done through training them on E&S scope and PforR financing to widen their understanding and win more support.
Weak collaboration between MoA and its institutions and LGAs during mainstreaming of E&S in agriculture activities.	<ul style="list-style-type: none"> • Strengthen collaboration between the MoA, its institutions and the LGAs on E&S matters. • Clarify each actor's roles and responsibilities during the project implementation.
Lack of dedicated E&S Units and personnel for some implementing institutions	<ul style="list-style-type: none"> • All implementing institutions for this project to have a dedicated E&S team in place with the appropriate staff before the commencement of the project.

	<ul style="list-style-type: none">• The team to get capacity building on PforR financing and E&S matters.
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CHAPTER EIGHT: RECOMMENDED MEASURES TO IMPROVE ENVIRONMENTAL AND SOCIAL SYSTEM

The analysis presented above confirms that with strengthening the identified shortcomings, Tanzania's environmental and social management system is adequate to address the environmental, health, safety, and social risks associated with the TFSRP. The MoA and its key implementing institutions (TARI, ASA, NIRC and LGAs) have experience in working with World Bank. There are also opportunities to further strengthen environmental and social management capacity and enhance performance at the program level and further defined during the consultation process and implementation, as required. The analysis identified the following areas for action in order to ensure that the TFSRP interventions are aligned with the Core Principles 1, 2, 3, 4, and 5 of Bank Policy: Program-for-Results Financing. Therefore, the ESSA recommends the following key measures for improved environmental and social due diligence in the Program (**Table 6**).

Table 6: Measures to Strengthen System Performance for Environmental and Social Management for the implementation of the Food System Resilient Program

Target Objective	Measures to be taken	Timeframe	Responsible	Instrument
<p>Ensure effective implementation of the Tanzanian environmental and social management system for the PforR program</p>	<ul style="list-style-type: none"> • Strengthen capacity for monitoring, supervision and enforcement of HSSE management measures by deploying Environmental and Socials Officers in all project participating institutions. • Strengthen monitoring capacity of E&S departments/Units at LGAs through supplying equipment and vehicles. • To ensure that ESIA approved for irrigation infrastructure development, rural infrastructure, construction of marketing infrastructure, and feeder roads, adequately address Health and Safety issues, hydrology, stream ecology, and downstream use/users, pollution and soil and land degradation. • MoA and other implementing agencies (TARI, ASA, NIRC and LGAs) will consult with the Bank during the review. Implementing institution will monitor ESMP implementation and E&S impacts and ensure ESMP compliance accordingly. • TARI and ASAs to dedicate E&S focal personel to oversee safeguards issues. 	<ul style="list-style-type: none"> • Within 6 months of FSRP effectiveness • Whenever the NEMC review process occurs • When new ESMPs are prepared • Within 6 months of FSRP effectiveness 	<p>MoA, TARI, ASA, NIRC and LGAs</p>	<ul style="list-style-type: none"> • ESIA submitted to NEMC meet the required standards. • ESMPs incorporate management measures. • Training is given to the E&S staff and contractors. • E&S personnel to be in place (ASA&TARI). • E&S supplied with vehicles and other equipment.

<p>Ensure collaboration between MoA, its institutions and LGAs on E&S matters through signing Memorandum of Understanding (MoU) between them. The MoU to clarify each actor's roles and responsibilities during the project implementation.</p>	<ul style="list-style-type: none"> Organize a workshop between key technical and decision making personnel from the MoA with the relevant E&S staff of the LGAs and discuss roles of each party in the implementation/monitoring of the activities. MoA (TARI, ASA, NIRC) and PORALG (LGAs) to sign MoU to collaborate in implementing E&S matters. PORALG in collaboration with District Executive Directors (DEDs) within project areas to appoint and dedicate an Environmental Officers who will be empowered on E&S matters and sufficiently involved in overseeing E&S issues under TFSR. 	<p>At the beginning of the Program</p> <p>Throughout the Project Cycle</p>	<p>MoA, TARI, ASA, NIRC and LGAs</p>	<p>Collaborative MoU between the MoA, its institutions (TARI, ASA, NIRC) and PORALG (LGAs)</p>
<p>Protect project workers and local communities against exploitation of labour, communicable diseases, GBV and SEA</p>	<p>MoA, ARI, ASA, NIRC and LGAs will collaborate effectively with OSHA and PMO-LEYD on health, safety, and labour management issues.</p>	<p>Ongoing.</p>	<p>All implementing institutions</p>	<p>Progress reports</p>
	<ul style="list-style-type: none"> Engage a representatives from the Tanzania Female Police Network and sensitize workers on GBV and SEA issues. Operationalize the Workers' code of conduct, including GBV/SEA prevention and response. 	<p>At the beginning of the Program</p> <p>Ongoing</p>	<p>Contractors</p>	<p>Include in-progress reporting</p>
	<p>All FSRP project to register with OSHA and get statutory inspections.</p>	<p>Within 6 months of FSRP effectiveness</p>	<p>All implementing institutions</p>	<p>OSHA registration certificate.</p>

	Mainstream Ministry of Health COVID-19 Management Protocol in all civil works and public consultation and engagement	Ongoing	All implementing institutions	Include in progress reports
	Train contractors on the Employment and Labour Relations Act, No. 6 of 2004. Ensure employment contracts are consistent with the Act	Within 3 months of the contract award	All implementing institutions	Training is given; any new contracts made consistent
	Ensure project' GRM is publicised to all affected people and contract workers.	Throughout project cycle	All implementing institutions	Information on GRM made available
Ensure land and way leave acquisitions proceed in accordance with Tanzania law and Regulations	<ul style="list-style-type: none"> • Ensure land and wayleave acquisition proceed in accordance with Tanzania law and regulations, specifically: Develop Due Diligence Reporting on land tenure status for all proposed sites where construction of irrigation infrastructure, rural infrastructure, marketing infrastructure, and feeder roads are planned to be constructed. • Develop systems for generating evidence of compensation of Project Affected Persons or land donation where private land is acquired. 	<p>In the review of any SPP project</p> <p>In the oversight of on-grid projects</p>	All implementing institutions	<p>Due Diligence Report in Place</p> <p>Progress supervision reports</p>
Promote sensitivity to safeguard issues among all implementing institutions.	Provide safeguard training to all implementing teams, including top management, to widen their understanding of E&S and PforR financing.	Within one year of FSRP effectiveness	MoA to spearhead E&S training	<p>E& training timetable</p> <p>E&S personnel get trained.</p>

Strengthen procedures to promote equitable allocation of benefits and impacts of rural electrification	<ul style="list-style-type: none"> • Guide screening to detect the presence of vulnerable or disadvantaged groups and measures for their consultation and participation so that project plans and designs take into consideration their needs, priorities, and preferences; • define mechanisms whereby vulnerable and disadvantaged groups will be provided with relevant project information in local languages and a form and manner socially acceptable to them; • specify that any project planning to acquire land in an area where vulnerable groups are present will undertake free, prior and informed consultation leading to broad community support; • emphasize that each project will utilize the GRM. 	Throughout project cycle	All implementing institutions	Progress supervision reports

LIST OF ANNEXES

Annex I: List of Stakeholders Consulted During Preparation of the ESSA MINISTRY OF AGRICULTURE (MOA) AND THE NATIONAL IRRIGATION COMMISSION (NIRC)

S/N	NAME	TITLE	TEL. NO.	EMAIL
1.	Tulizo Malavanu	Environmental Officer - MoA	0714557048 0717857048	
2.	Fumba Malima	Environmental Officer - NIRC	0653678982	
3.	Anna Kapufi	Social Officer - NIRC	0757701808	

TANZANIA AGRICULTURE RESEARCH INSTITUTE (TARI)

S/N	NAME	TITLE	TEL. NO.	EMAIL
1.	Dr. Frank Mmbando	Researcher		
2.	Deusdedit Mbazibwa	Researcher	0755881758	
3.	Dr. Cornel Masawe	Makutupora - Dodoma	0755611522	
4.	Dr. Lameck Makoye	Researcher (Plant Breeder) – Selian, Arusha	0763263453	
5.	Rose Ubwe	Technology Transfer – Selian, Arusha		
6.	Levina Silumpa	Storage – Selian, Arusha		
7.	Ziada Mtakimwa	Researcher – Selian, Arusha		

AGRICULTURE SEED AGENCY (ASA)

S/N	NAME	TITLE	TEL. NO.	EMAIL
1.	Eng. Kamugisha	Agriculture Engineer	0754690098	
2.	Viviano Hape	Procurement	0754324550	
3.	David Msuya	Accounting	0715346306	
4.	Justin Ringo	Acting CEO	0766996935	

MERU DISTRICT COUNCIL (ARUSHA REGION)

S/N	NAME	TITTLE	TEL NO.	EMAIL
1.	Zainabu Makwinya	District Executive Director		
2.	Ridhiwani Kombo	District Agriculture & Irrigation Officer	0754735643	
3.	Edwin Mathias Semkuwa	District Community Development Officer	0755677380	emathias@yahoo.com
4.	Tumaini Phinea Pallangyo	Gender Focal Person	0754674225	
5.	Charles Makama Mboya	Environmental Expert	07571922024	
6.	Felister Lonjini Mbugu	Economist	0769798882	

HANANG DISTRICT COUNCIL (MANYARA REGION)

S/N	NAME	TITTLE	TEL NO.	EMAIL
1.	Ibrahim E. Mbogo	Ag. District Executive Director	0786577777	
2	Samuel D. Lyimo	District Agriculture & Irrigation Officer	0699574433	Sanuel.lymo@lands.go.tz
3.	Gaudence William	Ag. District Community Development Officer	0784545325	ggtumaini@gmail.com
4.	Nelson Anicity	Social Welfare Officer	0752394712	nelsonanicity@gmail.com
5.	Godlove J. Mgoji	Environmental Management Officer	0684285338	mgojigodlove@gmail.com
6.	Erick J. Kayombo	District Planning & Coordination Officer	0754340706	Erickkayombo8@gmail.com

MKALAMA DISTRICT COUNCIL (SINGIDA REGION)

S/N	NAME	TITTLE	TEL NO.	EMAIL
1.	Daniel Tesha	Ag. District Planning & Coordination Officer	0786958667	Teshadaniel8@gmail.com
2	Elias E. Mbwambo	District Livestock Officer	0765028840	mbwamboelias@gmail.com
3.	Zakaria Lupindo	Ag. District Community Development Officer	0755677380	emathias@yahoo.com
4.	Mwajuma Issa	District Social Welfare Officer	0766766707	mwalakala@gmail.com
5.	Mwanitu Imikigwe	Land Surveyor	0717478822	Imwanitu7@gmail.com
6.	Representative Iguguno Women Group	Executive Secretary	0745733347	
7.	Representative of Kinangiri SACCOS	Chairman	0769286481	
8.	Representative MWANDO SACCOS	Chairman	0682501108	
9.	Representative Farmers Association - Jikwamue na Umasikini	Chairman	0783126401	
10.	Representative Youth Group (Pamba Safi)	Chairman	0785810924	
11.	Representative Youth Group (Vijana Mkalama SACCOS)	Secretary	0752873285	

KILOSA DISTRICT COUNCIL (MOROGORO REGION)

S/N	NAME	TITTLE	TEL NO.	EMAIL
1.	Kisena Mabuba	District Executive Director		
2	Vallence Lwampite	Economist	0682399474	Lwampitevallence@gmail.com
3.	Benjamini Mang'ara	Ag. District Community Development Officer	0711696903	<u>Bmang1143@gmail.com</u>
4.	Tumaini M. Geugeu	District Social Welfare Officer	0714466211	tumainirg@gmail.com
5.	Daniel G. Makala	Ag. District Livestock Officer	0717252107	<u>Daniel.makala@kilosadc.go</u>
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7.	Anthon H. Mbise	Environment Officer	0716007171	<u>tonyherod12@gmail.com</u>
8.	Representative of Women (Yote Maisha Group)	Chairperson	0782275551	
9	Representative of Youth Group (New Mbumi Youth SACCOS)	Chairman	0767241220	
11.	Representative Farmers Association (MVIWATA)	Chairman	0652316314	
12.	Representative Livestock Keepers (NARETISHO)	Secretary	0717289970	

KILOLO DISTRICT COUNCIL (IRINGA REGION)

S/N	NAME	TITTLE	TEL NO.	EMAIL
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5.	Ella Msigwa	District Legal Officer	0759576955	
6.	Justine Nyamoga	Hon Member of Parliament-Kilolo	0754899070	nyamogajustine@gmail.com
7.	Kassim N. Hema	District Treasurer	0784474847	Kassim_hema@gmail.com
8.	Twilumba Kadeha	District Agriculture Officer	0756733015	
9.	Hassan Ussi	District Internal Auditor	0754319030	
10.	Rutahrile Af.	District Natural Resource Officer	0716805789	
11.	Robert Sigge	Ag. District Natural Resources & Environmental Management	0745601437	sigerobert@gmail.com
12.	Aneth A Molela	Farm Supervisor; Dabaga	0656396778	Molelaaneth@gmail.com
12	Representative of Tanzania Home Economics Association (TAHEA)	Coordinator	0759390714	
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11.	Representative Upendo MMOJA	Coordinator	0768436923	mgovamaria@yahoo.com
12.	Representative Women Group – Jiongeze	Secretary	0756522260	

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6.	Helman Mpogole	Ag. District Legal Officer	0768506377	hermanmpogole@gmail.com
7.	Abbasi S. Mubanga	Ag. District Agriculture & Live Stock Officer	0766804612	Abasim7@gmail.com
8.	Godson Mbelwa	District Treasurer	0753923915	grmbelwa@gmail.com

Annex II: Issues discussed in regard to capacity assessment for the Implementation of E&S with the Ministry of Agriculture (MoA), National Irrigation Commission (NIRC), Tanzania Agriculture Research Institute (TARI), Agriculture Seed Agency (ASA) and the Local Government Authorities (LGAs) and their response

Introduction

The Environmental and Social (E&S) capacity assessment covered the Ministry of Agriculture (MoA) and its institutions; TARI, ASA, and NIRC. The assessment also covered PO-RALG and the six selected Local Government Authorities (LGAs). The E&S capacity assessment for the mainland was conducted per the World Bank Guidance on Program-for-Result on Assessing Borrower Capacity for Addressing Environmental and Social Issues Associated with Investment Projects supported by the World Bank. The assessment focused on Policy and legal frameworks, operational structures, experience in implementing World Bank and other donor-funded projects, availability of unit/department/team for the E&S and the staffing capacity, conflict resolution, E&S mainstreaming and performance, Grievance Redress Mechanism (GRM), gender inclusions, budgeting for E&S activities, handling of Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA), interactions with the public, private and other stakeholders.

1.1 Ministry of Agriculture (MoA)

1.1.1 Experience in Implementing Donor Funded and World Bank Projects

The MoA has vast capacity in implementing donor and WB financed projects. For the past five to ten years the government of Tanzania through the MoA has implemented various donor and WB financed projects such as ASDP I&II, MIVARF, PADEP, ERPP and DADPS. These projects were financed by different financiers such as the World Bank, JICA and Bill and Melinda Gates. These organizations have strictly guidance on how to implement E&S in its projects. Table 1 shows the experience of the Ministry of Agriculture to manage donor financed project and in working with the World Bank. The table indicates name of the projects including those financed by the WB, stating the budget, scope, and outcomes. The experience covers the past five to ten year also indicating how stakeholders including villagers were involved in implementing such projects.

Table 1: Experience of the Ministry of Agriculture in Implementing World Bank and other Donor funded Projects

No	Project name	Budget	Scope	Outcome	Stakeholders' engagement
1	Expanding Rice Productivity Project	US\$ 22.9 million	URT (mainland and Zanzibar)	Increase rice produced and marketed in the Morogoro Region in the Tanzania Mainland and in Zanzibar, leading to improved rural incomes and food security.	-During implementation NGOs and CSOs were involved during designing and during evaluation of the project. -Extension officers were included in day-to-day activities of the project in project sites

					-Farmers were involved in demonstration and translating the knowledge gained to their fields.
2.	Eastern Africa Agriculture Productivity Program		Ethiopia, Kenya, Tanzania, and Uganda	Increase agricultural productivity and growth in eastern Africa, focusing on priority commodities such as cassava, rice, wheat, and smallholder dairy production.	

In the course of implementing the donor financed projects the MoA has gained adequate experience and lesson which can be carried forward towards implementation of the proposed agriculture PforR program. **Table 2** shows major lesson/experience learnt by the Ministry of Agriculture during implementation of the donor funded and World Bank financed projects in the area of Social and Environmental risk management.

Table 2: Major lessons obtained by the Ministry of Agriculture through implementation of Donor funded project

No	Project	Lessons learnt
1	ERPP	-Improve rice productivity -The project through SRI improved farmers' resilience to climate change because it requires less resources including water and land - The project touched a well-being of community as it had direct impacts on their social and economy - Participation of women was higher than expected. women made up 50% of all project participants in only 2 years of project implementation
2	EAPP	The project showed how science and technology is enabling African farmers to grow more nutritious food and boost inclusive growth.

1.1.2 Presence of Unit for Management of Environmental and Social and the Availability of Staff

The capacity assessment on E&S focused in establishing whether the Ministry of Agriculture have a specific department/unit that oversee E&S issues focusing on its capacity in terms of number of staffs, academic qualifications, experience (for how long they have been in the sector) and which types of projects they have handled. The capacity assessment found that the MoA and one of its institution namely the National Irrigation Commission (NIRC) have units which oversee the environmental and social issues which is known as Environmental Management Unit (EMU). **Figure 1** shows the current organisation structure of the Ministry of Agriculture, Food Security and Cooperatives which indicates the presence of EMU.

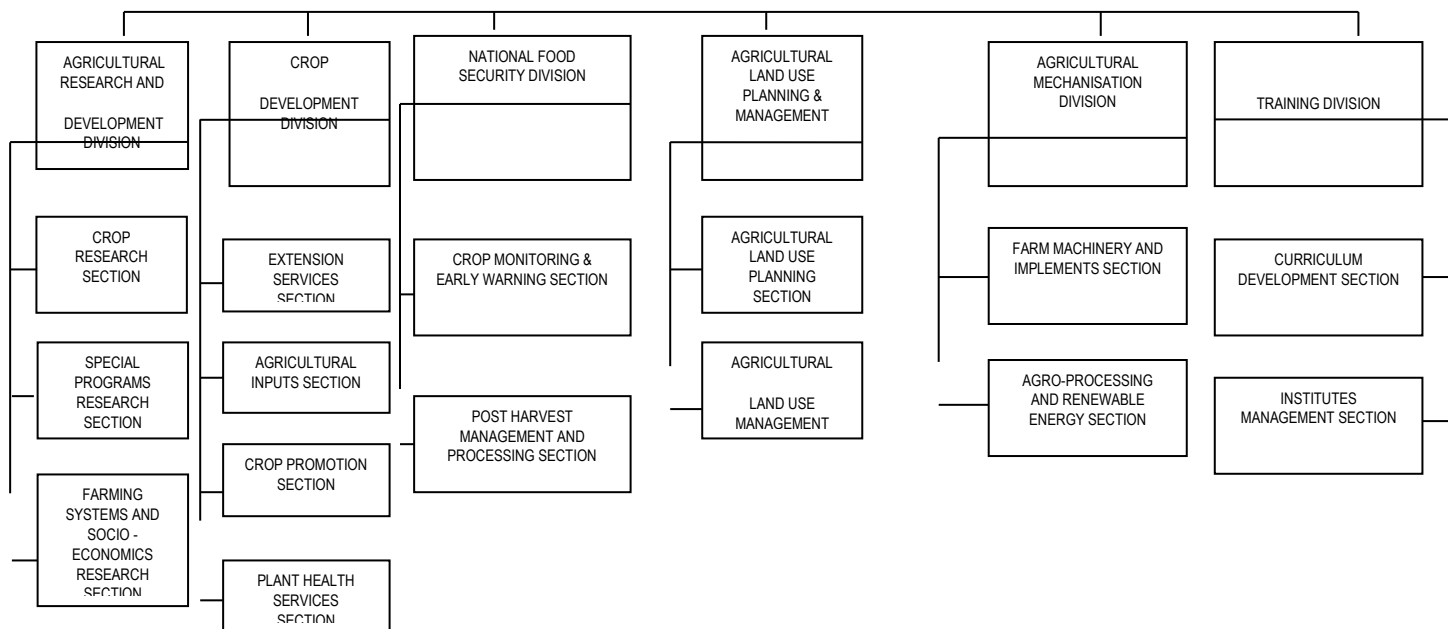
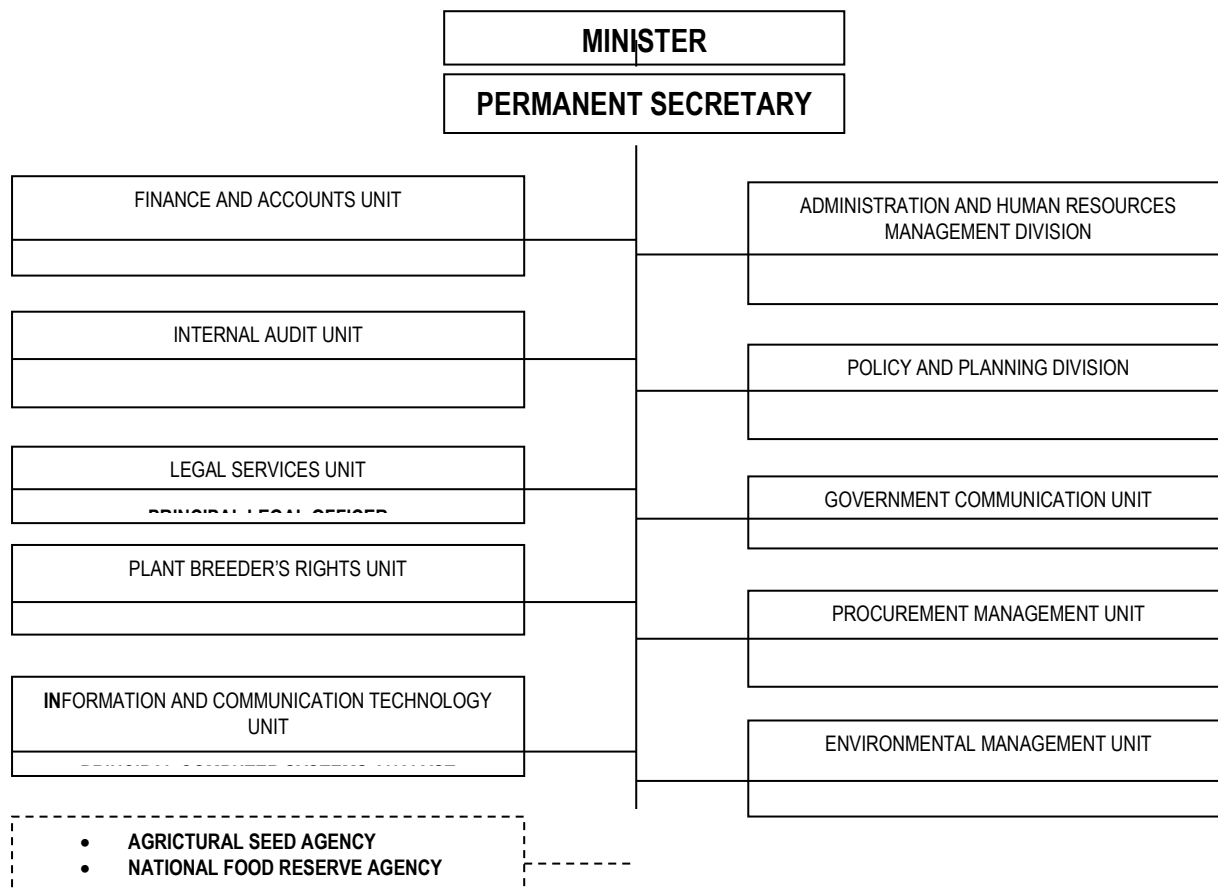


Figure 1: Current organisation structure of the Ministry of Agriculture, Food Security And Cooperatives which indicates the presence of EMU. (Source: MOA, 2022)

The EMU has provided support in various projects such as Environmental Management Act Supporting Project (EMA-ISP) 2007-2014, Mainstreaming environment in Nation, Sectorial and district development plans and decision-making processes, development of national capacity in integrating economic and environment assessment including budgeting and monitoring in Tanzania phase I (2013-2014), and mainstreaming environment in Nation, Sectorial and district development plans and decision-making processes, development of national capacity in integrating economic and environment assessment including budgeting and monitoring in Tanzania phase II (2016-2018). **Table 3** shows academic qualifications of EMU within the Ministry of Agriculture.

Table 3: Qualifications of E&S Staff for implementing the project

Sn	Title	Academic qualification	Number of staff	Experience (Years)
1	PAO	BSc. Agriculture General; MSc Natural Resources Assessment and Management	1	12
2	PAO	BSc. in Botany; MSc Natural Resources Assessment and Management	1	7
3	PAFO	BSc. Environmental Planning and Management	1	4
4	AO	BSc. Agriculture Economics and Agribusiness; MSc Management of Natural Resources for Sustainable Agriculture	1	11
5	EO	BSc. Environmental Sciences and Management; MSc in Environmental Studies	1	10
6	EO	BSc. Environmental Sciences and Management; MSc Sustainable Development (Ecology)	1	10
7	EO	BSc. Environmental Planning and Management	1	4
8	SAO	BSc. Agriculture General; MSc. International Environment and Agricultural Science	1	4
9	SAO	BSc. Environmental Sciences and Management	1	1
10	AO	BSc. Agriculture General	1	1

Note: MoA has a Sociology Expert from Land Use Plan Department

1.1.3 Collaboration with Development Partners and Private Sector

Collaboration with Development Partners

The Ministry has formed collaborations with various development partners in agriculture and other related activities. The partners include organizations which have financed implementation of different agriculture projects within the country. **Table 5** shows development partners and the project where collaborations has occurred, budget and the status of collaborations.

Table 5: Development partners, name of project, cost and the status of collaboration

No	DP's	Name of the project	Costs	Status
1	FAO	Capacity building related to multilateral environmental agreements in ACP countries phase III	USD 724,113	Implementation in collaboration with 6 LGAs (Kilosa, Mbalari, Kilolo, Karatu, Same and Kigamboni)
2	USAID	Building capacity for resilient food security	USD 775,880	Completed
		Scaling up CSA in Tanzania	USD 800,000	Under Preparation
3	IUCN-GCF	Enhancing Adaptive Capacity and Climate Resilience of Vulnerable Smallholder Farming Communities and Agro-pastoral Systems in Semi-Arid Areas of Tanzania Mainland and Zanzibar	Proposed USD 30 Million	Under preparation
4	WB	ERPP-Mainland and Zanzibar	22.9million USD	Completed
5	ADB and GAFSIP	TANPAC-Mainland and Zanzibar	78.95Billion Tsh	ongoing
6	Poland	Storage Capacity Expansion project-Mainland	125.69 billion Tsh	ongoing
7	UNEP	SSFA (Small Scale Funding Agreement) – UNEP Phase 1	USD 61,342	Completed
		SSFA (Small Scale Funding Agreement) – UNEP Phase 2	USD 105,000	Completed
		Ecosystem Based Adaptation for Rural Resilience in Tanzania	USD 2.6 Million	Implementation in collaboration with Vice President's Office
8	IFAD	Agriculture fisheries development program-Mainland and Zanzibar	117billion Tsh	Ongoing

Collaboration with the Private Sector

The Ministry of Agriculture has also worked with the private sector in implementing different agricultural activities. Collaborations with private sector has been on provision of seeds, fertilizers and agro-inputs. More opportunities exist for continued collaboration between the MoA and the private sector. Some of the private sector working with the MoA and the areas of interest are:

- Collaboration in Agro inputs in the area of machineries are Poly Machinery Co., Ltd., Intermech Engineering Factory, KILIMO BORA SYSTEMS LTD, Agricom Africa Limited, to mention few.
- In the area of Value chains and the types of crops are:
 1. Sunflower (SHADCO Ltd, TPYESER, MERU INVESTMENT,),
 2. Rice (RAFER GROUP, WILMER, MW Rice Miller, Rupe 2016 group, Kabakuli Import Export),

3. Maize (MRAYSHE COMPANY LTD, WORLD FOOD PROGRAM)
 4. Avocado (Africado Limited, Kibidula Farm Ltd, Lupembe Avocado, Avo-Africa),
- In the area of fertilizers are (YARA, OCP, Mohamed Enterprise)

1.1.4 Opportunities and Challenges in Collaborating with the Private Sector

In all collaborations between the MoA and the private sectors communities are involved as stakeholder and beneficiaries and that gender inclusion is key to delivering services in agriculture sector. Gender and vulnerable issues are integrated in various stages of value chain from initial stage of production (farm level) to the final stage (consumer level) and during planning of programs /projects. A number of opportunities exist for the MoA to work with the private sector. These opportunities are:

- Availability of enabling environment, availability, and suitability of these value chains in the country, increase in transparent and efficient use of resources, enforcement of accountability, promote the use of new technologies.
- Fruit/ Vegetable processing: A large variety of fruits and vegetables are produced in Tanzania. The most important fruits include mangoes, oranges, pineapples, passion fruits, bananas, avocados, papayas, peaches, pears, and grapes
- Cashew nut Processing: Cashews are a major cash crop in Tanzania and production has risen to 120,000 tons annually. However, only about 10 percent of the cashew nuts produced within the country are processed in Tanzania. There are opportunities in rehabilitating old and/or unused processing plants or establishing medium-scale processing plants.
- Oil seeds: Tanzania still imports a lot of edible oil. Processing of oilseeds locally is now on the rise, therefore there is potential in supplying oil pressing and processing equipment. Common oil seeds produced in the country include sunflower, sesame, groundnuts, palm oils.

There are challenges hampering collaboration between the MoA and the private sector which are:

- Food processing investments rely on imported machinery and technologies which are sometimes expensive.
- Local financing for agriculture is still limited due to high interest rates.
- Minimum prices hinder free market competition
- Low productivity of smallholder farmers which can not compete with large producers

1.1.5 Implementation of Civil Works and the Management of Environmental and Social Issues

In the area of civil works the MoA has been implementing various activities related to the construction of irrigation scheme, warehouses, laboratories and office buildings all over the country. Some of these construction activities have been implemented through the World Bank financing such as those implemented under the Expanding of Rice Production Project (ERPP). The MoA continues to implement various construction activities in different parts of the country which aims to improve delivery of agricultural services. In all the construction activities the MoA has been implementing E&S activities as stipulated in various policies and acts presented in Chapter three. The list of the completed and ongoing construction activities implemented by the MoA are presented here under.

- i. Construction of 16 warehouses and establishment of Centre of excellence under TANPAC with approximate 33.2 billion Tshs²¹.
- ii. Ongoing construction of warehouses (Ruvuma 31, Tabora 18, Singida and Dodoma10) with approximate 24.8 billion Tshs under ASDP II
- iii. Construction of warehouses across the Songea, Madaba, Malinyi, Katavi, Mkula, with approximate cost 19.94 billion under ASDP II
- iv. Construction of HQ building at Mtumba Government City with approximate cost of 24.4 billion Tshs.
- v. Construction and restoration of Cylos complexes and warehouses in Makambako, Mbozi, Songea, Sumbawanga, Mpanda, Shinyanga Babati and Dodoma Under Storage Capacity Expansion Project with approximate cost of 23.9 billion Tshs
- vi. Construction of Irrigation schemes and warehouses in Morogoro USD 22.9million
- vii. Rehabilitation and construction of physical infrastructure at MATIs with approximate cost of 5.2billion TShs for 2022/23

Civil works under the ministry is usually done through contractors who also provide technical assistance. Unprofessional services such as labourers are obtained from around the project areas where communities are given priority in temporally employment. However, in some projects such as EBARR the districts used local *fundis* through force account to reduce construction time. In the situation where contractors are used labour management is left on the hands of contractors and the MoA remains as a supervisor. In the situation where local fundis are used through force account, the labourers are managed by the construction committees formulated within the local area where the construction is taking place under the supervision of the district engineer.

During projects implementation, monitoring and evaluation is conducted by a team of experts from the environmental unit of MoA and the M&E experts from MoA and PORALG. The MoA has its own independent unit for Monitoring and evaluation which is situated in office of Director of Policy and Planning.

1.1.6 By-laws, Guidelines and Environmental and Social Documents for Project Implementation

The MoA has implemented World Bank and Donor funded projects where various E&S documents were prepared as a requirement for funding apart from the country E&S policy and legal framework described under **Chapter 4**. Under Expansion of Rice Production Project (ERPP), the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) Investment Project and the Participatory Agricultural Development and Empowerment Project (PADEP), the MoA prepared Environmental and Social Management Framework (ESMF), the Resettlement Policy Framework (RPF) and Integrated Pest Management Plan (IPMP). The Environmental and Social Management Plan (ESMP) were also prepared for the construction of irrigation schemes and warehouse under the ERPP. These documents were the main guidance to the Ministry and the implementing institutions in implementing E&S issues and ensuring that implementation of project activities does not cause any harm to the environment and the community. Although these projects were under IPF its important to note that the MoA already has the capacity and awareness on the importance of incorporating environmental and social components in project activities.

1.1.7 Land conflicts, Grievance Redress Mechanism and Farmers support

²¹ These figures are in TSH whereas conversion should be 1USD is equivalent to 2320Tsh

The Ministry has a desk special for grievances to deal with internal issues, however for the of outsiders, all complains are directed to the PS where he will direct the complains to a respective division, or unit to resolve it and report again to the PS who will provide clarification to the complainant. For the case of normal routine, the Ministry of agriculture provides trainings on issues related to IPM and proper handling of agrochemicals and agro input in general. For the case of projects farmers and extension officers are provided with the personal protective gears (PPE) to prevent them from the impacts of agrochemicals.

There was no conflict related to land tenure among the projects areas probably due to the ongoing initiatives to prevent occurrence of the land tenure relate conflicts. Demarcation and issuance of legal ownership of land such as CCRO' in rural areas so that each land parcel is owned legally is among the key initiatives to reduce land related conflicts. Preparation of Village land Use Plans is another initiative which ensures that each piece of land is utilized according to the use specified.

1.2 Institutions under the Ministry of Agriculture and Irrigation

There are three institutions under the Ministry of Agriculture and Irrigation. These institutions namely Tanzania Agriculture Research Institute (TARI), Agricultural Seed Agency (ASA) and the National Irrigation Commission (NIRC). As per the implementation arrangement stipulated in **Chapter 2** These institutions form part of the main implementers of the project activities. The project components have activities which will be directly implemented by the three institutions in collaboration with the LGAs. The capacity assessment covered the three institutions and focused on assessing whether they have units or teams for implementation of E&S issues with adequate qualified staff, but also the budget allocation for the implementation of E&S in their activities. Other areas covered by the assessment are collaboration with the private sector and the community in addressing E&S issues and experience in implementing civil works. All of the three institutions have activities which have direct impact to the environment and the community if there is no mechanism to incorporate E&S during implementation. The following Sections covers the three institutions.

1.2.1 Agricultural Seed Agency (ASA), Morogoro

The assessment team visited the ASA offices in Morogoro to discuss various capacity issue in the implementation of its activities. ASA has a role to multiply seeds and sell to customers. Issues covered are described here under.

Staffing Capacity

On the staffing capacity to address E&S issues at the agency the team found the following;

- ASA does not have a unit to deal with E&S issues. The environmental issues are under the Business Development Directorate. ASA assigns a person, who is an environmental engineer to deal with environmental issues. The agency has no specific social officer in the agency. Social officer working within the district councils are being used when ASA is implementing its activities.
- They also use farm supervisors to help with the social issues. The farm supervisors are based on seed farms and report to the ASA HQ but work in close collaboration with the district council.
- The grievances are reported to the village government and ASA collaborate with the LGAs to address them. There is no specific GRM or grievance officer in the agency but information and grievance from outside are received through marketing and distribution Section.

Implementation of Civil Works Through Construction of Irrigation Schemes and Labour Management

ASA has constructed the irrigation scheme in Kilangali under the World Bank financed project namely Expanding of Rice production Project (ERPP). The agency is planning to expand to Arusha seed farm (200Ha), Kilimi – Nzega in Tabora region (400Ha) and Msimba in Kilosa, Morogoro region (200Ha). In Arusha the 5.5 Ha of the farm will be installed with the drip irrigation for horticultural activities while the other three farms will use pressurized irrigation system. ASA will hire contractors to install the irrigation system in the farms. In the past ASA has been using force account to implement its activities, which later changed to contractors due to the size of civil works. During installation of the irrigation schemes labourers are obtained from among the farmers living in nearby communities. These farmers don't sign any code of conduct, they are paid based on daily rates while others are contracted workers. Child labour is not the case in ASAs civil works.

Msimba seed farm had earlier prepared the ESIA (ESMP) report which needed revision. The report has been revised, ESMP prepared and is now undergoing NEMC review. ESIA reports for other seed farms have been prepared and awaiting NEMC decision on the provision of certificate.

Presence of Bylaws / Guidelines for E&S

ASA has guidelines on seed production which govern contracted seed growers and agro-dealers. Other bylaws used by ASA are as provided by the MoA. ASA uses country's OHS guidelines in the implementation of its activities.

Environmental and Social Issues in Seed Production

ASA deals with openly pollinated seeds, which are hybrid. Examples of such hybrid seeds are maize which is grown in Southern Highlands, other seeds are rice, sunflower, beans, groundnuts and the horticultural crops. ASA uses more than 65 seed types through open pollination. Apart from seed crops, ASA deals with tree seeds such as mango and avocados. ASA has 13 farms all over the country which fall under the farm section manager. In seed production activities environmental services are provided by agricultural officer's / farm managers while social issues are provided by district council social development officers where needed.

Conflicts between ASA and the Communities Living Surrounding Farms

Most conflicts are caused by the encroachment of farmers to ASA's farms, like for the case of Kilangali and Msimba. In Msimba more than 1000 acres were given to communities who had already built houses. ASA decided to surrender the land for community use. ASA has secured the remained land and proper boundaries are demarcated to avoid further encroachment. ASA is planning to fence all its farms in near future.

Experience in Implementing WB or Donor funded Projects

ASA was among the implementing entities of the Expansion of Rice Production Project (ERPP) which was implemented by the Ministry of Agriculture. Through the project ASA constructed the irrigation scheme in Kilangali and the office building in Morogoro. They also procured and was facilitated for the production of seeds. ASA has also been implementing Agriculture and

Fisheries Development Program (AFDP) which is financed by the loan from IFAD. In all the projects ASA is responsible for the implementation and monitoring of the ESMP.

Collaboration With the Private Sectors and Other Stakeholders

- ASA sells the seed to the private and public sector. For the private sector they deal with seed companies and agro-dealers.
- The consultants hired to conduct environmental and social assessment and other assignments report to ASA who later on reports to the ministry.
- ASA provides land for the seed companies to produce their seeds. ASA lend the land to the seed companies for duration of contract years.
- The minimum land they give to individual farmers is 100 acres. After the seed production, the farmers sell the seeds to ASA. In the past there were seasons where farmers wanted to sell their seed as grains due to hunger however, they were restricted by the contract.
- ASA assist the farmers with the required technical knowledge and follow-up.
- For the seed companies, no minimum amount of land is being giving. ASA gives contract for about 10 years. They don't sell their seeds to ASA.

Grievance Redress Mechanism (GRM)

There is no specific Grievance Redress Mechanism; all complaints are concerns related to seed quality and supply issues are resolved through the established Customer Care and quality control system while human resource and labour issues are addressed by the human resource department. The team was also informed that land related issue are resolved through the legal system.

Gender mainstreaming

The Agency follows the Ministry of Agriculture Gender Mainstreaming Guideline, however there are weak procedures on operationalization and follow up on specific issues; the Agency is depending on the Gender Focal Persons at the District level in dealing with gender issues at the community level.

1.2.2 Tanzania Agricultural Research Institute (TARI)

The Tanzania Agricultural Research Institute (TARI) was established by the Parliamentary Act No. 10 of 2016 to enhance and strengthen of agricultural research system in Tanzania. TARI is a semi-autonomous body under the Ministry of Agriculture, responsible for all agricultural research activities conducted by the National Agricultural Research System (NARS) in Tanzania. The Institute has 3 directorates namely Research and Innovation, Technology Transfer and Partnership and Administration and HRM. The Institute's mandate is to conduct, regulate, promote and coordinate all agricultural research activities conducted by public and private research institutes or organisations in Tanzania. TARI aims at strengthening national agricultural research system to enhance development and dissemination of technologies, innovations and management practices (TIMPs) to address the real needs of farmers and other agricultural stakeholders.

TARI has a network of 9 research Centres and 8 Sub Centres. The Centres are TARI Makutupora, TARI Ilonga, TARI Selian, TARI Ukiriguru, TARI Naliendele, TARI Mlingano, TARI Tumbi, TARI Uyole and TARI Kihinga. The Sub Centres are TARI Hombolo, TARI Dakawa, TARI Maruku, TARI Mikocheni, TARI Tengere, TARI Kifyulilo, TARI Ifakara and TARI TARI Kibaha. TARI Headquarters is located in Dodoma, Tanzania.

Collaboration with Other Institutions

TARI has signed Memorandum of Understanding with more than 60 institutions. Due to its nature of works TARI is constantly collaborating with TOSCI (Seed Regulators), ASA (Seed Agency), TPRI (Tanzania Pest Research Institute) which focuses on disease diagnosis and provision of phytosanitary certificate during importation and export and TFRA (Tanzania Fertilizers Regulatory Authority) who uses TARI's laboratory for analysis of fertilizers. TARI links with NEMC who provides environmental advisory role. TARI has also a strong relationship with the community.

Irrigation Schemes and Other Physical Infrastructure

TARI works with the total of 17 centers spread all over with the 18,000Ha of land for agriculture research. In the financial year 2022/2023 TARI is planning to conduct new construction and rehabilitate the total of 850Ha. These activities are likely to cause impacts to the environment and the surrounding communities if proper measures are not in place to manage them. TARI is expected to use registered consultants for large projects while small construction projects will be subjected to screening and handled inhouse.

Mainstreaming of Environmental and Social Issues

Agriculture is among the agent of environmental degradation. TARI conducts research to improve agricultural mechanisms in order to reduce impact to the environment. Currently E&S issues are made part of the National Agriculture Research Agenda. The Institute has not unit or staff dedicated for E&S issues and that such issues are under the directorate of Research and Innovation. The directorate's role is the generation of demand – driven agricultural technologies and innovations using cutting age technologies such as precision agriculture, modelling and biotechnology are among important issues emphasized under TARI. Demand driven technologies and adoption of Agricultural Innovations System (AIS) approaches and inclusiveness contribute in sustainable food systems and supplying raw materials to agro-industries. In this Directorates there are three sections which are; 1. Crop Research and Post - harvest management; research on development of new varieties, breeding, biotechnology, disease, post-harvest and crop management; 2. Natural Resources Management and Agricultural Engineering Research; research on agroforestry, soil fertility, plant nutrition, conservation agriculture, soil and water management; climate change; evaluation of labour serving equipment; soil mapping, land resources inventory and evaluation; collaborative research on testing farm implements and use of animal power traction; and 3. Social economics and Marketing Research; research on clientele participatory approaches, adaptation of technologies, impact assessment; analysis of institutional and policy amendment; value chain analysis; and household and gender mainstreaming. TARI conducts Environmental and Social Impact Assessment (ESIA) before construction of irrigation scheme using registered Consultants. TARI also mainstream E&S in GMO research.

The Environment and Social assessment team visited TARI offices in Selian, Arusha region and Uyole, Mbeya region.

1.2.3 Tanzania Agriculture Research Institute (TARI) – Selian, Arusha

Staffing Capacity

- The institute do research in 3 main crops including maize, beans, and wheat.
- The institute has 48 staff: 15 researchers and 33 supporting staff.

- The institute has technical staff who are involved in conducting research, breeding, soil analysis, post-harvest and value addition application.
- Coordinator for research and innovation are also present.
- The institute also has the Technological, Transfer, and Partnership (TTP) Department. The department main function is to take the research to the general public.
- The Institute have greenhouse and small irrigation schemes.
- There are conflicts with the community over encroachment which is handled by the legal team and through negotiation under the district commissioner.
- The institute has neither dedicated staff nor unit specifically for addressing environmental and social management issues in its daily activities although they have direct impact to the environment and society.

1.2.4 Tanzania Agriculture Research Institute (TARI) - Uyole, Mbeya

Crops and irrigation

- The dominant crops are maize, common beans, wheat, rice sunflower, round potatoes.
- The total land size in Uyole is 450 hectares. 30 hectares of irrigation land employs over head technique.

Staff capacity

- They have a gender specialist
- Presence of a Natural Resource Department for soil and climate.
- Grievance is handled via the suggestion box open to the public and through the disciplinary committee. The head of personal and Center Director also assist in resolving grievances.

Handling of Land Conflicts

TARI Uyole seldom have land issues since they have title deeds. However, they still experience some few intruders. They handle the land issues or try to resolve the conflicts with their lawyer and the district committee.

1.3 President's Office, Regional Administration and Local Government (PORALG) and Local Government Authorities (LGAs)

1.3.1 Local Government Authorities (LGAs)

Six LGAs were visited namely Meru, Hanang, Mkalama, Kilosa, Kilolo and Mbalali district councils. The following sections summarize issues found in all district's councils with regard to mainstreaming environment and social management in LGAs activities

1.3.1.1 Presence of unit / Department for Environmental and Social Issues and Staffing Capacity

Due to organization setup which is the same for all LGAs, they all have a dedicated department to deal with issues of environment, social development and safeguards. The 2022 approved organizational structure for all LGAs by the PORALG indicates that environment and social development are among the key department for service delivery at the district council. The basic functions of Local Government Authority as stipulated in the Local Government Authority (District Authorities) Act No. 7 of 1982 (Cap 287), and the Local Government (Urban Authorities) Act No 8, of 1982 Cap (288) are as follows: -

- (i) To maintain and facilitate the maintenance of peace, order and good government within its area of jurisdiction;
- (ii) To promote the social welfare and economic well-being of all persons within its area of jurisdiction; and
- (iii) Subject to the National policy and plans for rural and urban development, to further the social and economic development of its area of jurisdiction.

The current functions and organization structure of the LGAs comprises of 13 Departments and six (6) Units (**Figure 2**) as follows: -

- (i) Administration and Human Resource Department;
- (ii) Finance and Trade Department;
- (iii) Water Department;
- (iv) Works and Fire Rescue Department;
- (v) Planning, Statistics and Coordination Department;
- (vi) Health Department;
- (vii) Primary Education Department;
- (viii) Secondary Education Department;
- (ix) Land and Natural Resources Department;
- (x) Agriculture, Irrigation and Cooperatives Department;
- (xi) Livestock and Fisheries Department;
- (xii) Community Development, Social Welfare and Youth Department;
- (xiii) Sanitation and Environment Department;
- (xiv) Legal Unit;
- (xv) Internal Audit Unit;
- (xvi) Procurement Unit;
- (xvii) Information and Communication Technology Unit;
- (xviii) Election Unit; and
- (xix) Beekeeping Unit.

Figure 2: shows organization structure approved by PORALG in 2022 to be used by all the LGAs in the country.

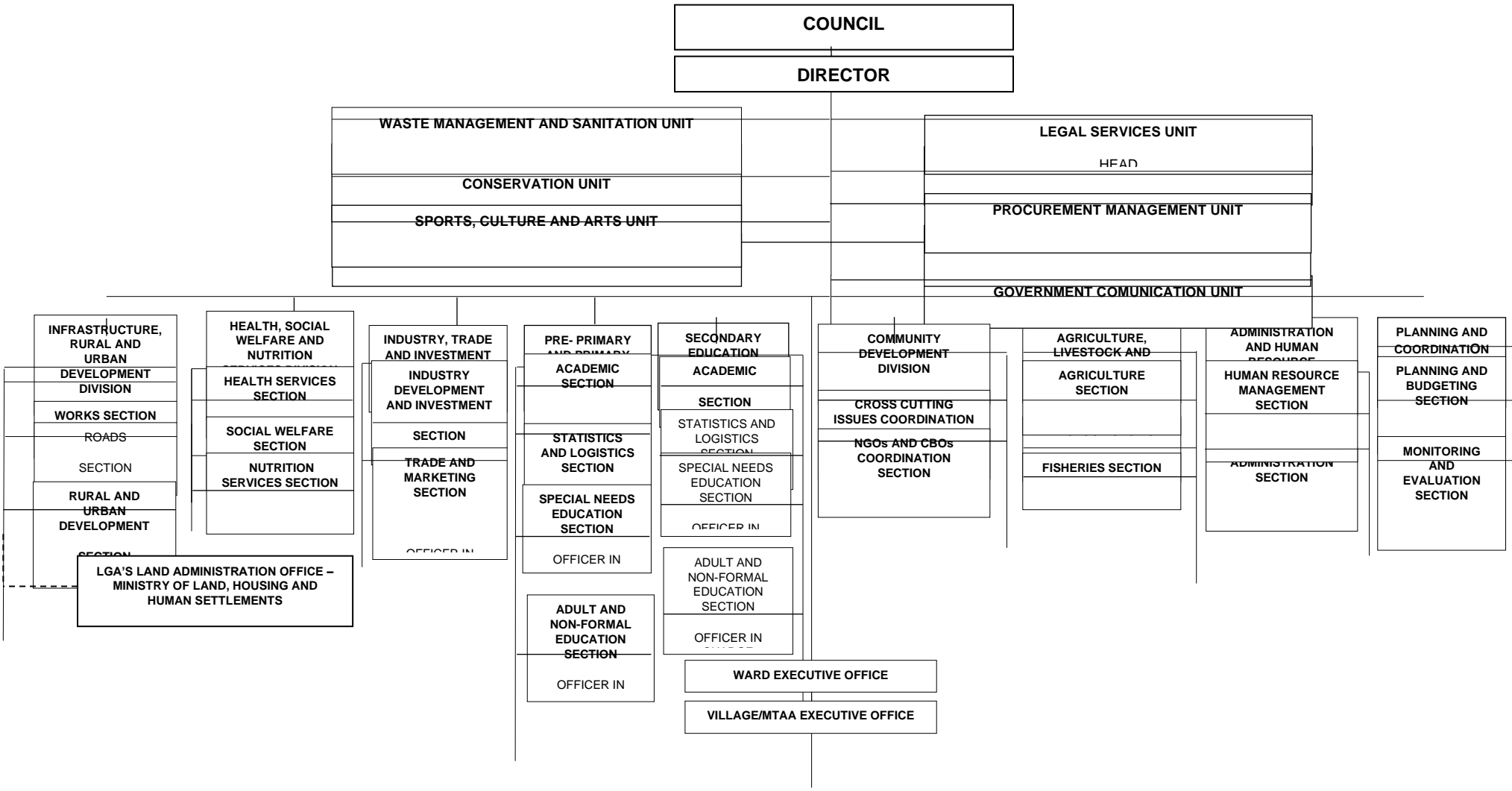


Figure 3: Approved Organizational structure for LGA (Source: PORALG, 2022)

These departments have adequate staffing which vary in number from one district council to the other with relevant knowledge and skills. Although the staff deficit on E&S is there due to increased population, the districts however have managed to continue providing E&S service delivery to the community using the available E&S officers.

For example, Meru district council has a total of 26 community development officers (CDOs) and 4 officers, 1 gender focal person and 2 grievance redress officers, while Hanang has 13 community development officers, 7 social welfare officers and 2 for environment and natural resources. In Mkalama district council there are 3 social welfare officers, 8 community development officers and 1 for natural resources and environment. Kilosa district council has 19 CDO while Kilolo has 19 CDOs, 5 natural resources and environment officers and 4 social welfare officers. In Mbalali district council there are 5 natural resources and environment officers, 20 CDOs and 8 social welfare officers. In implementing agricultural projects agriculture officers sometimes act as environmental officer in areas where there is deficiency of agriculture officers.

1.3.1.2. Experience in Implementing World Bank and Other Donor Funded Projects

LGAs have been implementing World Bank and other donor funded project in sectors such as education, health and agriculture some of which are implemented under the PforR program. Currently all LGAs are implementing World Bank financed projects in education namely Secondary Education Quality Improvement Project (SEQUIP) and Boosting of Primary Education Project (BOOST) where among other things the projects are responsible for the construction of classrooms and new schools in all LGAs. These projects are implemented under the PforR financing mixed with the Investment Project Financing (IPF) for some project components and activities. These projects will go for five years starting 2019 and 2021 respectively. Other World Bank and donor funded project which have been implemented at the LGAs level are ASDP I&II, DADPS, MIVARF and PADEP to mention few. These projects were financed by the World Bank and other donors namely JICA and Bill and Melinda Gates.

1.3.1.3 Budgetary Allocation for Environmental and Social Works at the District

All LGAs have two sources of budget, one from the central government and second, from own source. Out of the own sources which also includes grants 60% is channeled towards recurrent while 40% is channeled to development projects. Budget allocation for E&S issues is low and vary from one council to another due to own source capacity. Currently large part of the council's budget is allocated to Health and Education. Although E&S issues are embedded within the activities of other departments such as education, health and agriculture but the dedicated budget for the specific E&S issues is minimum in all councils due to lack of funds. For example, in Hanang education (60%) and health (25%) consumes about 85% of the entire council budget. Agriculture take about 35 to 40% of the own source. In Kilolo 25% of the 40% for development goes to women and disabled, 50% goes to education, and 20% to education. Only 5% goes to other departments including E&S. In general E&S issues receive little budget due to lack of funds in district councils.

1.3.1.4 Environmental and Social Services in Irrigation Schemes and Agricultural Zones

All the six visited district councils have areas potential for irrigation and some of the districts like Meru, Mbalali, Kilosa and Kilolo have irrigation schemes in some areas used for crop production. In Kilosa, there are 13 irrigation schemes whereas 3 are improved while the rest are locally made. In total 1040 Ha are under irrigation while more than 3000Ha has the potential for expansion of the irrigation schemes. Kilolo has 40 irrigation schemes and currently the Government is investing in 11 irrigation schemes while Meru has about 40 irrigation schemes of varying sizes and Mkalama has about 900acres potential for irrigation although it has not yet been used. The biggest irrigation scheme in Meru has 400Ha. Environment Section of the district council has a role to provide awareness and technical advice on environmental conservation for all the irrigation schemes. Only districts whose terrain has zones have three agricultural zones namely Meru and Kilolo district councils. These two districts have highland, medium and lower agricultural zones where different crops are grown depending on the climate and weather of the particular zone. For example, in Kilolo district council crops grown in highlands are maize, peas, potato, tea, coffee, pyrethrum and avocados while medium and lowlands grow horticultural crops such as tomatoes, onions and sunflowers. In Meru high altitude (more than 1000mm of rainfall) agricultural zone grows coffee, avocados, horticultural crops, banana and maize. The middle altitude (with 600 to 800mm of rain) grows maize, banana, paddy and fruits while low altitude (about 500mm of rain per annual) are semi-arid and grows legumes, maize and horticultural crops using irrigation methods. Presence of irrigation schemes and agricultural zones show how E&S are important in the delivery of agricultural services. In all the districts Community Development Officers are responsible for organizing irrigation organizations and groups for livelihood activities while environmental officers raise awareness on conservation issues.

1.3.1.5 Collaboration Between Environmental and Social Departments with Others Within the District Council and the Reporting Structure

In all LGAs, it is a condition for all agriculture projects that an environmental management officer to screen the project activities whether they have environmental and social challenges and submit the report for further decision. Gender issues is being sensitized, for instance, how many farmers are men, women and youth. Reporting follows council structure and is conducted four times per year while the finance monitoring is done on monthly basis. Ward councilors have three subcommittees who listen to the reports while the full council conducts meeting four times per annum. In the planning process LGAs use D&D method (Decentralization by Devolution) which encourages the planning process to begins at the lower levels going upward. In order to initiate the project all the departments have to be involved. Working in villages is also conducted in team work basis which include officer from the respective departments to optimize the resources.

1.3.1.6 Presence of bylaws and Guidelines for Managing Environmental and Social Issues Within the District

LGAs have bylaws governing various issues within the council such as cleanliness, conservation of environment and noise. Apart from the bylaws LGAs continue to use provisions from the national acts to manage environment and social issues such as Environmental Management Act of 2004 and its Regulations, Child Act of 2009, SOSPA, 1998, Occupational Health and Safety Act, 2003, National Guideline of Gender Based Violence. Others at the national level are child act,

guidelines for sexual abuse, guidelines for GBV. For agriculture, most of the by-laws are focusing on revenue collection.

1.3.1.7 Experience in Conducting Civil Works, Occupation Health and Safety and Labour Management

LGA conducts civil works during construction of classrooms for secondary and primary school²² and building for health facilities. They are also responsible for the construction of irrigation canals in some areas with the potential for irrigation. In conducting civil works LGAs use force account while in large construction such as bus stands, markets and irrigation canals, contractors are used. In recent years most LGAs have been using force accounts to save cost while maintaining quality under the main supervision of the construction committee and the district Engineer. Management of labour remains the role of LGAs (in case of force account) through construction committee and contractors. Labourers used for construction are obtained from communities found within the area. In some LGA the collaboration with the Occupational Health and Safety Authority (OSHA) is tasked to assist with the labour management through trainings on occupational health and safety in construction projects. Accidents and incidents are reported although its management is poor in all districts visited. Prevalence of child labour is not common in government projects. Before construction begins environmental and social screening is conducted to assess for potential E&S impacts leading to the preparation of the ESMP (Scoping Report), although this has not been the case for all the civil works under government programs. During construction works the E&S team which involves Environmental and social officer, land officer and the district Engineer conducts monitoring and evaluation of works to ensure that they are implemented as planned within the agreed quality and that E&S issues including health and safety are adhered to as per the E&S laws and guidelines. Social welfare and community development officers are responsible for community sensitization and awareness and mobilization of community groups to ensure that there is a community willingness to accept development projects. In large construction which involve contractors registered ESIA consultants are used to conduct E&S assessment and prepare Environmental and Social Impact Assessment report whereas the district E&S officers have the responsibilities to review and provide comments for the report.

1.3.1.8 Management of Land Conflicts and Related Issues

Land is becoming a scarce resource in some LGAs such as Meru, Hanang, Kilolo, Mbalali and Kilosa where the competition for land for agriculture and pastoralism is high. There are also conflicts over land between large investors and local communities where investors were given large chunk of land which they failed to develop causing villagers to encroach. There have been conflicts of land between one village and other within the same district and between different districts over boundaries issues. There are also conflicts between reserved and agriculture land. In some cases, land conflicts erupt between members of the same family. Complaints and conflicts

²² LGAs implement Secondary Education Quality Improvement Project (SEQUIP) and Boosting Primary Education Project (BOOST) which among other things are responsible for the construction of secondary and primary school classrooms respectively. LGAs have conducted E&S assessment for the construction activities under the two projects.

over land are received through normal Grievance Redress Mechanism (GRM) involving the District Commissioners office.

1.3.1.9 Code of Conducts

The code of conduct are available especially on labour issues and based on the Labour Law (2014), however somehow weak on the Government founded projects and much stronger on donor funded projects.

1.3.1.10 Grievance Redress Mechanism (GRM)

All LGAs follow PORALG guidelines on establishing Grievance Redress Mechanism; which is established from the Village to the District level. Almost in all visited districts there is an established and functional Grievance Desk under the Human Resource Department and in a few cases under the Legal Unit. Most grievances are related to land conflicts and matrimonial cases. The team observed availability and evidence of GRM Registers in all districts although in a few districts (Mkalama and Kilosa) the registers are outdated.

1.3.1.11 Gender mainstreaming

All the district councils follow the PORALG Guidelines for gender mainstreaming; the gender focal persons are available in all districts under the Community Development Department. Most of them are familiar with the World Bank and other Donors guidelines on gender mainstreaming. The community development department collaborates with the planning in identification of community needs and the gender related issues are mainstreamed in the district plans from the village to the district level. However, there is need for capacity building on GBV and SEA issues.

1.3.1.12 Gender Based Violence

The Gender Focal Persons are responsible for awareness raising and minimization of GBV cases in all districts; however, the level of awareness is higher in districts with more donor funded projects. There is still a compromising approach in resolving GBV cases in some districts like Meru and Kilosa. More knowledge and capacity building in GBV are needed across the LGAs.

1.3.1.13 Collaboration With Other Government Agencies

The LGAs collaborate with other government agencies responsible for agricultural inputs and services such as TARI, ASA and NIRC because the end users of their products are found in LGAs. There are Majukwaa ya Kilimo (Agricultural Forums) which bring together agricultural stakeholders including government, its agencies, NGOs and private sectors and other stakeholders to discuss various issues surrounding the sector. LGAs have a strong working relationship with the NGOs responsible for agriculture who bring feedback for every activity conducted within the district. In working with NGOs District Community Development Officer is responsible for registering community groups and provision of the financial technical assistance for groups seeking loan from NGOs. Agencies such as NIRC, TARI and ASA seek support from LGAs in the implementation of their activities although feedback reports are not regularly brought back to LGAs. LGAs maintain supervisory and monitoring roles due to their presence on the field. Although the LGAs are responsible and have access to the communities, their environmental and social officers and other teams are considered as participants and not partners, lacking decision-making power and ownership of the agriculture programs, such as those implemented by TARI, ASA, and NICR.

Annex III: Types of Projects Requiring and not Requiring EIA (According to the Environmental Impact Assessment and Audit Amended Regulation of 2018)

(a) Type A - Project requiring a mandatory EIA.

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

(b) Type B - Project requiring Preliminary Environmental Assessment

Project is likely to have some significant adverse environmental impacts but that the magnitude of the impacts are not well-known, a preliminary environmental assessment is required to decide whether the project can proceed without a full environmental impact assessment.

A: List Of Projects Requiring EIA (Mandatory List)

1. Agriculture
 - (i) Large scale cultivation.
 - (ii) Water resources development projects (dams, water supply, flood control, irrigation, drainage).
 - (iii) Large scale mono-culture (cash and food crops including floriculture).
 - (iv) Biological Pest Control.
 - (v) Agricultural projects necessitating the resettlement of communities.
 - (vi) Introduction of new breeds of crops.
 - (vii) Introduction of Genetically Modified Organisms (GMOs).
2. Livestock and Range management
 - (i) Large Scale Livestock movement.
 - (ii) Introduction of new breeds of livestock.
 - (iii) Introduction of new or foreign alien species.
 - (iv) Intensive livestock rearing units.
3. Forestry
 - (i) Timber logging and processing.
 - (ii) introduction of new tree species and development of forest plantation.
 - (iii) Selective removal of single tree species.
 - (iv) Biological pest control.
 - (v) Afforestation and reforestation for the purpose of carbon sequestration.
 - (vi) Construction of roads inside forest reserve.
 - (vii) Commercial charcoal, firewood and other forest harvest operations.
 - (viii) Establishment of commercial logging or conversion of forested land to other uses within catchment areas.
4. Fisheries
 - (i) Medium to large scale fisheries.
 - (ii) Artificial fisheries (Aqua-culture for fish, algae, crustaceans shrimps, lobster or crabs).
 - (iii) Introduction of new species in water bodies.
 - (iv) Large scale fish farming including prawn farming.
 - (v) Industrial fish processing and storage.
 - (vi) Introduction of Genetically Modified fish species and other aquatic species.
5. Wildlife
 - (i) Introduction of new species.

- (ii) Wildlife catching and trading.
 - (iii) establishment of hunting blocks or areas, especially involving resettlement of communities.
 - (iv) Translocation of wildlife.
 - (v) New protected areas especially involving resettlement of communities.
 - (vi) Wildlife ranching and farming.
 - (vii) Zoo and sanctuaries.
6. Tourism and Recreational Development
- (i) Construction of resort facilities or hotels along the shorelines of lakes, river, islands and ocean.
 - (ii) Hill top resort or hotel development.
 - (iii) Development of tourism or recreational facilities in protected and adjacent areas (national parks, marine parks, forestry reserves etc) on islands and in surrounding waters.
 - (iv) Hunting and capturing.
 - (v) Camping activities walk ways and trails etc.
 - (vi) major construction works for sporting purposes.
7. Energy
- (i) Production and distribution of electricity, gas, steam and geothermal energy.
 - (ii) Storage of natural gas.
 - (iii) Thermal power development (i.e. coal, nuclear).
 - (iv) Hydro-electric power.
 - (v) Development of other large-scale renewable and non-renewable sources of energy.
8. Petroleum
- (i) Oil and gas fields exploration and development.
 - (ii) Construction of offshore and onshore pipelines.
 - (iii) Construction of oil and gas separation, processing, handling and storage facilities.
 - (iv) Construction of oil refineries.
 - (v) Construction and/or expansion of product depots for the storage of petrol, gas, diesel, tar and other products within commercial, industrial or residential areas.
 - (vi) Transportation of petroleum products.
9. Transport and infrastructure
- (i) Construction, expansion or rehabilitation of new trunk roads
 - (ii) Construction, expansion or rehabilitation of airports and airstrips and their ancillary facilities
 - (iii) Construction or new expansion to existing railway lines
 - (iv) Construction of new, or expansion to shipyards or harbour facilities
10. Food and beverage industries
- (i) Manufacture of vegetable and animal oils and fats
 - (ii) Oil refinery and ginneries
 - (iii) Manufacture of dairy products
 - (iv) Brewing distilling and malting
 - (v) Fish meal factories
 - (vi) Slaughter - houses
 - (vii) Soft drinks

- (viii) Tobacco processing
 - (ix) Canned fruits, and sources
 - (x) Sugar factories
 - (xi) Other agro-processing industries
11. Textile industry
- (i) Cotton and Synthetic fibres
 - (ii) Dye for cloth
 - (iii) Ginneries
- 12 Leather Industry
- (i) Tanning
 - (ii) Tanneries
 - (iii) Dressing factories
 - (iv) Other cloth factories
13. Wood, Pulp and Paper Industries
- (i) Large scale manufacture veneer and plywood
 - (ii) Manufacture of fibre board and of particle - board
 - (iii) Manufacture of Pulp, Paper, sand-board cellulose – mills
14. Building and Civil Engineering Industries.
- (i) Industrial and housing Estate
 - (ii) Major urban projects (multi-storey building, motor terminals, markets etc)
 - (iii) Construction and expansion/upgrading of roads, harbours, ship yards, fishing harbours, air fields and ports, railways and pipelines
 - (iv) Developments on beach fronts
15. Chemical industries
- (i) Manufacture, transportation, use and storage of pesticide or other hazardous and or toxic chemicals
 - (ii) Manufacture of pharmaceutical products
 - (iii) Storage facilities for petroleum, petrochemical and other chemical products (i.e. filling stations)
 - (iv) Production of paints, vanishes etc
 - (v) Soap and detergent plants
 - (vi) Manufacture of fertilizers
16. Extractive industry
- (i) Extraction of petroleum
 - (ii) Extraction and purification of natural gas
 - (iii) Other deep drilling - bore-holes and wells
 - (iv) Mining
17. Non-metallic industries (Products)
- (i) Manufacture of cement, asbestos, glass, glass-fibre, glass-wool

- (ii) Manufacturing of plastic materials
- (iii) Lime manufacturing, tiles, ceramics

18. Metal and Engineering industries.

- (i) Manufacture and assembly of motorized and non-motorized transport facilities
- (ii) Body - building
- (iii) Boiler - making and manufacture of reservoirs, tanks and other sheet containers
- (iv) Foundry and Forging
- (v) Manufacture of non - ferrous products
- (vi) Manufacture of iron and steel
- (vii) Electroplating

19. Electrical and electronics industries

- (i) Battery manufacturing
- (ii) Electronic equipment manufacturing and assembly
- (iii) Installation and expansion of communication towers

20. Waste treatment and disposal

(a) *Toxic and Hazardous waste*

- (i) Construction of Incineration plants
- (ii) Construction of recovery plant (off-site)
- (iii) Construction of waste water treatment plant (off-site)
- (iv) Construction of secure landfills facility
- (v) Construction of storage facility (off - site)

(b) *Municipal Solid Waste*

- (i) Construction of incineration plant
- (ii) Construction of composting plant
- (iii) Construction of recovery/re-cycling plant
- (iv) Construction of Municipal Solid Waste landfill facility

(c) *Municipal Sewage*

- (i) Construction of waste water treatment plant
- (ii) Construction of marine out fall
- (iii) Night soil collection transport and treatment.
- (iv) Construction of sewage system

21. Water Supply

- (i) Canalization of water courses
- (ii) Diversion of normal flow of water
- (iii) Water transfers scheme
- (iv) Abstraction or utilisation of ground and surface water for bulk supply
- (v) Water treatment plants

22 Land development planning, land reclamation, housing and human settlements

- (i) Resettlement/relocation of people and animals eg. Establishment of refugee camps
- (ii) Establishment or expansion of industrial estates
- (iii) Establishment of estates for residential/commercial purposes

- (iv) Major urban projects (multi-storey building, motor terminals, markets etc)
- (v) Construction and expansion of hospitals with large bed capacity.
- (vi) Land reclamation including land under water bodies.
- (vii) Development of residential and commercial estates on ecologically sensitive areas including beach fronts.
- (viii) Dredging of bars, greyones, dykes and estuaries.

B: List Of Small-Scale Activities And Enterprises That Require Registration (May Or May Not Require EIA).

- (i) Fish culture
- (ii) Small animal husbandry and urban livestock keeping
- (iii) Horticulture and floriculture
- (iv) Wildlife catching and trading
- (v) Basket and other weaving
- (vi) Nuts and seeds for oil processing
- (vii) Bark for tanning processing
- (viii) Brewing and distilleries
- (ix) Bio-gas plants
- (x) Bird catching and trading
- (xi) Hunting
- (xii) Wildlife ranching
- (xiii) Zoo, and sanctuaries
- (xiv) Tie and dye making
- (xv) Brick making
- (xvi) Sea weed Farming
- (xvii) Salt pans
- (xviii) Urban Livestock Keeping
- (xix) Urban agriculture.
- (xx) Wood carving and sculpture
- (xxi) Hospitals and dispensaries, Schools, Community centre and Social halls, play grounds
- (xxii) Rain water harvesting
- (xxiii) Garages
- (xxiv) Black smith.
- (xxv) Tile manufacturing
- (xxvi) Kaolin manufacturing
- (xxvii) Livestock stock routes
- (xxviii) Fire belts.
- (xxix) Tobacco curing
- (xxx) Sugar refineries
- (xxxi) Tanneries
- (xxxii) Pulp plant
- (xxxiii) Oil refineries and ginneries
- (xxxiv) Artisanal and small-scale mining
- (xxxv) Rural road

Annex IV: Processes to Conduct Environmental Impact Assessment (EIA) as Stipulated in the Environmental Impact Assessment and Audit Regulations (Amended) of 2018.

Steps for conducting environmental impact assessment

Steps 1: Project Registration and Screening

1. Developer or proponent submits a dully filled registration form and Project Brief or Scoping Report to the Council as per regulation 4A.
2. Council shall examine or screen of the Project Brief or Scoping Report in accordance with regulation 7, 9 and 10.
3. Council shall undertake the screening of the proposed project in accordance with regulation 9 and any guidelines that the Minister may issue for this purpose.

Steps 2: Scoping

The developer, proponent, environmental experts or firm of experts shall undertake a scoping exercise in order to:

- (a) Identify the main stakeholders that will be negatively or positively impacted by the proposed project;
- (b) Identify stockholder's main concerns regarding the proposed project,
- (c) Identify main project alternatives;
- (d) Identify likely impacts, data requirements, tool and techniques for impact identification, prediction and evaluation;
- (e) Identify project boundaries in terms of spatial, temporal and institutional aspects;
- (f) Environmental experts or firm of experts shall ensure that there is adequate stakeholder participation in this and all the other stages of the Environmental Impact Assessment; and
- (g) The developer or the environmental experts or firm of experts shall prepare a Scoping Report and terms of reference for the Environmental Impact Assessment of a proposed project and submits to the Council for approval.

Steps 3: Baseline Study

- (a) The environmental experts or firm of experts shall undertake detailed survey of the existing social, economic, physical, ecological, social-cultural and institutional environment within the project boundary area; and
- (b) The consultant shall ensure that adequate stakeholder participation is engaged.

Steps 4: Impact Assessment

- (a) The consultant undertakes impact identification, impact prediction and evaluation of impact significance following a variety of appropriate techniques and approaches as specified in the guidelines issued under these Regulations;
- (b) The environmental experts or firm of experts shall ensure that concerns and views from stakeholders are fully taken into account during the assessment of impacts;
- (c) The environmental experts or firm of experts assesses all possible alternatives and their impacts and recommends most appropriate options.

Steps 5: Impact mitigation and enhancement measures

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

Steps 6: Preparation of Environmental Impact Statement

- (a) Environmental expert (s) or firm of experts shall prepare an Environmental Impact Statement adhering to contents outlined in these Regulations;
- (b) Environmental impact statement shall be accompanied with a stand-alone nontechnical summary in Both Kiswahili and English languages; and
- (c) All technical details, including assessment methodologies, list of consulted stakeholders and their signatures, drawings and terms of references are put in the appendix.

Steps 7: Review of Environmental Impact Statement

- (a) The Council that conducts reviews of the Environmental Impact Statement shall adhere to the review criteria and any guidelines that may be issued under these Regulations;
- (b) The Council may call for a public hearing and public review of the Environmental Impact Statement in accordance with conditions and procedures stipulated under these Regulations;
- (c) The Council shall submit review report to the Minister with its recommendations and all documents used in the review, for approval or disapproval.

Steps 8: Environmental Monitoring and Auditing

The Council shall conduct environmental monitoring in order to evaluate the performance of the mitigation measures following the prepared Environmental and Social Management Plan as well as Monitoring Plan, thus:

- (a) Monitoring include the verification of impacts, adherence to approved plans, environmental standards and general compliance of terms and conditions set out in the Environmental Impact Assessment certificate;
- (b) Developer should also undertake monitoring of the implementation of the project to ensure if mitigation measures are effective;
- (c) Both the developer and the Council shall collect data that may be used in future projects and for environmental management;
- (d) The Council and the developer undertake environmental audits for the project;
- (e) Mechanisms for stakeholder participation during the monitoring and auditing process must be defined and followed through;
- (f) The auditing exercise may focus in the following areas:
 - (i) Implementation/enforcement audit, which takes place when the Council verifies if the mitigation measures and levels of pollution are within limits;

- (ii) Performance/regulatory audit that entails identification of compliance to relevant legislation or safety standards;
- (iii) Impact prediction audits checks the accuracy and efficacy of the impact prediction by comparing them with monitored impacts;
- (iv) The Council collects and compiles information arising from auditing for future use; and
- (v) Developer collects data from the auditing and compiles information for project management and also for submission to the Council.

Steps 9: Decommissioning

This shall be the end of the project life. The decommissioning report shall be prepared either as part of the Environmental Impact Statement or separately, indicating how impacts will be dealt with, including costs of mitigation measures:

- (a) Developer undertakes the decommissioning of the project as per the proposals stipulated in the Environmental Impact Statement;
- (b) The Council shall continue to monitor implementation of the decommissioning plan, including rehabilitation of the land and other resources that were affected by the project; and
- (c) The decommissioning report shall ensure issues such as welfare of workers, resource users as well as their general livelihoods are not worse off as a result of the decommissioning.

Annex V: MultiStakeholders List of Participants