

Agricultural Sector Review 2017/2018 – 2020/2021



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Final Report

December 2021

United Republic of Tanzania Prime Minister's Office Agricultural Sector Review, 2017/2018 – 2020/2021 Final Report

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List of Abbreviations

ACRP	Agriculture Climate Resilience	DPG	Development Partners Group
	Plan	DPs	Development Partners
	Agricultural Council of Tanzania	EAC CET	East African Community
	French Development Agency		Common External Tarriff
	African Development Bank Agricultural Input Trust Fund	EPZA	Export Processing Zones Authority
	•	EPZs	Export Processing Zones
AGFEN	Agriculture Public Expenditure Review		Food & Agriculture Organisation
AGRA	Alliance for a Green Revolution	FCC	Fair Competition Commission
	in Africa	FDIs	Foreign Direct Investment
AJSRs	Agriculture Joint Sector Review	FOAs	Farmers' Organizations and
AMCOS	Agricultural Marketing Cooperative Society	FSSR	Associations Food Security Self-Sufficiency
AMP	Agricultural Marketing Policy	. 33	Ratio
ANSAF	Agricultural Non-State Actors Forum	FYDP I	The Five-Year National Development Plans
ARDS	Agriculture Routine Data Collection Systems	FYDP II	Five-Year Development Plan Phase Two
ASC	Agricultural Steering Committee	GAP	Good Agricultural Practices
ASCG	Agricultural Sector Consultative		Gross Domestic Product
	Group	GIF	Input Trust Fund
ASDP II	Agricultural Sector Development	HDI	Human Development Index
401.14	Programme II	HDR	Human Development Report
ASLMS	Agriculture Sector Lead Ministries	IFPRI	International Food Policy Research Institute
	Agriculture Sector Review	IIDS	Integrated Industrial
AWG	Agricultural Sector Working Group		Development
REE	business enabling environment	JASR	Joint Agriculture Sector Review
	Bureau for Food and Agriculture	JAST	Joint Assistance Strategy for Tanzania
D-T	Policy	JSR	Joint Sector Review
BoT	Bank of Tanzania	LGAs	Local Government Authorities
BRELA	Registration and Licensing Agency	LGFA	Local Government Finance Act
CAADP	Comprehensive African Agriculture Development	LVFO	Lake Victoria Fisheries Organisation
CARRI	Program Collaborative Africa Budget	MAFC	Ministry of Agriculture, Food Security, and Cooperatives
OADITI	Reform Initiative	MHA	Ministry of Home Affairs
CAG	Controller and Auditor General	MIT	Ministry of Industry and Trade
CCS	Cotton to Clothing Strategy	MLF	Ministry of Livestock and
COVID-19	Corona Virus Diseases 2019		Fisheries
CPO	Crude Palm Oil	MoA	Ministry of Agriculture
DADPs	District Agricultural Development Plans	MoDNS	Ministry of Defence and National Service

MoEST	Ministry of Education Science and Technology	OSHA	Occupational Safety and Health Authority
MoF	Microfinance institutions,	PER	Public Expenditure Review
M-ED	Agriculture Training Institutions	PMO	Prime Minsters Office
MoFP	Ministry of Finance and Planning	PMO-RALG	Prime Minister's Office Regional
	Memorandum of Understanding Micro Small Medium Enteprises		Administration and Local Government
MTP	Mini-Tiger Plan	PO BALG	President's Office- Regional
MWTC	Ministry of Works, Transport and Communication	TOTALO	Administration and Local Government
NAIP	National Agriculture Investment	PSO	Private Sector Organizations,
1 0 (1)	Plan	PSPNVD	Policies and Strategies that
NAP	National Agricultural Policy		Provide National Vision and Direction
NASSM	National Agriculture Sector	QDS	
	Stakeholders Meeting		Regional Agriculture Secretariat
NBPIS	National Beekeeping Policy Implementation Strategy	RCC	Regional Consultative Committee
NBS	National Bureau of Statistics		Regional Secretariats
NCDP	National Cooperative	SACCOS	-
NODI	Development Policy	<i>3,</i> 10 0 0 0	Organisation Organisation
NCU	National Coordination Unit	SAGCOT	Southern Agricultural Growth
NES	National Export Strategy		Corridor
NFNAP	National Food and Nutrition		Sunflower Development Strategy
	Action Plan		Special Economic Zones
NFP	National Forest Policy	SIDP	Sustainable Industries Development Policy
NFPIS	National Forest Policy Implementation Strategy	SIDP	Sustainable Industrial Development Programme
	Non-Government Organizations	SUA	Sokoine University of Agriculture
NICT	National Information and Communications Technologies	TADB	Tanzania Agricultural
NIP	National Investment Policy		Development Bank
	National Land Policy	TAFICO	Tanzania Fisheries Corporation
	National Multi sectoral Nutrition Action Plan	TAFSIP	Tanzania Agriculture and Food Security Investment Plan
NMP	National Microfinance Policy	TAHA	Tanzania Horticulture Association
NRDS I	National Rice Development Strategy	TAIDF	Tanzania Agro-Industrialisation Development Flagship
NSAs	Non-state Actors	TALIRI,	Tanzania Livestock Research
NSDS	National Skills Development Strategy	TANECU	Institute Tandahimba Newala Cooperative
NSYIA	National Strategy for Youth	TANBOADS	Union Limited Tanzania National Roads Agency
==	Involvement in Agriculture		Tanzania Plant Health Authority
NTP	National Trade Policy	TARI,	Tanzania Agriculture Research
NWP	National Water Policy	., .,	Institute
NYDP	National Youth Development Policy	TARURA	Tanzania Rural and Urban Roads Agency
ODA	Overseas Development Assistance	TBS	Tanzania Bureau of Standards
OECD	Organization of Economic Cooperation and Development	TCCL	Technical Committee of Component Leaders
	Sosporation and Development	TCD	Technical Committee of Directors

Tanzania Development Vision	TNTP	Tanzania National Trade Policy
Tanzania National Development Vision 2025	TNWP	Tanzania National Water Programme
Fisheries Management Plan II	TPSF	Tanzania Private Sector
Tanzania Fertilizer Regulatory		Foundation
Authority	TRA	Tanzania Revenue Authority
Tanzania Investment Centre	UHT	Ultra-Pasteurized Milk
The Tanzania Livestock Master	UNIDO	United Nations Industrial
Plan		Development Organization
Tanzania National Agricultural	URT	United Republic of Tanzania
•	USD	United States Dollar
G	UWAMARU	Umoja wa Wakulima wa
•		Maparachichi Rungwe
	VAT	Value Added Tax
	VETA	Vocational Education & Training
Vision		Authority
Tanzania National Livestock	VPO	Vice President's Office
Policy	WDC	Ward Development Committee
	Tanzania National Development Vision 2025 Fisheries Management Plan II Tanzania Fertilizer Regulatory Authority Tanzania Investment Centre The Tanzania Livestock Master Plan Tanzania National Agricultural Marketing Policy Tanzania National Agricultural Policy Tanzania National Business Council Tanzania National Development Vision Tanzania National Livestock	Tanzania National Development Vision 2025 Fisheries Management Plan II TPSF Tanzania Fertilizer Regulatory Authority TRA Tanzania Investment Centre UHT The Tanzania Livestock Master Plan Tanzania National Agricultural Marketing Policy USD Tanzania National Agricultural Policy Tanzania National Business Council Tanzania National Development Vision Tanzania National Livestock VPO Tanzania National Livestock

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Preface

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Executive Summary

Introduction

Agricultural sector is the backbone of the Tanzanian economy, contributing about 26.9 percent of the country's Gross Domestic Product (GDP). The sector includes outputs from crop production, livestock, fisheries, and forestry. It contributes 61.5 percent of the total employment and 65 percent of raw materials used by the industrial sector in the country. Agriculture also contributes about 30 percent of the total earnings from exports.

Tanzania is implementing the Second Agricultural Sector Development Programme (ASDP II). It is also implementing Tanzania Agriculture and Food Security and Investment Plan (TAFSIP) which is the country's National Agriculture Investment Plan (NAIP). ASDP II is a 10-year sector-wide programme being implemented in two phases divided into two five-year implementation period. The first phase covers the period 2017/2018 to 2022/2023.

Joint Agriculture Sector Review (JASR) is a platform for operationalizing mutual accountability as a mechanism for dialogue and building consensus around key issues affecting agriculture performance. The last ASR was conducted in 2015/2016 and since then, several changes have affected the performance of the sector. To this effect, it was necessary to review the sectoral performance since 2017/2018 to inform policy and planning.

The process of conducting the joint ASR 2017/2018 – 2020/2021 was subjected to the standard procedures of carrying out reviews for the performance of agricultural sector. It involved a team of representatives from the Agriculture Sector Lead Ministries (ASLMs) and the Non-State Actors (NSA). The review team held several joint meetings during the various stages including designing and validation of an inception report, interviews with various stakeholders and field visits in selected regions. The review team then drafted and deliberated on the ASR report findings and jointly with the lead consultants prepared the final report.

Findings on financial investments to the Agricultural sector

The ASR revealed that financial investments going to the agricultural sector have increased during the review period. Government budgetary allocation to the agricultural sector between 2017/2018 and 2019/2020 increased by 14.7 percent or an average annual increase of 7.35 percent. This was far higher than the 3.9 percent growth rate of the total government budget. Gradually, there has been discretionary increase in government budgetary allocation to the agricultural sector from 2.7 percent of the total government budget in 2017 to 2.9 percent in 2020. This implies that Tanzania is yet to fully adhere to the Comprehensive African Agriculture Development Program (CAADP) recommendation of upholding at least 10 percent of the total budget for the agricultural sector. There is a additional problem of delays and low disbursement of the approved budget with an average, for example, 73.7 percent between 2008/09 and 2017/18. The most under-disbursed component of the approved budget was the development budget. These challenges have negatively affected implementation of agricultural policies, plans and programmes/projects.

Overseas Development Assistance (ODA) disbursement to the agricultural sector increased from TZS 192.52 billion in 2017 to TZS 289.39 million in 2020, an increase by 50.3 percent or an annual average growth of 17.5 percent. By 2020, ODA as a percentage of total government budgetary allocation to the agricultural sector had reached 48 percent, which was higher than the average of 36 percent for sub-Saharan Africa. Private sector investment increased by an annual average rate of 68.3 percent, which was higher than the annual growth in government budgetary allocation of 10.5 percent; indicating that domestic private sector interest in the agricultural sector is generally improving. Foreign Direct Investment (FDIs) inflow to the agricultural sector was USD 322.14 million in 2017, which was an increase from USD 96.15 million in 2015. However, since then, FDIs have been gradually decreasing and reached

the lowest of USD 24.1 million in 2020. The main factors for the decline include the onset of the Corona Virus Disease (COVID 19), unfavourable business regulatory environment characterized by policy inconsistencies, inadequate policy implementation, unfavourable tax and non-tax barriers and investment regime.

Findings on inputs utilization

Provision and utilization of agricultural inputs and services have generally improved. Compared to the set targets, the following indicators have performed well and are on track to meet targets: hectare under irrigation, percentage decrease in postharvest loss in crop production and proportion of households using organic fertilizer. For some indicators, however, more effort is needed to achieve the targets on time. These include extension services, consumption of industrial fertilizers, usage of improved seeds, mechanization of agriculture, post-harvest loss in livestock products, and access to financial services including commercialization of farming activities. The lowest performance achieved and unlikely to meet the set targets are industrial fertilizer consumption, use of improved seeds, and decrease in postharvest loss for livestock products. Also, to a large extent, government expenditure on agriculture has remained low and unlikely to meet the Malabo Declaration Commitment of 10 percent of the total national budget.

Overall findings on performance of the sector

Overall, the findings of the ASR report show that to a great extent, the short term targets set by ASLMs and Financial Year Development Plan (FYDP II) will be/have been achieved, but the long term objectives and targets are unlikely to be achieved. Key issues are the transformative agenda of the agricultural sector and livelihoods; the expenditures and targets are too low to bring about the intended transformation.

Growth of the sector during the period under review

With an annual average growth rate of 5.4 percent, the GDP. growth targets of the agricultural sector and subsectors have been met. However, the country has not made progress in reducing its relative weight or share in the total GDP, because the decrease was only from 29 percent to 26.9

percent. There has been notable progress in reducing the number of people employed in the sector in order to increase productivity per person in favour of/relative to other economic sectors. The total share of the sector in employment has declined from 65.5 to 61.5 percent during the review period.

Crop production performance

Crop production is generally an increase for both food and cash crops nearly or fully meeting set targets for 2020; although it has been a challenge for many individual crop commodities to meet the set targets. The increase in production of food crops is driven by increasing productivity that has met the 2020 target. However, the observed increase in production of cash crops is driven by expanded acreage production rather than productivity which has declined during the review period.

Livestock production performance

The results of the joint ASR point to general atainment of the targets set in 2020 for liverstock and fisheries. However, most of the assessed indicators were for general production rather than productivity perfomance except for milk and beef production. Productivity of beef and milk production was lower than the target, while targets on agricultural commodity production and productivity were either weak or not completely achieved.

Performance of Fisheries and Forestry

Fish production improved by an annual average rate of 11.2 percent during the period under review; indicating that it will take about 6-7 years to double production, if productivity in fish remains the same. Forestry GDP improved by an annual average growth rate of 6.1 percent which was marginally higher than the total sector growth of 5.4 percent during the period.

Agricultural trade performance

Overall, compared to the set FYDP II development targets for the year 2020, trade performance was good for food crop exports including horticultural products and selected food commodities, and fish exports in which targets were either fully or nearly met. However, growth of export of traditional crops and contribution of forestry exports to total exports were far below the target set for 2020.

Development Impact

Compared to the set FYDP II development targets of the year 2020, the impact of the recent growth in agricultural output on development was satisfactory; the outcomes are close to the targets except for basic needs poverty for which performance is relatively low. However, the long term objectives for 2025 of eradicating poverty and reducing under-fives' stunting and underweight to 10 percent and 5 percent are unlikely to be met unless additional policy measures are put in place to speed up performance.

Effectiveness of institutions and regulatory frameworks

The ASR revealed that the country has relatively well-developed regulatory, institutional, and programmatic frameworks for supporting the development of the agricultural sector in line with ASDP II. And the vision is to ensure the framework is appropriate, coherent, and predictable. While these regulatory frameworks are in place, the ASR has established room for further improvement in the medium-term.

Findings on policies and development programmes

Likewise, the study observed that notable progress in sector performance during the period under review is attributed to the implementation of the existing policies and programmes. According to the study, there are several challenges affecting the performance of the agricultural sector including managerial, resource mobilisation and management, value chain management, and enabling environment.

Key recommendations for improvement

- Increase strategic government investment to enhance commercialization in the agricultural sector
 - (i) Support establishment and strengthening of farmers' groups/associations and produce collection centres to enhance identification of farmers, reachability, aggregation of produce, sorting and branding of produce and marketing/ pricing. This would apply to both access to inputs and produce markets with reduced transaction costs.

- (ii) Increase investments in strategic irrigation infrastructure, rural roads and other support agricultural infrastructure/facilities linked to priority agricultural value chains.
- (iii) Facilitate the establishment of strategic industrial parks which will cater for agroindustries. This may include establishment of agro industrial yards within some of the existing industrial parks.

2. Enhance agricultural production, productivity, and profitability

- (i) Expand access to improved agricultural inputs:
 - promote increased availability of improved seeds for all priority value chains.
 - support farmers to synchronize utilization of improved seeds with the product markets through their associations. This may include enhanced access to financial credits for farm inputs,
 - facilitate increased access to soil health testing services and improved programmes, and
 - facilitate access to industrial fertilizers and agricultural machinery.
- (ii) Improve extension services:
 - provide relevant in-service training,
 - increase the number of extension officers and continue with development of suitable online digital platforms for reaching farmers,
 - link extension officers with farmers' groups/associations and farmers'/ produce collection centres, and
 - develop a digital mechanism for monitoring the performance of extension service/officers.
- (iii) Improve farmers' access to financial services
 - finalize and scale up the Tanzania
 Agricultural Development Bank (TADB)
 trial model of arrangement with major
 processors to manage small loans
 provided to farmers,

- support farmers' groups/associations to link with financial institutions/ scheme, and
- train farmers' groups/associations on accessing and utilising financial services.
- (iv) Design and implement additional policy measures for enhancing inclusive participation in agricultural production social groups – gender, age and education.

3. Strengthen multi-sectoral approaches to enhance food and nutritional security

- (i) Review the ASDP II implementation structure to bring in actors working to promote nutritional security.
- (ii) Facilitate key implementing actors of National Multi-sectoral Nutrition Action Plan (MNAP) to prepare specific action plans and report their implementation performance regularly.
- (iii) Review District Agricultural Development Plans (DADPs) to mainstream relevant MNAP actions.

Enhance measures in resilience building especially climate smart agriculture and irrigation schemes

- (i) Facilitate implementation of the Agriculture Climate Resilience Plan (ACRP) – through enhancement of resources and institutionalisation mechanisms.
- (ii) Train extension officers on climate smart agriculture.
- (iii) Review DADPs to mainstream relevant ACRP actions.
- (iv) Include ACRP implementation progress in ASDP II performance reporting.

5. Strengthen agriculture data systems to adequately report on all Malabo and ASDP II indicators

- Increase funding for M&E activities, particularly those related with financing of collection of data on key agriculture indicators.
- (ii) Strengthen the national M&E capacity for harmonised and integrated data collection, management, analysis and reporting in the

- agricultural sector at five levels: ASDP II Secretariat, ASLMs, Regional Agriculture Secretariat (RAS), Council and Ward Development Committee (WDC).
- (iii) Develop a digital M&E platform for tracking the implementation of ASDP II by key implementing actors.
- (iv) Commission analytical studies to collect data and provide empirical evidence on progress made in meeting Malabo commitments.

Address constraints that limit Tanzania from taking full advantage of the intraregional African trade in agricultural commodities and services

- (i) Establish and review the specific regulatory barriers to trade that still exist.
- (ii) Strengthen capacity of all government agencies involved in the promotion of inter-regional African trade for commodities and services.
- (iii) Strengthen capacity of the private sector to participate in the regional trade.
- (iv) Design/create a national platform that will effectively and timely link and support all key actors in inter-regional African trade for commodities and services.

7. Provide an enabling business environment for agricultural sector

- (i) Assess and review major regulations that negatively affect the performance of the country's strategic and priority agricultural value chains.
- (ii) Expedite implementation of the blueprint for regulatory reforms.
- (iii) Cascade the implementation of Tanzania Agricultural Industrial Development Flagship (TAIDF) into strategic plans and programmes for public institutions, private sectors organisations and Development Partners (DPs).

8. Accelerate the implementation of ASDP II

(i) Support the ASDP II Secretariat to coordinate regular meetings of the ASDP II organs as per the approved structure to enable effective joint planning, resource mobilisation, programme implementation,

- monitoring, evaluation, and learning/ change of state actors, NSA and DPs'
- (ii) Support and ensure all District Councils develop and implement DADPs with close involvement of the NSA
- (iii) Facilitate capacity development for the effective implementation of ASDP II targeting ASLMs but more importantly RSs, councils, ward and village governments as well as extension service officers.
- (iv) Facilitate capacity development for the effective implementation of ASDP II targeting private sector/non-state sector coordinating institutions.
- (v) Strengthen improvement and implementation of ASDP II performance monitoring and reporting, with a focus on implementation performance and results monitoring.

1 | Introduction

1.1 Background

Agriculture is an important sector of the Tanzanian economy. The sector contributes about 27 percent of the country's GDP (NBS, 2020), 61.5 percent of the total employment (Economic Survey 2020) and 65 percent of raw materials used by the industrial sector. Agriculture also contributes about 30 percent of the total earnings from exports (MoA, 2020). Tanzania is implementing the second phase of the ASDP II alongside TAFSIP) which is the country's NAIP. ASDP II is a 10-year sector-wide programme being implemented in two phases and divided into two five-year implementation period. The first phase covers the period 2017/2018 to 2022/2023. ASDP II was designed based on the lessons learnt during the ASDP I implementation.

The ASDP II has four prioritized intervention areas/components:

- 1. Expanding sustainable water and land use management for crops, livestock and fisheries.
- Enhancing and increasing agricultural productivity and profitability for some priority commodities.
- Commercializing, improving and expanding marketing, value addition promoted by a thriving competitive private sector and effective farmer organizations.
- Strengthening institutions, creating enabling conditions and providing coordination framework (URT, 2016).

The implementation of ASDP II involves a wide range of stakeholders including the government and public institutions, private sector, DPs financial institutions, agriculture NSA and farming communities. Implementation of the ASDP II by the government is led by ASLMs namely;

Ministry of Agriculture; Ministry of Livestock and Fisheries; Ministry of Industry and Trade;

Ministry of Land, Housing and Human Settlement Development; Ministry of Water; President's Office-Regional Administration and Local Government (PO RALG); Ministry of Finance and Planning (MoFP); Ministry of Defence and National Service (MoDNS); Ministry of Home Affairs (MHA). The Prime Minister's Office (PMO) is responsible for the national coordination of the programme. The ASLMs work in partnership with other stakeholders in the sector in implementing the ASDP II including agriculture NSAs, development partners, NGOs and FBOs, farmers' organizations and associations, and farming communities.

The joint ASR is a crucial platform for operationalizing mutual accountability as a mechanism for dialogue and building consensus around key issues affecting agricultural performance.

The joint ASR creates a platform to;

- assess the performance of the agricultural sector.
- assist governments in setting sector policy and priorities, and
- iii. assess how well state and NSA have implemented pledges and commitments laid out in NAIPs and other agreements.

The joint ASR is guided by several principles including national ownership and leadership, relevance to NAIP and other cooperation agreements, inclusive participation, commitment to results by all participants, impartiality and evidence-based decision making, enhancing national planning, sensitivity to gender, and making the process a learning experience.

The Government of Tanzania is committed to the mutual accountability principle CAADP which seeks to "promote evidence-based agricultural policy planning and implementation processes through peer review, dialogue, benchmarking, and the adoption of best practices." In partnership with the leading actors in the agricultural sector, the government leads and coordinates agriculture sector review, with a view of strengthening the agricultural policy and planning process.

Tanzania has traditionally conducted two studies that complement one another to inform the joint ASR discussions. The studies are the Agriculture Public Expenditure Review (AgPER)¹ and the

AGRA will team up with FAO/MAFAP to support the government on AgPER.

ASR². Since the last joint Agriculture Sector Review (ASR) 2014/2015 - 2015/2016, there have been ongoing and new development programmes and projects within and outside the sector, with impact on performance and economy. Meanwhile, natural factors, policy and regulatory issues, including those which have emerged since the last review, have a bearing on the performance of the sector. To this effect, review of the performance of the sector since 2017/2018 is necessary to inform policy and planning. It is envisaged that this review will provide input into the upcoming mid-term review of the ASDP II.

The joint ASR is a sectoral review process that evaluates the performance of the sector from one year to the next. It measures progress on performance and examines key issues, including sector growth and the contributing factors, poverty reduction and its constraints, and possible future interventions for the development of the sector. An ASR report serves as a background document for the objective and evidence based participatory review of the performance of the sector during a joint ASR workshop.

The objective of this ASR is to conduct a review of the performance of the agricultural sector with a view of promoting evidence-based programmes for strengthening policy planning and implementation processes in the sector. It seeks to bring out the extent of achievement made in agricultural production, country wide development results and under Malabo Declaration, so that the underlying policy, planning, institutional and implementation issues can be streamlined to timely achieve the set targets in the agricultural sector.

Specifically, this ASR seeks:

- To conduct a review of agricultural policies, programmes, institutions, and implementation processes for the period 2017/2018 to 2020/2021.
- To identify and analyse key trends, success factors, and challenges, identify, evaluate, propose critical strategic and policy options to improve the performance of the sector and identify and evaluate future core public spending priorities and reforms in the sector.
- To review the performance of the agricultural production and trade using mutually agreed indicators under the Malabo Declaration and ASDP II framework.

- 4. To assess country performance against agricultural sector growth targets, with specific subsector and commodity targets.
- To undertake a review of progress in development results with a focus on poverty, food and nutrition security using standard indicators under the Malabo Declaration.

1.2 Sector Performance related questions addressed by this ASR

The agricultural sector consists of crops, livestock, fishery, and forestry subsectors, which are in turn made up of numerous commodities and commodity groups. Specific growth rate targets are provided for the entire sector as well as for different subsectors, commodity groups, or individual commodities in various government policy documents including, the ASDP II, the Second Five Year Development Plan (FYDP II), among others. The research questions include:

- To what extent have the growth targets been achieved in the overall agricultural sector, as well as in the different subsectors and commodities?
- 2. How have the subsector and commodity achievements contributed to overall sector performance?
- 3. What progress has been made in addressing the challenges faced by farmers and other actors in the agricultural sector?

1.3 Report Structure

First, the presentation of this ASR report begins with trend analysis of the performance of the agricultural sector by analysing the trends in agro inputs both financially and physically. Secondly, the report analyses how the inputs have translated into improvement of agricultural production during the review period. The report includes general and specific analysis of selected few commodities, both ASDP priority and non-priority, and how policies, institutional bottlenecks, planning and implementation arrangement have impacted on the sector to produce the observed results. The three subsectors of agriculture – crop, livestock and fisheries, and forestry are distinguished in the analysis.

Thirdly the report analyses performance of agricultural trade, both in the domestic and regional markets, and determines contribution of the sector and specific agricultural commodities to the economy. The contributing factors in terms of policies, institutional bottlenecks, planning and implementation arrangements have been underscored analogously.

Among the development results indicators set for welfare impact assessment of the agricultural sector are nutritional improvement indicators, whose performance has been assessed in the context of set targets in ASDP II and Malabo declaration.

Lastly, the ASR report has assessed the existing policy and institutional framework as well as the implementation of sector policies and programmes with focus on the identification of gaps and proposing the relevant policy and other interventions.

The process of developing the joint ASR was evidence based, inclusive and consultative. The collection of data, analysis and report writing was spearheaded by two consultants who worked in close collaboration with national JSR technical team under the ASDP II National Coordination Unit (NCU). This team comprised of representatives of (ASLMs), DPs (AGRA and FAO) and the NSA. The JSR technical team were responsible as follows:

- Support the ASR consultants to access both quantitative and qualitative data and relevant documentation and information to facilitate execution of the assignment.
- ii. Serve as JSR focal points within ASLMs to assist with the arrangement of meetings and facilitate exchange of information.
- iii. Review and provide feedback on the draft inception reports produced by the Public Expenditure Review (PER) and ASR consultants.
- iv. Review and provide feedback on the first and second drafts of the PER and ASR reports produced by the consultants.
- v. Strengthen own capacity on JSR process through their involvement in the process: this includes, participation in JSR seminars, field visits, workshops and meetings as well as working with the national consultants to learn/understand the type of analysis used as part of their capacity building process

The following sub-sections provide summary of the approaches used in data collection and information gathering and analysis.

1.4 Method for Data Collection and Information Gathering

2.2.1 Desk Review

During the desk review process, literature from published and unpublished sources was examined. Several documents were reviewed including, statistical abstracts and economic surveys from the National Bureau of Statistics; past agricultural sector reviews, PERs, ASDP joint implementation reviews, M&E reports and budget documents from the agricultural sector line ministries, private-sector

reports, research reports, and other technical reports. The review involved a detailed cross-referencing of sources of information, analysis of data collected, and synthesis of information to respond to the outline of the report.

2.2.2 Stakeholder Consultations

Different approaches were used for the stakeholder consultations including key informant interviews, face-to-face interviews, virtual communication, email, and telephone conversations. The agricultural sector stakeholders interviewed were the staffs of the Ministry of Agriculture (MoA), Ministry of Livestock and Fisheries (MLF), President's Office - Regional Administration and Local Government (PO-RALG) and NSA, DPs, and research institutions. Representatives of the private sector, DPs, civil society, and research institutions were also interviewed in this process.

2.2.3 Consultative Meetings and Workshops

In addition to key informant interviews, consultative workshops and meetings also provided an opportunity for gathering views of various stakeholders. Two consultative workshops were held as follows; an inception report workshop held on 6th July 2021in Dar es Salaam; and JSR draft report review workshop held in Dar es Salaam. The proposed methodology was refined in accordance with comments made by stakeholders during the inception workshop, to ensure the report meets the standards specified by the client. Subsequently, comments made during the JSR draft report review workshop have been incorporated in this final ASR report.

2.2.4 Field Survey

A limited but focused field survey was carried out to supplement data gathered during desk review and stakeholder consultations. The field investigations were conducted in 6 regions, namely, Singida, Mwanza, Iringa, Mbeya, Pwani and Dar es Salaam. These regions were selected because they were collectively involved in the production and processing of a wide variety of agricultural products (**Table 1.1**). In-depth discussions were held with selected key informants including: agro processors and their associations (big and SMEs),

1.5 Data Analysis

2.2.1 Quantitative Analysis of Performance

Quantitative analysis adopted a baseline and end-line approach – with the data for the year 2017/2018 forming the baseline values and data for 2020/2021 representing the endline values. The ASR process recognizes that development of the agricultural sector depends on the quality and effectiveness of policies and strategies designed and implemented in the sector. This includes development programmes and projects designed for the sector, strategies and institutional arrangements, planning and implementation process. The quantitative analysis for ASR sought to work out the status of the agricultural inputs and performance indicators and development results indicators including those falling under regional development frameworks or commitments.

Using the quantitative indicators, the qualitative assessments sought to bring out the extent to which implementation and non-implementation of the adopted sector policies and other policies outside the sector (including non-domestic policies) have contributed to/affected the performance of the sector since 2017/2018. A synthesis of the results of this assessment identified

strengths and shortfalls of the current policies and strategies upon which recommendations for improvement have been made.

2.2.2 Qualitative Assessment of Institutional Arrangement, Roles and Programmes

There are several agricultural development programmes and projects which implement the policies and strategies of the sector. These have different commodity value chains in form of priority commodities/areas, priority public investments, private investments from households and business entities, including sequencing of the programmes and projects. The ASR sought to bring out the extent to which these programmes and the associated public and private investments have contributed to the performance of the sector by identifying specific drivers of successes and failures for providing a learning platform for future priority setting, planning and implementation.

There are different actors working in partnership with the government in the agricultural sector with each partner having roles and responsibilities resulting into jointly agreeable institutional arrangements, coordination, and monitoring. These are key ingredients for setting the implementation strategy and arrangement including planning. The ASR also assessed the extent to which institutional issues account for the successes and failures identified in the agricultural sector trend performance analysis.

Table 1. Key crops grown and agro-processing

Agro-ecological zone	Regions to be targeted	Most Competitive Value Chains for each region and agroprocessing	
1. Central zone	Singida	Beef cattle, hides and skin, sunflower, maize, and poultry	
		Edible oils processing	
2. Southern	Iringa, Mbeya	Rice, dairy, maize, avocado	
		Milk processing	
3. Lake zone	Mwanza	Beef Cattle, dairy, cotton, rice, oil crops (sunflower and groundnut) and fish	
		Fish and textile processing industries	
4 Easter zone	Pwani	Cashew	
		Agro-processing & industrial parks	

2.2.3 Synthesis of Results

A synthesis of results of all the assessments prescribed above are used to identify evidence-based strengths and shortfalls of the implementation of the current policies and

strategies upon which recommendations for improving the planning and implementation process have been derived and presented. A colour rating³ is used to show the extent of achievement of the set targets for the year 2020.

Green	Nery good progress/on-track			
Yellow	Good progress with more efforts needed			
Red	Low to average progress; substantial efforts needed	3		

3 | Performance of the Sector—Investment in Agriculture and Provision of Agricultural Services

Largely, outputs of the agricultural sector are derived from public and private investments made in form of agricultural services, available and accessible physical inputs, effectively used for farming activities. This chapter analyses the performance of investment in the agricultural sector and inputs in form of agro-services and supplies, by benchmarking the current status with targets set at sector and subsector levels during the period 2017/2018 – 2020/2021. At the end of the analysis, a summary table is used to present a rating of the indicators of performance of investment, inputs supply and usage to clearly bring out achievements and outstanding gaps for appropriate action.

3.1 Investment in Agriculture

Financial investments to the agricultural sector in Tanzania are mainly composed of government expenditure, ODA, Domestic Private Investment, and FDIs. Public investment in agriculture which includes government expenditure and ODA is aimed at complementing the investments made by the private sector including communities and other investors in the sector.

3.1.1 Government Expenditure to Agricultural Sector

During the review period, total government budget increased from TZS 31,711,986,000,000 in 2017/2018 to 33,105,410,000,000 in 2019/2020 – an increase by 4.4 percent, which was an

average annual growth by 3.9 percent (Figure 3.1). Budgetary allocation on the agricultural sector increased from TZS 846.4 billion in 2017/2018 to TZS 970.4 billion in 2019/2020, which represents an increase by 14.7 percent between 2017/18 and 2019/2020, translating into an average annual growth of 7.35 percent which was far higher than 4.4 percent growth in the total government budget. It is observed that much of the increase in budgetary allocations to the agricultural sector happened in 2019/2020 in which there was 15 percent growth of budgetary allocations to the agricultural sector.

Gradually, there was a discretionary increase in government budgetary allocation to the agricultural sector during the review period. The increase was also above the average annual inflation rate of 3.4 percent (NBS 2020, Tanzania in Figures); implying that there was real growth in government budgetary allocation to the agricultural sector.

During the period under review, budgetary allocation to the agriculture sector as a percentage of total government budget increased from 2.7 percent in 2017/2018 to 2.9 percent in 2019/2020. The budget allocation falls short of the targeted government spending of at least 10 percent on the agricultural sector, as per the CAADP Commitment; there is an outstanding gap of 7.1 percent to meet the target. Nonetheless, the budget allocation to the agricultural sector, as presented in this analysis, does not include spending on improvement of rural roads and

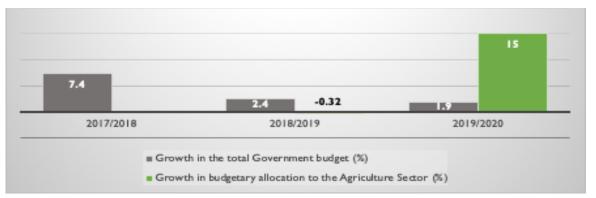


Figure 3.1: Growth in Agricultural Sector Budget versus Growth in Total Government Budget

connection of rural villages to the national grid for electricity supply, which have a significant bearing on performance of agriculture in general.

Recommitment under the CAADP process is to enhance investment finance in agriculture by upholding 10 percent public spending on the sector. Tanzania is yet to fully adhere to the commitment, given the observed gap of 7.1 percent to reach the target. Also, almost eighteen years after the Maputo Declaration (2003) Tanzania remains among the African Union countries, e.g. Kenya at 3.2 percent in 2020/2022, struggling to meet the commitment. Tanzania's expenditure on the sector is also below the current average of 10 percent of national budget for developing countries (World Bank, 2019).

There is also a problem of delayed and low disbursement of the approved budget; for example, the average unfunded or budget gap was 43 percent during the period under review. The ratio of actual disbursed amounts against the approved development budgets between 2008/09 and 2017/18 financial years was 73.7 percent. In 2019/2020, only 50.27 percent of the sector's approved budget was disbursed; for which the proportion of the approved development budget released was only 31.88 percent (MoA, Annual Performance Report 2019/2020). Therefore, the most under-disbursed component of the approved budget is development budget. These challenges have negatively affected implementation of agricultural policies, plans and flagship programmes/projects.

Between 2017 and 2020, government budgetary allocation to the agricultural sector as a percentage of GDP has remained less than one percent, decreasing from 0.7 percent in 2017/2018 to 0.6 percent, and rising again to 0.7 percent in 2019/2020. Although agricultural sector contributes more than a quarter of GDP in Tanzania, annual reinvestment by the government is less than one percent of GDP, implying that while the total GDP at market prices has been growing at a rate of between 4.5 percent and 8 percent during the review period, the proportion spent on agricultural development by the government has proportionally been far below at less than one percent. Agriculture constitutes the largest value added in the economy - both directly (26.9 percent) and indirectly (not yet estimated). Increased investment in the sector will directly increase the rate of growth of GDP, exports, employment and food security in the country.

3.1.2 ODA to the Agricultural Sector

ODA disbursement to the agricultural sector increased from TZS 192.52 billion in 2017 to TZS 289.39 million in 2020 – an increase by 50.3 percent or an annual average of 17.5 percent (Table 3.1). By 2019/2020, ODA as a percentage of total government spending on the agricultural sector had reached 30 percent, which was higher than the average of 36 percent for sub-Saharan Africa. Proportionally to government spending on agriculture, Tanzania receives more ODA than the average for the sub-Saharan countries. The country has seen continuously increasing ODA to the sector, except for the year 2020 when ODA decreased by 17.1 percent.

Table 3.1: ODA Flow to the Agricultural Sector

Year	ODA in TZS Billions	Percentage Growth
2017	192.5189613	
2018	250.2830328	30
2019	349.1347754	39.5
2020	278.3877865	-17.1

Source of Data: TIC

3.1.3 Domestic Private Sector Investment in Agricultural Sector

Between 2017 and 2020, the average annual domestic private expenditure on agriculture was USD 117.245 million, which stands higher than the previous three year-average – the domestic private sector interest in the agricultural sector is generally increasing (Figure 3.2). During the review period, private sector investment grew by an annual average rate of 68.3 percent, which was higher than the average annual growth in government budgetary allocation to the sector of 7.35 percent (2017-2019). Government expenditure on the sector coupled with improved business environment seems to have a direct catalytic impact on private investment in agriculture, particularly small holder farmers.

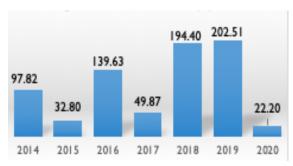


Figure 3.2: Direct Domestic Investment in Agricultural Sector in USD (M).
Source of Data: TIC

3.1.4 FDIs Inflow to the Agricultural Sector

Foreign Direct Investments (FDIs) inflow to the agricultural sector was USD 322.14 million in 2017, which was an increase (more than three times) from USD 96.15 million in 2015; but since then, there has been a downward trend of FDIs reaching the lowest of USD 24.10 million in 2020. Therefore, FDIs to the agricultural sector have declined over time (Figure 3.3). This decline is attributed to several factors including the onset of the COVID 19 pandemic, unfavourable business regulatory environment in the sector characterized by policy inconsistencies, inadequate policy implementation, unfavourable tax, non-tax barriers and investment regime (Maziku & Mashenene, 2020; World 2021). In addressing the challenges, the government prepared and approved a Blueprint for Regulatory Reforms in 2018 (URT, 2018) for which implementation is underway.

3.1.5 Government Expenditure on the Crop Subsector

During the period 2017 – 2020, government budgetary allocation on the crop subsector increased from TZS 39, 400,292,835 to TZS 377,753,221,065 representing a decrease by 5 percent and annual average rate of increase of 2 percent ((Table 3.2). The average annual rate of increase of budget allocation for the crop sub sector was less than the annual budgetary growth rate of 7.35 percent of the entire agricultural sector during the period, and less than the average

growth of its GDP of 5.2 percent during the period. Proportionally, the growth rate in the crop subsector budget was less than the growth rate of the entire sector budget during the review period.

3.1.6 Government Expenditure on the Livestock and Fisheries Subsector

Government budgetary allocation on livestock development increased from TZS 125,452,863,264 in 2017/2018 to 138,685,025,980 in 2019/2020 (Table 3.2). This is an increase by 11 percent during the period, which translates into an average annual growth of 5.1 percent and less than growth rate of the entire agricultural sector during the period. The annual growth in expenditure on livestock was less than its average annual GDP growth of 6.1 percent.

Expenditure on the fisheries increased from TZS 20,345,641,702 in 2017/2018 to 72,988,100,229 in 2019/2020, an increase by 259 percent, outstandingly high because of the revival of Tanzania Fisheries Corporation (TAFICO). The average annual growth of the spending on fisheries stood at 136.6 percent during the period, far higher than the growth of ten percent of the entire budget of the agricultural sector; also very high compared to its average annual growth of 3.6 percent of its GDP during the period.

Table 3.2: Budget Estimates by Agricultural Subsectors 2017/2018 – 2019/2020

Subsector	2017/2018	2018/2019	2019/2020	Total
Cooperatives	7,158,743,229	5,943,683,986	6,912,906,468	20,015,333,682
Crops	399,400,292,835	284,343,664,212	377,753,221,065	1,061,497,178,112
Cross-cutting	114,339,815,508	151,958,715,901	193,633,987,582	459,932,518,991
Fisheries	20,345,641,702	77,005,395,758	72,988,100,229	170,339,137,689
Forestry	184,862,585,507	227,469,980,830	246,096,426,302	658,428,992,639
Livestock	125,452,863,264	131,736,934,534	138,685,025,980	395,874,823,778
Cooperatives	46.9%	32.4%	36.5%	38.4%
Crops	21.7%	25.9%	23.8%	23.8%
Cross-cutting	13.4%	17.3%	18.7%	16.6%
Fisheries	14.7%	15.0%	13.4%	14.3%
Forestry	2.4%	8.8%	7.0%	6.2%
Livestock	0.8%	0.7%	0.7%	0.7%
Total	100%	100%	100%	100%

Source: Agricultural Sector Public Expenditure Review, 2021.

3.1.7 Government Expenditure on the Forestry Subsector

Government expenditure on the forestry subsector increased from TZS 184,862,585,507 to 246,096,426,302 between 2017/2018 and 2019/2020, an increase by 33% during the period; implying an annual average growth rate of 15.6 percent (Table3.2). Expenditure on the subsector had a higher growth rate than its annual average growth of 6.1 percent of its GDP. Therefore, expenditure on the subsector grew faster than growth of its GDP.

3.2 Provision and Utilization of Agricultural Inputs and Services

In principal, financial investment in agriculture leads to improved and increased utilization of agricultural inputs and services, which in turn leads to increased productivity and production in the sector. Agricultural services include direct and indirect services; the former category are services which are entirely and directly supporting agricultural activities; indirect services are those which function as catalyst for enhanced agribusiness in the agricultural value chains. For example, services like agricultural research, extension, irrigation, markets, access to financial credit and postharvest loss reduction have a direct impact on production. Additionally, access to agricultural inputs and efficient utilization of the same increases productivity and production. This ASR report examines the extent to which some of those services and inputs were accessed and used by farmers during the review period - 2017/2018 -2020/2021.

3.2.1 Access to Agricultural Advisory Services

The proportion of farmers with access to advisory services (extension services) increased from 31.4 percent in 2017/2018 to 68 percent in 2019/2020, a remarkable increase by more than 100 percent in a period of three years. By 2020, the total number of extension officers had reached 12,137 (crop production 8,110 and livestock production 4,027) against the ASDP target of 18,841 (2022/2023); an achievement by 64.4 percent.

However, having an extension officer in a given agricultural community seems to automatically translate into having access to advisory services by farmers. All farmers living in locations which have extension officers are by default counted as having access to advisory services. The

2020/2019 Report of National Sample Census of Agriculture indicates that out of the 7,499,219 farming households in the Mainland Tanzania, 6.9 percent received crop extension services. Also, of the 2,747,910 livestock rearing households, 9.1 percent received extension services. This implies that most of the extension officers are underutilized because of various reasons. Evidence from field visits to selected farming communities in selected regions indicates that presence of an extension officer does not necessarily imply access to all extension services.

For instance, the case of avocado farmers in Rungwe District Council and paddy farmers in Mbarali District Council gives completely two different contexts. In a meeting between the Agricultural Sector JSR team and Umoja wa Wakulima wa Maparachi Rungwe (UWAMARU) in Kyimo village of Kyimo Ward, farmers indicated that they had no access to good agricultural practices (GAP) advisory services, although there was a government extension officer in the area. The extension officer had no background training in avocado farming, making him redundant to the farmers. Nonetheless, in a similar meeting in Mbarali District Council, farmers indicated that extension services from the government was useful in enhancing paddy production in the basin.



JSR Team meeting with farmers in Mbarali DC

Obviously, modern avocado farming comes with new seed varieties and farming methods, which most extension officers are not familiar with, while paddy production has been there for a long time. Therefore, it is effective utilization of extension services which makes an impact rather than presence of an extension officer. While it is important to have adequate extension officers reach as many farmers as possible, it is also highly relevant to train the officers on the various changing needs of farming communities. The use of the digital platforms like the M-Kilimo for extension services is precisely a good and effective initiative if well developed and used by farmers.

3.2.2 Access to financial services

Farmers need financial resources to purchase farming inputs including labour services for every farming season. Farmers may need cash to cater for farming expenses despite them not having sold their produce from preceding season. For that reason, availability of financial credit plays an important role in bridging the gap and enabling farmers to smoothen their farming circle. Between 2017/2018 and 2019/2020 a total of TZS 2,033,560,181,023 loans from NMB, TIB, TADB were issued to the agricultural sector (PMO, Annual Implementation Report of ASDP II, 2019/2020). Also, the Agricultural Input Trust Fund (AGITF) issued loans amounting to TZS 6,930,116,200 to the agricultural sector, with an average of TZS 5,0218,233 per applicant, during the period. Therefore, the total loans advanced to the sector from these major sources in a period of three years amounted to TZS 2,040,490,297,223 translating into an average of TZS 680,163,432,408 loans per year.

However, the national targets on access to financial services is measured by the number of farmers with access to financial services and the number of financial providers, rather than percentage of farmers accessing such services. In general, there are few famers with access to financial services, as well as effective use of financial credits for farming. In 2017 the number of farmers with access to financial services was 92,022; and by the end of 2020, the number had increased to 2,487,722 (Figure 3.4). This was an increase by more than 100 percent to make the proportion of farmers with access to financial services equal by only 13,64 percent. The National Agricultural Sample Census Report 2019/2020 shows that 2.6 percent of the responding households cited access to credit as a major agricultural constraints reported by farmers, indicating that financial credit is rarely used by

The use of electronic money transactions and other financial products like 'fahari huduma' in Tanzania are expected to facilitate and increase famers' access to financial services; but with the recently introduced fees on mobile money transactions, it is likely that the speed of financial inclusion will be compromised by excluding the poor farmers at the bottom.

The observed TADB arrangement with major processors to manage small loans provided to farmers is emerging as best practice for extending and reaching out to small scale farmers. The arrangement is such that TADB provides financial credit to major processors who have Memorandum of Understanding (MoU) with farmers and farmers' groups (usually a big number); and in turn the processor issues loans to the farmers under prearranged and jointly agreed micro credit scheme. Raphael Rice Processor is one of those potential providers who are currently in discussion with TADB. This is yet to be piloted before rolling out in other farming schemes.

3.2.3 Post-harvest loss Management



Figure 3.4: Total number of Women and Men engaged in agriculture with access to financial services. Data Source: MoA and NBS, National Sample Census of Agriculture 2019/2020

review period. These include promotion of harvest technologies, construction of several storage facilities and many more. Post-harvest loss is generally decreasing for some crop commodities as observed in Table 3.3 which covers a few selected crops. Post-harvest loss levels for sorghum, sunflower and paddy are declining and well on track to achieve the Malabo Declaration target of halving post-harvest loss in 2025, for which the target is 10.51 percent. By 2020 the average post-harvest loss rate for sorghum, sunflower, maize, cassava and paddy was 11.58 percent compared with the achievement of 21.02 percent recorded at the end of 2015. Therefore, during the review period, the measurement towards achieving the set target of 10.51 percent by 2025 for the three crops was 90.7 percent. However, for maize and cassava the improvement is too marginal to achieve the set target by 2025.

There have been several initiatives to reduce post-

harvest loss in the agricultural sector during the

In the horticulture industry, Tanzania Horticulture Association (TAHA) has trained farmers on several technologies and practices to reduce post-harvest loss. These include intensification of GAP leading to high shelf live, raised bed, good use of packaginge.g. use of crates, the right time to harvest, market

information and linkage, presence and use of collection centres. Also, farmers have been trained to clean, sort and grade horticultural produce. As a result, post-harvest loss decreased from 40 percent to 20 percent in 2019. This represents an annual decrease of 50 percent in post-harvest loss, setting it on track to attain the target of halving post-harvest loss by 2025.

Figures 3.5 & 3.6 shows decomposition of postharvest loss into those emanating from farmer's level (harvesting and storage) and the rest of the crops' value chains (transport, processing, packaging and sales) for rice and maize. First, it is observed from the figures that post-harvest loss across the entire value chains is declining; secondly, the rate of decline for rice value chain is such that the set target will be met; thirdly, for some crops like maize it is difficult to predict because there have been ups and downs and the future trend is not clear. Therefore, sustaining the achievements made should be a priority just like making further progress.

During the field visits to rice processing factories in Mbeya region, it was observed that acquisition of new technologies like paddy drying machines operated by Raphael Group Company had helped farmers to dry their produce efficiently for a very short time leading to enhanced rice processing and

Table 3.3: Post-harvest Loss in % for Selected Crops

S/N	Commodity	2015	2016	2017	2018	2019	2020
2	Sunflower	3.9	3.0	22.0	12.0	11.6	6.6
3	Cassava	33.0	29.3	47.3	22.7	23.2	25.5
5	Maize	12.2	11.7	9.9	10.5	11.7	9.2

Source: MoA

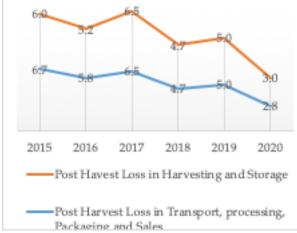


Figure 3.5: Post Harvest Loss in the Rice Value Chain

7.5 7.2 6.3 6.7 7.4 6.0 4.7 4.6 3.6 3.8 4.2 3.3 2014 2015 2016 2017 2018 2019 2020 2021 Post Harvest Loss in Transport, processing, Packaging and Sales

Post Havest Loss in Harvesting and Storage

Figure 3.6: Post Harvest Loss in the Maize Value Chain

Data Source: MoA

Data Source: MoA



Rice drying machine at Raphael Com. Ltd. in Mbeya

reduced post-harvest loss. Since the company is linked to several farmers' groups, the use of the technology, which is installed at the company's factory, has been relatively efficient in terms of access and output.

Post-harvest loss in milk production increased from 7.13 percent in 2017/2018 to 8.31 percent in 2020/2021, indicating that as milk production increases overtime, more is lost due to lack of processing facilities associated with proper handling and storage.

Meanwhile post-harvest loss in fish production decreased from 30 percent in 2017/2018 to 24 percent in 2019/2020 while the target was10 percent by 2020; indicating a performance of

30 percent towards the set target of 10 percent, (Annual Fisheries Statistics Report, 2020). The decrease in post-harvest loss was 3 percentage points, on annual average, during the period; indicating every year there was a decrease in post-harvest loss by 3 percentage points. If this trend is maintained, the Malabo Declaration of halving post-harvest loss in food production by 2025 will be met in the case of fisheries. The decrease has been associated with improvements of fish landing sites, increase in the number of drying racks, improvement of fish handling and packaging, and increase in volumes of processed fish.

3.3 Assessment of Performance of Input-Level Indicators

3.3.1 Supply of and Usage of improved seed varieties

Supply and usage of improved seed varieties has generally remained low in the country. As depicted in Figure 3.7, supply of improved seeds as a proportion of requirements increased marginally between 2017 and 2020; but the supply remains far below at lower than 15% for the selected crops. The NBS Agricultural Census Survey for 2019/2020 shows that the proportion of the cultivated area for which improved seeds were used was 20%. The ASDP II results framework indicates a target of 50 percent for utilization of improved seeds by 2022/2023. However, the results of the analysis of selected crops in Figure 3.7 and the NBS report shows that the achievement of the ASDP II target by 2020 was only 40 percent of the target.

The results of the joint meetings between the ASR

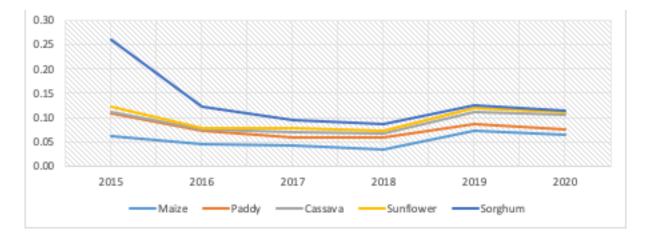


Figure 3.7: Supply of Improved Seed Variaties as a Proportion of Total Requirements

Data Source: MoA

technical team and agricultural officers at regional, district and ward levels, and farmers' groups in the selected regions indicate that some famers use improved seeds if there is a clear and direct market/buyers of their farm produce. This is duplicated across many crops value chains because local communities prefer to consume/buy traditional varieties rather than improved seeds which are associated with change of taste of the product. As such, some famers use the traditional varieties alongside new varieties for their own consumption and for sale at the local market.

For instance, sunflower seeds farmers in Singida observed that the price of improved seed varieties, which have more oil than the traditional ones, is relatively too high; while the sale price of sunflower seeds yields is the same regardless of the type of seeds used in production. Therefore, the use of improved seeds benefits oil seed processors at the cost of the famers.

The set target of the ASDP II of 9 percent growth rate of the agricultural sector by 2022/2023 will be difficult to reach unless more effort including increased financial investment is in place to increase usage of improved seeds in crop production. This is because the current growth of 2.2 percent per annum is far below the target; and is even so with the set target of the FYDP III of 4 percent growth rate of the crop subsector by 2020/2021.

Several agricultural constraining factors were indicated by farmers in 2020/2019; about 15.6 percent complained of high prices of inputs while 3.9 percent complained of availability of improved seeds (NBS, 2020). Even if we put together, in lump sum, the proportion using improved seeds in the survey (20 percent) and those complaining about improved seeds, still the total would not add up to 50 percent; implying that about 50 percent of farmers are not set to use improved seeds in production. Presumably, these farmers are producing mainly for their own consumption and the local market. The use of improved seeds therefore, goes beyond availability and cost; to perception, community taste and customary practices.

Linking farmers' groups with off takers or agro processors, as is the case with some crop commodities, will create a platform for synchronizing utilization of improved seeds with the crop markets. For example, many of the avocado producers are linked with off takers ensuring that utilization of improved seed varieties meets the requirements

of the market. This is the same for some paddy production schemes in Shinyanga, Mbeya, etc. Also, production of new varieties of bananas in Kagera and Kilimanjaro seem to be linked to off takers selling beyond the local community.

3.3.2 Consumption of Industrial and Organic Fertilizers

Consumption of industrial fertilizers in 2017 was 325.92 million metric tons, which by the end of 2020 had increased to 352.02 million metric tons after decreasing from the highest of 364.97 million metric tons in 2019 (Figure 3.8). The increase translates into 8 percent or an annual average increase of 2.7 percent. The proportion of the total cultivated land applying industrial fertilizers had reached 20 percent in 2019/2020 (NBS, 2020). However, fertilizer requirement in the country in 2020/2021, according to the MoA Annual Report (2021), was 718,051 tons and availability reached 678,071 tons which was 94.4 percent of the requirement by June 2021. This implies that the actual demand for industrial fertilizer is very low compared to potential demand if utilization was to be optimized. Therefore, it is not availability that matters but Good GAP. Consumption of industrial fertilizer remains rather low; and as shown later in this report crop productivity has remained very low. Coincidentally, low usage of improved seeds at less than 20 percent more-or-less matches the low usage of industrial fertilizers, pointing to a potential conclusion that farmers using improved seeds are also using industrial fertilizers. A big proportion of farmers are left out of this arrangement.

However, with a total of 44,736,378 hectares of arable land in 2020, fertilizer consumption in Kg/ha had reached 7.9Kg/ha, which is far below the CAADP target of 50Kg/ha. Tanzania has achieved only 16 percent of the CAAD target on industrial fertilizer consumption. The ASDP II target

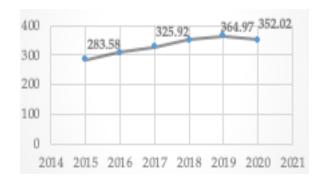


Figure 3.8: Fertilizer consumption in million tons
Data Source: MoA

During the field visits by the JSR team, farmers indicated that although fertilizers are available, consumption of industrial fertilizers is more associated with commercial farming, particularly when markets for the produce are readily available. Local communities prefer to buy traditional varieties since they believe that using industrial fertilizer changes the taste of farm produce. Fertilizer availability and prices did not appear explicitly as a problem of the indicated constraints faced by farmers in 2019/2020, compared to the case of improved seeds (NBS,2020).

The MoA data shows that in 2017/2018 consumption of organic fertilizer was 21.2 percent; by the end of 2020, the rate had reached 22 percent - translating into only 1.8 percentage points growth in a period of two years. However, the 2019/2020 NBS survey indicates that the proportion of cultivated land using organic fertilizer was 12.2 percent. The ASDP II target by 2022/2023 is 24.3 percent, implying that the target is potentially achievable in the set time bound.

It was observed that lack of soil health tasting services which would result into more appropriate use of fertilizers are not readily and easily accessible. For example, avocado farmers in Rungwe DC and sunflower farmers in Singida District Council indicated that they did not receive guidance on consumption of industrial fertilizers. Logically,

extension services would be more meaningful if issues of soil health and appropriate measures were included. The extension officers would advise farmers with vivid results and impact on crop productivity.

3.3.3 Mechanization

There is literally very small improvement in terms of adoption of improved agricultural technologies. The ASDP II Results Framework indicates that between 2017/2018 and 2020/2021 there has been a marginal change in the proportion of farmers using ox plough, pesticides, ox seed planter and tractors (Table 3.4). The set targets for 2022/2023 for use of power tillers and pesticides are low and unlikely to be achieved by 2022/2023.

The NBS Agricultural Sample Census Report, 2020 indicates that tractors were used on 25.7 percent of the cultivated land; while power tillers were used on 2.4 percent of the cultivated land. The rate of mechanization is absolutely low and hence keeping productivity low.

3.3.4 Irrigation

The total arable land under irrigation reached 695,045 ha in June 2021 from the baseline of 475,052ha in 2017/2018; representing an increase by 46.3 percent during the period (MoA, 2021). This is an achievement of 70 percent of the set target of 1,000,000 ha by 2020 (FYDP II). The total number of constructed irrigation schemes, including fully and partially constructed or functioning, increased from 2,678 to 2,777 during the period translating into 96.2 percent achievement of the set target of 2,886 irrigation schemes by 2022/2023.

The total land under irrigation is 2.4 percent of

Table 3.4: Percentage of Farmers Adopting Improved Farming Technologies

Sub sector/ product	Baseline (2017/2018)	2020/21	Target (2022/2023)
Power tiller	0.5	0.5	0.7
Ox plough	33.3	34.2	35.1
Pesticides/ Insecticides	5	4.5	0.7
Ox seed planter	32.2	32.7	33.8
Tractor harrow	4.7	5.7	6.9

Source: MoA

the total potentially irrigable land of 29.4 million ha, which makes rain-fed agriculture the main source of agro products in the country. As such, many of the farming communities have only one farming season and thus low per ha and per capita farm production.

3.3.5 Artificial insemination is less than one percent

The proportion of all female animals (cattle, sheep, goats, and pigs) at reproductive age has been consistently low at less than one percent in the country. The amount of dosage used increased from 82,801 in 2017/2018 to 102,890 in 2020; translating into an increase by 24.3 percent during the period. The total number of artificially inseminated female animals doubled and reached 79,058 (MLF, 2020).

Supply of cattle vaccines in the country increased from 38,879,325 dosages in 2017/2018 to 63,606,675 dosages in 2019/2020, representing an annual average increase of 19 percent during the period. In other developments, milk production and processing is increasing in the country with some processors working jointly with extension officers to reach more farmers and supply improved seeds. For example, ASAS Ltd is working with farmers in Iringa and Mbeya with plans to include farmers in the catchment area. As indicated earlier, the use of improved seeds must be linked to improved and reliable markets of farm produce. This calls for established off takers/processors to formulate MoUs with farmers' groups/associations. For example, MUWAMARU (Muungano wa Wakulima wa Maziwa Rungwe) is linked to ASAS Ltd (milk processor) in regards to the supply of inputs to the farmers and market needs of the of the milk buyer; thus improving milk production, storage and marketing.

3.3.6 Supply of day-old-chicks

The supply of day-old-chicks increased from 39,690,554 in 2017/2018 to 66,622,689 in 2019/2020; an increase by 67.8 percent or an average annual growth of 17 percent, although the proportion of farmers using day old chicks

decreased from 89 percent to 80 percent during the period. Consequently, as indicated later in this report, production of eggs and chicken meat has increased.

3.3.7 Supply of improved quality fish seeds

Supply of improved quality fish seeds increased from 14,119,272 in 2017/2018 to 21,676,187 in 2020/2021, translating into an improvement by 53.5 percent in a period of four years. This was an average annual growth rate of 6.3 percent.

There are only 677 extension officers for aquaculture against the needed 16,000 officers in the country (MLF, 2021) – which is only 4.2 percent of the total demand. In addition to the inadequate number of extension officers in aquaculture, farmers lack best management practices, adequate inputs, and prices of fish feeds are high.

3.4 Summary of Investment in Agriculture and Provision of Agricultural Services

Table 3.5 provides a summary of provision, coverage, and utilization of agricultural services against the set implementation targets. The assumption is to use colour red for achievement below 35 percent of the target, yellow for between 35 and 70 percent, and green where achievement is above 70 percent. Compared to the set targets, the following indicators have performed well and are on track to meet targets: hectare under irrigation, proportion of households using organic fertilizer and percentage decrease in post-harvest loss in crop production.

Also for some performance indicators, more effort is needed to achieve the targets on time. These include extension services and access to financial services. However, the lowest performance achievement that is unlikely to meet the set target are industrial fertilizer consumption, use of improved seeds, and decrease in post-harvest loss for livestock products.

Table 3.5: Summary of Input Level: Provision, Coverage, and Utilization of Agricultural Services against the Set Implementation Targets

Indicators/ Targets	Recent Data	Source of Data and year	Target	Indicator Rating
Hostons up den inder Mare	005.0451	MOA 0000	1000,000ha (in 2020, FYDP II)	
Hectare under irrigation	695,045ha	MOA, 2020	763,120ha (ASDP II 2022/2023)	
Fertilizer consumption (in Kilogram's	7.9	MOA 0010	19 (2020)	
per hector of arable land)		MOA, 2019	50 (2025)	
Proportion of households using		MOA, 2021	50%	
improved seeds	20%	NBS 2020	(ASDP II, 2022/2023)	
Proportion of households using organic fertilizer	22%	MOA, 2021	24.35% (2022/2023)	
Proportion of smallholder farmers who accessed formal credit for agricultural purposes (%)	13.64%	MOA, 2021	N/A	
Number of extension officers	12,137	MoA, ASDP II Results Framework	18,841 (ASDP II, 2022/2023)	
Proportion of famers using tractors	5.7%	MoA, ASDP II Results Framework	6.9% (2020)	
Percentage decrease in postharvest loss in crop production	9.44% decrease (Average for sorghum, sunflower, maize, cassava and paddy = 11.58%) Baseline = 21.02 in 2015 Achievement by 2020 = 34%	MoA 17.5% (2025)		
Percentage decrease in postharvest loss in Livestock products	Milk production 8.72% (Baseline in 2017 7.54%) Percent of Achievement 20>	MLF	<30%	
Decrease in post-harvest loss in fisheries (%)	24 (Baseline 30% in 2016/2017)	MLF	10% (2020)	
Public expenditure on agriculture	2.9% (Baseline 2.7%)	MOA, 2021	10% (2020/2025)	

Red Less than 35% of the target

Yellow 35-70%

Green Above 70%

3.5 Key Findings on Investment in Agriculture and Provision of Agricultural Services

3.5.1 Budgetary allocation to the agriculture sector has increased but remains less than three percent

Gradually, there has been discretional increase in government budgetary allocation to the agricultural sector during the review period. However, the allocation falls short of the targeted government spending of at least 10 percent on the agricultural sector, as per the Malabo Declaration Commitment; there is an outstanding gap of 7.1 percent to meet the target.

Budget execution has averaged 43 percent during the period under review. Consequently, short term targets are set in line with the expected actual release of funds – which has made it possible to meet the short term targets unlike the long term targets.

3.5.2 Budgetary allocation to the sector has remained less than one percent of GDP

Budgetary allocation to the agricultural sector as a percentage of GDP has remained less than one percent by gradually changing and reaching 0.7 percent in 2019/2020. Although agricultural sector contributes more than a quarter of GDP in Tanzania, reinvestment by the government has been less than one percent of GDP.

3.5.3 Agricultural sector has continued to contribute the lion share of GDP

Agriculture sector constitutes the largest value added in the economy – both directly (26.9 percent) and indirectly; increased investment in the sector will directly increase the rate of growth of GDP, exports, employment and food security in the country.

3.5.4 The general provision and access to agricultural input and services increased during the period under review although some of the set targets have not been met

Although significant challenges remain ahead, the general provision and access to agricultural inputs and services increased during the review period; for which many of the set performance targets for 2020 were achieved, although they seem to be on the lower side when benchmarked by the long term targets – in particular those set by ASDP II by 2022/2023 and CAADP by 2025. It is unlikely that the set long term targets in this regard will be timely achieved. The main challenges include low rates of industrial fertilizer utilization, low usage of improved seeds, and decrease in post-harvest loss for livestock products.

4 | Sector Performance – Agricultural Outputs and Trade

Agricultural sector is the backbone of the Tanzanian economy, contributing about 26.91 percent of the country's GDP. The sector provides outputs from crop production, livestock and fisheries, and forestry. This chapter makes analysis of the performance of agricultural GDP, crop production, livestock and fisheries, forestry and trade; and benchmark the current situation against the various targets set in the sector. Summaries of performance of various output and trade indicators and their rating in achieving the set targets have also been included in this chapter. Similarly, as in Chapter 3, colour red will represent achievement below 35 percent of the target, yellow between 35 and 70 percent, and green above 70 percent.

4.1 Agricultural GDP Performance

Agricultural GDP grew from TZS 29,739.1billion in 2016 to 39,965 billion in 2020. This was an increase by 34.4 percent during the period, which translates into an average annual growth of 5.4 percent. (Table 4.1 & Figure 4.1). For example, between 2019 and 2020, agricultural sector grew by 7.45 percent while the economy grew by 6.36 percent - less than the agricultural sector alone. The FYDP II growth target for the agricultural sector was 6 percent by 2020/21; which implies that by 2020, there was a 90 percent achievement rate. The set target for ASDP II by 2022/23 is 7 percent. Malabo Declaration under CAADP

Table 4.1: Agricultural GDP Million TZS

Description	2015	2016	2017	2018	2019	2020	Average growth 2017 - 2020 (%)
Agriculture	25,234,560	29,739,111	34,154,594	35,962,728	37,192,537	39,965,062	5.4
Crops	13,279,392	16,474,729	19,703,004	21,003,720	20,686,963	22,867,959	5.2
Livestock	7,158,457	8,205,007	8,857,939	9,240,100	10,345,069	10,609,888	6.3
Forestry	2,920,425	3,094,767	3,310,076	3,459,581	3,738,360	3,947,993	6.1
Fisheries	1,843,401	1,929,747	2,245,558	2,218,731	2,379,172	2,494,162	3.6
Agricultural services	32,886	34,861	38,017	40,596	42,973	45,060	5.8

Source of Data: MoFP, Annual Economic Survey Report for 2020.

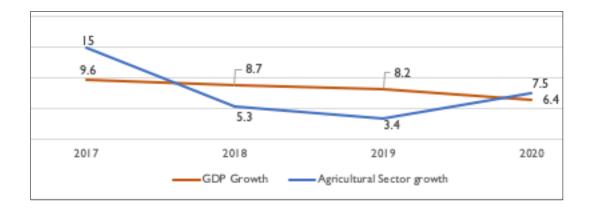


Figure 4.1: Agricultral Sector versus GDP Growth (Current prices)

Source of Data: MoFP, Annual Economic Survey Report for 2020.

committed to sustain annual growth of agricultural GDP for at least 6 percent, which Tanzania is about to achieve if the current growth is sustained.

During the period under review, the contribution of the agricultural sector to GDP declined from 27.44 percent in 2016 to 26.91 percent in 2020 (Figure 4.2). This was attributed to the growing construction sector boosted by the ongoing huge infrastructural projects in the transport and energy sector in the country. Tanzania's agricultural sector contribution to GDP is significantly less than the neighbouring country of Kenya whose agricultural sector contribution to GDP was 34% (The Conservation, 2020).

The composition of the agricultural GDP by its subsectors namely crop, livestock and fisheries and forestry has remained almost the same during the period under review; there have been marginal changes over the years (Figure 4.3). The dominant subsector is crop production, followed by livestock, fisheries and forestry whose contribution has remained relatively small.

4.1.1 Crop GDP Performance

Crop GDP increased from TZS 19,703,004.02 billion in 2017 to TZS 22,867,958.71 billion in 2020; an increase by 16.1 percent in a period of three years (Table 4.1 & Figure 4.4). The growth was driven by increasing crop production as indicated later in this report. Average annual growth



Figure 4.4: Growth of Crops Subsector GDP (%)
Source of Data: Annual Economic Survey Report for 2020

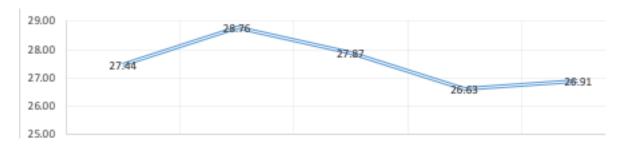


Figure 4.2: Agricultural GDP as % of national GDP



Figure 4.3: Composition of the Agricultural GDP Source of Data: Annual Economic Survey Report for 2020

during the period was 5.2 percent, slightly lower than the entire average sector growth rate of 5.4 percent during the period; and also lower than the national GDP growth rate of 6.4 percent in 2019/2020. The relatively high rates of growth in 2018 and 2020 determined the average growth rate of the sector, since growth plugged to -2 percent in 2019 before rising again to 11 percent in 2020. However, the subsector average growth rate of 5.2 percent is on the lower side when benchmarked from the ASDP II set target of 9 percent by 2022/2023.

4.1.2 Livestock, Fisheries and Forestry GDP

Livestock GDP increased from TZS 8,205.01 billion in 2016 to 10,609.89 billion in 2020; an increase by 29.3 percent in a period of four years (Table 4.1 & Figure 4.5). Average annual growth of livestock GDP was 6.3 percent; higher than the crop GDP annual increase of 5.2 percent during the same period. The average annual growth of 6.3 percent surpassed the ASDP II target of 6 percent by 2022/23. The increasing GDP of the subsector is determined by increasing production of livestock as reported later in Section 3.4 of this report.

Fisheries GDP increased from TZS 1,929.75 billion in 2016 to 2,494.16 billion in 2020; an increase by 29.2 percent in a period of four years (Table 4.1 & Figure 4.6).

The average annual growth of the fisheries GDP was 3.6 percent; lower than the growth rate for the crop and livestock subsector. However, growth of the fisheries subsector has not been achieved compared to the FYDP II target of 4.6 percent and the ASDP II target of 6 percent by 2022/23.

Forestry GDP increased from TZS 3,310.08 billion in 2017 to TZS 3,947.99 billion in 2020; an increase by 19.27 percent during the period (Table 4.1 & Figure 4.7). The annual average growth

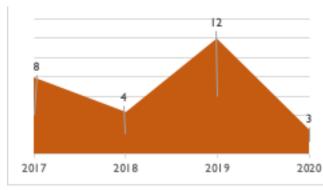


Figure 4.5: Livestock GDP Growth (%)

Source of Data: Annual Economic Survey Report for 2020

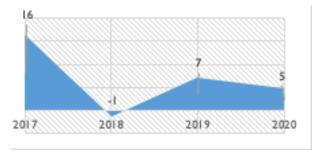


Figure 4.6: Fisheries Subsector Growth (%)

Source of Data: Annual Economic Survey Report for 2020

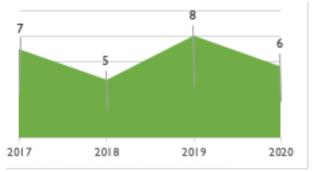


Figure 4.7: Forestry GDP Growth (%)

Source of Data: Annual Economic Survey Report for 2020

rate was 6.1 percent, and marginally higher than the total sector growth of 5.4 percent during the period.

The FYDP II set growth target for the forestry subsector was 6.85 percent by 2020/21; with an achieved annual growth rate of 6.1 percent and thus pointing to timely accomplishment of the FYDP II target.

4.1.3 Comparing Contribution to Agricultural GDP and Budgetary Allocation to Subsectors

On average, between 2017 and 2019 the crop subsector contributed about 64 percent of the agricultural GDP against government average allocation of 38.4 percent of the total agricultural sector budget. The crop subsector contributes disproportionately more to GDP than the government allocation to the subsector. Likewise, the livestock subsector contributed about 29.39 percent of the agricultural GDP against 14.3 percentage share in the agricultural budget; which is disproportionately higher than its share from budgetary allocation to the agricultural sector. Therefore, an increase of spending on the crop and livestock subsectors led to a relatively higher GDP impact than spending on forestry; whose contribution to the agricultural GDP is smaller than their share in the agricultural sector

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budgetary allocations. Forestry contributed less than one percent while on average its share in the total agricultural budget was 23.8 percent. The fisheries subsector contributed 7.1 percent to the agricultural GDP, on average, compared to its budget share of 6.2 percent; the subsector contribution to DGP was marginally higher than its share in the agricultural GDP.

4.1.4 Summary

Table 4.2 provides a summary of performance indicators and their rating in terms of achievement of set targets. The assumption is for colour red to represent achievement below 35 percent of the target, yellow to represent achievement between 35 percent and 70 percent, and green to represent achievement above 70 percent. The growth of the agricultural sector GDP and its subsectors is generally meeting the set targets; but in terms of reducing its relative weight or share in the total GDP, the sector has not made good progress. Likewise, there is good performance in terms of increasing productivity by reducing the number of

people employed in the sector in favour of/relative to other economic sectors. The share of the sector in the total country employment has decreased during the period under review.

4.2 Performance of Crop Production

4.2.1 Production of food crops

Production of major food crops increased from 15,902 metric tons in 2017 to 18,196 metric tons in 2020, a growth rate of 14.4 percent between 2017 and 2020, and an annual average growth of 4.7 percent less than the FYDP II target of 9.5 percent (Table 4.3 & Figure 4.10). This is as a result of increasing productivity in food crop production as explained later in this report. The major food crops involved in this category include maize, paddy, wheat, beans, sorghum, bulrush millet, finger millet, cassava, ripe banana, Irish potatoes and sweet potatoes.

Production of cassava and paddy was relatively high, with average growth rate of more than 25 percent; followed by bananas and wheat.

Table 4.2: Agricultural GDP Performance versus Targets

S/N	Indicators	Average/Status 2017 – 2020	Percent of Achievement by 2020	Target in 2020 for the FYDP II (ASDP II in 2023)	Indicator rating	Source of Data
I	Average growth rate (%) of the agricultural sector	5.9% (Baseline 2.1)	98.3%	7.6 Real (ASDP 7 in 2022/2023)	On track to meet targets	MoA, MoFP
II	% Share of agricultural GDP (current price)	26.91% (Baseline 29)	35%	23		MoA, MoFP
lii	Average growth rate (%) of the crop subsector	5.2% (Baseline = 1.4)	87%	6.0		MoA
V	Average growth rate (%) of livestock subsector	6.3% (Baseline 2.6)	>100	5.2 6% for ASDP II by 2022/2023)	On track to meet targets	MLF
Vii	Average growth rate (%) of fisheries subsector	3.6%	63%	4.6	0	MLF
Viii	Fisheries subsector % share of GDP (at current prices) fisheries	1.87%	57%	3.3	On track to meet targets	MLF
ix	Average growth rate (%) of the forestry subsector	6.1% (Baseline 4.2)	89.1%	6.85	On track to meet targets	MoA
x	Forestry subsector % share of GDP (at current prices) forestry	0.003%	<1	3.5	On track to meet targets	MoA
Xi	Agricultural sector % share on total employment	61.5%	73%	56.5	Unlikely to meet targets	NBS

Red Less than 35% of the target Yellow 35-70% Green Above 70%

Crop	2015	2016	2017	2018	2019	2020	Average Growth 2017 - 2020 (%)
Maize	5,908	6,149	6,681	6,273	5,652	6,711	0.9
Rice	1,937	2,229	1,594	2,220	2,063	3,038	26.5
Wheat	72	76	50	57	63	77	15.6
Sorghum, Bulrush millet, Finger millet,	1,007	1,003	1,064	988	1,117	1,043	-0.2
Dried cassava	1,962	2,205	1,342	2,791	2,728	2,427	31.6
Beans legumes	1,808	1,959	2,318	1,823	1,888	1,895	-5.8
Dried bananas	1,195	1,061	845	1,132	1,135	1,358	18.0
Sweet potatoes and Irish potatoes	1,645	1,491	2,008	1,608	1,644	1,647	-5.8
Total	15,534	16,173	15,902	16,290	18,197	18,196	4.7

Source of Data: Annual Economic Survey Report for 2020

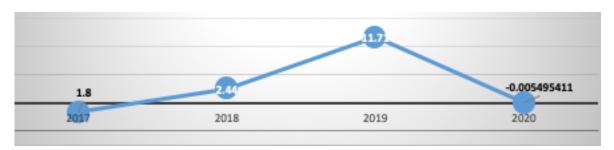


Figure 4.8: Growth of Crop Production (%)

Source of Data: Annual Economic Survey Report for 2020

Production of beans and potatoes declined during the period; but further analysis by type of potatoes indicates that production of Irish potatoes increased by more than five times between 2017 and 2020; essentially due to increased usage of improved seeds and application of fertilizer.

The key issue in food crop production is sustainability of achievements. However, there are inconsistencies in the trend performance such that the future becomes uncertain. Solid

interventions are necessary to ensure expansion of crop production which will subsequently strengthen average growth achievements. This applies to production of all crops and the entire agricultural subsectors.

4.2.2 Productivity of major food crops

During the period under review, productivity of major food crops increased from 2.63 to 3.4 tons per hectare, which translates into an increase by 29.3 percent since the year 2017 (Figure 4.9). The

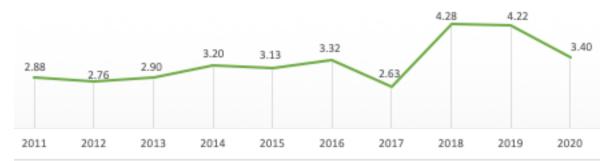


Figure 4.9: Average Productivity of Major Food Crops (Tons per Hectare)

Source of Data: Annual Economic Survey Report for 2020

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average annual growth in productivity for food crops was 14 percent; far above the FYDP II set target of 4 percent. Going by this trend, and with improved productivity measures in place, it is likely that the target of doubling productivity of food production by 2025 (ASDP II targets and Malabo Declaration) will be achieved.

Further, in Figure 4.10 is a trend of growth of productivity for selected food crop commodities, priority and non-priority ASDP II commodities. Productivity of Irish potatoes and cassava, which are non-priority crops, performed better than maize and paddy which are ASDP II priority commodities. Productivity of Irish potatoes increased from 11.9 tons per hectare in 2017/2018 to 22.45 tons in 2019/2020, - surpassing by far the ASDP II target of doubling productivity by 2025. The outstanding achievement in productivity, according to Rungwe farmers during the field visit, was due to increased utilization of industrial fertilizers and improved markets for Irish potatoes. Likewise, productivity of cassava production has more than doubled during the review period; and also surpassing the ASDP II target of doubling productivity by 2025.

Productivity of paddy production increased by 28.3 percent in a period of three years. The set target is to double productivity by 2025; since it is one year left, there are slight chances of meeting the target.

During the ASR field visit in Mbarali, paddy farmers explained that productivity increase is constrained by poor irrigation infrastructure, the mixed usage of improved and traditional seed varieties and inadequate utilization of fertilizers in production. Apparently, productivity of maize production had marginally changed during the review period for the same reasons.

Productivity of maize per hectare in 2019/2020 was 1.79 tons, which was slightly higher than that of Rwanda (1.54 tons per ha) and Uganda (1.635 ton per ha) but far less than productivity in Ethiopia (3.675 tons per ha) and South Africa 5.8 tons per ha) (IMF, 2020. WP/20/95). In 2017/2018, productivity of cassava per hectare in Tanzania had reached 11.19 (Figure 4.10) while in Uganda it was 6.5 tons per ha and in Rwanda it was 13.55 tons per ha. Tanzania is relatively doing better in cassava production compared to maize production.

4.2.4 Acreage production of food crops has decreased

Acreage production of food crops decreased by 14.7 percent between 2017 and 2020 in favour of cash crop production as indicated later in this report; implying that the earlier on observed increase in food crop production was mainly driven by the increase in productivity (Figure 4.11).

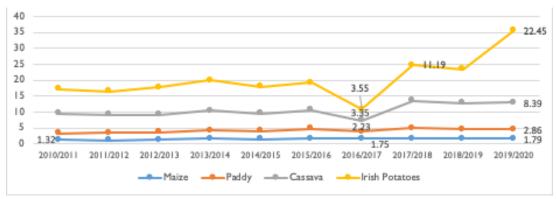


Figure 4.10: Production of Selected Key Food Crops in '000' Metric Towns per Hecter

Source of Data: MoA

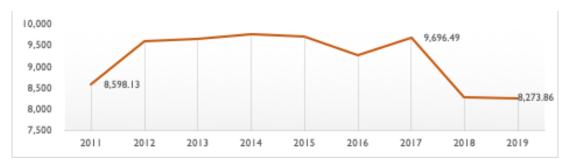


Figure 4.11: Cultivation of Major Food Crops in '000' Hectres of Land

4.2.5 Food commodity prices have generally increased with the increasing crop production

Most households produce food crops for their own consumption and for sale in the market. The main motive for increased surplus food crop production by households is the market prices. Figure 4.12 indicates trends of commodity prices for five selected crops including maize, rice, beans, sorghum and wheat. Generally, the prices increased during the period under review. The average annual percentage increase for the commodities was 5 percent during the period 2017 to 2020.

4.2.6 Special case of oil seeds production

Lately, there have been concerns over the rising prices of edible oils in Tanzania. The ASR sought

to analyse data on production of oil seeds from sunflower and palms to provide insights on the edible oils industry in the country. Production and productivity of sunflower seeds rose from 352,902 tons in 2017 to 649,437.3 tons in 2020 (Figures 4.13). The average annual growth was 24.3 percent - higher than the growth rate for the crop sub sector and the entire agricultural sector.

Meanwhile productivity of sunflower seeds production increased from 0.7633 metric tons per hectare in 2017 to 1.01 metric tons per hectare in 2020 – an increase by 32 percent during the period. During the ASR team field visits in Singida region, farmers indicated that the main constraints in sunflower production include inadequate availability of seeds during the planting season – both improved and non-improved; and the high prices of seeds limiting their access.

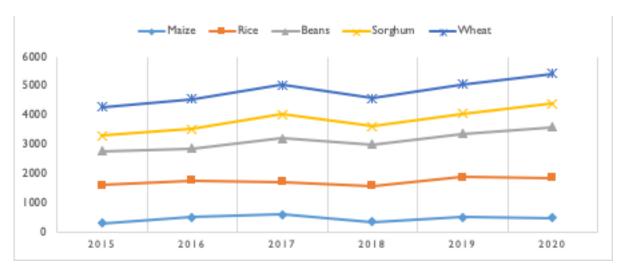


Figure 4.12:Commodity Prices per Kg



Figure 4.13: Production of Sunflower Oil Seeds in Tons Source of Data: Annual Economic Survey Report for 2020

4.2.7 Production and Productivity of Horticultural Commodities

Production and productivity of horticultural commodities have increased. Among the TAHA's promoted technologies and practices, during the review period, were drip irrigation, greenhouse, high breed seeds, fertigation systems and use of seedling trays. The adoption rate of these technologies and practices during the baseline in 2016 was 5 percent; but had increased to 17.2 percent in 2019 (TAHA, Midterm Review 2020). These measures have led to annual reduction in costs of production of 26 percent for onion and 36 percent for tomatoes. The development initiatives in the horticultural industry undertaken by TAHA have increased production of horticultural commodities from 6.575, 408 tons in 2016/17 to 7,560,010 tons in 2019/20; an increase by 15 percent (Figure 4.14). The average annual growth was 4.9 percent significantly higher than the annual growth rate of 2 percent for the food crops category during the period.

4.2.8 Production of cash crops

During the period under review, production of major cash crops increased from 901,641 metric tons in 2017 to 1,058,798 metric tons in 2020 – an increase by 17.4 percent in a period of four years.

The average annual growth was 4.5 percent - slightly lower than the 4.7 percent increase in food crop production (Table 4.4 & Figure 4.15). The FYDP II target was 794,500 metric tons by 2020, the target has clearly been surpassed by 117.4 percent. However, cash crop production plugged to -7.5 percent in 2020 – an indication of the impact of the COVID 19 pandemic among other factors; the most affected crops being tobacco and cashew nuts production.

Cotton production had the highest growth rate of 31 percent, followed by coffee 8.3 percent, pyrethrum 5 percent, and tea 3.2 percent. Production of three major cash crops decreased during the period under review, these include tobacco (-5.2), cashew nuts (-1.6), and sugar (-0.8).

4.2.9 Acreage cultivation of cash crops has increased

Acreage cultivation of cash crops has more than doubled (112.85 percent) during the review period (Figure 4.16). This shows that the increasing production of cash crops is driven by acreage expansion rather than productivity. This is contrary to production of food crops in which the increasing production is mainly driven by productivity rather than acreage expansion.



Figure 4.14: Production of Hortcultural Crops in Tons

Source of Data: ANBS, Tanzania in Figures 2020



Figure 4.15: Growth of Production of Cash Crops (%)

Year	Cotton	Coffee	Tea	Pyrethrum	Tobacco	Cashew nuts	Sisal	Sugar	Total
2017	132,934	48,329	26,975	2,150	58,639	265,238	36,533	330,843	901,641
2018	222,039	45,245	34,010	2,400	50,522	313,826	40,635	303,752	1,012,429
2019	348910	68147	37193	2014	70824	225053	33271	359219	1,144,631
2020	348,958	60,651	28,715	2,510	37,546	232,681	36,379	311,357.61	1,058,798
Average Growth	31.0	8.3	3.2	5.0	-5.2	-1.6	0.6	-0.8	4.5

Source of Data: MoA



2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020

Figure 4.16: Cultivation of Major Cash Crops in '000' Hectres of Land

Source of Data: MoA

4.2.10 Acreage productivity for major cash crops is declining

Acreage productivity of major cash crops declined from 9.17 tons per hectare in 2016/2017 to 7.85 in 2019/2020; a decline by 14.4 percent. The annual rate of decline in productivity was 4.8 percent for the period (Figure 4.17). According to the interviewed farmers, the decrease is mainly due to increased mixed utilization of both improved and non-improved seed varieties and low utilization of fertilizers as soil health deteriorates.

4.2.11: Summary

The production of both food and cash crops has generally increased with set targets for 2020 being met as indicted in Table 4.5. The increase in pro-

duction of food crops is more driven by the increase in productivity having relatively met the 2020 target. However, the observed increase in production of cash crops is more driven by expanded acreage production rather than productivity which has declined during the period under review.

4.3 Output Performance in Livestock and Fisheries

By the end of 2020, the total number of livestock had reached 33.9 million cows, 24.1 million goats, 8.5 million sheep, 3.2 million pigs, and 87.7 million chicken. In general, there was an annual increase of 13.4 percent compared to the previous year 2019.



Figure 4.17: Average Productivity of all Major Cash Crops (Tons per Hectre)

Table 4.5: Summary of Crop Subsector Performance versus Targets

S/N	INDICATORS/ TARGETS	Average/Status 2017 – 2020	Percent of Achievement by 2020	FYDP Target in 2020 (and ASDP II in 2022/2023)	Indicator rating	Source of Data
i	Productivity (% growth)	Food crops 14% (3.4 tons/ ha in 2020)	>100%	4.0 (ASDP 11 = average of 5.9 in		MoA
	Cas -4% (7.8) in 20		<0	2022/2023)		
ii	Volume of total horticultural production per year (tons)	7,560,010	115.3% >100	6,556,102		TAHA, NBS
iii	Volume production of the traditional commercial crops (tons).	1,058,798 (Cashew nuts, Tobacco, Coffee, Cotton, Sisal, Sugar cane and Pyrethrum)	>100	794,500		МоА

Red Less than 35% of the target Yellow 35-70% Green Above 70%

4.3.1 Production of dairy milk

Production of dairy milk has increased from 2,087 million litres in 2016 to 3,377 litres in 2020; an increase by 60 percent in a period of four years. The average annual increase was 12 percent during the period (Figure 4.18). The trend points to a clear conclusion that milk production will double in the near future although the issue of productivity remains largely uncertain. Milk production is increasing pointing clearly to the achievement of the target set in 2025. Increased farmers' link to off takers/processors is one of the main contributing factors to improve livestock breeds, feeding, marketing and processing.

Milk production for indigenous cows reached 2.2 litres in 2020 from the baseline of 2 litres in 2016; and therefore potentially meeting the ASDP II target of 3 litres by 2022/2023. The target of doubling production to 4 litres by 2025 may be difficult to achieve with the current trend, more industry reforms are necessary to enhance productivity, storage, marketing and processing.

4.3.2 Production of meat

Meat production from goat, pork, and chicken decreased before the period under review, and continued to decrease until 2019/2020 when some reversal signs were observed. However, low productivity levels and marketing constraints

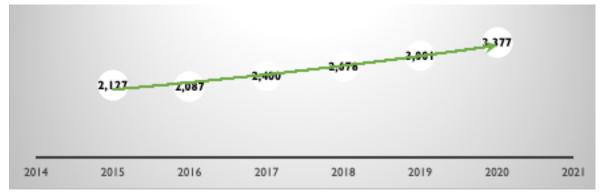


Figure 4.18:Total Yield of Dairy in Million Litres of Milk Source of Data: Annual Economic Survey Report for 2020

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have continued to hold back growth of meat production in Tanzania. For example, inadequate use of improved breeds and inadequate animal feeds availability coupled with low processing capacity and inadequate arrangements to connect production with good markets, have continued to hold back growth of livestock subsector.

Beef production particularly of hybrid cattle beef has increased. The traditional beef production increased from 323,775 tons in 2016 to 486,736 tons in 2020; an increase by 50.33 percent in a period of four years (Figure 4.19) The annual average increase was 12.5 percent indicating that production of beef will double by 2025 with this trend. This is attributed to emerging major meat processors such as Mtanga Co. Ltd in Iringa and TANCHOICE in the coastal region. The ASDP II target for beef production by 2022/2023 is 613,199.60 tons, which has been achieved by the current production by 79.4 perent.

Production of goat and sheep meat reached 95,964 tons in 2020 (Figure 4.20) against the ASDP II target of 120,899 tons by 2022/2023; indicating a target achievement of 79.4 percent.

Likewise, production of chicken meat reached 80,601 tons in 2020 (Figure 4.22) against the

ASDP II target of 109,354 by 2022/2023; and thus meeting the set target by 73.7 percent. As also noted in Figure 4.21, production of pork meat declined between 2015 and 2018 but started rising soon after the start of implementation of ASDP II in 2018 reaching 38,377 tons in 2020 from 18,899 tons in 2017 – an increase of more than twice during the review period.

Meanwhile, production of Hides and skins increased by an annual rate of 4.6 percent - from 9,434,558 pieces in 2017 to 10,492,155 pieces in 2020.

4.3.3 Production of Eggs

Production of eggs increased from 2,758,000 in 2017 to 4,050,000 in 2020; an increase by 46.85 percent in a period of three years; or an annual average increase of 14.5 percent. It is anticipated that production of eggs will double towards the end of 2021 with the observed trend

4.3.4 Production of Fish

Production of fish increased from 1,743,941,520 metric tons in 2017 to 2,367,961,211in 2020; an increase by 36 percent. The annual average growth was 11.2 percent during the period under review. The current growth rate indicates that it

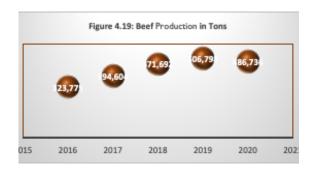


Figure 4.19: Beef Production in Tons
Source of Data: NBS, Tanzania in Figures 2020

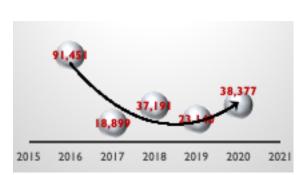


Figure 4.21: Pork Meat Production in Tons Source of Data: NBS, Tanzania in Figures 2020

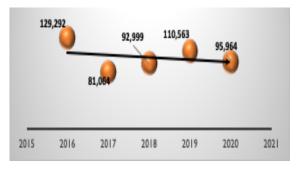


Figure 4.20: Goat/ Sheep Meat Production in Tons Source of Data: NBS, Tanzania in Figures 2020

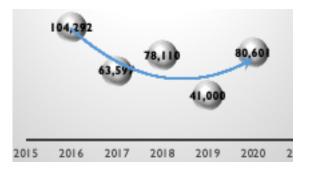


Figure 4.22: Chicken Meat Production in Tons Source of Data: NBS, Tanzania in Figures 2020

will take about ten years to double production, if productivity in fish production remains the same. The ASDP II target for production of marine fish is 88.924 tons but there are no production data for the period under review.

4.3.5 Summary of Output Performance in Livestock and Fisheries

Table 4.6 provides a summary of the perfomance indicators and the set targets in 2020 and 2025. The results of the assesment indicates a general attainment of the targets set in 2020 for liverstock and fisheries development. However, most of the indicators in the table are for general production rather than productivity perfomance except for milk and beef production. Productivity for beef production was lower than the target; and further in Table 4.7, targets on agricultural commodity production productivity were either weakly or not completely achieved except for milk production.

4.3.6 Key Findings on Performance of Agricultural Outputs

Crops and livestock GDP grew disproportionally higher than growth of the government budget on the subsectors. Each percentage point in additional budget allocation on crop production generated about 2.2 percentage growth in its GDP, significantly higher than in livestock subsector whose ratio was only 1.2 for each incremental percentage in the budget allocation for the sector.

Fisheries and forestry grew disproportionately smaller than the growth of the government budget on the subsectors. Each percentage point in additional budget allocation on fisheries generated about 0.03 percentage growth in its GDP; and for forestry, the elasticity was 0.5. Additional budget allocation for fisheries and forestry generated disproportionately less GDP to the subsectors.

Production of food crops grew by 4.7 percent slightly higher than cash crop production (4.5 percent). Meanwhile, productivity of food crops production improved, contrary to the decline of productivity of cash crops.

Production of livestock and fisheries products has generally increased compared to the set short term performance targets. However, most of the performance indicators are for general production rather than productivity which should be the key issue for improving the competitiveness of the subsector.

Table 4.6: Livestock and Fisheries Performance versus Targets

S/N	Indicators/ Targets	Average/ Status 2017 – 2020	Percent of Achieve- ment by 2020	Target in 2020	Indicator rating	Source of Data
i	Beef Production (tons in '000')	578.46767 (Baseline in 2017 471.692)	79.4%			MLF
ii	Milk Production in (litres in billions)	3.377 (Baseline in 2016 =2.087)	62%	Double by 2025		MLF
iii	Accelerate agricultural growth by at least doubling current agricultural	Milk production 2.2 L/indigenous cow (Baseline in 2016 =2 litres per cow)		4 (2025)		MLF
	productivity levels, by the year 2025	Beef production Kg/animal =152 (Baseline in 2017 =145)	52%	290 (2025)		
iv	Fisheries production (tons)	473,592.24	Annual increase has been 11.2%	497,567.28		MLF

Red Less than 35% of the target Yellow 35-70% Green Above 70%

Table 4.7: Performance versus Targets for Selected Indicators of Agricultural Commodities Production

S/N	Commodity	Indicator Target	Definition of the Indicator	Baseline Value (2016)	Value in 2020	% achievement of the Target by 2020	Indicator rating
i	Maize	Double (100% increase in MT/ha) the current agricultural yields levels, by the year 2025 from the year 2016.	Production per unit area	1.72	1.79	4.06%	
ii	Paddy	100% increase in MT/ha	Production per unit area	3.06	2.8	<0	
iii	Sunflower	100% increase in MT/ha	Production per unit area	1.65	1.01	<0	
iv	Milk	50% increase lt/cow/day (3 litres by 2022/2023 -ASDP II)	Production per animal per day (indigenous cattle)	2	2.2	73%	
V	Beef	100% increase in Kg/ animal	Production of carcass per animal	145	152	52.4%	
vi	Goat	100% increase in Kg/ animal	Production of carcass per animal	25	28	56%	
viii	Chicken	100% increase in Kg/ bird	Production of carcass per bird	1.5	2	67%	
ix	Marine fish	Increase catch to 1,000,000 MT by 2025	Volume in MT of catch per year	362,000	473,592.24	47%	

Red Less than 35% of the target Yellow 35-70% Green Above 70%

The set perfomance targets on agricultural commodity production and productivity were either weakly or not completely achieved except for milk production.

4.4 Agricultural Trade Performance

4.4.1 Export of Agricultural Commodities

Traditional crop exports decreased from USD 1021.82 million in 2017 to USD 808.1million in 2020; which represents a decrease by 21 percent

for the period, contrary to the FYDP II set target of increasing export by 30 percent by 2020 (Table 4.8 & Figure 4.23). The average rate of growth of exports was negative at 4.42.9 percent compared to the set target of 9.8 percent by 2020. Export of agricultural commodities was greatly affected by COVID 19 pandemic, although prior to the pandemic, there was a huge plunge in exports (32.16 percent) in 2018.

Table 4.8: Export of Traditional Crops Million USD

		•	Tradition	nal Expo	ort Crops	i		Growth (%)
Year	Coffee	Cotton	Sisal	Tea	Tobac- co	Cashew nuts	Total	
2016	153.69	46.76	17.23	44.79	339.2	320.24	932.38	
2017	126.27	36.76	28.73	49.13	195.81	529.7	1021.82	-32.16
2018	148	68.38	32.54	45.82	269.95	109.56	674.61	20.57
2019	152.2	91.8	19.3	45.7	146.5	353.1	817.7	-1.67
2020	145.2	87.5	17.6	32.4	148.7	359.6	808.1	-13.26
Average Growth 2016 - 2017	5.15	38.53	-12.1	-12	-2.12	48.27	-4.65	-4.42

Source of Data: Annual Economic Survey Report for 2020



Figure 4.23: Growth of Export of Traditional Crop Exports

Source of Data: Annual Economic Survey Report for 2020

Export of food crops commodities in Figure 4.24 increased by 6 percent during the period 2017 - 2020; from USD 1,830.73 million in 2017 to USD 1,940.18 in 2020; an increase of an annual growth rate of about 2.11 percent.

Export of horticultural crops increased from USD 24.8 million in 2016 to USD 274.1 million in 2020; an increase by more than ten times surpassing the FYDP II target of increasing export by 30 percent by 2020 (Figure 4.25). The outstanding increment was a result of improvement in productivity and GAP implemented in the subsector. Also, a number of constraining policies had been resolved leading to smoothened export of horticultural products in Tanzania.

Export of livestock products in 2020 included skins (TZS 5,227.2 million) and meat (TZS 2.99 billion).

Beef exported was 142.2 tons of the total meat export, goat meat was 36.1 tons, lamb 1.1 tons, and donkey 513 tons. Between 2017 and 2020, export of pieces of hides and skin increased from 2,143,145 to 677,867 with an average annual growth rate of 24.2 percent.

Export of fish decreased from TZS 406.57 billion in 2017 to TZS 386.37 billion in 2020; a decrease by 5 percent during the period; a decline rather than an increase as targeted by the FYDP II. However, the set target of the FYDP II of attaining 3% contribution to total exports from fish has been almost achieved because fish export contributed 2.9 percent to total exports in 2020.

Export of honey and bee wax increased from TZS 8.17 billion in 2017 to 17.28 in 2020, an increase by more than twice in a period of three years, or an

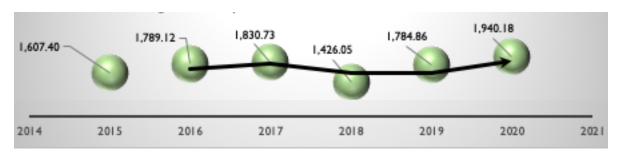


Figure 4.24: Export of Food Commodities in Million USD

Source of Data: MoA, Biennial Review Report for the Malabo Declaration Goals, 2021



Figure 4.25: Horticultural Export in US\$ (Million)

Source of Data: Annual Economic Survey Report for 2020

average annual growth of 60.5 percent. Forestry exports other than bee products reached TZS 53,218,053 in 2020. The share of export of forestry products reached 0.2 percent against the FYDP II target of 6.2 percent, indicating a performance of 3.2 percent.

4.2.2 Intra-regional Trade

The set targets on inter-regional trade on the Malabo Declaration, is to triple intra-African trade in agricultural commodities and services, by the year 2025. The performance of the country in interregional trade is analysed in Figure 4.26; which shows a consistently increasing trend from 512.65 TZ billions in 2017 to 1,068.79 TZ Billions in 2020 (an increase of 108.5 percent). This represents an average annual increase of 36.3 percent. Assuming the same upward trend holds, the total value of inter-regional trade will be about 1,939.9 TZ billions by 2025, which will be more than tripled value of 2017, implying that the country is likely to timely meet the Malabo target.

4.5.3 The food import bill

Food import bill as a percentage of the total imports declined from 5.3 in 2016 to 4.9 in 2020 (Figure 4.27). The average annual decrease was 4.3 percent more-or-less similar to the growth of

food crop production of 4.7 percent and close to the annual growth of livestock products of 4.5 percent. This implies that changes in domestic production of agricultural products have a direct impact on the food import bill. The proportion of the food import bill to the total import bill declined from 5.3 percent in 2016 to the lowest of 3.3 percent in 2018 before rising again to 4.9 percent in 2020 (Figure 4.26).

4.5.4 Summary of Performance on Agricultural Trade and Key Findings

Summary

Table 4.9 shows a summary of Performance on Agricultural Trade during the period 2017 – 2020 with respect to the national development targets. Overall, compared to the set FYDP II targets for the year 2020, the performance has been good for food crop exports including horticultural products and selected food commodities, and fish exports for which targets were either fully or nearly met. However, growth of export of traditional crops and contribution of forestry exports to total exports have been far below the target set for 2020. As the trend of the data depicted earlier in Table 4.5 indicates, the decrease started in 2019 at the onset of COVID 19 pandemic.



Figure 4.26: Intra Africa Export of Goods and Services in TZS Billions

Source of Data: NBS, Tanzania in Figures 2020

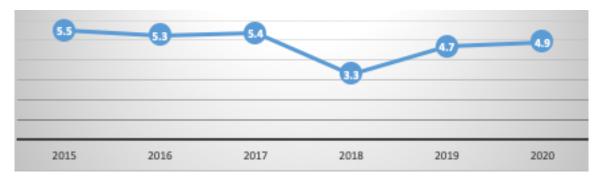


Figure 4.26: Figer 4.27: Food Import Bill as Percentage of Total Imports

Source of Data: Annual Economic Survey Report for 2020

Key Findings

There is a significant increase in export of horticultural products; but a decrease in export of crop produce for both traditional and food crops when bechmarked from the set perfomance targets.

Interegional trading is increasing consistently with the long term targes under the Malabo Declaration Commitment.

The import bill as a proportion of the total imports is declining and somehow reflecting the increasing domestic production of food commodities.

Table 4.9: Summary of Performance on Agricultural Trade versus Targets

S/N	INDICATORS	Current (2020)	Target in 2020 (FYDP II)	Percent of Achieve- ment by 2020	Indicator rating	Source of Data
1	Increase in export of traditional crops by 2020 (%)	-4.42	30	<0		MoFP, NBS
2	Increase in export of food crops by 2020 (%)	2.11	30	7		MoFP, NBS
3	Increase in export of horticultural products by 2020 (%)	More than ten times increase	30	>100		MoA
4	Contribution of fish export to total exports (%)	2.9	3	97		MoFP, NBS
5	Contribution of forestry products to total exports (%)	0.2	6.2	3.2		MoFP, NBS

Red Less than 35% of the target Yellow 35-70% Green Above 70%

5 | Agricultural Sector Contribution to Poverty Reduction and Nutrition Security

Tanzania's Development Vision (2025) and development plans including FYDPs and ASDP I&II have considered agricultural sector as one of the leading contributors to the country's economic development. The main development objectives sought by the Government of Tanzania to transform the agricultural sector are; improving livelihoods; food and nutrition security, among others.

The sector is the main source of rural livelihoods accounting for about 61.5 percent of the total employment in the country (MoFP, 2020) – although far higher than the FYDP II target of 56.5 percent by 2020; which has been achieved by 92 percent.

Agricultural production is the main driver of changes in food and nutrition security in rural economic earnings. Increasing agricultural production will increase rural per capital income; and ultimately, reduce poverty and improve nutritional development at least for under-fives. This chapter seeks to assess whether the increasing agricultural output, observed earlier in chapter three, has reduced incidences of poverty and undernutrition in Tanzania. This is inconsideration that agricultural value chains are the main source of household income in the country; such that an increase in agricultural production will increase per capita income and thus reduce incidences of not

only food poverty but also income poverty. Also, increased agricultural output would essentially lead to more food supply and reduce incidences of under-five stunting, underweight and wasting.

5.1 Poverty Reduction

Between 2017 and 2020, there was an average economic sector growth rate of 6.4 percent (NBS, 2021); and an average agricultural sector growth rate of 6 percent. The basic needs poverty and food poverty declined by an annual average rate of only 0.23 percent; implying that the impact of agricultural growth on poverty reduction has been relatively small (Figure 5.1). Basic needs poverty decreased from 26.4 percent in 2017/18 to 25.7 percent in 2019/20, a decrease by 0.7 percent in a period of three years. The national target for basic needs poverty reduction was 16.7 percent by 2020/2021 (FYDP II); an achievement of 54 percent since the actual realization falls short of the target by nine percentage points.

The proportion of people failing to fully get the daily calorific intake, or food poverty, decreased from 8.0 percent in 2017/18 to 7.3 percent in 2019/20-representing a decrease by 0.7 percentage points during the period. The national performance for food poverty was 5.7 percent against realization of 7.35 percent, falling short of the target by 1.6 percentage points – equivalent to

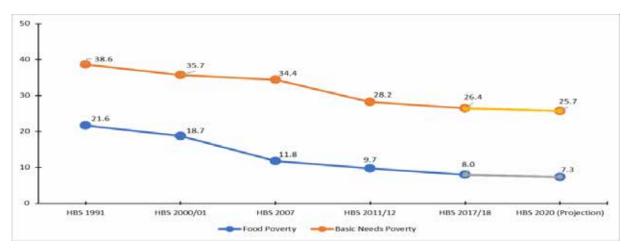


Figure 5.1: Trend of Poverty Reduction in Tanzania (Headcount poverty).

Source: NBS, Tanzania in Figures 2020

71 percent achievement. By implication, agricultural growth has had a disproportionately minor impact on development results during the period under review. Substantial major rates of agricultural growth are needed to eradicate income and food poverty in the country. Normal agricultural growth cannot lead to the desired development impact without additional policy measures of ensuring inclusive participation in agricultural growth and additional strategic interventions that encourage smart reinvestment/expenditure of earned income among rural communities.

The elasticity of economic growth with respect to poverty reduction in Tanzania indicates that a 10 percentage increase in GDP can be expected to reduce the proportion of the basic need poor households by about 2.1 percentage points - lower compared to estimates for other developing countries (NBS). Economic growth is a necessary ingredient, but not a sufficient policy instrument of accelerating poverty reduction in the country.

Table 5.1 compares growth in per capita GDP (a proxy for agricultural incomes for rural areas), under-five stunting and a more comprehensive human development index (HDI). First, it is observed that between 2017 and 2020, growth of regional per capita income ranged from the lowest of 2.8 percent in Katavi region to the highest of 10.8 percent in Njombe. None of the five major foodproducing regions had an average per capita GDP growth higher than that of the agricultural sector (6 percent) during the period except Njombe presumably because of the fast-growing avocado and timber production in the region. The NBS Household Budget Survey 2018-2019 shows that rural households spend 58 percent of their income on food.

Secondly, it is observed that the correlation coefficient for regional average growth rates (2017-2020) and regional food poverty ratios (proportion of food poor households) is -0.3; implying that although economic growth has a direct impact on food poverty reduction, its impact will have to be complemented with additional interventions to achieve the national targets on poverty eradication by 2025. Unless discretionary measures/policies are in place to enhance inclusive participation in sustainable economic activities, particularly agriculture which is the main source of income and the biggest by far for rural households.

Thirdly, Table 5.1 is an analysis of per capita average annual growth (a proxy for agricultural

growth in rural areas) and HDI (a composite index for human development) to assess the extent to which increased incomes from agriculture (inclusive of other sources) leads to increased human development. As indicated earlier, the analysis is conducted with the understanding that agricultural value chains are the main source of household income in the country. The result of correlation coefficient analysis for the two indicators is 0.2; implying that as regional agricultural output (income) increases the direct effect on human development is minor; and thus, calling for additional policies to strengthen the impact of increased agricultural income on human development.

It is further observed that the incidence of poverty varies by regions (World Bank, 2019) (Figure 5.2), and is rather high in regions like Rukwa, Geita, Mwanza and Lindi which are known for production of priority commodities (maize, cotton, fish, etc). It is apparent that regions doing well in less poverty incidences are Kilimanjaro, Morogoro, Tanga and Njombe with some of them being not part of the so-called bread baskets. It is the 'social-economic' setup and 'culture' that matters, and not increased agricultural output in enhancing human development.

It is appreciated that poverty reduction is driven by other sectors including business enterprises, mining, transport, and trade, etc. (World Bank, 2019).

However, analysis from Figure 5.2 suggests that the regions in Southern Agricultural Corridor of



Figure 5.2: Tanzania's Poverty Incidence by Region (WB, 2019)

Table 5.1: Per Capita GDP Growth and Development Outcomes

Name of Region	Per Capita GDP			in Per Capita ome	Proportion of food-	Proportion of Stunted	
	2020	2017-2020	2017-2020	Annual Average Growth	poor households	Children (2018)	Human
			Medium Hum	an Developme	nt		
Dar es salaam	4,095,226	4,678,751	14.2	4.7	2.3	20.1	0.631
Kilimanjaro	2,885,925	3,393,587	17.6	5.9	2.1	20	0.613
Iringa	3,681,665	4,028,544	9.4	3.1	8.0	47.1	0.554
Njombe	2,403,507	3,183,728	32.5	10.8	3.3	53.6	0.554
			Low Human	n Development			
Tanga	2,432,853	2,843,991	16.9	5.6	8.0	34	0.547
Arusha	2,859,151	3,300,051	15.4	5.1	7.6	25.2	0.545
Manyara	2,357,593	2,654,594	12.6	4.2	8.0	36.1	0.545
Ruvuma	2,923,326	3,396,983	16.2	5.4	6.6	41	0.533
				Tanzania Aver	age		0.529
Morogoro	2,252,199	2,623,807	16.5	5.5	4.3	26.4	0.525
Singida	1,415,250	1,622,891	14.7	4.9	9.3	29.8	0.525
Mbeya	3,321,495	3,788,604	14.1	4.7	7.7	33.8	0.523
Mara	2,041,293	2,258,302	10.6	3.5	2.2	26.2	0.522
Pwani	1,872,708	2,251,254	20.2	6.7	12.1	23.8	0.506
Geita	2,471,830	2,739,023	10.8	3.6	14.5	38.9	0.505
Mwanza	2,391,919	2,670,009	11.6	3.9	9.4	29.3	0.505
Kagera	1,036,396	1,168,661	12.8	4.3	12	39.8	0.501
Kigoma	1,315,117	1,479,389	12.5	4.2	14.2	42.3	0.499
Lindi	2,440,764	2,885,533	18.2	6.1	15.3	23.8	0.49
Shinyanga	1,705,949	1,887,800	10.7	3.6	8.2	32.1	0.49
Simiyu	N/A	N/A	N/A	N/A	7.5	N/A	0.49
Mtwara	2,311,244	2,725,164	17.9	6.0	9	29.6	0.488
Dodoma	1,438,016	1,759,347	22.3	7.4	3.7	37.2	0.479
Katavi	2,284,104	2,478,206	8.5	2.8	9.2	33.7	0.467
Rukwa	2,191,381	2,505,705	14.3	4.8	19.8	47.9	0.467
Tabora	1,586,969	1,777,039	12.0	4.0	11.1	25.8	0.464
Songwe	1,863,682	2,117,414	13.6	4.5	5.6	43.3	0.523
Tanzania Mainland	2,327,395	2,653,790	14.0	4.7	8.0	31.8	0.529

Source: Authors compilation with data from UNDP - HDRs, National Multisector Nutrition Action Plan (NMNAP 2021-2016), MoPF, Economic Survey 2020.

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Tanzania (SAGCOT) have relatively moderate incidences of poverty, probably attributed to investments in commercial crops like rice, sugar and maize farming and processing facilities which have enhanced linkages between producers and markets. A good example is efforts in the tea and dairy sectors as revealed by the fieldwork visits and interviews with various stakeholders.

About half of Tanzania's population live on less than \$1.90 per day; indicating the need for policies, strategies and programmes to pay more attention to the nexus between agriculture and inclusive human development. High population growth and low productivity in labour-intensive sectors like agriculture, which employs 61.5 percent of the population, limit broad-based economic growth.

5.2 Food Security

Tanzania is committed to ending hunger by 2025 as indicated in the CAADP; the government has taken various measures to enhance food security, which comprises three elements: availability of high-quality food products, household access to these products and adequate nutritional content.

Assessment of food crop production conducted in December 2020 by the MoA indicated that the availability of food in the country had continued to be reasonably adequate and generally increasing. Table 5.2 shows an encouraging seven years (2014/15 – 2020/2021) national trend of food production in the country and level of self-sufficiency. The food security self-sufficiency (FSSR) ratio increased from 120 percent for (2015/16) to 126 percent (2020/21) – achieving 84 percent of the ASDP II target of 150 for 2022/23. The promising food security performance is attributed to several efforts including the implementation of policies and programmes in the sector to

improve production and productivity and good rainfall performance during the period as well as substantial investment in the sector (MoA, 2020).

At the national level, the country has had food self-sufficiency in most of the years, however, there are variations at regional, district and household levels. For example, Figure 5.3 shows food security assessment by regions for 2018/19 (URT, 2019a;); in which some regions (e.g. Tanga, Dodoma, Arusha, Dar es Salaam, Kilimanjaro, Shinyanga) in the north and north eastern of the country experienced deficits (SSR < 100). These regions are characterised by inadequate agro-productivity, less and variable rainfall, declining soil health, climate change and increasing population growth, among other challenges.

It is further noted, from Figure 5.3 that regional comparison for food deficits shows that the most deficit-food regions in most cases are not the regions with high incidence of poverty; implying that the link between food security and poverty reduction is weak probably due to several moderating factors (e.g. cultural practices) that are subject to further research.

There is need for continued efforts to enhance food availability in the country especially for deficient regions, districts and households. Subsequently, effective linkage between agro-production and inclusive poverty alleviation must be promoted. Examples of measures include enhancing livelihood opportunities, improving the incomes of SHFs through improved production and productivity of both food and cash crops, addressing climate change effects through irrigation and other means, promoting agro-processing, reduction of post-harvest losses and promoting SHF knowledge and skills of farming as a business. It is recommended that long-term improvement in food security should

Table 5.2: Food Production and Availability (2014/2015 - 2020/2021)

Production Season	Food production (Tons)	Food Availability (Tons)	Food	Surplus (Tons)	Percentage of SSR
2014/2015	15,528,820	16,015,238	12,767,879	3,247,359	125
2015/2016	16,172,841	15,528,820	12,946,123	2,582,697	120
2016/2017	15,900,864	16,172,841	13,159,326	3,013,515	123
2017/2018	16,891,974	15,900,864	13,300,034	2,600,831	120
2018/2019	16,293,637	16,891,974	13,569,285	3,322,686	124
2019/2020	17,742,388	16,293,637	13,819,863	2,473,774	118
2020/2021	18,196,733	17,742,388	14,404,171	3,792,562	126

Source: Ministry of Agriculture, 2021

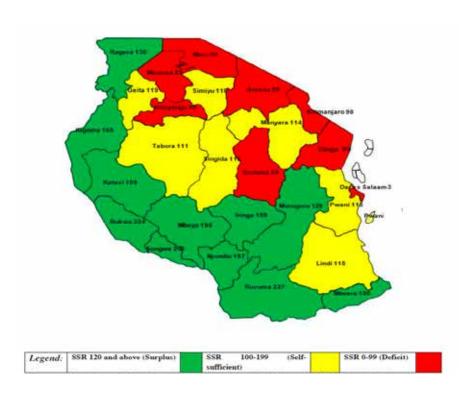


Figure 5.3: Regional Variation in Food Security (measured by SSR) in 2018

Source: AGSTAT (URT, 2018)

be embedded as part of a national strategy for sustainable development and poverty reduction through agriculture.

5.3 Nutrition

The government recently launched the second National Multi sectoral Nutrition Action Plan (NMNAP II), for the period July 2021 – June 2026. The plan, pursues among other things, Malabo Declaration target to eliminate child under-nutrition in Africa with a view to bringing down stunting to 10 percent and underweight to 5 percent by 2025.

The second National Nutrition Survey conducted

in 2018 shows a significant improvement in the prevalence of chronic malnutrition, or stunting, among children under five years in Tanzania. The country's nutrition performance is analysed in the period between 2014 and 2018; in which stunting was reduced from 34.7 percent to 31.8 percent. Despite this progress, it is estimated that approximately 3 million children under five years of age were stunted in 2018.

The trends depicted in Figure 5.4 shows that both the proportions of stunted and underweight for under-fives have remained unchanged between 2017 and 2020; and they are still very

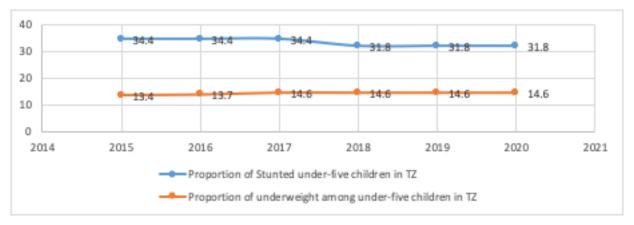


Figure 5.4: Trends in Under-fives' Stunting and Underweight

Source: NBS, Tanzania in Figures 2020

high, and unlikely to achieve the Malabo target assuming the current trend continues. However, further assessment by comparing the current achievement on stunting with the 28 percent set national target in the FYDP II, shows that the achievement so far is 86.43 percent, which is quite satisfactory although achieving the 10 percent CAADP target by 2025 will remain a challenge.

Turning back to the analysis in Table 5.1, the results of correlation coefficient between per capita GDP and stunting by regions gives a score of -0.13; implying that increased income reduces stunting by a marginal effect. Under-five stunting is marginally accounted for by variations in the level of per capita GDP. Figure 5.5 is an extract from the NMNAP II document, which shows that almost all the food basket regions have relatively high level of under-fives stunting.

Analysis of the correlation coefficient between HDI and prevalence of under-fives' stunting gives a figure of -022; implying that the higher the

level of human development the lower the rate of prevalence of under-fives' stunting; but the correlation is too small indicating that variations in the prevalence of under-five stunting is marginally explained by HDI. In a study by Marianne et. al, (2021) it was found that a nutrition-sensitive agro ecology intervention in Rural Tanzania had increased children's dietary diversity and household food security but did not change child anthropometry. Also, earlier on in 2010 in an International Food Policy Research Institute (IFPRI) discussion paper, Karl Pauw and James Thurlow found that rapid economic growth had failed to significantly improve poverty and nutrition outcomes in Tanzania.

Ironically, many regions with high food production also have high number of stunted children. The Tanzania Nutrition Survey Report for 2018 indicated that the following regions have more than 150,000 stunted children; Dodoma, Dar es Salaam, Kigoma, Kagera, Mwanza, Simiyu and Geita. The report

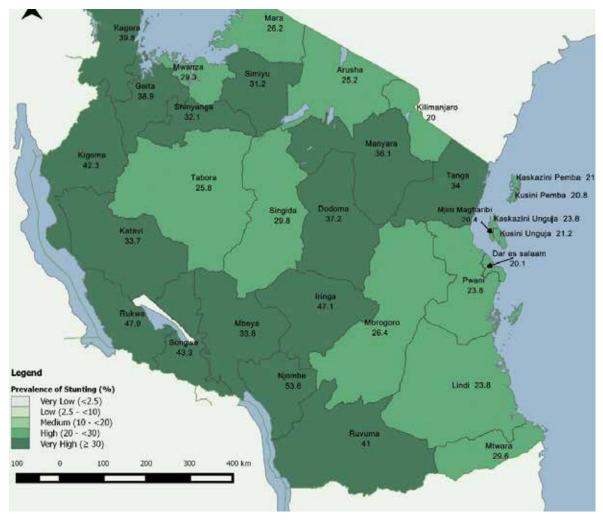


Figure 5.5: Prevalence of Stunting among children 0 to 59 months of age -2018 by Region

Source: NMNAP II, 2021

also showed that Njombe, Rukwa, Iringa, Songwe, Ruvuma, Kagera and Kigoma regions have the highest stunting prevalence (≥40 percent).

Similarly, the country faces challenges of high levels of stunting and anaemia among women of reproductive age. Malnutrition in childhood and pregnancy has many adverse consequences on child survival and long-term well-being. It also has far-reaching consequences for human capital, economic productivity, and overall national development. Needless therefore, is to emphasise the importance of addressing the problem of mother and child health in the national development programmes.

There is a weak relationship between agricultural growth and nutrition outcomes. Yet, considering contextual/location factors, more systematic research should be conducted to unpack the relationship between agricultural growth and nutrition security. As implied by the NMNAP II and UNICEF Nutrition Strategy for 2020 – 2030, addressing nutritional issues is multi sectoral and multidimensional including governance, resources, poverty, inadequate crop/livestock/fish production/productivity, climate variability, cultural norms and practices, food environments, feeding practices,

food availability, and public nutrition knowledge and care and services for children and women (see also Alphonce, 2017). Dietary diversification, low and micronutrient deficiencies are widespread. Moreover, rural households' food expenditure as share of income is rather too high (Alphonce, 2017).

5.4 Summary of Performance on Development Impact and Key Findings

5.4.1 Summary

Table 5.3 is a summary of the Development Outcome of the performance of the agricultural sector for the period 2017 – 2020 with respect to the national development targets. Overall, compared to the set FYDP II targets of the year 2020, the impact of the recent growth in agricultural output is satisfactory; the outcomes are close to the targets except for basic needs poverty for which performance is relatively low. However, the long-term objectives for 2025 of eradicating poverty and reducing under-fives' stunting and underweight to 10 percent and 5 percent are unlikely to be met unless additional policy measures are put in place to speed up performance.

Table 5.3: Summary of Performance on Development Impact versus Targets

S/N	INDICATORS	Current	Target in 2020 (FYDP II)	Per- cent of Achieve- ment by 2020	Red = less than 35% of the target; = Yellow = 35-70% Green = above 70%	Source of Data
1	Proportion of agricultural employment in the total employment (%)	61.5	56.5	92	Above 70%	MoFP, NBS
2	Prevalence of basic needs poverty (%)	25.7	16.7	54	Lower than 70%	MoFP, NBS
3	Prevalence of food poverty (%)	7.3	5.7	71	Above 70%	MoA
4	Food Security (%)	126	150 (2022/2023	84	Above 70%	MoFP, MoA,NBS
5	Prevalence of under-five stunting (%)	31.8	28	86.43	Above 70%	MoFP, NBS

6.1 Policy Review

The existing policies and strategies for agricultural sector and food security in Tanzania are overviewed in **Appendix** 1. The framework is hereinafter assessed with a focus on: alignment and adequacy; coherence; reforms/adjustments; implementation; effectiveness in providing an enabling environment; and policy design capacity.

6.1.1 Policy Alignment and Adequacy

Overall, the existing policies are quite in line with the national vision and direction as encapsulated in TDV, 2025 and FYDP I, II and III. The polices are adequate as they cater well for all the four pillars of ASDP II:(i) Sustainable Water and Land Use

Management; (ii) Enhanced Agricultural Productivity and Profitability; (iii) Commercialization and Value Addition; (iv) Sector Enablers, Coordination and Monitoring & Evaluation. They cover all major sub-sectors as well as the value chain stages of agro-inputs, production, processing, marketing, and enabling environment (Table 6.1).

The stakeholders consulted during the ASR acknowledged that the existing policy, strategic and programmatic framework has contributed to improved performance of the sector, notably, increased food production. There is also improved enabling environment and thrust for agroproduction, agro-processing and agro-marketing; increased infrastructural investment for agriculture (electricity, roads, railway, air transport, irrigation, etc.); the existence of active commodity-specialised network for marketing the cooperatives and the research institutions under TARI, TALIRI and TAFIRI; and greater attention to increased agro-production, productivity at regional and export trade.

Moreover, the review indicates the existing policies and strategies are oriented towards enabling the country to leverage the existing and emerging

Table 6.1: Adequacy of Exiting Policies for ASDP II Pillars

ASDP II Pillar	Strategic Objective	Illustrative Policy		
Sustainable Water and Land Use Management Expanded sustainable wat and land use management for crops, livestock, and fisher		NAP- 2013, NWP – 2002, NLP 1995 & Land Act 1999, NIP 2009 and NIMP - 2002, revised in 2017, NYDP 1996 and NYDP 2009, LMP: 2017/2018 – 2021/22, NFP -2015, NIP-1996, NSYIA-2016.		
Enhanced Agricultural Productivity and Profitability Increased productivity growth rate for commercial market-oriented agriculture for priority commodities		NAP- 2013, NWP – 2002, NLP - 1995 & Land Act 1999, NIP 2009 and NIMP - 2002, revised in 2017, NMP-2008, NCDP-2002, TAIDF-2020, NFP -1998, – NFPIS -2021, NLP 2006, LMP-2017/2018 – 2021/22, LMP): 2017/2018 – 2021/22, NFP -2015, NIP-1996, NSYIA-2016, NIP-2020, NBPIS - 2021, NRDS - 2019,		
Commercialization and Value Addition	Improved & expanded rural marketing and value addition promoted by a thriving competitive private sector and effective farmer organizations	NAP- 2013, NMP-2008, NCDP-2002, NICT Policy 2003, TAIDF-2020, NYDP 1996 and NYDP -2009, NTP-2003, NLP 2006, NWP 2003, LMP- 2017/2018 – 2021/22, LMP): 2017/2018 – 2021/22, NFP -2015, NIP-1996, NSYIA-2016, AMP - 2008, SIDP (1996 – 2020), IIDS (2011-2025),		
Sector Enablers, Coordination and Monitoring & Evaluation	Strengthened institutions, enablers, and coordination framework	The Blueprint (2018), NICT-2003, NMP - 2000 and NMP-2017, NCDP-2002, NTP, 2003, NLP 2006, LMP): 2017/2018 – 2021/22, NFP -2015, NIP-1996		

opportunities especially the conduciveness of the country's location, climate, natural, human, and other endowments to agro-production and processing; significant potential for exporting to regional and international markets; the availability of technologies that can increase production and agro-processing; the growing interest of large-scale processors in reaching out to producers to improve linkages; and growing culture of consuming processed food products in the country (FAO, 2017; BoT, 2018; URT, 2018; URT, 2020).

While the ASR found4that there are periodic efforts to review the policy and strategic framework, there is still need for regular updating of some of the policies (e.g., National Trade Policy of 2003, National Investment Promotion Policy 1996, National Cooperative Policy 2002, and National Agriculture Marketing Policy 2008). There is also need to similarly integrate and harmonise agricultural policies and strategies with those in other sectors e.g. infrastructure and tourism (BoT, 2018; URT, 2018; Doroth, A. et al., 2020). The country further needs a legally backed policy to safe guard local demand (market) and preferences of agricultural produces/products. This will drive local production and protection of local food products, germplasms and related materials.

6.1.2 Policy Consistency and Predictability

The consistency and predictability of policies, laws, regulations, and directives are crucial to provide a good direction for a transformative growth of the agricultural sector. By and large, the country's policies and laws are relatively consistent and predictable; the major problem is regulation which is the backbone of directives. The main issues are conflicting, unpredictable, duplicative, and unfriendly regulations/directives. taxes, levies, licensing, and other charges (Maziku & Mashenene, 2020; URT, 2018). Additionally, they include conflicting and unpredictable charges by Local Government Authorities (LGAs) and multiple regulatory agencies with seemingly similar roles and functions. Furthermore, there is prevalence of high costs in enforcing the implementation of regulations and directives.

The government has taken bold steps to promote consistency and predictability of regulation including those related to the agricultural sector.

For example, it developed and approved a blueprint designed to improve and strengthen an enabling environment for businesses in the country. In addition, the government has incorporated a prerequisite, in the Second Five Year Development Plan document (FYDP II) to ensure that both local and foreign potential investors are able to conduct business in different sectors of the economy, at the scale required to accelerate and sustain industrial transformation (URT, 2018).

Yet, the key findings that emerge from the review of literature and stakeholder consultations indicate that the performance of agricultural sector over time has been negatively affected by the combined effects of inconsistencies and predictability in regulations and directives implemented concurrently. The indicative assessment summary in Table 6.2 shows inconsistency as a significant issue facing the agricultural sector. There are conflicting or duplicative regulations at the central and local government relating to taxes, levies, licensing, and other charges. There are differences in costs across the LGAs and the multiple regulatory agencies. The prevalence of high costs in enforcing the implementation of policies in the central and local government is a result of the licensing regime that has put more emphasis on revenue generation at the expense of the provision and delivery of quality services to ensure high earnings for both the government and the private sector. The prevalence of higher costs and burdensome procedures in formalizing businesses has resulted to increased informal operation of businesses which consequently results to the loss of government revenue.

Nonetheless, all inconsistencies associated with specific regulations in the agricultural sector have not been mapped out in this ASR. This is an intense exercise that will require periodic interventions. It is thus proposed that a coordinated effort led by the ASDP II Secretariat be initiated to systematically identify all key inconsistencies related to specific regulations and directives in the agricultural sector and coordinate efforts to address them strategically.

6.1.3 Policy Reforms/Adjustments

The ASR has established increasing, intentional government efforts to reform policies and strategies within and without the agricultural sector to speed up agriculture-led industrial economic development. **Appendix 2** provides an *illustrative*

⁴ Based on stakeholder consultations and TAIDF, 2020; MoA, 2020, Kapinga & Kudunda, 2019, LVFO (2019), CABRI, 2019), URT, 2016, BFAP et al, 2018, PMO and MITI, 2018 and FAO and AfDB, 2019), World Bank, 2021; URT, 2020.

Table 6.2 : Assessment of the Extent of Regulatory Consistency

S/N	Aspect	Illustrative Details/Examples**	References
1	Unpredict- ability	Frequent and unpredictable changes in regulatory decisions/directives – e.g., in the case of recent change to bulk procurement of fertiliser following soon by another change to open private sector importation system.	URT, 2018; Field findings
2	Inconsisten- cies	 Inadequate delineation of measurable & harmonised implementation measures for some policies. Inadequate coordination and harmonisation of effort across public agencies; alignment of effort between levels of government (central and local). Regular conflict between regulations and political statements Inconsistencies in regulations Inadequate linkages and harmonisation between policies, strategies, and programmes across sectors and between the public and private sector Inability of policies to adequately address the nexus (issues) between agro-inputs & production; between production and processing; and production/processing and markets 	BoT, 2018; URT, 2018; Dorothy, A. <i>et al.</i> ,2020; Kapinga & Kudunda, 2019; URT, 2020b; Mdoe, N.S.Y & Mlay, G.I. (2021) Field findings
4	Gaps	Some of the value chains face critical policy gaps. For example, the cashew sector does not have a comprehensive marketing system to make it competitive	BoT, 2018; URT, 2018; CABRI, 2019
5	Blanket policies and regulations	Many policies are rather general which make them broad in coverage and good but in some cases, they need to be complemented by specific commodity value chain policies and reg- ulations that are aligned with the specific value chain issues.	BoT, 2018; URT, 2018; Doroth, A. et al., 2020; Field findings
6	Propensity to overly on levies, taxes, and non-tariff barriers	There has been emphasis for local government and other government agencies to impose lev- ies, taxes, and other restrictions without sound cost-benefit analysis and their implication to farmers.	BoT, 2018; URT, 2018; Doroth, A. et al., 2020; Maziku & Mashenene, 2020;
7	Some regulatory measures are not adequately coordinat- ed	Many authorities are involved with agro- processors at separate times and sometimes duplicating matters. For example, in the case of cashew: TRA, TBS, OSHA, Pension Funds, LGAs, CBT and others. This results in increased operational costs (CABRI, 2019)	BoT, 2018; URT, 2018; Doroth, A. <i>et al.</i> ,2020; Field findings
8	Non-inclu- siveness of regulations	To illustrate, the agriculture sector being a non-union matter has resulted to widening gap between the sector growth in the mainland and Zanzibar. A good example is seen in the importation of rice and its regulation in Zanzibar which negatively affect farmers on the mainland.	Doroth, A. <i>et al.,</i> 2020; Mdoe, N.S.Y & Mlay, G.I. (2021)

summary of the most notable reforms during the period 2016/2017 – 2021/2022 anchored on the four pillars of ASDP II. Notable government initiatives in policy fiscal reforms is the abolition and reduction of a total of 232 taxes and levies related to business and investment implemented so far through the blueprint's implementation (Budget Speech, 2021/2022). The other major policy reform is the reduction of crop cess from 5 to 3 percent and removal of costs for produces that are less than one tonnage. Evidently, there is strong government commitment and thrust to reform the policies, taxes and levies in the agricultural sector.

6.1.4 Adequacy of Policy Implementation

ASDP II implementation reports indicate that policy and programme implementation is underway, with stakeholders proposing a rapidly accelerated implementation. Effective implementation requires several constraints to be addressed, including deficient infrastructure, inadequate human and financial capacities, inadequate regulations, policy inconsistencies, inadequate public and private investment, and inadequate coordination of sectoral policies, limited access to and utilisation of improved seeds; limited access to and utilisation of fertilizers; limited irrigation; limited access to and utilisation of agricultural advisory services; and limited access to rural finance (URT, 2021; Mutanyagwa et al., 2018; MLFD, 2016).

6.1.5 Adequacy of the Enabling Regulatory Environment for the Agricultural Sector

The country, through implementation of ASDP II, seeks to transform the agricultural sector towards increased productivity, commercialization and income generation for smallholder farmers to improve livelihood and guarantee food and nutrition security. The government is committed to ensuring an enabling environment for the agricultural sector and is implementing various reforms towards

this end including the issuance of the blueprint for regulatory reforms and the development of the Agro- Industrialisation Development Flagship (TAIDF) programme (URT, 2018, URT, 2020). Other notable efforts by the government includes the construction of various facilitative economic infrastructures (e.g., regional roads, SGR, and irrigation schemes). In addition, the government has taken bold moves in the past five years to abolish some taxes, levies, fees, and charges in the agricultural sector. For example, in the past five years, 105 charges and fees on crops, farm inputs and cooperatives societies have been scrapped and 19 taxes and levies in the livestock and fisheries sub-sector have also been scrapped and or reduced. To expedite implementation of the blueprint, the government has prepared a comprehensive action plan and introduced facilitative project.

Despite the progress made, the enabling environment needs more attention. It encompasses several issues including policy inconsistencies, inadequate policy implementation, uncoordinated regulatory framework, unfavourable tax and non-tax barriers, dis-organised value chains, unreliable rural transport infrastructure, inadequate access to finance, weak private sector organizations engagements, high compliance costs, lengthy pre-approval procedures, multiple and duplicate processes for business registration, loopholes in some laws and regulations (URT, 2018; World 2021; Maziku & Mashenene, 2020). Indeed, as indicated in study Box 6.1 investing in improvements in the enabling environments could have substantial benefits.

The following are main areas for reforms in policies and strategies to achieve positive change to the enabling environment (URT, 2017; URT, 2018; URT, 2020; URT, 2021) (Table 6.3).

Box 6.1 Non-tariff Barriers Study (Maziku & Mashenene, 2020)

This study assessed the effect of non-tariff barriers (NTBs) on the production and marketing of maize for smallholder farmers in Mbozi and Momba Districts located in Songwe region in Tanzania. It revealed that: "NTBs have a depressive effect on the quantity of maize produced and marketed." "A unit increase in transaction costs attributed to NTBs could reduce the quantity of maize produced by 16 per cent in the two districts." It concluded that the quantity of maize produced and supplied by farmers in the two districts decreases with an increase in the NTB costs.

Table 6.3 Reform areas for enhanced enabling environment

Theme	Policy, strategic and institutional development thrusts		
	Affordable access to and utilisation of quality seeds for all major commodities		
Agra inputa	 Affordable access to and utilisation of industrial fertilizers (incentives for local production) 		
Agro-inputs	Access to simple agricultural technologies and mechanisation for all major commodities		
	Access to and effective utilisation of extension services		
Link between	Stronger and farmers' organisation and co-operatives		
agro-pro-	Effective aggregation centres linked to other services required by farmers		
duction and processing	 Enforceable contract farming system for win-win benefits between SHF and processors 		
Marketing and markets	Effective and coordinated marketing systems for commodities and processed products		
Rural finance	Access to workable rural finance		
and public funding	Ringed fenced allocation of local government collections to the productive sectors.		
	Affordable crop insurance schemes		
Reliance	Climate-smart agriculture promotion		
building	Access to solid health measurement tools and schemes to conserve soil health		
	Access to functional irrigation schemes and rural roads and rain harvesting schemes		
Capture fish-	Livestock: access to Al and feeds		
eries, aqua- culture, and	• Capture fisheries: control of overfishing, use illegal gear, and depletion of the resource base		
livestock	Aquaculture: access to affordable quality feeds and fingerlings		
	Speedy and tactical implementation of the Blueprint		
	Coordinated reduction/removal of nuisance taxes, levies and other barriers.		
General	 Establishment of dialogue platforms for various value chains (e.g., for Lake Victoria fisheries and Sunflower sector in Singida) that periodically bring key stakeholders together to discuss and act fast on critical issues. 		

6.1.6 Technical capacity to design agricultural sector policies, programmes, and strategies

Policy formulation requires knowledge and skills to integrate available information on social and economic development issues that need to be addressed through sector policies, strategies, and programmes. In some cases, there are constraints in ensuring that policies, strategies, and programmes are sufficiently evidence-based.

To address the challenges – there is need for periodic capacity building of both state and NSA; to improve availability of research findings and operational data; and improve efforts to monitor and evaluate policies.

6.1.7 Summary on Policy Review

The sector policy review is summarised and rated in Table 6.4.

Indicator	Description/Notes	References	Indicator rating
Policy alignment and adequacy	Existing policies are in line with TDV, 2025 and FYDP I, II and III & cater well for all the four pillars of ASDP II. Periodic reviews being conducted; although some policies are still outdated.	BoT, 2018; URT, 2018; Doroth, A. et al., 2020	
Consistency, predictability, and transparency of policies and regu- lations	The problem is in regulation. Existing regulation face various challenges: inconsistencies; unpredictability; gaps; and weak coordination with other sectors.	Field findings; BoT, 2018; URT, 2018; Dorothy, A. <i>et al.</i> ,2020; Kapinga & Kudunda, 2019; URT, 2020;	
Policy reforms/ Adjustments	There are intentional government efforts to reform policies and strategies within and outside the sector. Much has been done to reduce/remove constraining levies. `Going forward, develop an agreed framework for reforming the regulations and levies to address such issues as interlinkages and consistency.	Refer to the desk review in Appendix2; Field consultations.	
Adequacy of policy implementation	There is significant policy and programmes implementation. However, the implementation rate could be accelerated.	MoA and ASDP II implementation reports; Field consultations.	
Adequacy of the enabling environ-ment for agriculture	There is grave government commitment to reform the environments. Major reforms have been undertaken including the Blueprint. There is need for accelerated reforms and more systematic and comprehensive approach.	URT, 2018; Field consultations.	
Technical capacity to design agricul- tural sector poli- cies, programmes, and strategies	The government promotes evidence – based policy design but faces challenges including technical capacity both in the public and private sector and at national and sub-national levels. There is need for adequate relevant research and operational data to support evidence-based policy design.	MoA (2020) Field consultations	

Green Very good progress/on-track

Yellow Good progress with more efforts needed

Red Low to average progress; substantial efforts needed

6.2 Institutional Review

6.2.1 Key Institutions in Delivery of Sector Policies and Programmes

The key institutions/actors of ASDP II are mapped extensively with their roles in the programme's implementation manual (URT, 2019). These include stakeholders or institutions/organizations from The President's Office, Regional Administration and Local Government; PMO Office; MoA; MLFD; Ministry of Industry and Trade; Ministry of Land, Housing and Human Settlement Development; Ministry of Water; Ministry of Defence and National Security; and, Ministry of Home Affairs.

Collaborative ministries are Ministry of Finance and Planning; Ministry of Health, Community Development, Gender, Elderly and Children; Ministry of Natural Resources and Tourism; Ministry of Science and Technology; Ministry of Energy; and Ministry of Works and Communication. Other key partners include development partners (DPs) and non-state actors mainly farmers, processors, traders, transporters, equipment manufacturers, artisans, financial institutions and training institutions.

Box 6.2 provides an overview of the division of roles

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Box 6.2: Summary of Roles

Delivery at Sector Level

- · MoA is the lead in charge of Policy and Strategy of the Agricultural Sector.
- Each of the Agricultural Sector Line Ministry (ASLMs) has Department of Policy and Planning (DPPs) which monitors agricultural sector plans.

Delivery at local Government level

- · District Agricultural Development Plans (DADPs) are prepared at the District level.
- District Full Councils, Ward Development Councils (WDCs) and Village Councils (VCs) approve and monitor implementation of DADPs.

Delivery Unit at National Level

- · PMO hosts the ASDP II Coordination Unit.
- PMO has powers to convene the ASLMs and other support ministries responsible for implementation of ASDP II.
- · Ministry of Finance (MoF) is in-charge of the Medium-Term Expenditure Framework (MTEF) to guide public resource allocation ceilings for all sectors.
- · National Bureau of Statistics (NBS) provides data to support evidence-based sector planning.
- · Tanzania Investment Centre (TIC) coordinates large scale investments in the sector.

Effective coordination of the programme's oversight, implementation, monitoring and coordinated response to emerging issues is and will remain fundamental. Delivery units at the sector level is functional however, as one descends to the districts and sub district levels (e.g., division, wards, and villages) there are challenges that affect quality implementation of agriculture policies and programmes such as inadequacy of financial resources and tools for implementation. For example, the extension workers face challenges to effectively facilitate their movements to visit farmers and lack of working equipment.

The challenge is to continuously ensure that every key stakeholder/actor plays their role to enhance the competitiveness and performance of the sector. This is expected to be addressed by ASDP II Implementation Structure as it gradually becomes fully operational.

6.2.2 Sector Coordination and Implementation Structure

ASDP II is coordinated by the Prime Ministers' Office (PMO) and its implementation championed by the Agricultural Sector Lead Ministries (ASLMs): MoA; *MLFD*; Ministry of Industry and Trade;

Ministry of Land, Housing and Human Settlement Development; Ministry of Water; President's Office Regional Administration and Local Government; Ministry of Defence and National Security; and, Ministry of Home Affairs. The ASLMs work in partnership with other stakeholders in the sector including non-state actors- Agriculture NSA Forum (ANSAF), development partners, NGOs and FBOs, farmers' organizations and associations, and farming communities.

The government has developed a coordination structure, implementation manual⁵, resources mobilization strategy, communication strategy and; monitoring and evaluation framework⁶ for the programme. **Box 6.3 and Figure 6.1** provide an overview of the coordination mechanisms (at different levels)

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⁵ URT (2019); ASDP II Implementation Manual.

⁶ URT (2020); ASDP II Monitoring and Evaluation Framework.

Box 6.3: Summary of Roles

Coordination at National Level

- · The National Agricultural Sector Stakeholders Meeting (NASSM)
- · The Agricultural Steering Committee (ASC)
- · Agricultural Sector Consultative Group Meeting (ASCG)
- · Technical Committee of Directors (TCD)
- · Thematic Working Groups (TWGs).
- The ASDP II National Coordination and Management Unit (NCU)

Coordination at PO-RALG, Regional Secretariat and Local Government Levels

- · Annual Regional and Local Government Agricultural Consultative Meeting (ARLGAC)
- · Agricultural Sector Consultative Group Meeting (ASCG)
- · Technical Committee of Component Leaders (TCCL-PORALG)
- · Regional Consultative Committee (RCC)
- · District Consultative Committee
- · Full Council
- · Ward Development Council
- · Village Assembly

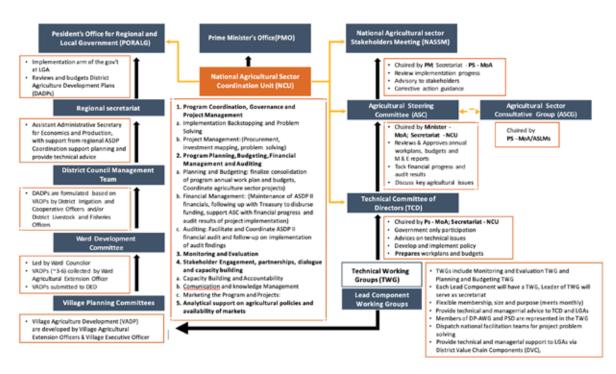


Figure 6.1: ASDP II Coordination Structure

The goal of the ASDP II implementation structure is to promote effective multi-stakeholder formulation, consensus and effective implementation of key policy and regulatory reforms to drive the sector transformation process.

Assessment of coordination and implementation structure:

- a. National & sub-national: Although there are structures for programme delivery at both national and sub-national levels, effectiveness of the systems is affected by inadequate financial resources, equipment, and skills for technical staff.
- b. Coordination at different levels: There are several frameworks for coordination at different levels as indicated in Box 6.3. But there are challenges of inadequate technical and financial support to facilitate effective coordination. There are also some challenges in coordinating projects that are funded off the public sector budget.
- c. Coordination of meetings: At national level, National Agriculture Sector Stakeholders Meeting (NSSM) is established as the highest-level coordination body in the country under the leadership of PMO and has the responsibility of overseeing the performance of the sector. TCD from all ASLMs meets quarterly. The meetings of NSSM, Agricultural Steering Committee (ASC) and ASCG Meeting (ASCG) are not as regular as planned.
- d. Linkage between the ASDP II Secretariat and ASLMs: In order to ensure effective facilitation of the implementation of ASDP II, a robust link between the ASDP II Secretariat and ASLMs must be created. This requires addressing existing human and financial gaps at the ASDP II Secretariat and ASLMs units responsible for coordinating the programme's implementation, monitoring and evaluation. Indeed, there are inadequate resources (human and financial) for coordinating the implementation of the programme at all levels of ASDP II implementation.

e. Public- Private Sector Coordination:

There is inadequate coordination of the private sector and other non-state stakeholders, at national and local levels. In order to improve coordination, a private sector strategy should be developed and a coordination desk should be set up in all the ASLMs and LGAs similar to that of the MLFD Development (URT, 2019c).

- f. Data & Statistics for Evidence-based Decision Making: Inadequate capacity and accessibility of the agricultural statistical and operational data to support real time management of the programme.
- g. Activity and Results Monitoring at the Grassroots level: Lack of a structured, monitoring system of cascading the ASDP Il targets, objectives, and interventions into actionable plans for all key actors including those working on the grassroots with farmers.
- h. Inter-institutional coordination: Inadequate coordination including inter-institutional and across government levels. It is necessary to clarify on linkages between various agricultural interventions and collaboration between the institutions responsible for such interventions especially at the LGA levels.

6.2.3 Delivery Capacity of Government Institutions

Although the Government has periodically taken measures to improve the institutional capacity for agricultural policy making, planning, programming and implementation, several challenges remain to be addressed:

Central and Regional Level

The government has provided requisite technical capacity to public institutions responsible for managing the agricultural sector both at central and at regional level to ensure effective delivery and implementation of its' programs (see e.g., MoA (2020), URT (2020)). However, the stakeholder consultations pointed out further required policy attention as follows:

- 1. Enhancing alignment between the agricultural sector plans and those of other sectors.
- Providing staff with opportunities to catchup with new developments (techniques, technologies, etc.).
- Adopting ICT based systems that can facilitate more comprehensive monitoring of activities and actors across the value chains (enhanced digitization of value chains and the sector).
- Enhancing the current statistical system for data collection, analysis and reporting system to support planning and decision-making in the sector. Increasing the research in management of the sector.

- Ensuring the sector has stability and continuity in leadership. The current turnover in leadership and senior officials affects performance continuity.
- 6. Addressing the staffing needs of the sector–quantitatively and qualitatively.
- 7. Improving the working environment to retain qualified skills in the sector.

Local Government Level (up to the Community)

Despite the efforts made by the government and other partners to improve local governments capacity to plan, implement, monitor, and evaluate agricultural development activities, the stakeholder consultations identified the following critical gaps:

- Insufficient number of technical officers especially extension officers. Most government staff in the sector have retired in the recent years, their positions are yet to be filled due to lack of funds.
- Insufficient funding and allocation arrangements that allows the farmer to be adequately reached with other support services. Currently, LGAs are not able to allocate significant portions of their revenue collections to the productive sectors/ agricultural sector.
- Inadequate lower-level local government capacity for project implementation, monitoring, evaluation, and reporting.

6.2.4 Joint Planning, Monitoring, Evaluation and Change

NSA are coordinated by several institutions mainly Agriculture NSA Forum (ANSAF), Agricultural Council of Tanzania (ACT), Tanzania Private Sector Foundation (TPSF), Tanzania Chamber of Commerce, Industry, Agriculture (TCCIA) and Tanzania Federation of Cooperatives (TFC). NSA are key stakeholders in the ASDP II coordination structure; they are expected to be involved in joint planning, monitoring and evaluation. However, some of the stakeholders consulted felt that joint planning, monitoring and evaluation of change is inadequate and warrants greater emphasis. The current tendency of development partners to opt more for off-budget projects in the sector is one of the indications that co-ordinated joint planning and implementation is not working as expected.

The joint implementation design of ASDP II by all agricultural sector actors demands the development of **joint priorities** with clear division of roles and responsibilities to coordinate the various funding

resources of the actors. A basket-fund kind of financing modality is required to coordinate funding in the sector.

6.2.5 Non-State Actors Involvement

Under the ASDP II institutional framework, NSA are expected to be involved in agricultural policy formulation, implementation, and M&E. The Agriculture Consultative Group, the ASDP Steering Committee, the ASDP Consultative Group, and Parliament are the key government institutional structures that provide room for NSA to participate in policy and program formulation.

Although, NSA s' participation in ASDP II is improving, there is need to enhance its quality and intensity in agricultural sector policy formulation, implementation, and monitoring & evaluation. The following are proposed measures:

- Strengthening the coordination of NSA (have one coordination platform) for enhanced engagement with the government.
- Strengthening the capacity of NSA in governance, strategy development, agriculture/ agri-business sectoral issues, evidencebased agricultural policy advocacy, resource mobilisation, programme development and implementation and access to information on the agricultural sector.
- Having periodically updated mapping of NSA with a focus on the sector visions, activities and their role in the sector's development.
 The mapping can be used by NSA and the government to enhance engagement strategies.
- 4. Enhancing the implementation of ASDP II coordination structure (e.g., having regular meetings particularly the thematic based meetings which requires focus and participation of a wide range of stakeholders) and ensure effective involvement of the NSA in the planning, supervision, monitoring and evaluation of ASDP II.

6.2.6 Development Partners Involvement and Harmonisation

DPs are quite active in supporting the agricultural sector in the country. DPs are key stakeholders, coordinated under the ASDP II framework.

DPs involvement is also facilitated by the existence of the Development Partners Group (DPG) which facilitates the involvement of most development partners' engagement with the government and

other stakeholders, to strengthen development cooperation. The objective of the agriculture chapter of this group - Agricultural Sector Working Group (AWG) is to promote coherence and consistency in development assistance to the agriculture sector through the coordination and harmonization of development partners' support.

Generally, the modalities of involvement of DPs in the agricultural sector have facilitated the provision of general and sector budget support and off-budget projects within the framework of the Joint Assistance Strategy for Tanzania (JAST). This is aimed at contributing to sustainable development and poverty reduction by consolidating and coordinating government efforts and development. Since 2016, the thrust of the involvement has shifted more to supporting off-budget individual projects which some of the stakeholders consulted have criticised as being problematic as it is difficult to coordinate such projects clearly with the ASDP II priorities.

The stakeholder consultations have highlighted the necessity to enhance the quality of DPs involvement in coordinated joint planning and resourcing of ASDP II. The government and DPs should explore renewing the thrust towards general and sector budgetary support, focused on the ASDP II priorities. More specifically, a financing modality like a basket fund for ASDP II should be considered.

6.2.7 Accountability for Sector Performance

Accountability for sector performance is to be achieved at three broad levels:

- a. At the national level: There are ASDP II organs and structure which are at the frontline and are responsible for joint planning, resource mobilisation, implementation, monitoring and evaluation. At a broader, higher level, there are oversight and accountability organs: Tanzania National Business Council (TNBC) co-chaired by President and Chairman of the TPSF which meets at least once a year; Office of the Controller and Auditor General (CAG); the National Parliament; and PCCB.
- **b.** At the sectoral level: There are Agricultural Joint Sector reviews, and structures within the respective ASDP II implementing institutions e.g., ASLMs, to ensure accountability.
- c. At the Regional and Local Government

levels: Regional Secretariats (RSs) are accountable for agricultural sector performance in their respective regions. They have the requisite capacity to coordinate, follow-up and appropriately account for the sector performance in the regions. At the LGA level, the accountability structures include the councils and ward development committees. President's Office, Regional Administration and Local Government (PO-RALG) supports the RSs and LGAs in driving agricultural sector performance through coordination and follow-ups to ensure accountability.

The ASR established that there are planned mechanisms for ensuring effective accountability for sector performance, with an approved ASDP II M&E framework that is fully operationalized and compliant with CAADP M&E framework. Since 2018/19, the ASDP II Secretariat submits annual implementation reports focusing on inputs and activities; these reports should be structured and oriented towards tracking performance targets.

Study participants have proposed the following issues hampering sector accountability to be addressed:

- Improve the M&E system for tracking inputs, activities, and results at the grassroots level; this may require modification to the existing village-level agricultural routine data system, with the support of new indicators, new mobile technologies and active involvement of extension officers.
- Establish a comprehensive operationalization
 of the ASDP II M&E framework to improve
 quality of data in the sector particularly at
 the LGA and lower levels. This should be
 supported by well-established and functional
 data sources, with defined SOPs, institutional
 responsibilities, periodic data quality audit
 and supervision processes.
- 3. Restructure the ASDP II annual implementation reporting to track set cumulative performance targets.
- 4. Provide technical capacity in M&E, data analysis and reporting at the RS and LGA levels; due to high staff turnover and retirement.
- 5. Provide adequate financial resources for M&E and accountability processes, including regular hosting of the Joint

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Sector Reviews (JSRs). It has been four years since the last JSR was conducted in 2016. The government should ensure sustainable financing of the JSR to provide evidence-based guidance to improve sector performance.

6. Provide stakeholders with value chain relevant platforms to discuss and urgently sought routine problems.

7. Ensure there is an adequate system for accountability of the performance of ASDP II/ sector implementing actors.

6.2.8 Summary: Institutional Review

The sector institutional review is summarised and rated in Table 6.5.

Table 6.5: Agricultural Sector Institutional Review Summary

Areas	Notes	Reference	Indicator rating
Mapping and engagement of all key implementing actors	The categories of implementing actors are known but detailed mapping with defined roles, responsibilities and engagement strategies are needed. Appropriate engagement strategies should be comprehensively determined and implemented	Field consultations	_
Sector coordination	The ASDP II implementation coordination structure is well elaborated. There are limitations of resources, ensuring effective delivery capacity, implementation speed, joint-planning and real time M&E system.	Field consultations	
	There is adequate delivery capacity at the national level and relatively weak at LGA and lower levels. There are limitations in staffing numbers, skills, funding, data, and information.	MoA annual reports;	
Delivery capacity at Central and Regional Level		ASDP II implementation reports;	
		Field consultations	
Joint planning, monitoring, evaluation	This is provided in the ASDP II design, however, not well executed. For example, DPs are increasingly opting for off-budget projects which may not be properly coordinated under ASDP II.	ASDP II implementation reports;	
and change		Field consultations	
Participation of non-state actors in joint planning, monitoring, evaluation	proactive involvement of NSA in joint planning,	ASDP II implementation reports;	
and change	implementation, monitoring and evaluation of ASDP II. This calls for their willingness to contribute to the sector, complementing the governments' efforts.	Field consultations	
Development Partners	The design of ASDP II envisages a strong funding partnership between the government, DPs and private sector. However, most DPs support off-	ASDP II implementation reports;	
ii ivoivei iiei it	budget individual projects that are less coordinated under the ASDP II.	Field consultations	
Accountability of sector performance	There are mechanisms for accountability at national, sectoral, regional and local government levels. However, according to the stakeholders, key sector actors have not been effectively accountable especially at the grass root level.	Field consultations	

Green Very good progress/on-track

Yellow Good progress with more efforts needed

Red Low to average progress; substantial efforts needed

6.3 Key Findings on Policy and Institutional Review

There are several policies and programmes in the agricultural sector aligned with the four pillars of ASDP II. Yet, the sector has been negatively affected by the combined effects of inconsistencies in regulation, taxes and levies implemented concurrently. In view of this challenge, the government has initiated intentional efforts to reform the regulation, taxes, and levies to speed up agriculture-led industrial economic development.

The sector has an implementation framework as part of ASDP II; which should be fully

operationalised and capacity building of key technical experts conducted, especially at the subnational level.

It is imperative to enhance the quality of NSA and DPs in coordinated planning, resource mobilisation, implementation, monitoring and evaluation – guided by the ASDP II. Specifically, the thrust towards general and sector budgetary support should be renewed, focusing on the ASDP II priorities including the introduction of a financing modality- a basket fund for ASDP II implementation.

7 | Assessment of Implementation of Sector Policies and Programmes

There is a substantial implementation progress covering all the four pillars of ASDP II. This was discovered from a review of the various government reports on the implementation of sector policies, strategies, and programmes including MoA annual reports, budget speeches of ASLMs, and ASDP II annual implementation reports. This section assesses the main strategic issues that are crucial for effective implementation of the ASDP II.

7.1 Private sector involvement in policy formulation and implementation

The government appreciates the private sector involvement in policy formulation and implementation as crucial for the success of the sector. To enhance their capacity in sector engagement, in 2019, USAID supported the Tanzanian private sector in capacity building, to advocate for improved policy and regulatory environment for agricultural trade. Through the same support there was facilitation of policy network where 17 partners were coordinated to form a common platform on policy advocacy. Additionally, a private sector desk was established in the MLFD to facilitate public-private dialogue. These efforts have facilitated the nullification of ten fees and costs in the dairy and poultry sectors, implementation of regulatory reforms identified in the national government's Blueprint and the development of a holistic plan to improve the business climate in Tanzania (USAID, 2019).

Involvement of the private sector in agricultural policy formulation and implementation requires the sector to have inclusive and well-capacitated coordination structures. Presently, the private sector is relatively weak and loosely coordinated; deliberate measures are needed to address these issues. These entails capacity development in enhanced coordination, policy advocacy, sector policy on implementation, promotion of private investments in the sector, government policy, research, data and information management, & monitoring and evaluation of the sector.

Platform for effective public-private sector engagement in policy formulation and

implementation should be developed. These platforms should focus on key value chains and locations e.g., capture fisheries in Lake Victoria and sunflower production and processing in Singida region to better address context specific bottlenecks.

7.2 Coordination of policies in the sector and complementary ones

Agricultural sector policies, strategies and programmes are coordinated by respective ASLMs and the coordination between the ASLMs and other sectors are carried out by PMO with the support of the ASDP II coordination structure. Coordination is further facilitated by the existence of ASDP II which is the main plan for all agricultural activities in the country designed to be implemented by all stakeholders – both public and private.

During the ASR, the stakeholders observed the improved coordination of the sector and offered suggestions as follows; for example – there should be clearer intentional plans to link the sectors of tourism, transport, industry, and finance with the agricultural sector; improved coordination between the design of taxes and levies with plans to promote agro-production and processing; and improved coordination between local governmental authorities and the private sector.

7.3 Laws and regulations to back-up policy implementation

The country has several laws and regulations for agro-production and productivity of agricultural goods and services which are regularly reviewed/improved (MoA, 2020). A notable example is the Blueprint for regulatory reforms approved for implementation by the government in 2018. This has led to removal of about 105 levies and fees charged by crop regulatory boards. Additionally, fees charged in regulatory agencies such as Occupational Safety and Health Authority (OSHA), Fair Competition Commission (FCC), Crop Boards and Business Registration and Licensing Agency (BRELA) have been harmonised to avoid duplication (URT, 2020). Review of these laws and regulations are aimed at making the sector more

effective and consistent in addressing conflicting sectoral issues. Efforts are geared towards improving the laws and regulations to back up policy implementation to focus on addressing value chain specific bottlenecks and challenges.

7.4 Cascading, prioritising, and aligning sectoral programmes for effective implementation by sector actors

There are clear set of sector priorities identified in the ASDP II and unlike ASDP I, the plan emphasises the effective coordination of all sector actors involved in its implementation. Nonetheless, it was discovered during the field visits undertaken as part of the ASR that not all LGAs have DADPs that are aligned with ASDP II.

7.5 Availability and utilisation of public resources for sector programmes

Agricultural development activities are annually financed by the government through several sources of funds including grants, concessional loans and either domestic or foreign financing on net basis. The budgetary allocation by the government to agriculture falls short of the targeted government spending of at least 10% as per the Malabo Declaration Commitment. While there are efforts to mobilise more resource for the sector, the stakeholders expressed the need to enhance the allocation and utilisation of existing public funding for impactful implementation of ASDP II. It was revealed that there is no direct allocation of resources to conduct capacity building of the farmers to encourage the use of improved agro-inputs and apply good agronomic practices (GAPs). Fewer LGAs are allocating their revenue collections to agriculture and other productive activities. It is important to strengthen the system, allocate and ring-fence resources to reach the farm level through interventions such as farming demonstration for enhanced production, productivity, commercialisation, and profitability of agriculture.

There is an inadequate number of deployed, empowered, and well-monitored extension officers at the local level. Consequently, the government should fast track implementation plans, regulations, and guidelines to promote extension services and introduce a monitoring system for the deployment and performance of the extension officers.

7.6 Availability of private sector investments for economies of scale

There are major efforts by the government to attract private sector investments in the agricultural sector. These initiatives involve enhancement of regulatory environment for investment and greater private sector participation. The stakeholders indicated the need for expanded government thrust to attract local and external investments into the sector, by mixing the small, medium, and large investors. This requires expanded, renewed, and expedited efforts to improve the business environment and to create effective linkages between agro-inputs, production, aggregation, processing, and marketing covering all major value chains.

7.7 Access to rural finance

Most farmers especially SHFs have small capital base and in most cases need to access financial support/credit to meet production costs. The country has made progress in promoting access to rural finance with several financial institutions willing to provide such services especially where the risks can be managed effectively.

The SHFs interviewed revealed that there are major challenges in accessing rural financing and yet, they have critical needs for agricultural credit. SHFs are perceived as too risky as they are not formalized and overly rely on rain fed agriculture. They face several constraints including high interest rates (19%), low literacy levels of farmers, lack of collateral, inability to meet challenging conditions of lenders; lack of information on how banks finance projects and long distance to financial institutions. The TADB) has favourable interest rates (7-12%) still the SHFs consider its' lending conditions unfavourable due to limited outreach and low capacity.

In this respect, the government should develop a renewed set of integrated instruments (policy, strategy, laws, and regulations) that focus on rural agricultural financing and address major risks limiting access to finance by SHFs and the sector at large. The provision of grants should be strategically applied to facilitate the graduation of SHF into formalized and de-risked operations (e.g., registration of farmer groups, adoption of irrigated agriculture, demonstrated application of GAPs). The government should also regulate and incentivize banks to support the agricultural sector.

7.8 Access to transformative rural technologies

The government promotes mechanization of agriculture in implementing the Agriculture Mechanization Strategy of 2006 and ASDP II. Mechanization is instrumental in efforts to boost production and productivity. The farmers and farmer groups indicated that level of access to and utilisation of farm machinery (including tractors) by SHFs in the country is still limited.

7.9 Existence of facilitative infrastructure for programme implementation

Recent studies on the agricultural sector in Tanzania have underscored the role for expanded facilitative public infrastructure for agriculture production and processing. (TAIDF, 2020; World Bank, 2021). The government has made notable progress in improving general infrastructure; transport, railways, and electrification infrastructure. Focus should be diverted to public investments that directly impact agricultural production, productivity, and processing. Several challenges were highlighted during the key informant interviews such as; the low quantity and quality of rural and feeder roads, limited irrigation structures, cold storage, drying grounds, warehouses, silos and storage facilities, community market structures and collection centres and unstable electricity supply.

7.10 Linkage between agro-input supply, production, processing, and access to markets/off-taking

Most farmers interviewed revealed that attention should be focused on ensuring effective, clear linkages and alignment between agro-inputs supply, production, aggregation, processing, and marketing. Most processors (e.g., fish processing, textiles) interviewed complained that despite having access to significant local and export markets, they cannot access certain raw materials.

Other related observation from the field include: low productivity levels and growth trends, including inadequate and unsustainable access to key inputs (especially fertilizers and seeds, animal AI, fingerlings); low levels of irrigation; inadequate organization of farmers (for aggregated outputs, quality standards, access to services, linkages with markets/processors); production without understanding the market/demand/customer

needs; and absence of legal framework to support effective farming arrangement contracts.

The government is currently working to overcome some of the challenges, for example TAIDF is designed to address the nexus between agroproduction and processing. This means there is need to expedite implementation of TAIDF and other ongoing complementary plans.

7.11 Leveraging intra-African trade in agriculture commodities and services

The government has consistently promoted efforts to produce and export agricultural produce to Africa and other external regions. For example, Tanzania is, the leading producer of rice in East Africa and ranks second in Sub Saharan Africa after Madagascar (Msafiri, 2021). Yet, as Msafiri (2021) further notes "despite recent growth in domestic rice production outstripping consumption, rice imports have continued to outperform exports." The country could perform better if policy related bottlenecks are addressed; such as persistent trade disputes; inadequate value addition; Non-Tariff Barriers (cumbersome procedures, costly export procedures) and capacity challenges on the part of traders/ processors.

7.12 Resilience Building

Resilience building is increasingly an important factor as the agricultural sector experiences challenges associated with COVID-19 pandemic, climatic change, erratic weather, droughts, uneven rainfall patterns, invasive pests, deterioration of soil health and biodiversity and destruction of fish habitats. The government is constantly taking measures to build resilience, for example, existing laws, regulations and programmes in environment management, forest management, responses to COVID-19 pandemic and many more.

Most stakeholders interviewed mentioned irrigation as a major aspect that needs an urgent response. Only 2.4 percent of the total potentially irrigable land of 29.4 million ha is under irrigation. The development of irrigation schemes should be expansively introduced in areas that do not otherwise receive enough rainfall or in areas near natural water sources such as lakes and rivers, to evenly distribute water to the farms. There is a comprehensive framework developed by the government –National Irrigation Policy, 2010 and National Irrigation Master Plan, 2018. Irrigation will enhance resilience risks and thus make agriculture

profitable; will increase yields and allow production during off-seasons and thus contribute in producing raw materials for agro-processing. This will require decisive policy actions to allocate more resources for such facilitative investments.

7.13 Implementation Supervision, Monitoring and Follow-up

There are elaborate implementation, monitoring and evaluation manuals embedded in the ASPD II indicating how agricultural sector projects will be implemented at all levels from national to subnational. The framework also indicates how key stakeholders including private and civil society sectors will be involved. As the implementation supervision, monitoring, evaluation, and follow-up system continue to be operationalized, focus should be on:

- Ensuring that all key implementing state and NSA of ASDP II prepare annual plans and budgets that cascade from the ASDP II priorities, objectives and interventions.
- Providing technical capacity to the RSs as an extension of the PO-RALG in the implementation of ASDP II, to support and follow-up the lower levels in the implementation of related annual plans and budget.

- Enhancing the systems for tracking agricultural sector activity and results performance at LGA and LL-LGA levels.
- Instituting an M&E system for agricultural activities and results at LGA and especially LL-LGA levels.

7.14 Summary: Policy and Programmes Implementation

The implementation of sector policies and programmes is summarised and rated in Table **7.2**. There is a supportive environment for policy and programme implementation, further efforts to facilitate implementation should target: private sector involvement in policy formulation and implementation; coordination of policies; reforming laws, regulations, taxes and levies; cascading and prioritizing the initiatives in ASDP II for impactful implementation; availability and efficient utilisation of public financial resources; private sector investments that allow economies of scale: access to affordable rural finance; linking of agro-input supply, production, processing and markets/ off-taking for all major value chains; existence of facilitative infrastructure for programme implementation; access to transformative rural technologies: leveraging of the potential in inter-African trade in commodities and services; resilience building; and supervision, monitoring and following-up of implementation.

Table 7.2 Summary Assessment of Policy and Programme Implementation

Indicator	Brief Description/Notes	References	Indicator rating
Private sector involvement in policy formulation and implementation	 ASDP II institutional framework includes the participation NSAs. Other forums of participation include the TNBCs. There have been some efforts to enhance private sector participation. There is need for more inclusive and well-capacitated coordination structures for the private sector. Presently, the private sector is relatively weak and loosely coordinated. There is a need to develop/strengthen platforms for 	USAID, 2019).TAIDFField consultations	3
	public-private participation to address value chain specific bottlenecks such as those in SAGCOT region.		
Coordination of policies	 Agriculture sector policies, strategies and programmes are coordinated by respective ASLMs and the coordination between the ASLMs and other sectors is done by PMO with the support of the ASDP II coordination structure. Coordination is also facilitated by the existence of ASDP II. Coordination requires improvement e.g. between national and sub-national levels; between the agriculture and other sectors; and between DPs and government through ASDP II. 	ASDP II documentField consultations	
Laws and regulations to back-up policy implementation	The country has several laws and regulations to guide agro-production and productivity of agriculture goods and services. These have continued to be reviewed/improved and renewed. Government momentum to improve the regulatory environment is quite strong. Yet, significant regulatory bottleneck exists.	MoA, 2020Field consultations	
Cascading and prioritisation for impactful implementation	ASDP II is designed to be implemented by both state and NSA Efforts to ensure that the programme is well cascaded for implementation by stakeholders are on course. More serious efforts to get those in lower levels of LGAs to implement serious activities to transform the farmers are needed through development and implementation of DADPs.	ASDP II documentField consultations	
Availability and efficient utilisation of public financial resources	Public resources expenditure in the sector continues to increase but it is yet to reach the CAADP target of 10%. There is need to continue to mobilise more resources and to encourage private sector investments. There is need to prioritise the available resources – for example investment in agro-inputs and irrigations would be more transformative.	MoA data Field consultations	
Private sector investments that allow economies of scale	The government has continuously been improving the business environment for agriculture. These efforts are contributing to increased domestic private investment. However, more investment is needed in the sector. To succeed further unstable policies must be addressed; regulatory conditions, ownership issues, high interest rates at local banks, and unfriendly tax rates.	 ASDP II TAIDF, 2020 World Bank, 2021 Parshotam, 2017 Field interviews 	
Access to affordable rural finance	Access to rural finance is a crucial problem in Tanzania – despite the major efforts to build a vibrant financial sector and establish TADB. There is still a long way to de-risk the agricultural sector and particularly to get the SHF credit worth.	ASDPIITAIDF, 2020MoA, 2020Field interviews	

Green Very good progress/on-track

Yellow Good progress with more efforts needed

Red Low to average progress; substantial efforts needed

7.15 Key Findings on Facilitating Sector Policy and Programme Implementation

The country has a supportive environment for agricultural policy and programme development and implementation. Nevertheless, the rate of

implementation should be significantly escalated through enhancing the facilitative environment. The most pressing areas that need attention are access to affordable rural finance; modalities for effective linking of agro-input supply, production, processing and markets/off-taking; and resilience building.

8 | Conclusion and Recommendations

8.1 Conclusion

The report revealed that financial investments to the agricultural sector have increased during the review period. There was a discretional increase in government budgetary allocation to the agricultural sector. However, Tanzania is yet to fully adhere to the CAADP recommendation of upholding at least 10 percent of the total budget for the agricultural sector. Government expenditure on agriculture has remained low at 2.9 percent of the government budget and thus unlikely to meet the CAADP target.

ODA disbursement to the agricultural sector also increased during the review period. Meanwhile, private sector investment increased by a higher rate than growth in government budgetary allocation to the agricultural sector. FDIs decreased gradually and reached the lowest in 2020.

Provision and utilization of agricultural inputs and services have generally improved; but the following indicators are unlikely to meet the set targets: industrial fertilizer consumption, use of improved seeds, and decrease in post-harvest loss for livestock products.

The growth rate of the agricultural sector GDP and subsectors have met the set targets; but the country has not made progress in reducing its relative weight or share in the total GDP.

Crop production is generally increasing for both food and cash crops with set targets for 2020 nearly or fully met; although for many individual crop commodities, meeting targets has been a challenge. The results of the JSR point to general attainment of the targets set in 2020 for liverstock and fisheries development. However, most of the assessed indicators are for general production rather than productivity perfomance.

Overall, compared to the set FYDP II development targets for the year 2020, trade performance for food crop exports was satisfactory; including horticultural products and selected food commodities, and fish exports with targets either fully or nearly met.

Also, compared to the set FYDP II development targets of the year 2020, the impact of the resent

growth in agricultural output on development was satisfactory; the outcomes are close to the targets except for basic needs poverty for which performance is relatively low. However, the long term objectives for 2025 of eradicating poverty and reducing under-fives' stunting and underweight to 10 percent and 5 percent are unlikely to be met unless additional policy measures are put in place to speed up performance.

The country's regulatory, institutional, and programmatic framework have a strong foundation and are aligned with the national vision and direction as enshrined in Tanzania Development Vision (TDV), 2025 and FYDP I, II and III and contributing to improved performance of the agricultural sector. As the country gears to transform the sector towards increased productivity and commercialization for improved livelihood and guarantee food and nutrition security, it needs to improve the regulatory, institutional, and programmatic framework to address critical constraints and leverage emerging opportunities. Policy and programme implementation will similarly demand greater attention.

8.2 Recommendations on Key Policy, Regulatory and Institutional reforms to enhance sector performance

The following eight (8) priority areas are recommended to speed up the transformation of the agricultural sector. A proposed recommended implementation plan is provided in Appendix 5.

(i) Increase strategic government investment to enhance commercialization in the agricultural sector

Strategic increase in government investment is needed in prioritized agricultural value chains and interventions. It is necessary to develop interventions which cut across the entire prioritized value chain to reduce business risks including post-harvest loss and incentivize investors and facilitate the linking up of agro dealers along the value chains. The following specific interventions are proposed in the medium term:

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- (i) Support establishment and strengthening of farmers' groups/associations and collection centres to enhance identification of farmers, reachability, aggregation of produce, sorting and branding of produces, and marketing/ pricing. This would apply to both access to inputs markets and produce markets with reduced transaction costs.
- (ii) Increase investments in strategic irrigation infrastructures, rural roads and other support agricultural infrastructures/facilities linked to priority agricultural value chains.
- (iii) Facilitate the establishment of strategic industrial parks which will cater for agroindustries. This may include establishment of agro industrial yards within some of the existing industrial parks.

(ii) Enhance agricultural production, productivity, and profitability

The ASR has established that the levels of agricultural production and productivity are too low and uncompetitive for exports and supply of quality and sufficient raw materials for the domestic industries. Productivity is too low for SHF income; and thus unable to fast track elimination of poverty in the country as envisioned by TDV, 2025. The following interventions are recommended for enhancing agricultural production, productivity, and profitability:

- (i) Expand access to improved agricultural inputs:
 - promote increased availability of improved seeds for all priority value chains,
 - support farmers to synchronize utilization of improved seeds with the product markets through their associations, including enhanced access to financial credits for farm inputs,
 - facilitate increased access to soil health testing services and improvement programmes, and
 - facilitate access to industrial fertilizers and agricultural machinery.
- (ii) Improve extension services:
 - provide relevant in-service training,
 - increase the number of extension officers and develop suitable online digital platforms targeting farmers,

- link extension officers with farmers' groups/associations and farmers'/produce collection centres, and
- develop a digital mechanism for monitoring the performance of extension services/officers.
- (iii) Improve farmers' access to financial services
 - finalize and scale up the TADB trial model of arrangement with major processors to manage small loans provided to farmers,
 - support farmers' groups/associations to link with financial institutions/scheme, and
 - train farmers' groups/associations on accessing and utilising financial services.
 - (iv) Design and implement additional policy measures for enhancing inclusive participation in agricultural production social groups – gender, age and educational.

(iii) Strengthen multi-stakeholder and multisectoral approaches to enhance food and nutritional security

The ASR revealed that stunting levels are still high in areas with high food production in the country. To promote consumption of nutritional foods, the government developed the MNAP with a comprehensive set of measures to address this challenge through multi sectoral approaches. To improve nutrition, development actors in Tanzania, it is necessary to collaboratively work together to ensure increased production and consumption of high-quality nutritious foods and improve food processing techniques such as fortifying flour with micronutrients such as iron, vitamin A, zinc, and folic acid. To further operationalize MNAP and take it to scale, the following interventions are recommended:

- Review the ASDP II implementation structure to bring in actors working to promote nutritional security.
- (ii) Facilitate key implementing actors of MNAP to prepare specific action plans and regularly report their implementation performance.
- (iii) Review DADPs to mainstream relevant MNAP actions.

(iv) Enhance measures in resilience building especially climate smart agriculture and irrigation schemes

With the growing effects of climate change on weather patterns, Tanzania must invest in resilience building. It is necessary to increase government funding to resilience enhancing interventions such as climate smart agriculture. The Government of Tanzania developed the Agriculture Climate Resilience Plan (ACRP) as a roadmap for mainstreaming climate change within agricultural policies, plans, and practices, as well as identifying gaps where new investments may be needed. The following interventions are recommended to invest in resilience building:

- Facilitate implementation of the Agriculture Climate Resilience Plan (ACRP) – through enhancement of resources and institutionalisation mechanisms.
- (ii) Train extension officers on climate smart agriculture
- (iii) Review DADPs to mainstream relevant ACRP actions.
- (iv) Include ACRP implementation progress in ASDP II performance reporting.

(v) Strengthen agriculture data systems to adequately report on all Malabo and ASDP II indicators

- (i) Increase funding for M&E activities, particularly those related with financing of collection of data on key agricultural indicators.
- (ii) Strengthen the national M&E capacity for harmonised and integrated data collection, management, analysis and reporting in the agricultural sector at five levels: ASDP II Secretariat; ASLMs; RAS; Council and WADC.
- (iii) Develop a digital M&E platform for tracking the implementation of ASDP II by key implementing actors.
- (iv) Comission analytical studies to collect data and provide empirical evidence on progress being made by the country in meeting Malabo commitments.

(vi) Address constraints that limit Tanzania from taking full advantage of the intraregional African trade in agricultural commodities and services

Due to a conducive environment, Tanzania produces a vast range of agricultural products which could be traded within the eastern, southern, and central Africa. To further leverage the potential, the country should put in place the following measures to promote agricultural trade:

- (i) Establish and review the specific regulatory barriers to trade that still exists.
- (ii) Strengthen the capacity of all government agencies involved in the promotion of inter-regional African trade for commodities and services.
- (iii) Strengthen the capacity of the private sector to participate in the regional trade.
- (iv) Design/create a national platform that will effectively and timely link and support all key actors in inter-regional African trade for commodities and services.

(vii) Improve the enabling business environment for the agricultural sector

The ASR revealed that the performance of the agricultural sector is negatively affected by inadequacies in the enabling regulatory and business environment. There are several inconsistencies, unpredictability and inefficiencies related to various regulations and directives. The business environment is faced with inadequate coordination and linkages between interventions in other strategic sectors and those in the agricultural sector. Fortunately, the government is currently implementing various reforms including the issuance of the Blueprint for regulatory reforms. The substantial implementation of the Blueprint and TAIDF should constitute important quick win priorities in the medium term. More operationally, the following interventions are proposed:

- Assess and review major regulations that negatively affect the performance of the country's strategic and priority agricultural value chains.
- ii. Expedite implementation of the Blueprint for regulatory reforms.
- iii. Cascade the implementation of TAIDF into the strategic plans and programmes of public institutions, private sectors organisations and DPs.

(viii) Improve the implementation (speed) of ASDP II

Effective implementation of the ASDP II framework implies that all key stakeholders at national and sub-national level will continuously exercise their expected roles to enhance the competitiveness and performance of the sector. Based on the ASR findings, the following priority interventions are recommended:

(i) Support the ASDP II Secretariat to coordinate and hold regular meetings of the ASDP II stakeholders to enable state actors, non-state actors and DPs' effective joint planning, resource mobilisation, programme implementation, monitoring, evaluation, and learning/change.

- (ii) Support and ensure all District Councils develop and implement DADPs with close involvement of the NSA.
- (iii) Facilitate capacity development for the effective implementation of ASDP II targeting ASLMs mainly RSs, councils, ward and village governments as well as extension service officers.
- (iv) Facilitate capacity development for the effective implementation of ASDP II targeting private sector/non-state sector coordinating institutions.
- (v) Strengthen improvement and implementation of ASDP II performance monitoring and reporting, with a focus on results monitoring.

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Appendices

Appendix 1: An Overview of Existing Overarching Policies and Strategies for Agriculture Sector and Food Security

1.1. Policies and Strategies that Provide National Vision and Direction

Tanzania has a clearly articulated national development vision and strategic direction that provides the framework for the development of the agricultural sector as contained in the policy documents below:

Tanzania National Development Vision 2025 (TDV 2025)

Launched in the year 2000, the vision strives for the country to become a semi-industrialized, middle-income country with a GDP per capita of US \$ 2,500 by the year 2025. The main approaches set to achieve the vision goal include the agricultural sector and industrial transformation of the country; promotion of rural and modern agro-industrialisation; and promotion for growth opportunities of MSMEs (URT, 1999).

The Mini-Tiger Plan 2020

In 2005, the government prepared the Mini-Tiger Plan 2020 to implement the TDV, 2025 – through establishment of Special Economic Zones (SEZs) and Export Processing Zones (EPZs) to enhance efforts initiated and refocus on transformative investments and industries in high-value addition sectors for export and import – substitution (URT, 2004).

Sustainable Industrial Development Policy for Tanzania (SIDP 1996 - 2020)

This policy underscores the critical role of sustainable industrial sector growth and accords emphasis on the rehabilitation of existing industries; recognition and enhancing the role of the private sector; and commitment of the government to enhance the enabling business environment (URT, 1996).

Integrated Industrial Development (IIDS) Strategy 2011-2025

This strategy operationalizes implementation of SIDP to create a critical base for industry-led economic development in the country via strategic ports development; clustering of industries through

SEZs including agricultural SEZs & MSME parks at district level; development of growth corridor developments; SME development and graduation of local industries; agricultural development driven industrialisation; promoting major facilitative public investments – power, access to water, transport, etc.; and directing investments to targeted subsectors (incl. textile, agro-processing, edible oils, fruits, dairy, leather and leather products) (URT, 2011).

The Five-Year National Development Plans (FYDP I, FYDP II & FYDP III)

These successive five-year development plans aim to achieve TDV 2025 (URT, 2012; URT, 2016; UR, 2021). FYDP II (2016/17 - 2020/21) focusing on (i) fostering economic growth and industrialisation; (ii) fostering human development and social transformation; (iii) improving the environment for business and enterprise development to catalyse private sector investments. FYDP III 2021/22 - 2025/26 takes the country to the end of TDV, 2025 with a stronger thrust on deepening industrialization and service provision including agriculture and agro-processing; modernising the crops sector (via forward and backward linkages; private sector investments; adoption of new agrotechnologies; integrated community value chains up to export market level; development of priority commodity value chains, i.e., maize, rice, cotton, cashew nut, tea, coffee, tobacco, sisal, palm, wheat, soybean, cocoa, cassava, sugarcane, horticulture, and sunflower, livestock and capture fisheries and aquaculture).

1.2. Key Sector Policies and Strategies

National Agricultural Policy - NAP 2013

This policy is quite comprehensive – covering a range of key themes related to the goals of developing an efficient, competitive, and profitable agricultural industry that contributes to the improvement of the livelihoods of Tanzanians and attainment of broad-based economic growth and poverty alleviation (URT, 2013).

Tanzania Agriculture and Food Security Investment Plan -TAFSIP (2011/12-2020/21)

To enhance food security in the country, the government developed Agriculture Food Security Investment Plan (AFSIP) launched in 2011. This is a ten-year investment plan objectively implanted to map all the investments needed to achieve the Comprehensive Africa Agriculture Development Program (CAADP) target of 6% annual growth in agricultural sector GDP. Its main goal is to "contribute to the national economic growth, household income and food security in line with national and sectoral development aspirations". It includes employment concerns explicitly, however this is translated into indicators and concrete activities only to a limited extent (URT, 2011).

Agricultural Marketing Policy - AMP 2008

From marketing perspective, the policy addresses the key issues of commodities value addition, enabling regulatory frameworks such as laws and regulations, development of marketing infrastructure, information and marketing intelligence systems as well as enhancing regional and international agro-commodity marketing (URT, 2008).

Agricultural Sector Development Programme Phase II (ASDP II)

ASDP II is the main guiding programme for the agricultural sector development in the country for ten-year period of 2017/18 - 2027/28. The programme is aligned with TDV 2025 and other relevant policies. The main objective of the programme is "to transform the agricultural sector in the country towards increased productivity and commercialization levels; increased income generation for smallholder farmer to improve livelihood and guarantee food and nutrition security." It has four major components: (i) Sustainable water and land use management; (ii) Enhanced agricultural productivity and profitability; (iii) Commercialization and value addition; (iv) Sector enablers, coordination and monitoring & evaluation. It also covers all key areas and aspects related to the crop, fisheries, and livestock sub-sectors as well as the enabling environment.

Tanzania Agro-Industrialisation Development Flagship (TAIDF-2020).

To enhance effective and efficiency of Agriculture Sector Development Programme (ASDP II) implementation, the government launched the Tanzania Agro-industries Development Flagship (TAIDF) in 2020 which is a framework of mobilising and coordinating investments towards agroindustrialisation. The framework aims to promote industrialization by complementing government efforts in achieving the targets set for the manufacturing sector specifically the agro-industry which contributes to agriculture commercialization and sector transformation (URT, 2020).

Sunflower Development Strategy 2016 - 20207

This strategy aims to promote competitive development of the sunflower value chain with a focus on sunflower production and productivity; enhanced coordination, institutional capacity, knowledge, and skills across the value chain; enhancing the quality of sunflower products in line with national and international standards; promotion of the development of coherent and supportive policies; and market development (URT, 2016a).

Cotton to Clothing Strategy 2016 - 2020

This strategy targets to leverage the huge socioeconomic potential associated with the cotton value chain development with an attention to enhanced production and productivity; quality control along the value chains; having a more enabling policy environment for efficiency and competitiveness of produce and processed products; facilitating producers and processors to access local and export markets; and incentivizing public and private sector investments (URT, 2016c).

Tanzania's National Rice Development Strategy (NRDS I & II)

Both NRDS I 2008 - 2018 and NRDS II - 2019 - 2020 envisions transforming the subsistencedominated rice sub-sector into a commercially viable production system with efforts directed to development of localized high-yielding rice varieties; strengthening capacity of production and along the value chains; sustainable systems in seeds production and crop management. Other issues include increasing the area under rice cultivation; on-farm rice productivity management (mechanization, better agro-inputs, extension services (GAPs), etc.); value addition and reduction of post-harvest losses; and catalysing public and private sector engagements and investments in rice processing, branding, and marketing (URT, 2019b).

⁷ URT (2016); Sunflower Sector Development Strategy. *https:// www.tradestrategymap.org/document/6cf4595d-2c10-48e9-996b-a2d8f03be917/united-republic-of-tanzania-sunflower-sectordevelopment-strategy-2016-2020

The Fertilizer Act (Cap 378) Regulations 20178

This Act introduced a fertilizer bulk procurement system (FBPS) in the country and distribution to farmers through retailer with a controlled price mechanism. Due to challenges of transaction costs and timing to deliver the fertilizer to farmers as per variation in seasons the system was abolished by the government in July 2021. More importantly, "as it did not show as great results as the government had hoped" according to Prof. Adolf Mkenda the Minister for Agriculture he said "We have decided to allow traders to import without a joint fertilizer import system – BPS which however will not be approved until the Tanzania Fertilizer Regulatory Authority (TFRA) issues a permit after the inspection is completed."

Agricultural Produce Cess (Tax) - the Local Government Finance Act in 1982

The government has reformed the local tax system and particularly the agricultural produce cess, turnover tax on marketed agricultural products which is charged by LGAs at a maximum of 5 percent of the farm-gate price (under the Local Government Finance Act in 1982). The tax was reduced from 5 percent to 3 percent, currently, as according to the farmers, was restricting increase in production.

Tanzania National Livestock Policy – TNLP 20069

This policy targets having a competitive and more efficient livestock industry in the country. It is a comprehensive policy covering all subsectors such as meat, dairy, hides and skins, rangelands, industrial feeds, animal feeds, research and technology and veterinary services (URT, 2006).

The Tanzania Livestock Master Plan (TLMP): 2017/2018 – 2021/22

This TLMP operationalises the livestock policy and in addition to production and productivity, it has prioritized investments in industries for processing of livestock products. For example, it recommends provisions of incentives and to ease the bureaucracy for investors seeking to establish milk processing plants (URT, 2017a).

National Food and Nutrition Action Plan – NFNAP (2011) and Tanzania National Multi sectoral Nutrition Action Plan (NMNAP)

The NMNAP (2016) reflects Tanzania's commitment to address the root cause of high levels of malnutrition in the country. The plan aims to complement the nutrition policy and strategies within the government's Five-Year Development Plan II (FYDP II) 2016/17-2020/21. This tool aims to enhance the implementation of the plan that addresses malnutrition in all its forms (URT, 2016).

National Irrigation Policy – NIP 2020 (National Irrigation Master Plan –NIMP - (2002), revised in 2017).

The National Irrigation Policy – NIP (2020) provides direction for the implementation of irrigation interventions in the country optimal with availability of land and water resources for increased agricultural production and productivity. Its implementation is through the NIMP, operational plans and projects.

National Fisheries Policy - NFP -2015

This policy promotes the development of a competitive and inclusive fisheries and aquaculture industry for enhanced wealth creation, food security and nutrition in the country (URT, 2015b).

National Land Policy –NLP 1995 & Land Act 1999

Tanzania National Land Policy of 1995, the Land Act, No. 4 of 1999 and The Village Land Act No.5 of 1999, are the frameworks that govern land tenure systems. The policy and the laws provide the legal definition of land and have categorized it into three main groups' namely general, village and reserved lands. These provide guidelines on the use of land for economic development in both rural and urban areas, planning of housing, squatting, the quality and security of title, advancement of agriculture and the protection of the environment (URT, 1999).

National Forestry Policy - NFP (1998); National Forest Policy Implementation Strategy – NFPIS (2021); and National Beekeeping Policy Implementation Strategy (NBPIS) (2021 – 2031)

National Forest Policy –NFP (1998) aims to enhance the contribution of the forest sector to the sustainable development of Tanzania and conservation management of her natural resources for the benefit of present and future

⁸ https://www.tanzaniainvest.com/agriculture/fertilizer-bulk-procure-ment-abolished and follow us on www.twitter.com/tanzaniainvest
9 https://www.tnrf.org/files/E-INFO_National_Livetock_Policy_Final_as_per_Cabinet_Dec-2006.pdf

generation (URT, 1998). The National Forest Policy Implementation Strategy, NFPIS - 2021 focuses on increasing the contribution of the forest sector to the overall national income while sustaining the resource base. It is strategically aiming to effectively develop and manage forest and tree resources; conservation of ecosystems; enhance production of forest and tree products; promote investments in forests, tree resources and industries; while strengthening human and institutional capacity regionally and internationally through collaborations (URT, 2021). The NBPIS (2021 – 2031) seeks to transform the commercialisation of the beekeeping sector.

The National Water Policy-NWP 2003

The government, through the national policy reforms launched a revised Tanzania National Water – TNWP Policy - 2002. The main goal of the policy is to set out the future direction for the water sector in achieving sustainable development and management of the nation's water resources for economy-wide benefits and an increase in the availability of water supply and sanitation services. The policy also aims to develop a comprehensive framework for promoting the optimal, sustainable, and equitable development and use of water resources for the benefit of all Tanzanians, based on a clear set of guiding principles (URT, 2002).

1.3. Policies that Facilitate/Enable the Implementation of Priorities in ASDP II

National Trade Policy - NTP, 2003

This policy targets to promote a competitive and export-led growth with effective participation in the regional and international rules-based trading system. It identifies agro-production and processes as thrust areas to boost trade via facilitated investments in commercial farming and agro-processing industries, contract farming schemes and other market linkage relationships (URT, 2003).

National Skills Development Strategy – NSDS 2016–2021

This strategy seeks to increase the supply of skilled and capable workforce for all major economic sectors including agro-production and processing to contribute to economic transformation (URT, 2016f).

Blueprint for Regulatory Reforms to Improve the Business Environment

This blueprint was formulated to improve and strengthen the business enabling environment

(BEE) in Tanzania through its implementation. The government aims to attract both local and foreign investors to enter and participate in the different sectors of the economy at the scale required to accelerate and sustain industrial transformation (URT, 2018).

The National Microfinance Policy –NMP 2000 and National Microfinance Policy –NMP 2017

The government recognizes the role of microfinance subsector in poverty reduction and economic growth in the country; thus formulated and adopted the first National Microfinance Policy – NMP in 2000 which was reviewed in 2017. The policy provides guidance to enable participation of various stakeholders in the microfinance subsector including microfinance service providers, investors, development partners, government funds and programmes (URT, 2017).

National Information and Communications Technologies –NICT Policy 2003

The National Information and Communications Technologies – TNICT Policy 2003 aims at enhancing nation-wide economic growth and social progress by encouraging beneficial ICT activities in all sectors through provision of conducive framework for investment in capacity building, promoting multi-layered co-operation in knowledge and skills sharing locally as well as globally. The policy's focus areas include strategic ICT leadership; ICT infrastructure; ICT industry; human capital; legal and regulatory framework; productive sectors; service sectors; public service; local content; and universal access (URT, 2003).

National Investment Policy -NIP 1995

This policy indicates the government's commitment in promoting private sector investment. In its endeavour, the policy aims to enhance government desires to maintain a legal system that gives due guarantee to both domestic and foreign investments and properties (URT, 1996).

National Youth Development Policy –NYDP 1996 and National Youth Policy - NYDP 2009

The National Youth Development Policy of 1996, has facilitated the implementation of various youth development programs which include skills for competence for economic empowerment, good values, ethics and good conduct, youth participation and provisions of youth friendly services. The reviewed National Development Policy of 2009 aims to create an

enabling environment for youth empowerment and enhancement of employment opportunities and security (URT, 2009).

National Strategy for Youth Involvement in Agriculture – NSYIA -2016 – 2021

NSYIA aims at empowering youth to participate fully in agricultural development and contributing to the national economic growth. It facilitates and build the capacity of the youth to prepare them for self-employment in agriculture. NSYIA provides strategic framework that promotes and facilitates the coordinated implementation of interventions regarding youth involvement in agriculture (URT, 2016).

The National Cooperative Development Policy- NCDP 2002

The overall goal of National Cooperative Development Policy –NCDP of 2002 is to attain sustainable human development. The policy aims to use cooperatives as one among the economic empowering tools to vulnerable members of the society such as smallholder farmers, women, and youth, who otherwise could not compete as individual players in the market. Therefore, the government maintains that the cooperative environment will enhance its effort in the process of realising the National Vision 2025 by providing support and protection (URT, 2002).

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken	
	Theme	Reforms Implemented	Reference
Sustainable Water and Land Use Management	Formalization of the available land in urban and rural areas	Construction of National Land Information Centre and installation of Integrated Land Management Information System	National BS 20/21
Enhanced Assistable and	Agro-inputs (fertilizer,	 The fertilizer Act (cap.378) and fertilizer (bulk procurement) regulations of 2017 uplifted in 2021. The efficacy of the new change is yet to be evaluated. Amendment of Agriculture 	
Enhanced Agricultural Productivity and Profitability	improved seeds, pesticides)	Inputs Trust Fund Act, Seed Act, amendment of Quality Declared seed -QDS and regulations 2020, the Sugar Industry Act incorporated in Written Laws (Miscellaneous Amendment) Act 2020	MoA, 2020
		2019/20 MoA reviewed and amended Tropical Pesticides Institute Act of 1979 and Plant Protection Act of 2020-to form Tanzania Plant Health Authority (TAPHA). Plant Health Act 2020 was passed by Parliament.	MoA (2020)
	Irrigation	Irrigation registration fee is 75,000 shillings (60,000 Shs registration + 15,000 Shs application form for registration)	National BS 21/22
	Crop production regulation	 In 2017 government reduced the maximum cess rate charged by (LGAs) from 5% to 3% of the farm-gate price. 	Aymeric Ricome, et. a 2020
		Introduction of 10% tariff on imports of Crude Palm Oil (CPO) to boost domestic oil seed production and increase oil processing capacity (2016)	MoA 4th AAPC, 2018
		Increased the minimum threshold of primary cooperatives societies liable to income tax from Tshs. 50,000,000/= to Tshs. 100,000,000/= per annum to enhance the growth of small primary cooperatives societies including SACCOS	NBS, 20/21
		Reduction of duty paid on products produced locally from barley from Tsh 765/lt to Tsh 620/lt	NBS, 20/21

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken	
	Theme	Reforms Implemented	Reference
		Exemption of VAT on cold rooms, increased import duty on horticulture products from 25% to 35% to product domestic horticulture producers	NBS, 20/21
		Reduction of import duty on corrugated boxes (used to manufacture packaging materials for packing horticulture products)	
		A 2% new withholding tax on sales of crop, livestock, and fisheries products to processors. The tax is not applicable to smallholder farmers who sell to primary buyers such as AMCOS or aggregators	NBS 21/22
		VAT exemption on agricultural crop insurance	NBS, 20/21
	Livestock production and trade	Removal of goods movement permit fee of Tshs. 5,000/= on for skin within and outside the district and reduce export and import permit fees on livestock and products	NBS, 20/21
		Removal of VAT on livestock insurance to promote livestock production in the country	NBS, 20/21
		Tanzania Livestock Master Plan – TLMP prepared and launched in March, 2019	Livestock and Fisheries Budget Speech (18/19)
		The Animal Diseases (Animal and Animal Products Movement Control) (Amendment) Regulations, 2018 GN No. 475 (which has introduced new rates for levies) The Animal Diseases	Livestock and Fisheries
		The Animal Diseases (Livestock Markets), 2018 GN No. 478	Budget Speech (18/19)
		The Animal Diseases (Animals and Animal Products Movement Control), 2019 GN No. 25.	

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken	
	Theme	Reforms Implemented	Reference
		 (i) Import and Export of Animal Feed Resources Regulation; detention, treatment, disposal and destruction of Animal Feed Resources (ii) Packing, branding, labelling and sealing of Animal Feed Resources Regulation; 	Livestock and Fisheries Budget Speech
		(iii) Fees and charges of Animal Feed Resources Regulation;	(18/19)
		(iv) Varietal Purity Certification of Pasture Seeds Regulation.	
		National Livestock Policy (2006) reviewed	
		Hides, Skin and Leather Trade (Appointment of Inspector) Notice, 2020 GN No.619 prepared	
		The Dairy Industry (Registration of Dairy Industry Stakeholders) (Amendment), Regulations 2020 GN No.540;	
		The Dairy Industry (Raw Milk Transportation) (Amendment) Regulations,2020 GN No.535;	Livestock and Fisheries Budget
		The Dairy Industry (Duties and Powers of Inspector and Analysts) (Amendment) Regulations, 2020 GN No.537;	Speech (21/22)
		The Dairy Industry (Raw Milk Grading and Minimum Quality and Safety Requirements) (Amendment) Regulations, 2020 GN No.534;	
		The Dairy Industry (Import and Export of Milk and Milk Products (Amendment) Regulations, 2020 GN No.536	
		The Meat Industry (Registration of Meat Industry Stakeholders) (amendment) regulations, GN. No. 183;	
		The Meat Industry (inspection of meat industry stakeholders' activities) (amendment) regulations, GN. No. 184;	Livestock and Fisheries Budget Speech (21/22
		The Meat Industry (import and export of livestock, meat and meat products) (Amendment) Regulations, GN. No.185.	

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken		
	Theme	Reforms Implemented	Reference	
		Import and export of Animal Feeds Resources;		
		Registration and movement of Animal Feed	Livestock and Fisheries Budget	
		Resources and products;	Speech	
		Packaging, branding, labelling and sealing	21/22	
		Abolish VAT exemption on cans intended for preserving milk with HS Code 7310.29.20, instead exempt VAT on both aluminium and stainless-steel milk cans with HS Code 7310.29.90, 7310.10.00 and 7612.90.90 reduce production costs and promote a modern dairy milk industry.	NBS 21/22	
		Abolished royalty of USD 0.4 per kilogram of targeted fish catches from deep sea fishing and reduced export license fees on fish and their associated products from fresh water (as shown in the budget speech)	NBS 20/21	
		Renewed Fisheries Regulations (2020) GN 492	Fisheries BS 20/21	
		Reduced varied fisheries levies: GN. 491A of 29 June, 2020For example – Lake Tanganyika Dagaa export levy reduced US\$ 1.5 to 0.5 per kg; dagaa from the ocean from US\$ 1 to 0.16 per kg and many other reductions	Livestock and Fisheries Budget Speech (21/22	
Commercialization, Value Addition Marketing	Value addition/ processing	Development and approval of Tanzania Agro-Industrialization Flagship –TAIDF	URT 2020	
		Reduction of rate of duty remission to 0 percent instead of 25 percent for one year on packaging materials falling under HS Code 4819.50.00 used by domestic manufacturers of UHT milk.	NBS 20/21	

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken	
	Theme	Reforms Implemented	Reference
		Provision of grant duty remission at a rate of 0% instead of 25% or 10% for one year on raw materials used to manufacture different types of fertilizers for fertilizer manufacturers HS Codes 2710.99.00; 2528.00.00; 3505.20.00.	
		Provision of grant duty remission at a rate of 0% instead of 25% for one year on packaging materials for processed tobacco HS Code 5310.10.00 in order promote growth of local manufactures of tobacco;	
		Provision of grant duty remission at a rate of 0% instead of 25% for one year on packaging materials for processed tea HS Codes 4819.20.90; 5407.44.00; 3923.29.00 for local manufacturers of tea (blenders).	NBS 21/22
		Continued to grant duty remission at a rate of 0% instead of 25% for one year on other packing containers, including record sleeves as inputs used by domestic manufacturers of UHT milk HS Code 4819.50.00 to promote growth of domestic milk processing industry	
		Continued to grant duty remission at a rate of 0% instead of 10% for one year on corks and stoppers HS Code 4503.10.00 used as inputs by domestic manufacturers of local wines to promote the growth of grapes farming and wine industries in the country	

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken	
	Theme	Reforms Implemented	Reference
		Continued stay application of the EAC CET rate of 25% and apply a duty rate of 35% for one year on tea, whether flavoured heading 09.02 to protect local processors of tea.	
		Continue to grant stay of application of the EAC CET rate of 25% and apply a duty rate of 35% for one year on HS Code 6305.10.00 (Sacks and bags, of Jute or other textile bast fibres of heading 53.03) to promote growth of the sisal products industries in the country.	NBS, 20/21
		Continued to grant stay application of EAC CET rate of 0% and apply a duty rate of 10% for one year on cocoa powder, not containing added sugar or other sweetening matter Hs code 1805.00.00. The measure is intended to promote domestic cocoa seeds production and enhance value addition in the country.	
		Continued to grant duty remission at a duty rate of 0% instead of 25% for one year on sacks and bags of polymers of ethylene as inputs used by domestic processors of cashew nuts HS Code 3923.21.00 to promote growth of domestic cashew nuts processing industry.	NBS 21/22
		Continued to grant duty remission at a duty rate of 0% instead of 25% for one year on inputs used by domestic processors of cotton lint HS Code 3920.30.90; 6305.39.00;7217.90.00.	
		Tanzania together with other EAC partner states to continue grant duty remission on raw materials and industrial inputs used to manufacture textiles and footwear. Tanzana the reminerant of	NBS 21/22
		Removed the requirement of 15% refundable additional import duty deposit on sugar for industrial use.	

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken	
	Theme	Reforms Implemented	Reference
		Introduce excise duty of 10 percent on imported and locally produced synthetic (plastic) fibres (Heading 55.11 and 56.07) except fishing twine (HS Code 5607.50.00) to promote local manufacturing of sisal products.	NBS 21/22
		EAC Horticulture Action Plan 2021 – 2031 to promote increased processing to global quality standards	Industries Budget Speech (21/22)
	Marketing	Amended the Value Added Tax Act to enable exporters of raw products to recover input tax and enhance competitiveness of the products in the international markets.	NBS 20/21
		National Agriculture Policy (NAP) of 2013 reviewed pending cabinet approval	
Sector Enablers, Coordination and Monitoring & Evaluation	Sector wide regulation and policy	An Agriculture Act to facilitate implementation of the policy prepared and waiting for cabinet approval	MoA (2020)
		Implementation Strategy for National Agriculture Policy 2019/2020 prepared and waiting for cabinet approval	
		Farmers Registration System- FRS; Agriculture Trade Management Information System ATMIS; e-Extension Services, Agriculture Sector Stakeholders Database -ASD, Mobile – Kilimo; Seed Dealers Registration System –SDRS; Pesticide Management Information System – PMIS	ASPD II
		 Preparation and approval for the Blueprint in 2018 Blueprint implementation action plan in place and is being implemented w.e.f. July, 2019 	NIDS 00/01
	Business environment and investment climate	A project – support for business environment, growth and innovation is in place to facilitate implementation of the Blueprint	NBS 20/21 Industries Budget Speech (21/22)
		 And a total of 232 reductions or abolishment of taxes and levies related to business and investment implemented so far through the blueprint's implementation. 	

ASPD II Pillar	Government Commitment to Sector Reforms	Policy Reforms Undertaken	
	Theme	Reforms Implemented	Reference
		Amended section 60 of the Fair Competition Act which deals with penalties from failure to comply with competition rules in order to include gross revenue obtained only in Tanzania instead of global gross revenue.	NBS 20/21
		• Review of SIDP: 1996 – 2020	
		National Business Policy (2003) is under review	
		SME Policy (2003) under review	Industries Budget Speech
		Development of National Quality Policy in progress	(21/22)
		National Export Strategy(NES) under preparation	
		Companies Act Cap 212 reviewed to enhance availability of information on investors and beneficiaries	Industries
		Fair Competition Act Cap 285 reviewed to ensure that penalties under the Act apply only to companies registered in Tanzania and not to involve companies located outside Tanzania	Industries Budget Speech (21/22)
		 Amended the Vocational, Educational and Training Act, CAP 83 to increase the minimum threshold number of employees for paying skilled development levy from 4 employees to 10 employees. Government introduced one electronic single window for investors to process all 	Industries Budget Speech (21/22)
		the permits and licences required for their businesses electronically.	
	Financing	There are policy reforms undertaken such as BoT reforms to reduces the minimum reserves rate, interest rate (22 –(17-12)	
	ASDP II Coordination & ME	 ASDP II Communication Strategy, ASDP II Implementation Manual Resource Mobilization Strategy 	MoA 2020
		ASDP II Result Framework	

Appendix 3: Participants of the ASR Field Work Consultative Meetings

No.	Name	Institution	Location
1	Abdallah Juma	Singida District Council-Mtinko	Singida
2	Abel Kiswaga	Confederation of Tanzania Industries	Mwanza
3	Adam Mhagama	Mbeya Regional Secretariat	Mbeya
4	Adam Mwangupili	MVIWATA	Rungwe
5	Ahmed Jama	Tanchoice Limited	Kibaha
6	Akibe Kitenge	Singida District Council	Singida
7	Albinus Kiluvia	Mwatex	Mwanza
8	Ally Hussein	Farmer - Masika	Singida
9	Ally Rashidi	Tanzania Cooperative Development Commission	Dodoma
10	Amos Maisu	Farmer-Malolo	Singida
11	Angelista Moshiro	Singida District Council	Singida
12	Anold Mbogoye	Singida District Council	Singida
13	Audax Rukonge	ANSAF	Dar es salaam
14	August Riwa	Mbarali District Council	Mbarali
15	Augustine Kyama	Beach Management Unit	Sengerema
16	Augustino Lawi	Rungwe District Council	Rungwe
17	Azizi Mwamakula	Farmer-Mtinko	Singida
18	Banyenzachi Kaswagu	Fisherman	Sengerema
19	Barick Chemliula	AGRODEALER	Mbarali
20	Benard Lema	AGRODEALER-Farmer	Singida
21	Benitho Gidioni	Singida District Council	Singida
22	Boniface Msafiri	TZ ZHONGZHI Aquaculture	Sengerema
23	Boniventure Mtei	Tanchoice Limited	Kibaha
24	Candidah Kyamani	Mwanza Reginal Secretariat	Mwanza
25	Catherine Kilongo	Farmer-Malolo	Singida
26	Catherine Makuri	Singida District Council	Singida
27	Charles Mpemba	TALIRI-UYOLE	Mbeya
28	Charles Ntamuti	Sengerema District Council	Sengerema
29	Christopher Kicheta	Sengerema District Council	Sengerema
30	Clemence Shio	Ministry of Agriculture	Dodoma
31	Clement Luponsuse	NPFL	Mwanza
32	Daniel Kamwela	Mbarali District Council	Mbarali
33	Daniel Mgoba	Tanzania Chamber of Commerce Industries and Agriculture	Mbarali

No.	Name	Institution	Location
34	Daudi Mbongo	Tanzania Agricultural Research Institute - UYOLE	Mbeya
35	David Zabroni	Fisherman	Sengerema
36	Deogratias Gambago	Ministry of Livestock and Fisheries (Livestock)	Dodoma
37	Deogratius Nyamsha	Singida District Council	Singida
38	Dioniz Joseph	Mudida	Singida
39	Dismas Kinunda	Mbarali District Council	Mbarali
40	Donald Mizambwa	AGRA	Dodoma
41	Doris Sendewa	National Irrigation Commission	Dodoma
42	Dr Rehema Mdendemi	PO-RALG	Dodoma
43	Dr. David Mruma	Singida Regional Secretariat	Singida
44	Dr. Samora Mshanga	Mbeya Regional Secretariat	Mbeya
45	Edwini Wiva	Farmer	Sengerema
46	Eford Yunze	TZ ZHONGZHI Aquaculture	Sengerema
47	Emanuel Mwailonda	RUMBYAA AMCOS	Rungwe
48	Emil Kasagara	Mwanza Reginal Secretariat	Mwanza
49	Eng.Cosmas Kinasa	SIDO	Mbeya
50	Ester Chaula	Singida District Council	Singida
51	Eva Anatory	Ward Executive Officer-Swaya	Rungwe
52	Eva Salim Saidi	MUDIDA	Singida
53	Evaristo Mgiye	MWENDAMTITU-Group	Mbarali
54	Fadhili Aden	AGRODEALER	Rungwe
55	Falda Majaliwa	Sengerema District Council	Sengerema
56	Fidelis Mlowe	MWENDAMTITU	Mbarali
57	Finias Ernest	Ministry of Industry and Trade	Dodoma
58	Francis Kasunga	Rungwe District Council	Rungwe
59	Frank Mgeni	Prime Minister's Office	Dodoma
60	George Souda	Tanzania Agricultural Research Institute	Mwanza
61	Grace Macha	Iringa Regional Secretariat	Iringa
62	Happiness Mlengule	Rungwe District Council	Rungwe
63	Harmo Gauday	Ward Executive Officer-Rujewa	Mbarali
64	Haruna Ngollo	Farmer	Mbarali
65	Hassan Karambi	Tanzania Chamber of Commerce Industries and Agriculture	Mwanza
66	Hillary Mrosso	Tanzania Fisheries Research Institute	Mwanza
67	Hussein Athuman	Farmer-MAKURI	Singida
68	Ibrahim Hamis	Farmer-Matumbo	Singida
69	Imaculate S.K.	Sengerema District Council	Sengerema

No.	Name	Institution	Location
70	Imani Kapinga	Ministry of Livestock and Fisheries (Fisheries)	Dodoma
71	Irene Lucas	Ministry of Agriculture	Dodoma
72	Isack Leo	Sengerema District Council	Sengerema
73	Israel Mwalyaje	Rungwe District Council	Rungwe
74	Jackline Zachana	Mwatex	Mwanza
75	Jafari Yusufu	Farmer-Matumbo	Singida
76	James Maziku	Export Processing Zone Authority	Dar es salaam
77	James Ngwira	Ministry of Agriculture	Dodoma
78	James Raymond	Singida District Council	Singida
79	Jamson Mwailana	Mbarali District Council	Mbarali
80	Janeth Mbega	Singida District Council	Singida
81	Jayakumar Nair	Nile Perch Fisheries Ltd	Mwanza
82	Jerry Abeli	Pwani Regional Secretariat	Kibaha
83	Jimmy Luhende	ANSAF	Mwanza
84	John Luena	Mbarali District Council	Mbarali
85	John Mpangala	Ward Executive Officer	Songwe
86	Joseph Joachim	Tanzania Agricultural Research Institute	Mwanza
87	Joseph Mwinyidadi	AGRA	Dar es salaam
88	Jovina Felician	Mwatex	Mwanza
89	Julius Nusu	Singida District Council	Singida
90	Juma Mene	Farmer-Mtinko	Singida
91	Justin Marwa	Tanzania Chamber of Commerce Industries and Agriculture	Dar es salaam
92	Laetitia William	Agricultural Council of Tanzania	Dar es salaam
93	Laurian Revocatus	Fisherman	Sengerema
94	Lazaro Mwala	Singida Regional Secretariat	Singida
95	Lihuwi Ngonyani	Mbarali District Council	Mbarali
96	Louis Mallya	Ministry of Finance and Planning	Dodoma
97	Loyce Lubonela	Ministry of Lands, Housing and Human Settlement Development	Dodoma
98	Lucas Mkuki	Singida Regional Secretariat	Singida
99	Majaliwa Makeha	Ministry of Agriculture	Dodoma
100	Majaliwa Mwalembe	Rungwe District Council	Rungwe
101	Makenzi Keya	Mwanza Reginal Secretariat	Mwanza

No.	Name	Institution	Location
102	Mapinduzi Kisaka	Ministry of Water	Dodoma
103	Maria Stephen	Farmer-Mtinko	Singida
104	Mariam Msangi	Mwatex	Mwanza
105	Marianus Ngui	Mbeya Regional Secretariat	Mbeya
106	Masero Masika	Singida District Council	Singida
107	Mashaka Mlangi	Singida Regional Secretariat	Singida
108	Masomo Mbelwa	Singida District Council	Singida
109	Mathew Mwinuka	Prime Minister's Office	Dodoma
110	Mathius Makoye	TZ ZHONGZHI Aquaculture	Sengerema
111	Meritus Menshi	Rungwe District Council	Rungwe
112	Michael Sungi	Farmer-Mtinko	Singida
113	Michael Zuberi	Singida District Council-Mtinko	Singida
114	Milele Lyanda	Rungwe District Council	Rungwe
115	Milton Manyara	Ministry of Industry and Trade	Dodoma
116	Mmari William	Tanzania Agricultural Research Institute	Mbeya
117	Modesta Msilu	Farmer	Mbarali
118	Moro Ng'elenge	Tanzania Fertilizer Regulatory Authority	Mwanza
119	Moses Daniel	Makuro	Singida
120	Mukara Mugini	President's Office - Regional Administration and Local Government Authorities	Dodoma
121	Mushoborozi Christian	TFRA	Mbeya
122	Mwita Chacha	Iringa Regional Secretariat	Iringa
123	Mwita Waryuba	Sengerema District Council	Sengerema
124	Nahendra Singh	Mwatex	Mwanza
125	Nathalia Mosha	Singida District Council	Singida
126	Ndaro Samson	Sengerema District Council	Sengerema
127	Neema Swila	Mbarali District Council	Mbarali
128	Nestory Mmbare	Sengerema District Council	Sengerema
129	Ngongo Ndege	Fisherman	Sengerema
130	Ngwabi Machicho	Mbarali District Council	Mbarali
131	Noah Kabuje	AGRODEALER	Mbarali
132	Nyaruku Chacha	Farmer	Sengerema
133	Olais Oleseenga	Tanzania Chamber of Commerce Industries and Agriculture	Mbeya

No.	Name	Institution	Location
134	Omary Faraji	Prime Minister's Office	Dodoma
135	Pastory Shedrack	CAADP focal point - MoA	Dodoma
136	Paul Sangawe	Prime Minister's Office	Dodoma
137	Paulinus Msigwa	Farmer	Mbarali
138	Peter Kasele	Mwanza Reginal Secretariat	Mwanza
139	Prof. Beatus Kundi	UDSM - Consultant	Dar es salaam
140	Prof. Deograsias Mushi	UDSM - Consultant	Dar es salaam
141	Prudence Lugendo	SAGCOT	Dar es salaam
142	Rachel Lugoe-NCU	PMO - NCU	Dodoma
143	Ramadhani Makombe	Mbarali District Council	Mbarali
144	Ramadhani Mwaigaju	Pwani Regional Secretariat	Kibaha
145	Ramadhani Vuai	AGRA	Dar es salaam
146	Rehema Kishoa	Singida District Council	Singida
147	Ropesh Mohan	Nile Perch Fisheries	Mwanza
148	Salim Nandonde-NCU	Prime Minister's Office	Dodoma
149	Samson Mapunda	Ministry of Finance and Planning (Policy analysis Department)	Dodoma
150	Samson Msambo	Sengerema District Council	Sengerema
151	Samwel Manumbu	Sengerema District Council	Sengerema
152	Sauli Mwalyambwile	Ward Executive Officer-Lufingo	Rungwe
153	Sero Luwongo	Tanchoice Limited	Kibaha
154	Shangwe Twamala	Pwani Regional Secretariat	Kibaha
155	Simon John	Ministry of Livestock and Fisheries (Fisheries)	Dodoma
156	Solomoni Mwakafwaga	Tanzania Chamber of Commerce Industries and Agriculture	Rungwe
157	Somboi Harold	Singida Regional Secretariat	Singida
158	Songoro Magulya	Tanzania Chamber of Commerce Industries and Agriculture	Sengerema
159	Sotery Tifurukwa	Fisherman	Sengerema
160	Stanslaus Choaji	Singida Regional Secretariat	Singida
161	Stephano Mjema	Ministry of Natural Resources and Tourism	Dodoma
162	Stivin Mwasomola	UMOJA Group	Rungwe DC
163	Sylvester marinde	Sengerema District Council	Sengerema

No.	Name	Institution	Location
164	Tatu Simba	Ministry of Lands, Housing and Human Settlement Development	Dodoma
165	Theophil Ishengoma	Singida District Council	Singida
166	Tumaini Mnunge	Prime Minister's Office	Dodoma
167	Tunsume Mlawa	Ministry of Finance and Planning (Budget department)	Dodoma
168	Wang Wei	TZ ZHONGZHI Aquaculture	Sengerema
169	Wilbard Makundi	Mwatex	Mwanza
170	Yobu Mlomo	Mbarali District Council	Mbarali
171	Yohana Mhengi	Farmer	Sengerema
172	Yohana Sihilo	IGOMELO	Mbarali

Appendix 4: Workshop Participants of the Morogoro JSR of the Agricultural Sector





Appendix 5: Implementation Plan for the Recommendations

ASR Recommendations' Implementation Plan

S/N	Component	Sub-Component/ "Project"	Lead Agen- cies	Collaborating Institutions	Timeframe		ne
					2022	2023	2024
1	Increase strategic government invest- ment to enhance commercialization in the agricultural sector	Action1.1: Support establishment and strengthening of farmers' groups/associations and produce collection centres to enhance identification of farmers, reachability, aggregation of produce, sorting and branding of produces, and marketing/pricing. This applies to both access to inputs markets and produce markets with reduced transaction costs.	MoA, MLS	ASLMs, Private Sector Organiza- tions, ANSAF			
		Action 1.2: Increase investments in strategic irrigation infrastructures, rural roads and other support agricultural infrastructures/facilities linked to priority agricultural value chains.	MoA, MLS, MWTC (Minis- try of Works, Transport and Communica- tion	ASLMs, NRC, TARURA, TAN- ROADS & LGAs			
		Action 1.3: Facilitate the establishment of strategic industrial parks which will cater for agro-industries. This may include establishment of agro industrial yards within some of the existing industrial parks.	MIT (Ministry of Industry and Trade)	EPZA, ASLMs, private sector organizations, & LGAs, TIC			
2	Enhance agricultural production, productivity, and profitability	 Action 2.1: Expand access to improved agricultural inputs: a. Promote increased availability of improved seeds for all priority value chains. b. Support farmers to synchronize utilization of improved seeds with the product markets through their associations. This may include enhanced access to financial credits for farm inputs. c. Facilitate increased access to soil health testing services and improvement programmes. d. Facilitate access to industrial fertilizers and agricultural machinery. 	MoA, MLS	ASLMs, TARI, TALIRI, LGAs, Private Sector Organizations			

2022		Timeframe		
	2023	2024		

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S/N	Component	Sub-Component/ "Project"	Lead Agen- cies	Collaborating Institutions	Timefram		ne
					2022	2023	2024
		Action 2.4: Design and implement additional policy measures for enhancing inclusive participation in agricultural production social groups – gender, age and educational.	MoA, MLS	ASLMs, PMO's Office (policy, parliamentary affairs, labour, youth, employment and persons with disability), Ministry of Labour and Social Welfare, Ministry of Education, Science and Technology, VETA, BEST, Private sectors			
111	Strengthen multi-stakeholder and multi-sectoral approaches to enhance food and nutritional security	Action 3.1: Review the ASDP II implementation structure to bring in actors working to promote nutritional security.	РМО	ASLMs, TFNC, Private sectors			
		Action 3.2: Facilitate key implementing actors of MNAP to prepare specific actions plans and report their implementation performance regularly.	РМО	ASLMs, TFNC, Private sectors			
		Action 3.3: Review DADPs to mainstream relevant MNAP actions.	РМО	ASLMs, TFNC, Private sectors, LGAs			
IV	Enhance mea- sures in resilience building especially climate smart agri- culture and irriga- tion schemes	Action 4.1 Facilitate implementation of the Agriculture Climate Resilience Plan (ACRP) – through enhancement of resources and institutionalisation mechanisms.	MoA, MLS	ASLMs, MoF, VPO (Environ- ment), Private sectors, LGAs			
		Action 4.2 Train extension officers on climate smart agriculture	MoA, MLS	ASLMs, VPO (Environment), Private sectors, LGAs, Agriculture Training Institu- tions			
		Action 4.3 Review DADPs to mainstream relevant ACRP actions.	PMO, MoA, MLS	ASLMs, MoF, VPO (Environ- ment), Private sectors, LGAs			

S/N	Component	Sub-Component/ "Project"	Lead Agen- cies	Collaborating Institutions	Timeframe		ne
					2022	2023	2024
		Action 4.4 Include ACRP implementation progress in ASDP II performance reporting.	PMO, MoA, MLS	ASLMs, MoF, VPO (Environ- ment), Private sectors, LGAs			
V	Strengthen agricul- ture data systems to adequately report on all Ma- labo and ASDP II indicators	Action 5.1 Increase funding for M&E activities, particularly those related with financing of collection of data on key agriculture indicators.	PMO, MoA, MLS, MoF (NBS), MoF	ASLMs, Private sectors, LGAs			
		Action 5.2 Strengthen the national M&E capacity for harmonised and integrated data collection, management, analysis and reporting in the agriculture sector at five levels: ASDP II Secretariat; ASLMs; RAS; Council and WADC.	PMO, MoA, MLS, MoF (NBS), MoF	ASLMs, Private sectors, LGAs, eGA			
		Action 5.3 Develop a digital M&E platform for tracking the implementation of ASDP II by key implementing actors.	PMO, MoA, MLS, MoF (NBS), MoF	ASLMs, Private sectors, LGAs, eGA			
		Action 5.4 Commission analytical studies to collect data and provide empirical evidence on progress being made by the country in meeting Malabo commitments.	PMO, MoA, MLS, MoF (NBS), MoF	ASLMs, Private sectors, LGAs, eGA			
VI	Address con- straints that limit Tanzania from tak- ing full advantage of the intra-region- al African trade in agricultural commodities and services	Action 6.1 Establish and review the specific regulatory barriers to trade that still exists.	PMO, MIT, MoA, MLS, MoF	ASLMs, Private sectors organi- zations, ANSAF, LGAs			
		Action 6.2 Strengthen the capacity of government agencies involved in the promotion of inter-regional African trade for commodities and services.	MIT, MoA, MLS	ASLMs, Private sectors organi- zations, ANSAF, LGAs			

S/N	Component	Sub-Component/ "Project"	Lead Agen- cies	Collaborating Institutions	Timeframe		ne
					2022	2023	2024
		Action 6.3 Strengthen the capacity of the private sector to participate in the regional trade.	PMO, Private sectors organizations, ANSAF,	ASLMs, LGAs			
		Action 6.4 Design/create a national platform that will effectively and timely link and support all key actors in inter-regional African trade for commodities and services.	PMO, Private sectors organizations, ANSAF,	ASLMs, LGAs			
VII	Improve the en- abling business environment for the agricultural sector	Action 7.1 Assess and review major regulations that negatively affect the performance of the country's strategic and priority agricultural value chains.	MIT	ASLMs, LGAs			
		Action 7.2 Expedite implementation of the Blueprint for regulatory reforms.	MIT	ASLMs, LGAs			
		Action 7.3 Cascade the implementation of TAIDF into the strategic plans and programmes of public institutions, private sector organisations and DPs.	ASDP II Secretariat	ASLMs, RASs, LGAs			
VIII	Improve the imple- mentation (speed) of ASDP II	Action 8.1 Support the ASDP II Secretariat to coordinate and facilitate regular meetings of the ASDP II organs as per the approved structure to enable state actors, non-state actors and DPs' have effective joint planning, resource mobilisation, programme implementation, monitoring, evaluation, and learning/change.	РМО,	ASDP II Secretariat, MoF, ASLMs, RASs, LGAs, Private sectors organizations, ANSAF			
		Action 8.2 Support and ensure all district councils develop and implement DADPs with close involvement of the NSA	PORALG, PMO	ASDP II Secretariat, MoF, ASLMs, RASs, LGAs, Private sectors organizations, ANSAF			

S/N	Component	Sub-Component/ "Project"	Lead Agen- cies	Collaborating Institutions	Timeframe		ne
					2022	2023	2024
		Action 8.3 Facilitate capacity development for the effective implementation of ASDP II targeting ASLMs but more importantly RSs, councils, ward and village governments as well as extension service officers.	РМО	ASDP II Secretariat, MoF, ASLMs, RASs, LGAs, Private sectors organizations, ANSAF			
		Action 8.4 Facilitate capacity development for the effective implementation of ASDP II targeting private sector/non-state sector coordinating institutions	PMO, Private sectors organi- zations, ANSAF	ASDP II Secretariat, MoF, ASLMs, RASs, LGAs			
		Action 8.5 Improvement and implementation of ASDP II performance monitoring and reporting, with a focus on implementation performance and results monitoring.	РМО	ASDP II Secretariat, MoF, ASLMs, RASs, LGAs, Private sectors organizations, ANSAF			



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