



**THE UNITED REPUBLIC OF TANZANIA
PRIME MINISTER'S OFFICE**



**AGRICULTURAL SECTOR
DEVELOPMENT PROGRAMME PHASE TWO
(ASDP II)**

MONITORING AND EVALUATION FRAMEWORK

OCTOBER 2020



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ACRONYMS

AAS	Agricultural Advisory Services
AASS	Annual Agriculture Sample Survey
ARDS	Agricultural Routine Data System
ASC	Agricultural Sector Steering Committee
ASCG	Agricultural Sector Consultative Group
ASDP	Agricultural Sector Development Programme
ASDP II	Agricultural Sector Development Programme Phase Two
ASDS	Agricultural Sector Development Strategy
ASLMs	Agricultural Sector Lead Ministries
ASR	Agricultural Sector Review
A-WG	Agricultural Working Group of Development Partners
BF-SC	Basket Fund Steering Committee
CBO	Community Based Organization
CCRO	Certificate of Customary Right of Occupancy
CMT	Council Management Team
CSA	Climate Smart Agriculture
CSO	Civil Society Organizations
CVCs	Commodity Value Chains
CVLs	Certificates of Village Land
DADP	District Agricultural Development Plan
DAICO	District Agricultural, Irrigation and Cooperatives Officer
DALFO	District Livestock and Fisheries Officer
DCP	District Component Platform
DED	District Executive Director
DFT	District Facilitation Team
DHS	Demographic and Health Survey
DIDF	District Irrigation Development Fund
DPCGB	Director of Policy and Coordination of Government Business
DPP	Director of Policy and Planning
DPs	Development Partners
DSC	Director of Sector Coordination
FAO	Food and Agriculture Organization
FBO	Faith Based Organizations
FYDP	Five-Year Development Plan
GoT	Government of Tanzania
HBS	Household Budget Survey
ICT	Information and Communication Technology
IO	Irrigation Organizations

JICA	Japan International Cooperation Agency
JSR	Joint Sector Review
LGAs	Local Government Authorities
LGDG	Local Government Development Grant
LGMD	Local Government Monitoring Database
LUP	Land Use Plan
MAFC	Ministry of Agriculture, Food Security and Cooperatives
M&E	Monitoring and Evaluation
MHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MIS	Management Information System
MIT	Ministry of Industry and Trade
MLF	Ministry of Livestock and Fisheries
MLHHS	Ministry of Lands, Housing and Human Settlement Development
MoA	Ministry of Agriculture
MoFP	Ministry of Finance and Planning
MTEF	Medium-Term Expenditure Framework
NACOTE	National Coordination Team
NASSM	National Agricultural Sector Stakeholders' Meeting
NBS	National Bureau of Statistics
NCU	National Coordination Unit
NGO	Non-Governmental Organization
NIRC	National Irrigation Commission
NPS	National Panel Survey
NSA	Non-State Actors
NSCA	National Sample Census of Agriculture
NSGRP	National Strategy for Growth and Reduction of Poverty
ODK	Open Data Kit
O&OD	Opportunities and Obstacles to Development
PAF	Performance Assessment Framework
PDO	Programme Development Objectives
PER	Public Expenditure Review
PM	Prime Minister
PMO	Prime Minister's Office
PO-RALG	President's Office- Regional Administration and Local Government
PS	Permanent Secretary
RAA	Regional Agricultural Adviser
RAS	Regional Administrative Secretary
RCC	Regional Consultative Committee
RDS	Routine Data System
RLA	Regional Livestock Adviser
RS	Regional Secretariat
RTA	Regional Trade Adviser

SMARTU	Specific, Measurable, Achievable, Realistic, Timely and Useful
SWAp	Sector Wide Approach
TANGO	Tanzania Non-Governmental Organizations
TBD	To Be Determined
TCCL	Technical Committee of Component Leaders
TCD	Technical Committee of Directors
TFNC	Tanzania Food and Nutrition Centre
TLTPP	Tanzania Long Term Perspective Plan
TRA	Tanzania Revenue Authority
TWG	Thematic Working Group
URT	United Republic of Tanzania
VADPs	Village Agricultural Development Plans
VAEO	Village Agricultural Extension Officer
VEO	Village Executive Officer
WAEO	Ward Agricultural Extension Officer
WARCs	Ward Agricultural Resource Centres
WDC	Ward Development Committee
WEO	Ward Executive Officer
WFT	Ward Facilitation Team
WRRB	Warehouse Receipt Regulatory Board
WRS	Warehouse Receipt System

FOREWORD

Since 2018, The Government of the United Republic of Tanzania launched and started to implement the Agriculture Sector Development Programme phase II (ASDP II) as a continuation of the implementation of the Agricultural Development Strategy (ASDS), which started to be implemented in 2001. The aim of ASDS is to transform the agriculture sector into a high productivity, commercialized, profitable and surplus producing sector to contribute towards industrialization, which is in line with the focus of the fifth phase government on industrialization.

The implementation of the ASDP II is associated with the development of Monitoring and Evaluation (M&E) Framework, which include development of results framework, development of M&E system and the implementation plan. The Results Framework has been developed in order to assess progress to be made and in filling the gaps identified during the implementation of ASDP I. The key questions to be answered while implementing the ASDP II M&E framework includes: (i) Implementing activities recommended to fill the gaps identified in ASDP I; (ii) Contribution of different stakeholders at both national and local in achieving ASDP II targets; (iii) Monitoring ASDP II progress on building and strengthening the capacity of policymakers and different institutions involved in its implementation; (iv) Monitoring strengthened institutions, processes, and mechanisms involved in achieving ASDP II targets; and (v) Assessing how ASDP II initiative will systematically encourage investments in the agricultural sectors.

The ASDP II M&E framework include (i) Performance measurement of the ASDP II; (ii) Data collection, reporting and reviews; (iii) Institutional arrangements for ASDP II M&E; (iv) ASDP II M&E implementation plan; (v) Information management plan; and (vi) ASDP II M&E capacity building plan. The development of the ASDP II M&E framework indicators was done through consultation with various stakeholders from the Agricultural Sector Lead Ministries (ASLM); Ministry of Finance and Planning; Other Ministries, Departments, and Agencies; Public-Sector Agencies; Non-state Actors (Civil Society and Farmer Organizations, Private Sector); Development Partners; Non-Governmental Organizations (NGOs); Training and Research Institutions and with Financial Institutions.

The expected contributions of ASDP M&E framework include: (i) showing to what extent the programme contributes towards achieving the expected outputs and outcomes of the agricultural sector (i.e. growth and other targets); (ii) tracking subsector/commodity achievements contributed by the implementation of programme; (iii) monitoring the achievements by: (a) different agro-ecologies, (b) different technologies, and (c) different types of farmers after the implementation of the programme; and (iv) identifying the ASDP II initiatives which will address the challenges facing the farmers and other actors in the agricultural sector. Therefore, the ASDP II results framework is expected to provide important inputs towards the implementation of Government's development policies, programmes/projects in the agricultural sector and inform the dialogue processes on how milestones set in ASDP II have been achieved.

It is urged that all players who will be involved in this Framework to work diligently and efficiently in order to ensure collection of good quality data which will then help the Government to make appropriate decisions for the development of the agricultural sector in Tanzania. In this respect, it gives me great pleasure to present the ASDP II Monitoring and Evaluation Framework to all stakeholders who will be involved in the implementation of the programme under the coordination of Prime Minister's Office.

PRIME MINISTER'S OFFICE

1. INTRODUCTION

1.1 Background

The Government of Tanzania has adopted the Agricultural Sector Development Strategy (ASDS) since 2001. The objective of the ASDS is to achieve a sustained agricultural growth rate of 6 percent per annum. The Agricultural Sector Development Program (ASDP), which is in the second phase of its implementation, is a long-term process intended to implement the ASDS based on a Sector Wide Approach (SWAp). It aims to transform the sector into a high productivity, commercialized, profitable and surplus producing sector to contribute towards industrialization in line with establishing operational linkages between the Agricultural Sector Lead Ministries (ASLMs)¹ and other stakeholders. It forges the connection between demand-driven, field-based district planning processes, and the mobilization and monitoring of national and international investment in agriculture. With the launching of the Agricultural Sector Development Program II (ASDP II), there is a growing interest in establishing a sector-wide monitoring and evaluation (M&E) system.

The M&E Framework was initially developed and approved by the Committee of ASLMs Directors in September 2007 during the implementation of ASDP I. This framework was reviewed and updated in 2020 to suit the requirements of ASDP II. In reviewing the framework, many consultations were made with officials of Local Government Authorities (LGAs), Regional Secretariats (RSs) and other sector experts from ASLMs. Afterward, the ASDP II M&E Guideline which delineates actions to be taken by each stakeholder for M&E was approved by the Agricultural Steering Committee (ASC). Both the framework and the guideline will be disseminated to all implementing entities including Regions and Local Government Authorities for guidance in data collection for the M&E system.

The revised M&E framework incorporates, among others, new short-listed indicators and it explains an envisaged M&E system of the ASDP II.

1.2 Objectives

The overall objective of the M&E framework is to outline the M&E system for the agricultural sector under the ASDP II. The M&E system will provide information that will enable stakeholders to track progress and enhance informed decision-making at all levels in the implementation of the ASDP II.

The specific objectives of the ASDP II M&E system are to:

- Promote the importance of systematic data/information collection and utilization of M&E results in the planning of the ASDP II;
- Strengthen the M&E capacity of ASDP II stakeholders to collect, analyse and use data/information; and
- Enhance the understanding of trends and changes in the levels of agricultural development, food security, and poverty reduction in the country over time.

¹ The ASLMs are the Ministry of Agriculture (MoA), Ministry of Livestock and Fisheries (MLF), Ministry of Industry and Trade (MIT), Ministry of Lands, Housing and Human Settlements Development (MLHSD), President's Office - Regional Administration and Local Government (PO-RALG), and Ministry of Water.

1.3 Guiding Principles

The ASDP II M&E processes will be undertaken under the following guiding principles:

- i). Harmonized with other government M&E systems;
- ii). Results-based management adopted;
- iii). Existing mechanisms of data collection used;
- iv). Using the baseline data / information as benchmark;
- v). Ad-hoc surveys avoided as much as possible;
- vi). Starting as simple as possible;
- vii). Starting from the current situation;
- viii). Incremental in capacity development;
- ix). Recognizing the dynamic nature of the ASDP II; and
- x). Flexible in revising ASDP II M&E framework.

1.4 Scope of the M&E Framework²

The M&E framework covers the following scopes:

- i). Performance measurement of the ASDP II;
- ii). Data collection, reporting and reviews;
- iii). Institutional arrangements for ASDP II M&E;
- iv). ASDP II M&E implementation plan;
- v). Information management plan; and
- vi). ASDP II M&E capacity building plan.

² M&E undertaken for each project in District Agricultural Development Plans (DADP) is not presented in this document.

2. PERFORMANCE MEASUREMENT OF THE ASDP II

2.1 Overall Framework

ASDP II is embedded in the Tanzania Long Term Perspective Plan (TLTPP 2011/2012 – 2025/2026), Second Five Year Development Plan (FYDP II 2016/2017 – 2020/2021), and ASDS II underlining results chain. The progress and development of ASDP II, is monitored and evaluated through indicators. The key indicators are developed at the component, sub-component and priority investment areas. Figure 2.1 shows the relationship between the indicators for ASDP II and DADPs.

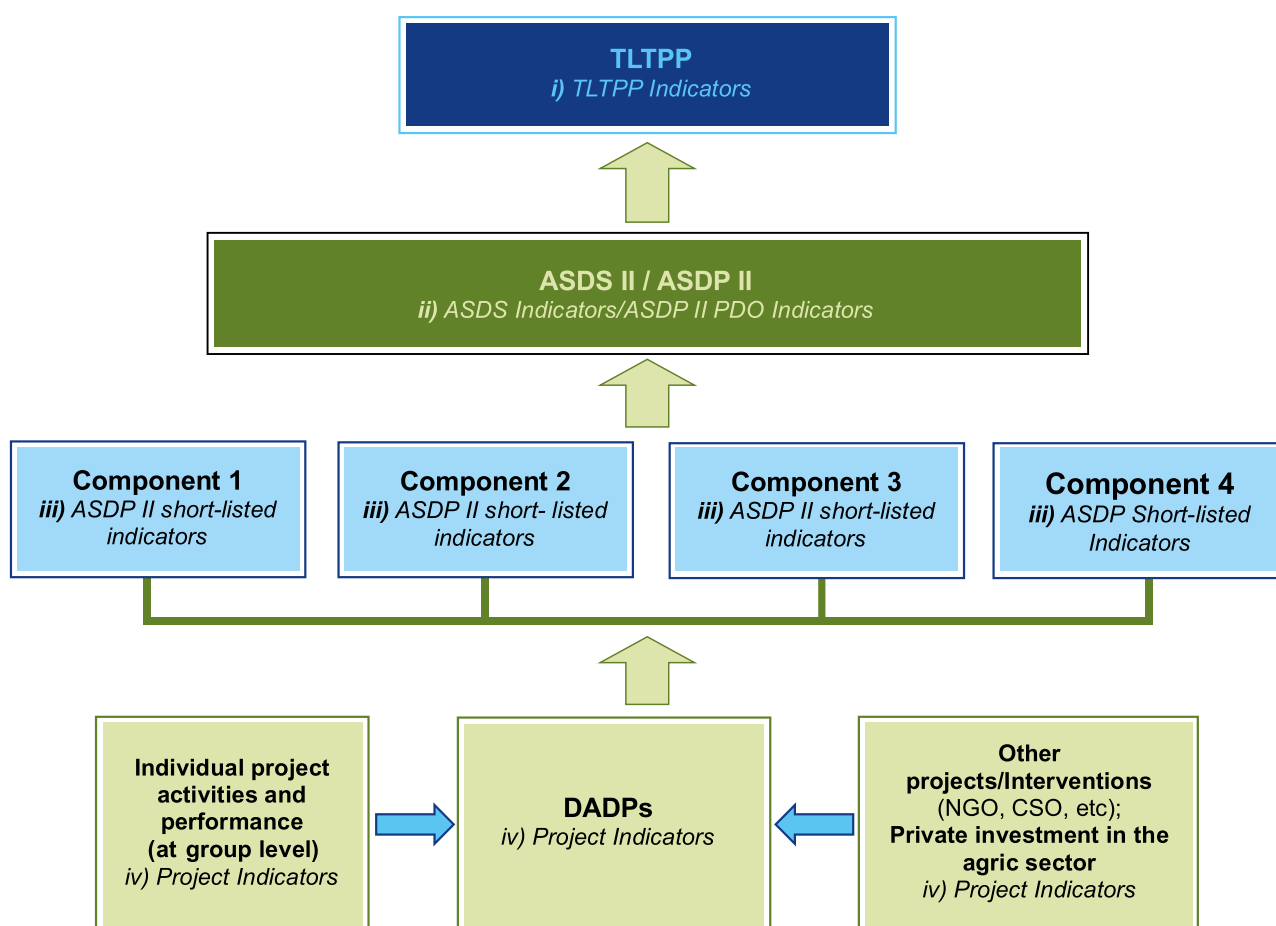


Figure 2.1: Four levels of indicators concerning ASDP II

As shown in Figure 2.1, there are four levels of indicators. The first are the TLTPP/Impact indicators. They have been already developed, and the attainment of TLTPP goals is monitored and evaluated considering these indicators. The second are the ASDP II Programme Development Objectives (PDO) and ASDS II Outcome indicators, which will measure the overall success of the Programme. The third level comprises of ASDP II shortlisted output indicators at the Component and Sub-component level of the Programme. These are explained in the next section. The national level progress of ASDP II is measured through these indicators.

The fourth levels are district agricultural development indicators, which include DADP, individual and other project indicators. Each Local Government Authority (LGA) may develop its own indicators in reference to its own agricultural development goals. The LGA level indicators should still consider ASDP indicators to ensure that the goal of agricultural development in each LGA is consistent with that of the nation. These indicators are developed when a log-frame for each project is prepared as explained in the DADP guidelines (Quick Guides).

2.2 ASDS II Indicators and ASDP II PDO indicators

ASDS II provides the higher-level sector goal, in line with Tanzania Development Vision 2025, that is, to “Contribute to the national economic growth, reduced rural poverty and improved food security and nutrition in Tanzania”. The ASDS’ II targets and indicators are contained in the TLTPP and they will be used to measure the overall contribution of the agricultural sector in the national development as stipulated in the National Development Vision 2025.

The PDO for ASDP II is to transform the agriculture sector (crop, livestock and fisheries) towards higher productivity, commercialization level, and smallholder farmer income for improved livelihood, food security and nutrition. The PDO will be measured by the following short-listed indicators whose detail is in Annex 1:

- i). Agricultural Sector Growth Rate (Crops, Livestock and Fisheries);
- ii). Total food crop production (cereals and non-cereals);
- iii). Value of agricultural exports for select priority crops: Maize, Rice, Sunflower, Cotton, Horticulture, Beef, Marine fish, Fresh water fish, Seaweed, Round Potato, Milk, Coffee, Sugarcane, Tea, Cashew, Goat, Hides & skins and Mutton;
- iv). Rural population below the poverty line;
- v). Food self-sufficiency ratio;
- vi). Proportion of household with low dietary diversity;
- vii). Malnutrition incidences (chronic and transitory) in Tanzania; and
- viii). Proportion of the population that is undernourished.

2.3 ASDP II Short-listed (Component) Indicators

The Programme has four inter-linked components (see figure 2.2), (i) Sustainable water and land use management, including resilience of sustainable and smart farming system; (ii) Enhanced agricultural productivity and profitability by sustainable technology generation, promotion/use, food security and nutrition; (iii) Commercialization and value addition to produce competitive Commodity Value Chains (CVCs); and (iv) Strengthening agriculture sector enablers including policy framework, institutional capacity and coordination, and sector wide M&E.

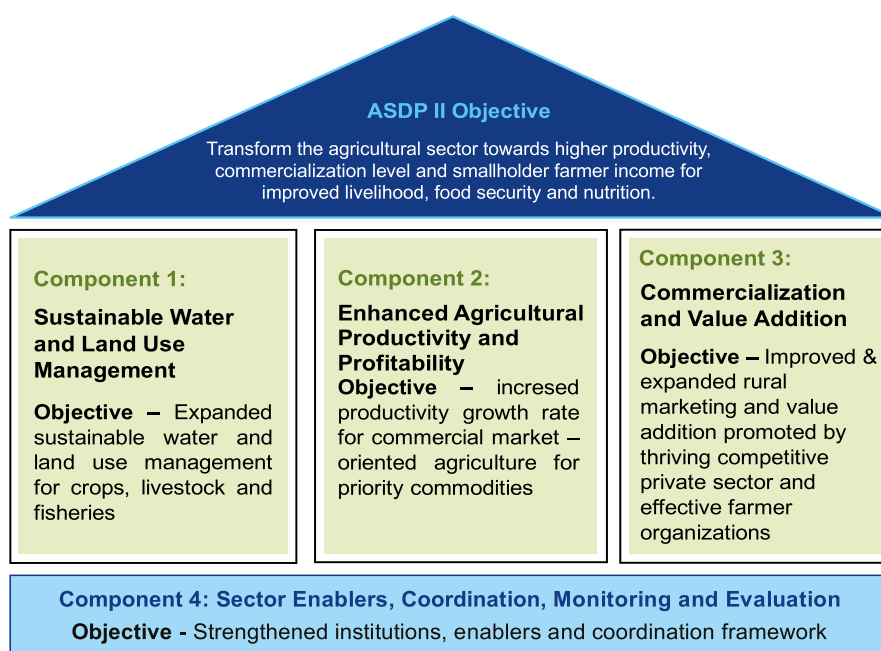


Figure 2.2: ASDP II Main Components and Objectives

The short-listed indicators were selected from the long-listed indicators, using the SMARTU criteria (Specific, Measurable, Accurate, Realistic, Timely and Useful) to make the number of indicators feasible in the short run. The short-listed indicators are shown in Table 2.1 below and their definitions are shown in Annex 2.

Table 2.1: Summary of short-listed indicators for these sub-components

ASDP II Components		Indicator	Frequency of reports	Data source
Program Development Goal		1. Agricultural growth rate	Annually	MoA/MLF/NBS
		2. Head count ratio in rural areas-basic need poverty line	Annually	NBS
		3. Gross value (in USD) of agricultural exports	Annually	TRA/MoA/MLF/NBS
		4. Gross value (in USD) of agricultural imports	Annually	TRA/MoA/MLF/NBS
Component 1 Sustainable Water and Land Use Management	Land use planning and watershed management	5. Proportion of agricultural households with secure land tenure by gender	Annually	National Land Use Planning Commission –MLHSD
	Water use for Crops, Livestock and Fishery	6. Growth rate of the size of irrigated area	Annually	MA/NIRC/NBS
		7. Growth rate of cage fish farming	Annually	MLF/NBS
		8. Number of agricultural land conflicts	Annually	MLF/NBS
		9. Percentage increase of operational water sources infrastructure for livestock	Annually	MLF/NBS
		10. Percentage increase of operational water sources infrastructure for aquaculture	Annually	MLF/NBS
	Mainstreaming resilience for Climate Variability/ Change and Natural Disasters	11. Percentage increase of Climate Smart Agriculture (CSA) technologies practiced	Annually	MoA, MLF/NBS
		12. Percentage decrease of households under risk of floods and drought	Annually	ASLMs

ASDP II Components		Indicator	Frequency of reports	Data source
Component 2: Enhanced Agricultural Productivity and Profitability	Production and Productivity	13. Productivity/ Yield of the priority commodities	Annually	MoA/MLF/NBS
		14. Production of priority commodities	Annually	MoA/MLF/NBS
	Agricultural Extension services	15. Proportion of adoption of agricultural technologies and practices	Annually	MoA/MLF/NBS
	Agricultural Research and Development	16. Proportion of agricultural research funding as share of agriculture GDP	Annually	ASLMs/MoFP/NBS
		17. Food self-sufficiency ratio	Annually	MoA/MLF/NBS
		18. Malnutrition incidences (chronic and transitory) in Tanzania	Annually	MHCDGEC (TFNC)/NBS
Component 3: Commercialization and Value Addition	Competitive Commodity and Value Addition	19. Gap between farm gate price and market price	Annually	MoA/MLF/MIT
		20. Ratio of value of processed agricultural export to total agricultural export	Annually	MoA/MLF/MIT/TRA
	Access to markets and rural infrastructure	21. Reduction rate on Post-Harvest Losses for the national priority commodities	Annually	NBS/MoA/MLF
Component 4: Sector Enablers, Coordination and M&E	Business Environment	22. Proportion of private investment in agriculture sector to total investment	Annually	MoFP/ASLM/NBS
	Access to Rural Financing	23. Share of financial sector lending to agricultural sector.	Annually	MoFP/ASLMs/NBS
		24. Proportion of women and men engaged in agricultural sector with access to financial services	Annually	MoFP/ASLMs/NBS
	Stakeholder Empowerment and Organization	25. Proportion of rural women empowered in agricultural sector	Annually	ASLMs/PMO/NBS
		26. Percentage of youths that is engaged in the agricultural sector along the value chains	Annually	ASLMs/PMO/NBS
		27. Proportion of farmers who are members of farmers' organization	Annually	ASLMs/NBS
	Sector coordination (Vertical and Horizontal)	28. Public agricultural sector expenditure as a share of total public expenditure	Annually	MoFP/ASLMs/NBS

The data for ASDP II short-listed indicators are collected from varieties of sources. The data in each indicator are collected, analysed and summarized in the ASDP II M&E Progress Report.

2.4 District Agricultural Development Plans (DADPs) and Project Indicators

Performance of the individual projects will be captured through DADP for LGA related projects for both physical and financial quarterly progress reports. The mechanisms to capture off-budget activities include quarterly reports by each NGO project to be submitted according to requirements specified in memoranda of understanding with each NGO project, but excluding information on the source and application of funds unless volunteered to compare with projects within government programmes.

In addition to district agricultural indicators, it is suggested that LGAs develop indicators for each DADP project (intervention) and present them in a log-frame for each project. These indicators are used to monitor and evaluate the progress of each project.

3. DATA COLLECTION, REPORTING AND REVIEWS

3.1 Data Collection and Reporting

3.1.1 Type of data for ASDP II Monitoring & Evaluation

Agricultural data used for ASDP II M&E can be broadly categorized as shown in Table 3.1.

Table 3.1: Type of agricultural data

Data types		Examples
1. Project-related information (Comprehensive and strategic DADP ³)	1-1. Input	✓ Expenses, manpower, equipment used for each DADP project (interventions)
	1-2. Output	<ul style="list-style-type: none"> ✓ Proportion of villages with Land use plan ✓ Area (ha) of irrigation schemes developed / rehabilitated by DADP/ DIFD projects, ✓ Number of cattle dips rehabilitated in DADP project, ✓ Number of farmers trained in DADP project, etc. ✓ Number of households practicing irrigation
	1-3. Outcome/ impact	<ul style="list-style-type: none"> ✓ Number of farmers using improved technologies due to implementation of DADP project, ✓ Increase in crop production as a result of DADP / DIFD project, ✓ Improvement in crop yield as a result of DADP project, ✓ Decrease in animal mortality rate due to DADP project, ✓ Increase in income of a farmer due to DADP project, etc.
2. Agricultural performance information (village, ward, district, regional, national level)	2-1. Input	<ul style="list-style-type: none"> ✓ Total agricultural budget for a district (From all sources), ✓ Total number of extension officers (Public/Private) in a district / region, ✓ Total number of agricultural machineries in a district, etc. ✓ Total number of market infrastructure established in a district/region
	2-2. Output	<ul style="list-style-type: none"> ✓ Total area under irrigation schemes (developed) in a district, ✓ Total number of certain agricultural machinery / implements in a district, ✓ Total number of cattle dips available in a district, ✓ Total number of farmers trained in a district, ✓ Total number of established and operational WARCs
	2-3. Outcome/ impact	<ul style="list-style-type: none"> ✓ Number of farmers using mechanization in a district /region / nation, ✓ Total amount of crop production and acreage in a district, ✓ Total amount of meat production in a district, ✓ Total number of farmers using new technologies, ✓ Overall changes in farmers' income ✓ Value of agricultural export ✓ Value of processed exported agricultural product

³ Under ASDP II, DADP project reporting includes activities from basket fund or non-basket and other projects implemented at the LGA level.

3.1.2 Project-related information

The first type of agricultural information is project-related information. Information on input and output (1-1 and 1-2) of each DADP project are collected by respective project committee or District Facilitation Team (DFT) members and is summarized in the DADP Physical and Financial Quarterly Progress Report in each LGA. The report is submitted to respective regions, where they are consolidated into a regional report. The report is submitted to the PO-RALG - Department of Sector Coordination (DSC). The DSC officials consolidate them according to the required format and submit it to the ASDP II National Coordination Unit, which in turn prepares ASDP II Quarterly Progress Reports by incorporating it with the information on ASDP II National Component. The report is then submitted to the ASLM's Technical Committee of Directors (TCD) and ASDP II Steering Committee (ASC).

To capture outcome information of each DADP project (1-3), a national standard format will be applied and the plan is for LGAs to fill out the format for each project once a year and submit it to respective region. Regional officials consolidate them into a regional report and submit it to PO-RALG. PO-RALG then consolidates the regional reports to form a national report, which is submitted to the Committee of ASLMs Directors and ASDP II Steering Committee as an annex to the 4th quarter DADP Physical and Financial Progress Report. The flow of input, output and outcome DADP project information is depicted in Figure 3.1.

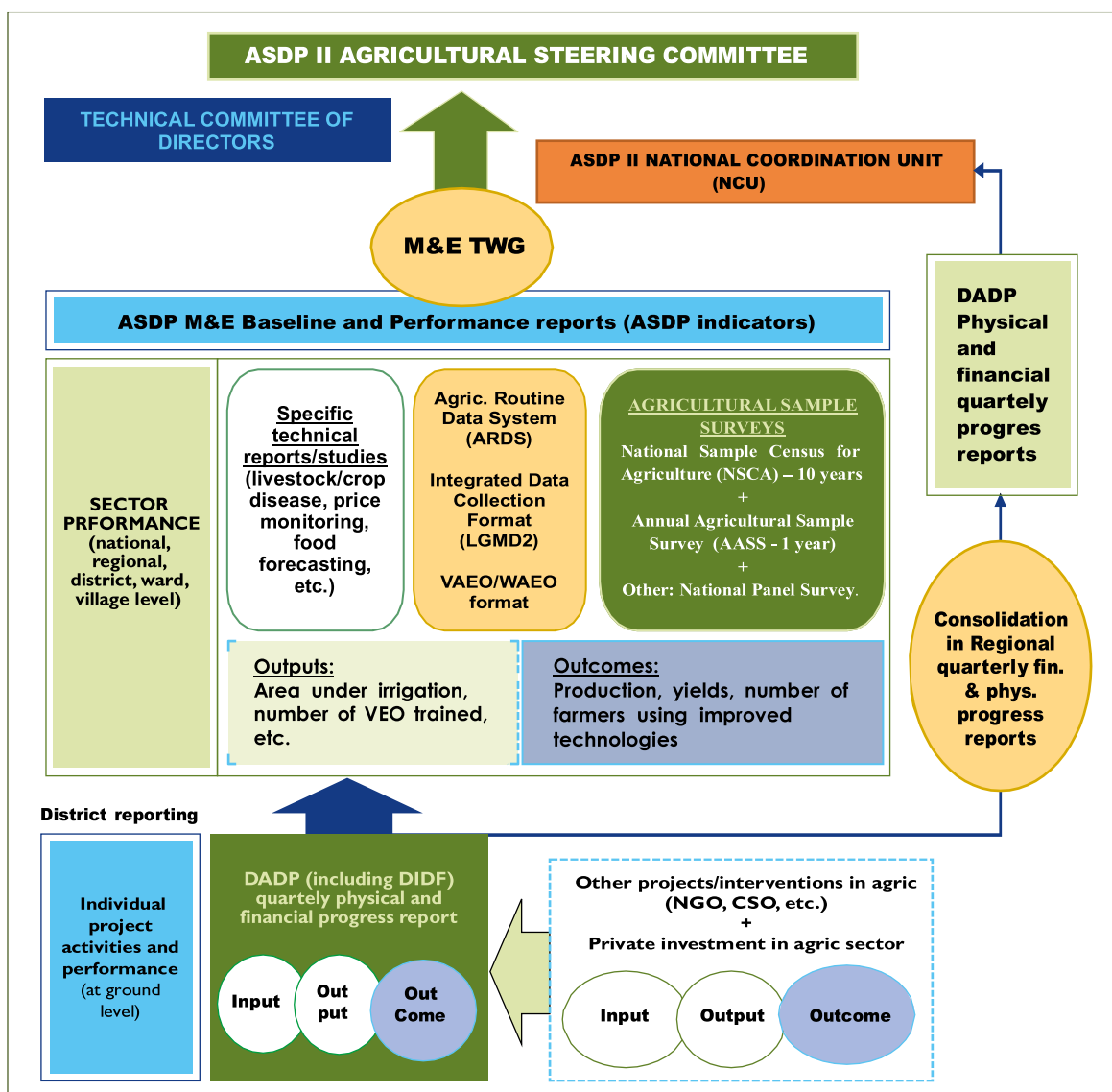


Figure 3.1: ASDP M&E system for sector and programme performance (adapted for ASDP II)

It is important to note that outcome information for each DADP project (intervention) is different from agricultural performance information at village / district levels (2-3) in that, the former addresses the changes at project level while the latter is concerned with the changes at village or district level. The difference is depicted in Figure 3.2. As seen in the figure, the project outcomes correspond to individual projects while the performance information represents the whole district covering both project-implemented villages/wards and non-project-implemented ones.

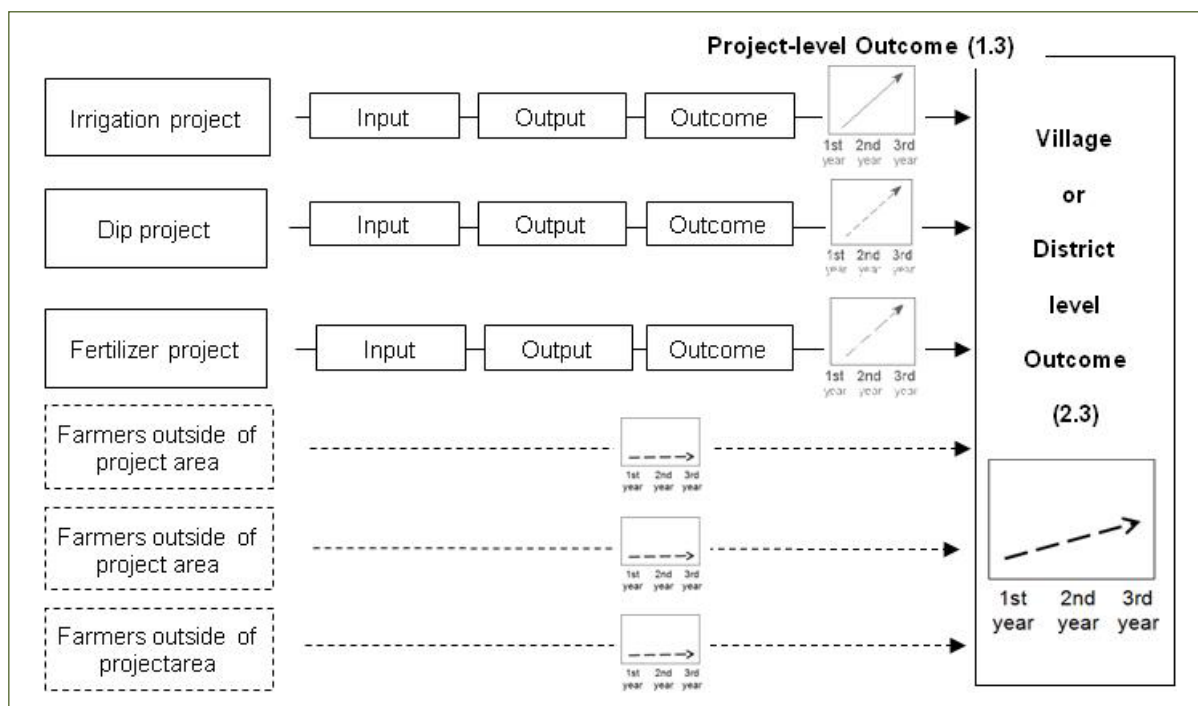


Figure 3.2: Project level outcome and village/district level outcome

3.1.3 Agricultural performance information

The second type is agricultural performance information at village / district / region / national level (type 2). The financial information (2-1) is transmitted using the normal government system as specified by the Ministry of Finance.

As for the output and outcome information (2-2 and 2-3), some sub-sectors have their unique systems in which the data are collected at LGAs or zones and transmitted to national level individually. They include, but not limited to, the following:

- i). Food forecasting and early warning (food security concerns);
- ii). Livestock disease surveillance and diagnosis (livestock disease control);
- iii). Marketing report (retail and wholesale prices for crops and livestock);
- iv). Zonal irrigation report;
- v). Fish catch assessment survey report;
- vi). Agricultural cooperative report; and
- vii). Research institute report.

Other general agricultural information is collected and transmitted through the Agricultural Routine Data System (ARDS). Most data in this type originate at village / ward levels, which are collected and recorded by village / ward agricultural extension officers (VAEO / WAEO) using standard reporting forms (monthly, quarterly and annual). The information submitted by WAEO is consolidated at district level, which are in

turn, transmitted to ASLMs via regions. Another method to collect outcome agricultural performance information (2-3) is agricultural surveys undertaken primarily by National Bureau of Statistics (NBS) and ASLMs. Key surveys concerning ASDP II are summarized in Table 3.2.

Table 3.2: Types, frequency and disaggregation of surveys concerning agriculture

Types of survey	Frequency	Geographical disaggregation
National Sample Census of Agriculture (NSCA)	5 years (2002/03, 2007/08)	District, Region, National
National Panel Survey (NPS)	After every 2 years (2008/09, 2010/11, 2012/13, 2014/15)	National
Annual Agriculture Sample Survey (AASS)	Every year (2014/15, 2016/17)	Regional estimates
Household Budget Survey (HBS)	5 years (2000/01, 2007/08, 2011/12, 2017/18)	National, Rural / Urban / DSM
National Population and Housing Census	10 years (2002, 2012)	Village through national

The agricultural surveys are said to provide more reliable information on ASDP II outcomes than ARDS because the former directly asks farmers who are randomly sampled while the latter depends on observations of VAEO/WAEO and information from the key informants.

On the other hand, a key shortcoming of these surveys is that some of them are implemented with a long interval (i.e., 10 years in the case of NSCA) except for AASS and NPS. However, agricultural performance in Tanzania is highly influenced by weather conditions, which may vary from year to year. Thus, it is recommended to collect this information on annual basis.

3.2 Assessment and Reviews

All the reports / survey results explained in the previous section are used for the assessment and reviews of the ASDP II. There are primarily two types of assessment / reviews concerning ASDP II as explained below.

3.2.1 Types of reviews

3.2.1.1 Joint Implementation Review

The Joint Implementation Review is conducted jointly by the ASLMs and other agricultural stakeholders (DPs, Private sector, civil society, farmers' organization) every year. The overall purpose of the review is to assess the progress of the ASDP II, to evaluate implementation progress, and to identify constraints and hence suggest actions to be taken for smooth implementation of the programme.

The review teams visit several districts and regions annually to observe the status of ASDP II implementation and examine achievement and challenges with stakeholders such as government officials and farmers. The review provides input to the key ASDP II committees, which are the ASDP II Technical Committee of Directors and the Steering Committee.

3.2.1.2 Agricultural Sector and Public Expenditure Reviews

The Agricultural Sector and Public Expenditure Reviews (ASR/PER) are conducted by the ASLMs, private sector, civil society and DPs and farmers organisations on an annual basis. The Review assesses agricultural sector performance and constraints. It also analyses key policies, institutional reforms and their link to the performance of ASDP II. The information/data collected and analysed in the previous mechanism will be used as a key input for the review. The reviews provide input to the key ASDP II committees such as the ASDP II Steering Committee and the Technical Committee of Directors.

3.2.2 Coordination and Committee meetings

3.2.2.1 Coordination at central level

In addition to specific reviews explained in the previous section, there are several committee meetings, which will also play an important role in ASDP II M&E. Table 3.3 below shows committee meetings at central level.

Table 3.3: ASDP II National Level coordination organs, mechanisms, and membership (summary)

Forum	Chairperson	Members
National Agricultural Sector Stakeholder Meeting (NASSM)	Prime Minister	Ministers of ASLMs and related Ministries , MoFP, Statistician General-NBS, Development Partners, and Private Sector, Non-State Actors (NSAs), RS, LGAs, District Executive Directors (DEDs); DAICOs, DLFOs; research officials; training officials; academia representatives; commodity boards; financial institutions; farmer based organizations/associations and cooperatives, commodity associations, and successive agriculture associations and SACCOS; representatives of other related stakeholder organizations/players in the agricultural sector
Agricultural Sector Steering Committee (ASC)	Permanent Secretary at Prime Minister's office	Permanent Secretaries of ASLMs and related Ministries, PS-MoFP, Development Partners representatives and Private Sector Representatives/NSAs
Agricultural Sector Consultative Group (ASCG)	Permanent Secretary at Prime Minister's office	Permanent Secretaries of Lead Components and Related Ministries (ASLMs), PS-MoFP, SG-NBS, All Development Partners supporting agriculture and Private Sector, NGOs/ CBOs, Farmer Based Organizations and Cooperatives, Research and Training Institutions.
Technical Committee of Directors	Director of Policy and Government Business Coordination at Prime Minister's Office	Directors of Policy and Planning of ASLMs and Related Ministries
ASDP II National Coordination Team (NACOTE)	ASDP II National Programme Coordinator	Members of National Coordination Unit (NCU) and National Coordination Team (NACOTE) from ASLMs and other related Ministries and Institutions

Forum	Chairperson	Members
National Thematic Working Groups (TWGs)	Component Leaders	Chairpersons of Components

3.2.2.2 PO-RALG and Local level

LGAs are overseen and directed by the **PO-RALG**: The **Department of Sector Coordination** is responsible for management and support to LGAs by collaboration with regional secretariats (RSs). Vertical coordination from **PO-RALG** to RSs and LGAs has been established and worked well under ASDP-1, and ASDP II will continue to strengthen the same functions of PO-RALG.

Coordination at the PO-RALG, will start with the Annual Regional and Local Government Consultative Meeting to be chaired by the Minister of PO-RALG. This will be followed by: (i) the Agricultural Sector Consultative Meeting chaired by the Permanent Secretary PO-RALG; (ii) the Technical Committee of Component Leaders (TCCL-PO_RALG) chaired by the Director of Sector Coordination, and (iii) the Regional Consultative Committee (RCC) chaired by the Regional Commissioner. Table 3.4 below presents the detailed levels from village to the PO-RALG.

Regional Administrative Secretariats (RAS)

The role of RAS is to assist the LGAs in preparation of the DADPs, backstopping and supportive supervision on the implementation of the DADPs and assisting in the submission of quarterly and annual reports in compliance with the DADP Guidelines. The Assistant Administrative Secretary for Economics and Production section within RS is directly responsible for supporting development activities within the region and is assisted in the task by the ASDP Regional Coordinator and fellow officers dedicated to specific sub-sectors. These officers will provide technical and managerial assistance to LGAs for ASDP II implementation. The RSs will closely work together with the relevant TWGs and the ASDP II National Coordination Unit as the need for consultation and assistance arises.

ASDP II will strengthen structures for local activities established under ASDP-1. DADP will continue to be the key instrument for agricultural development at local level. The **District Executive Director (DED)** will hold overall responsibility for activities and funds used at local level. The **Council Management Team (CMT)**, which is chaired by the DED and attended by all the Department Heads including **DAICO** and **DLFO**, is informed on the agricultural development issues and status under DADP.

DADPs are derived from the grassroots by villagers through the Opportunities and Obstacles to Development (O&OD) process and summarized in **Village Agricultural Development Plans (VADPs)**: this planning process is led by a Village Planning Committee, Village Agricultural Extension Officer (VAEO), Village Executive Officer (VEO) and supported by the District Facilitation Team according to the DADP guidelines.

Proposals from individual villages are submitted to **wards** and consolidated by the by the Ward Development Committee, guided by the Ward Agricultural Extension Officer (WAEO) under supervision of the Ward Executive Officer (WEO), for submission to the District Executive Director (**DED**). Based on the submitted proposals, DADPs will be consolidated by DAICOs and DFLOs. The entire process will be guided by the DADP Guidelines and detailed instructions by ASLMs through PO-RALG, including alignment on ASDP II priorities.

Table 3.4: ASDP II PO-RALG Level coordination organs, mechanisms, and membership (summary)

Institution	Chairperson	Members
Annual Regional and Local Government Consultative Meeting	Minister PO-RALG	Permanent Secretaries ASLMS, Directors (DPPs) of Agricultural Lead Ministries, DPP-MoFP, DPCGB -PMO, SG – NBS, Development Partners Supporting RS & LGAs, Private Sector, NGOs/CBOs; FBOs, DED, Ward, District, Regional Experts etc.
Agricultural Sector Consultative Meeting	Permanent Secretary-PO-RALG	Directors (DPPs) of Agricultural Lead Ministries, DPP-MoFP, Economic Director – NBS
Technical Committee of Component Leaders (TCCL-PO-RALG)	Director of Sector Coordination- PO-RALG	Component Leaders of PO-RALG Plus other Directors at PO-RALG, DPP-MoFP, Director – NBS
Regional Consultative Committee (RCC)	Region Commissioner	Administrative and Assistant Administrative Secretaries, Head of Units
District Consultative Committee	District Commissioner	District Executive, Head of Departments
Full Council	Council Chairperson	Members of Council, Management Team (CMT), DED
Ward Development Council	Councillor	Members of WDC
Village Council Meeting	Village Chairperson	Members of Council Meeting
Village Assembly	Village Chairperson	All villagers above 18 years with sound mind

District Component Platform (DCP) between sector stakeholders at LGA level/districts cluster will be in place (s/c 3.2). DCP brings major actors in priority local CVCs together to develop and drive the implementation of DADP activities that includes various aspects such as productivity improvement, value addition and market access.

The stakeholders at local level include private sectors (traders, processors, transporters, financial institutions, etc.), NGOs, development partners as well as various public institutions that can provide various types of technical supports. It is therefore crucially important for an LGA to formulate a **Comprehensive DADP** that includes on-budget and off-budget development activities within the LGA, with joint implementation management and follow-up.

4. INSTITUTIONAL ARRANGEMENTS

The responsibilities of key institutions and committees associated with ASDP II M&E are summarized in Table 4.1. These committees will include Government, Private Sector, Non-State Actors and Development Partner representatives at all levels.

Table 4.1: Responsibilities of Key Institutions and Committees in ASDP M&E

Institution / Committee	Major Responsibilities in M&E	Responsible
ASDP II Steering Committee	<ul style="list-style-type: none"> ● Take decisions on quarterly resource transfers based on work plans, budgets, quarterly physical and financial reports, and technical reports. ● Monitor the performance and progress of all aspects of ASDP II implementation through ASDP Physical and Financial Progress Reports, ASDP II Performance Reports, Agricultural Sector Review / Public Expenditure Review Reports, Joint Implementation Reports, etc. ● Review audit reports and decide actions for ASDP II funding. ● Oversee the Private Sectors' interventions based on work plans, budgets, quarterly physical and financial reports, and technical reports. 	<ul style="list-style-type: none"> ● Permanent Secretary, PMO
Committee of ASLM Directors	<ul style="list-style-type: none"> ● Review sector implementation reports and annual reviews on programme implementation. ● Responsible for assembling and supervising Thematic Working Groups (TWGs) to implement inter-sectoral activities. ● Supervise and manage technical and financial implementation of the ASDP II both on and off budget. 	<ul style="list-style-type: none"> ● Director of Policy and Coordination of Government Business, PMO
ASLMs	<ul style="list-style-type: none"> ● Prepare reports on national component. ● Review reports on local component and provide feedbacks. ● Collect data needed to monitor ASDP II implementation, analyse and comment on the monitoring results, and submit regular monitoring reports to the BF-SC. ● DPPs lead the M&E functions such as assessing the performance of the DADPs. ● Link the M&E system of the ASLMs and examine agricultural sector performance at national level. ● Coordinate capacity-building activities that support better M&E understanding and practices for planners and agricultural staffs in the ASLMs. 	<ul style="list-style-type: none"> ● Directors of Policy and Planning

Institution / Committee	Major Responsibilities in M&E	Responsible
PO-RALG (specific tasks)	<ul style="list-style-type: none"> ● Receive and review DADP Physical and Financial Quarterly Progress Reports from RSs, collate and forward them to the ASLMs. ● Disseminate and maintain ARDS at regional and district offices ● Report to the LGDG Technical Committee and Steering Committee. 	<ul style="list-style-type: none"> ● Director of Sector Coordination ● Director of Information, Communication and Technology
National Bureau of Statistics	<ul style="list-style-type: none"> ● Conduct census / surveys such as the National Sample Census of Agriculture (NSCA), Annual Agricultural Sample Survey (AASS) and the National Panel Survey in collaboration with respective line Ministries. 	<ul style="list-style-type: none"> ● Statistician General
ASDP II M&E Thematic Working Group (TWG)	<ul style="list-style-type: none"> ● Operationalize M&E framework and revise it as need arises. ● Develop and review M&E Guidelines. ● Improve and disseminate Agricultural Routine Data System (ARDS). ● Assist NBS in conducting agricultural surveys. ● Collect the latest data for the ASDP II M&E shortlisted indicators and compile them into ASDP II performance reports. 	<ul style="list-style-type: none"> ● Chairperson of the TWG
Regional Secretariats	<ul style="list-style-type: none"> ● Provide technical facilitation to LGAs on report preparation. ● Monitor DADPs implementation and prepare supervision reports. ● Provide feedback to LGAs on their reports. ● Consolidate DADP Physical and Financial Quarterly Progress Reports and submit it to PO-RALG. ● Organize annual DADP review meetings. ● Approve the data submitted by LGAs through ARDS. 	<ul style="list-style-type: none"> ● Regional Administrative Secretary
Local Government Authorities (LGAs)	<ul style="list-style-type: none"> ● Collect filled-in VAEO/WAEO format and consolidate them to prepare district level report. ● Submit district level information to regions / ASLMs using ARDS. ● Monitor DADP activities implemented in the district. ● Collect DADP project input, output and outcome information and enter them in DADP Physical and Financial Quarterly Progress Reports. ● Organize Joint implementation review 	<ul style="list-style-type: none"> ● Executive Director (District Council, Town Council, Municipal Council and City Council)
Wards	<ul style="list-style-type: none"> ● Monitor village activities. ● Complete the VAEO/WAEO format in collaboration with VAEO and submit it to LGAs 	<ul style="list-style-type: none"> ● Ward Executive Officer
Villages / Streets	<ul style="list-style-type: none"> ● Monitor village activities. ● Complete VAEO/WAEO format in collaboration with VEOs and submit it to WAEO. 	<ul style="list-style-type: none"> ● Village Executive Officer
Development Partners	<ul style="list-style-type: none"> ● Monitor agricultural sector policies and programme implementation. ● Participate in ASDP II reviews and TWGs. ● Submit reports as inputs in DADP Physical and Financial Quarterly Progress Reports. 	<ul style="list-style-type: none"> ● Chairman of Agricultural Working Group
Civil Societies	<ul style="list-style-type: none"> ● Monitor the implementation and progress of ASDP. ● Provide information for ASDP II M&E. ● Submit reports as inputs in DADP Physical and Financial Quarterly Progress Reports. 	<ul style="list-style-type: none"> ● Chairman of TANGO

5. MONITORING & EVALUATION IMPLEMENTATION PLAN

ASDP II M&E implementation plan should ensure that there is timelines collection of data, which is of good quality, relevant and readily available for the monitoring the development of the agricultural sector. All these data should be those well explained and detailed in the Result Framework. Therefore, in the initial implementation of this M&E framework, baseline information was collected, followed by intermediate outcome survey and later a final evaluation.

5.1 Baseline Survey

Due to uncertainty concerning the frequency, scope and funding of agricultural surveys, such as the NSCA, a specific baseline survey should be conducted and aligned to 2017/2018 season to provide missing baseline data regarding the variables identified in the results framework. This survey should focus on ASDP II selected priority areas.

It is suggested that a sample size of approximately 5,000 household should be considered and selected in approximately 30 districts. The sample size selected should ensure that data would be disaggregated by district. The sampling frame and the questionnaire will be established in collaboration with NBS. However, the sampling frame should be the one that can be compared in other agricultural statistics survey and population and housing census.

5.2 Intermediate Outcome Surveys

Intermediate outcome surveys will be done to allow tracking of key performance indicators identified in the results framework. These indicators should be evaluated yearly between the baseline and final surveys. This is important in order to provide useful feedback regarding the implementation of the ASDP II. In addition, the intermediate outcome data can also be derived from AASS and other appropriate surveys.

5.3 Endline Survey and Final Evaluation

The endline survey will be done to demonstrate a change from baseline information and the extent to which programme targets have been achieved as stipulated in the result framework. Implementation of baseline and endline survey should be done by a reputable organization.

6. INFORMATION MANAGEMENT PLAN

6.1 Operating Environment

The operating environment of ASDP II involves multiple actors implementing their interventions and projects. Therefore, M&E needs strong coordination ability and data processing capabilities from collection stage to compilation, analysis and reporting.

Therefore, additional features have been added to ASDP II as compared to ASDP I in order to strengthen M&E TWG and P&B TWG. These features include:

- i). Creation of authority above both TWG to manage them together; and
- ii). Establishment of small group (two to three technical officers) from M&E, Statistics and IT units at each ASLM who will be committed to and be exclusively responsible for day-to-day operations and data processing tasks. The former assures efficient and effective coordination among various data collection, while the latter enables ASLMs to extract proper information out of wide range of data.

6.2 Coordination and Flow of Information

The coordination at the central operational level in ASDP II has been expanded by including NBS and representative of parallel interventions/projects/programmes in order to ensure effective M&E system. Regular meetings should be done and which should be attended by IT experts and statisticians for regular collection, analysis and dissemination of the reports in the respective media including the programme website.

The flow of information should be from the projects or other interventions at the village level to the ward, then district and thereafter to the region. From the region, the information should be channelled to the national level via ASDP II National Coordination Team.

6.3 Custodian and Storage of ASDP II Information

The custodian and storage of the information collected during ASDP II M and E processes will be the Prime Minister's Office (National Coordination Unit).

7. MONITORING AND EVALUATION CAPACITY BUILDING PLAN

ASDP II M&E capacity building plan is an assessment of the human capacity gap or needs as well as the required tools, equipment and systems that are required for effective implementation of the M&E plan or function. The plan should include the following:

- i). Human resource needs for all staff who will be required to collect, process, analyse, store and dissemination M&E information at all levels of coordination;
- ii). Skills needs assessment of the staff involved in the collection, processing, analysing and dissemination of the ASDP II M&E data;
- iii). Required tools and equipment needs assessment for collecting, processing and storage of data;
- iv). Systems' needs assessment that will be required to aggregate and communicate M&E data from the village level up to the national level; and
- v). Financial planning and budget for ASDP II M&E capacity building plan

7.1 Human Resource Needs Assessment

Human resource needs assessment should be done in order to ensure that the team involved in the collection of ASDP II M&E data is sufficient for timely collection and of good quality. If it is not, then deployment of new or staff should be done either through staff transfers, or recruitment of new staff or use of interns from relevant University/Colleges.

The human resource needs assessment can be done by establishing a small task force which can then undertake staff audit at all coordination level of ASDP M&E systems. This can also be assessed from the institutional level of ASDP II framework, and at the organizational level for all units or organizations that are involved in ASDP II interventions, projects or programmes.

7.2 Skills Needs Assessment

After undertaking or while undertaking human resource needs assessment, what follows is skills needs assessment for those who will be involved in collecting, processing, storing and disseminating ASDP II M&E data. These skills include technical knowledge of the ASDP II thematic area, knowledge of statistics, knowledge of computer and in report writing. This is therefore an audit and the individual levels.

After skills audit, what is required is to design training based of the skills deficit, which have been found to be lacking for those staff involved in collecting data for ASDP II M&E system. The trainers can be recruited from academic institutions or private companies who are experienced in dealing with either agricultural statistics or in agricultural economics.

7.3 Tools and Equipment Needs Assessment

The third item in ASDP II capacity building plan is to assess availability of tools which will be required to collect data. These are either data collection forms or sheets, which can be developed at the village, ward or district level, or questionnaire and checklist for collecting information or data during baseline and endline surveys.

In addition, the capacity-building plan should involve undertaking of the inventory of all the equipment required to collect, process, store and disseminate ASDP II M&E data. This should include data collecting equipment such as Open Data Kit (ODK), Tablets, Desk Top Computers and Servers.

In addition, training on the use of these tools and equipment should be done for all ASDP II M&E personnel involved.

7.4 Systems' Needs Assessment

Based on the development of Information and Communication Technology (ICT) the ASDP II M&E capacity-building plan should assess the connectivity of all the institutions involved in collecting ASDP II implementation data and all indicators as detailed in the results framework. In addition, coordination and information flow between levels should also be assessed. If there is a challenge, then it should be rectified. This is important for data collection and aggregation from the village level up to the National level.

7.5 Operationalization of the M&E Plan

The operationalization of M & E plan started with the development of its results framework based on the ASDP II implementation plan and the expected theory of change after implementation. The operationalization is also based on the identification of indicators, sources and types of data and information required.

After development of the framework, what follows is the development of data collection tools and identification of approval processes at different levels of data collection.

After development of tools and identification of approval processes, what follows is the identification of stakeholders involved in the results framework and undertaking of sensitization processes. The sensitization processes should also include training on the information flow processes from the lower levels in the villages up to the national level, for all people who will be involved in the M&E process.

Finally, the operationalization should be done by development of M&E implementation manual, which will guide the whole M&E processes and be used at different levels of data collection.

7.6 Financing ASDP II M&E Capacity Building Plan

In the implementation of ASDP II, the issues of programme costs, financing and financial management are clearly indicated. Therefore, the ASDP II public implementing partners and other stakeholders should ensure that budget for ASDP II M&E capacity-building plan is in place. This should include allocation of resources for all those items that have been mentioned earlier in sub sections 7.1 to 7.5.

GLOSSARY⁴

Activities: Actions in the context of programming which are both necessary and sufficient, and through which inputs are mobilized to produce specific outputs or contribute to the outcome.

Baseline data: Data that describe the situation to be addressed by a programme/project and that serve as the starting point for measuring the performance of that programme/project. A baseline study would analyse and describe the situation prior to receiving assistance. This is used to determine the results and accomplishments of an activity and serve as an important reference for evaluation.

Evaluation: A time-bound exercise that attempts to assess systematically and objectively the relevance, performance and success of ongoing and completed programmes and projects. Evaluation can also address outcomes or other development issues. Evaluation is undertaken selectively to answer specific questions to guide decision-makers and/or programme managers, and to provide information on whether underlying theories and assumptions used in programme development were valid, what worked and what did not work and why. Evaluation commonly aims to determine relevance, efficiency, cross-cutting lessons from operation unit experiences and determining the need for modifications to the strategic results framework. Evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process.

Feedback: As a process, feedback consists of the organization and packaging in an appropriate form of relevant information from M&E activities, the dissemination of that information to target users and, most importantly, the use of the information as a basis for decision-making and the promotion of learning in an organization. Feedback as a product refers to information that is generated through M&E and transmitted to parties for whom it is relevant and useful. It may include findings, conclusions, recommendations and lessons from experiences. Feedback also means comments and responses provided to improve a report/document or a plan submitted from the lower level.

Financial inclusion: This includes ownership/use of at least one of any financial service, including bank and non-bank financial institutions (bank and savings accounts), mobile money, etc.

Impact: The broad changes (for example in economic and social terms) brought about by the project or program. The overall and long-term effect of intervention. Impact is the longer-term or ultimate result attributable to a development intervention – in contrast to output and outcome, which reflect more immediate results from the intervention. Examples: higher standard of living, increased food security, increased earnings from exports.

Inputs: The resources such as time, funds, labour, and materials that is necessary to carry out programme or project activities.

Indicator: In monitoring indicators need to be developed to measure performance and these should be quantifiable and easy to monitor. They are signals that reveal progress (or lack thereof) towards objectives; indicators are yardsticks to hint what is happening against what has been planned in terms of quantity, quality and timeliness. An indicator is a quantitative or qualitative variable that provides a simple and reliable basis for assessing achievements, changes or performance. The

⁴ The glossary is developed based on the definitions drawn from UNDP (2002).

number of indicators tracked for a given result should be the minimum necessary to ensure that progress toward the result is sufficiently captured.

Monitoring: A continuing function that aims primarily to provide managers and main stakeholders with regular feedback and early indications of progress or lack thereof in the achievement of intended results. Monitoring tracks the actual performance or situation against what was planned or expected according to pre-determined standards. Monitoring generally involves collecting and analysing data on implementation processes, strategies and results, and recommending corrective measures.

Outcome / Effect: Actual or intended change in development conditions that interventions are seeking to support. It describes a change in development conditions between the comparison of outputs and the achievement of impact. Examples: increased rice yield, increased income for the farmers.

Outputs: Specific tangible products and services that emerge from processing inputs through programme or project activities. These are necessary to achieve the objectives of a programme or project. It is also the measurable results of activities. Example: agricultural extension services provided to rice farmers.

Process: Process means activities carried out by using inputs. It shows activities that have to be undertaken by the project in order to produce the outputs. Activities should be adequate to reflect and outline the indented strategy to accomplish each output.

Stakeholders: People, groups or entities that have a role and interest in the objectives and implementation of a programme/project. They include the community whose situation the programme seeks to change; project field staff who implement activities; project and programme managers who oversee implementation; donors and other decision-makers who decide the course of action related to the programme; and supporters, critics and other persons who influence the programme environment. In participatory evaluation, stakeholders assume an increased role in the evaluation process as question-makers, evaluation planners, data gatherers and problem solvers.

Supervision: Supervision is the process of guiding and helping people to improve their own performance.

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ANNEXES

Annex 1: ASDP II Results Chain

Program Name: AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
IMPACTS Contribute to the agricultural sector higher productivity, improve smallholder income, livelihood, food and nutrition security	1.1 Agricultural growth rate	%	1.1.1 Agricultural: 5.3	1.1.1 Agricultural: 7.0	National Bureau of Statistics annual report
		%	1.1.1.1 Crop: 5.0	1.1.1.1 Crop: 9.0	
		%	1.1.1.2 Livestock: 4.9	1.1.1.2 Livestock: 6.0	
		%	1.1.1.3 Fisheries: 9.2	1.1.1.3 Fisheries: 10.0	
	1.2 Headcount ratio in rural areas – basic need poverty line	%	1.2.1: 31.3% rural; 15.8% urban	1.2.1: Reduce by 50%	Survey reports (Source: HBS 2017-18) Project impact survey & Statistics
	1.3 Gross value (in USD) of agricultural Exports	USD	1.3.1: Maize 40,729,000	1.3.1: Maize: 61,093,500	
		USD	1.3.2: Rice 11,490,000	1.3.2: Rice: 17,235,000	
		USD	1.3.3: Sunflower oil 7,163,000	1.3.3: Sunflower oil: 10,744,500	
		USD	1.3.4: Cotton: 70,188,953	1.3.4: Cotton: 105,283,430	
		USD	1.3.5: Round Potato: 169,295	1.3.5: Round Potato: 253,943	
		USD	1.3.6: Beef 731,584.56	1.3.6: Beef: 1,024,218.38	
		USD	1.3.7: Marine Fish: 287,796.48	1.3.7: Marine Fish: 431,654.22	
		USD	1.3.8: Fresh water Fish: 239,392,218.08	1.3.8: Fresh water Fish: 359,088,327.12	
		USD	1.3.9: Seaweed: 195,200	1.3.9: Seaweed: 204,960	
		USD	1.3.10: Milk 0	1.3.10: Milk production increase by 8%	
		USD	1.3.11: Coffee: 123,185,587	1.3.11: Coffee: 184,778,381	
		USD	1.3.12: Sugar 0	1.3.12: Sugar: 8,481,330	
		USD	1.3.13: Tea: 62,200,000	1.3.13: Tea: 93,300,000	
		USD	1.3.14: Cashew: 3,981.4	1.3.14: Cashew: 5,972.1	
		USD	1.3.15 Goat/sheep meat: 644,610.78	1.3.15: Goat/sheep meat: 837,994,014	

Program Name: AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
		USD	1.3.16 Hides & Skins 2,796,087	1.3.16 Hides & Skins: 3,355,304.4	Project impact survey & Statistics
		USD	1.3.17 Horticulture: 779,000,000	1.3.17 Horticulture: 1,947,500,000	
	1.4 Gross value (in USD) of agricultural imports	USD	1.4.1: Maize: 2,873,000	1.4.1: Maize decrease to: 1,436,500	
		USD	1.4.2: Rice 1,619,000	1.4.2: Rice decrease to: 809,500	
		USD	1.4.3: Sunflower oil 7,235,000	1.4.3: Sunflower oil decrease to: 3,617,500	
		USD	1.4.4: Beef: 1,790,409.26	1.4.4: Beef decrease to: 1,253,286.48	
		USD	1.4.5: Marine Fish: 25,065,355.98	1.4.5: Marine Fish decrease to: 12,532,678	
		USD	1.4.6: Milk: 8,755,934.9	1.4.6: Milk decrease to: 5,253,561	
		USD	1.4.7: Coffee 149,465.51	1.4.7: Coffee to: 74,732.755	
		USD	1.4.8: Sugar: 1,529,165.80	1.4.8: Sugar: 722,760.90	
		USD	1.4.9: Tea 350,000	1.4.9: Tea to: 175,000	
		USD	1.4.10: Hides & Skins products TBD	1.4.10: Hides & Skins products TBD	
		%	1.1.1: Household with CCROs by gender: Male: 84,359; Female: 55,784; M&F (93,073); TOTAL=(233,216)	1.1.1: Household with CCROs by gender: Male 417,645; Female 281,127; M&F 460,787	
		%	1.2.1: Irrigated land 1.6%	1.2.1: Irrigated land 2.6%	
		Number	1.3.1 Number of cages 315	1.3.1 Number of cages Increase to:347	
OUTCOMES	1.0 Improved and Sustained Integrated Management of Land and Water Resources Use (for example, for Irrigation, Water for Livestock, Cropped Land, Pastures, Ponds/Cages and Soil Fertility).				

Program Name:		AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)						
Program Goal:		Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.						
OUTCOMES	RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION		
	2.0 Increased agricultural productivity and profitability through commercial and market-oriented agriculture	1.4: Number of agricultural land conflict	Number	1.4.1: Conflicts:- 975	1.4.1: Conflicts: 675	Annual performance report,		
		1.5: Percentage increase of operational water sources infrastructures for livestock	%	1.5.1: 7.3	1.5.1: 49.86	Annual performance report,		
		1.6: Percentage increase of operational water sources infrastructures for aquaculture	%	1.6.1: # available fish ponds 24,302	1.6.1: # available fish ponds: 26,732	Fisheries Statistical Annual report, ARDS report, Budget speech		
		1.7: Percentage increase of CSA technologies practiced	%	1.7.1: CSA: 30	1.7.1: CSA: 80	Annual performance report,		
		1.8: Percentage decrease of Households under risk of floods and drought	%	1.8.1: % decrease of Households TBD	1.8.1 % decrease of Households TBD	Annual performance report,		
		2.1 Productivity/Yield of the priority commodities	2.1 Productivity/Yield of the priority commodities	Ton/Ha	2.1.1: Maize 1.8	2.1.1: Maize: 2.7	Annual performance report,	
				Ton/Ha	2.1.2: Paddy 2.7	2.1.2: Paddy: 4.05	Annual performance report,	
				Ton/Ha	2.1.3: Sunflower 1.5	2.1.3: Sunflower: 2.25	Annual performance report,	
			Ton/Ha	2.1.4: Cotton 0.86	2.1.4: Cotton: 1.51	Annual Performance report,		
	2.2 Livelihoods and food security		Ton/Ha	2.1.5: Round Potato 10.81	2.1.5: Round Potato: 18.92	Annual Performance report,		
			Kg/Animal	2.1.6: Beef: 145	2.1.6: Beef: 167	Annual performance report,		
			L/A/D	2.1.7: Milk 2.00	2.1.7: Milk 3.00	Annual Performance report,		
		Ton/Ha	2.1.8: Coffee 0.33	2.1.8: Coffee: 0.825	Annual performance report,			

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OUTCOMES	RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
			Ton/Ha	2.1.9: Sugarcane 35	2.1.9: Sugarcane: 50.05	Annual performance report,
			Ton/Ha	2.1.10: Tea 1.4	2.1.10: Tea: 2.1	Annual performance report,
			Kgs/tree	2.1.11: Cashew 10	2.1.11: Cashew: 25	Annual performance report,
			Kg/A	2.1.12: Goat: 25	2.1.12: Goat: 30	Annual Performance report,
			Kg/Bird	2.1.13: Chicken: 1.5	2.1.13: Chicken: 2.0	Annual Performance report,
			Ton/Ha	2.1.14: Cassava 8.5	2.1.14: Cassava: 11.9	Annual performance report,
			Ton/Ha	2.1.15: Common beans 1.5	2.1.15: Common beans: 2.25	Annual Performance report,
			Ton/Ha	2.1.16: Sorghum 1.63	2.1.16: Sorghum: 2.45	Annual performance report,
		2.2. Production of priority commodities	Tone	2.2.1: Maize: 6,273,151	2.2.1: Maize: 8,155,096.3	Annual performance report,
			Tone	2.2.2: Paddy: 3,414,815	2.2.2: Paddy: 5,122,222.5	Annual performance report,
			Tone	2.2.3: Sunflower: 543,261	2.2.3: Sunflower: 814,892	Annual performance report,
			Tone	2.2.4: Cotton: 222,823	2.2.4: Cotton: 557,058	Annual Performance report,
			Tone	2.2.5: Round Potato: 1,080,144	2.2.5: Round Potato: 1,944,259.2	Annual performance report,
			Tone	2.2.6: Beef: 471,692	2.2.6: Beef: 613,199.6	Annual performance report,
			L	2.2.7: Dairy: 2,400,134,000	2.2.7: Milk: 3,360,187,600	Annual performance report,
			Tone	2.2.8: Coffee: 44,260	2.2.8: Coffee: 88,520	Annual performance report,

AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Name:		Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.			
Program Goal:					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTCOMES		Tone	2.2.9: Sugarcane: 3,117,812	2.2.9: Sugarcane: 4,364,937	Annual performance report,
		Tone	2.2.10: Tea: 34,010	2.2.10: Tea: 51,015	Annual performance report,
		Tone	2.2.11: Cashewnuts: 313,826	2.2.11: Cashewnuts: 800,000	Annual performance report,
		Tone	2.2.12: Goat/sheep Meat: 92,999	2.1.12: Goat/sheep meat: 120,899	Annual performance report,
		Tone	2.2.13: Chicken: 78,110	2.2.13: Chicken: 109,354	Annual performance report,
		Tone	2.2.14 Cassava 8,372,217	2.2.14: Cassava: 12,558,326	Annual performance report,
		Tone	2.2.15: Common beans 1,096,930	2.2.15: Common beans: 1,426,009	Annual performance report,
		Tone	2.2.16: Sorghum 672,235	2.2.16: Sorghum: 941,129	Annual performance report,
		Tone	2.2.17: Palm oil 40,500	2.2.17: Palm oil: 81,000	Annual performance report,
		Tone	2.2.18: Sesame 133,704	2.2.18: Sesame: 200,556	Annual performance report,
		Tone	2.2.19: Banana 3,395,499	2.2.19: Banana: 4,414,149	Annual performance report,
		Tone	2.2.20: Tomato 720,242	2.2.20: Tomato: 1,440,484	Annual performance report,
		Tone	2.2.21: Onions 322,593	2.2.21: Onions: 612,927	Annual performance report,
		Tone	2.2.22: Coconut 169,048	2.2.22: Coconut: 236,667.2	Annual performance report,
		Tone	2.2.23: Avocado 34,866	2.2.23: Avocado: 104,598	Annual performance report,
		Tone	2.2.24: Marine fish 53,231.94	2.2.24: Marine fish: 88,924	Annual performance report,

Program Name: AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTCOMES		Tone	2.2.25: Fresh water fish: 323,120.77	2.2.25: Fresh water fish: 498,155.3	Annual performance report,
		Tone	2.2.26: Seaweed: 1,329.5	2.2.26: Seaweed: 1,994.25	Annual performance report,
		Tone	2.2.27: Skin 1,994.5	2.2.27: Skin: 2,592.85	Annual performance report,
		Tone	2.2.28: Hides: 13,394.7	2.2.28: Hides: 15,805.7	Annual performance report,
	2.3 Proportion of adoption of agricultural technologies and practices	%	2.3.2: House Holds using Good Agricultural Practices (GAP) - (2014/15)	2.3.2: % of HH using GAP:	Annual performance report,
		%	Power tiller: 0.5	Power tiller: 0.7	NPS 2014/15 NBS/MoA
		%	Ox plough: 33.3	Ox plough: 35.1	NPS 2014/15 NBS/MoA
		%	Watering can: 0.8	Watering can: 0.9	NPS 2014/15 NBS/MoA
		%	Organic fertilizers: 21.2	Organic fertilizers: 24.3	NPS 2014/15 NBS/MoA
		%	Pesticides/insecticides: 5.0	pesticides/insecticides: 0.7	NPS 2014/15 NBS/MoA
		%	Improved seeds: 44	Improved seeds: 50	NPS 2014/15 NBS/MoA
		%	Ox seed planter: 32.2	Ox seed planter: 33.8	NPS 2014/15 NBS/MoA
		%	Non organic fertilizers: 15.9	Non organic fertilizers: 22.2	NPS 2014/15 NBS/MoA
		%	Tractor harrow: 4.7	Tractor harrow: 6.9	NPS 2014/15 NBS/MoA
		%	Hand sprayer: 13.6	Hand sprayer: 14.8	NPS 2014/15 NBS/MoA
	2.4. Proportion of agricultural research	%	2.4.1: Value of GDP 0.17	2.4.1: Value of GDP 0.3	Annual performance report,

Program Name:		AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)						
Program Goal:		Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.						
OUTCOMES	RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION		
		funding as share of agriculture GDP						
		2.5 Food self-sufficiency ratio	%	2.5.1: 120	2.5.1: 150	Annual performance report,		
		2.6 Malnutrition incidences (chronic and transitory) in Tanzania	%	2.6.1: Stunting 34	2.6.1: Below 10	Annual performance report,		
			%	2.6.2: Underweight 14	2.6.2: Below 5	Annual performance report,		
			%	2.6.3: Wasting 5	2.6.3: Below 1	Annual performance report,		
	3.0. Improved and expanded marketing and value addition by thriving competitive private sector and effective farmer organizations	3.1 Gap between farm gate price and market price	%	3.1.1: Maize: 28.35	3.1.1: Maize: 21.26	Surveys report (MIT)		
			%	3.1.2: Rice: 29.65	3.1.2: Rice: 22.24			
			%	3.1.3: Beans (Pulses): 27.83	3.1.3: Beans (Pulses): 20.87			
			%	3.1.4: Sorghum: 69.41	3.1.4: Sorghum: 51.63			
			%	3.1.5: Potatoes: 42.6	3.1.5: Potatoes: 31.95			
			%	3.1.6: Coffee: 56.56	3.1.6: Coffee: 42.42			
			%	3.1.7: Cashewnuts: 13.69	3.1.7: Cashewnuts: 10.27			
		3.2: Ratio of value of processed agricultural export to total agricultural export by sub-sector	%	3.2.1: Percentage by Crop TBD	3.2.1: TBD	Annual Economic Survey book		
			%	3.2.2: Livestock: 77.95	3.2.2: Livestock: increase to 85	Annual Economic Survey book		
			%	3.2.3: Fisheries: 31	3.2.3: Fisheries: 53.33	Annual Economic Survey book		
		3.3: Reduction rate of Post-Harvest Losses for the priority commodities	%	3.3.1: Maize: 23.2	3.3.1: Maize: decrease to 20	Specific Study report		
%			3.3.2: Sorghum: 10.9	3.3.2: Sorghum: decrease to 7	Specific Study report			
%			3.3.3: Tomato: 40	3.3.3: Tomato: decrease to 35	Specific Study report			
%			3.3.4: Sunflower: 15.8	3.3.4: Sunflower: decrease to 12	Specific Study report			
%			3.3.5: Cassava: 21.8	3.3.5: Cassava: decrease to 18	Specific Study report			

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Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTCOMES		%	3.3.6: Paddy 11.5	3.3.6: Paddy: decrease to 8	Specific Study report
		%	3.3.7: Common beans: 20	3.3.7: Common beans: decrease to 15	Specific Study report
		%	3.3.8: Milk: 60	3.3.8: Milk: decrease to 40	Specific Study report
		%	3.3.9: Marine fish: 40	3.3.9: Marine fish: To decrease to 20	Specific Study report
		%	3.3.10: Fresh water fish: 40	3.3.10: Fresh water fish: To decrease to 20	Specific Study report
		%	4.1.1: Fisheries: 91, (Crop: TBD; Livestock: TBD)	4.1.1: Fisheries: 94, (Crop: TBD; Livestock: TBD)	Survey reports
	4.0. Strengthened Sector Enablers, Coordination and M&E	%	4.2.1: 5.6	4.2.1: 9	Survey reports
		%	4.3.1: 20	4.3.1: At least 20% (2023)	Survey reports (Source: HBS 2017-18)
		%	4.4.1: 65.8	4.4.1: Create job opportunities for at least 30% of the youth in agricultural value chains by 2023	Survey reports (NPS 2014/15 NBS)
		%	4.5.1: (Male=4.0, Female=4.1)	4.5.1: TBD	Survey reports (Source: HBS 2017-18)
		%	4.6.1: 3.3	4.6.1: At least 10%	Budget analysis reports
		%			

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Program Goal:		Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.				
RESULTS CHAIN		INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTPUT	COMPONENT ONE: Sustainable Land and Water use Management for Crop, Livestock and Fisheries					
	1.1 Land use planning and water shade management	1.1.1 Number of villages with village land certificates (CVLs)	Number	1.1.1.1: 9,789 villages with CVLs	1.1.1.1: 12,545 villages with CVLs	Annual performance report
		1.1.2 Number of villages with Land use plan	Number	1.1.2.1: 1,907 villages with LUP	1.1.2.1: 3802	Annual performance report
		1.1.3 Number of CCRO provided	Number	1.1.3.1: 659,559 CCROs	1.1.3.1: 1,159,559 CCROs	Annual performance reports
	1.2 Irrigation infrastructure development	1.2.1 Number of irrigation schemes constructed	Number	1.2.1.1: 2,678 Irrigation schemes	1.2.1.1: 2,886 Irrigation Schemes	Annual performance report
		1.2.2 Number of operational schemes (100% developed).	Number	1.2.2.1: 31 Schemes by 2018	1.2.2.1: 239 schemes to be operational by 2013	Annual performance report
		1.2.3 Hectares under irrigation	Ha	1.2.3.1: 475,052 ha under irrigation	1.2.3.1: 763,120 ha under irrigation	Annual performance report
	1.3 Irrigation scheme management and operation	1.3.1 Number of Irrigators Organization (IO) strengthened	Number	1.3.1.1: 163 IOs registered and strengthened by 2018	1.3.1.1: 1,861 IOs registered and strengthened by 2023	Annual performance report
	1.4 Water infrastructure development for livestock and fisheries	1.4.1 Number of livestock water infrastructures constructed	Number	1.4.1.1: charco dams: 1384	1.4.1.1: Charco dams: 2076	Annual performance report
			Number	1.4.1.2 Boreholes: 103	1.4.1.2 Boreholes: 600	Annual performance report
		1.4.2 Number of livestock water infrastructures rehabilitated	Number	1.4.2.1: TBD	1.4.2.1: TBD	Annual performance report
	1.5 Promote Climate Smart Agriculture technologies (CSA) and practices	1.4.3 Number of water* infrastructures for aquaculture constructed	Number	1.4.3.1: 21	1.4.3.1: 30	Annual performance report
		1.5.1 Number of CSA technologies developed	Number	1.5.1.1: 21	1.5.1.1: 26	Annual performance report
		1.5.2 Number of households practicing CSA technologies	Number	1.5.2.1: 4,871,967	1.5.2.1: 6,820,754	Annual performance report

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Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTPUT	COMPONENT TWO: Productivity and Profitability through Market Oriented Agriculture				
	2.1 Strengthened extension services	2.1.1. Number of extension staff	Number	2.1.1.1: Crop: 7,307	2.1.1.1: Crop: 14,287
			Number	2.1.1.2: Livestock: 3795	2.1.1.2: Livestock: 4,554
			Number	2.1.1.3: Fisheries: 750	2.1.1.3: Fisheries: 1500
	2.1.2 Number of agricultural households having access to extension services	2.1.2.1: Crop: 4,690,529	Number	2.1.2.1: Crop: 4,761,439	ARDS Annual reports
		2.1.2.2: Livestock: 9245	Number	2.1.2.2: Livestock: 12,018.5	
		2.1.2.3: Fisheries: 228,527	Number	2.1.2.3: Fisheries: 280,300	
	2.1.3 Number of agricultural households trained	2.1.3.1: Crop: 961,367	Number	2.1.3.1: Crop: 3,364,785	ARDS Annual reports
		2.1.3.2: Livestock: 13,223	Number	2.1.3.2: Livestock: 22,082.41	
		2.1.3.3: Fisheries: 12,613	Number	2.1.3.3: Fisheries: 25,226	
	2.1.4 Number of extension staff trained	2.1.4.1: Crop: 1,026	Number	2.1.4.1: Crop: 4,617	ARDS Annual reports
		2.1.4.2: Livestock: 3,344	Number	2.1.4.2: Livestock: 6,019.2	
		2.1.4.3: Fisheries: 100	Number	2.1.4.3: Fisheries: 200	
	2.1.5 Number of extension staff retooled	2.1.5.1: Crop: 2,133	Number	2.1.5.1: Crop: 2,429	Annual performance report
		2.1.5.2: Livestock: 2,317	Number	2.1.5.2: Livestock: 3,244	
		2.1.5.3: Fisheries: 50	Number	2.1.5.3: Fisheries: 70	
	2.1.6 Number of ward agricultural resources centers (WARCs)	2.1.6.1: Crop: 268	Number	2.1.6.1: Crop: 475	ARDS Annual reports
		2.1.6.2: Livestock: 2,107	Number	2.1.6.2: Livestock: 2,275.56	
		2.1.6.3: Fisheries: 8	Number	2.1.6.3: Fisheries: 6	
2.2 Improved access to inputs and health services	2.2.1 Amount of improved seeds used	2.2.1.1: Crop: 49,539.18	Tone	2.2.1.1: Crop: 64,400.9	ARDS Annual reports
		2.2.1.2: Livestock: 82,801	Dozes	2.2.1.2: Livestock: 107,641.3	
		2.2.1.3: Fisheries: 17,301,076	Tone	2.2.1.3: Fisheries: 25,951,614	
	2.2.2 Amount of fertilizer applied	2.2.2.1: Amount applied: 435,178	Ton	2.2.2.1: Amount applied: 565,731.4	ARDS Annual reports

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Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
2.3. Research and Development	2.2.4 Number of stockiest at village level	Number	2.2.4.1: Crop: 4,000	2.2.4.1: Crop: 6,000	Business Register Annual reports
	2.3.1 Budget allocation to agricultural research	TZS	2.3.1.1: Crop: 18,278,443,706	2.3.1.1: Crop: 67,963,625,044	Annual performance report
		TZS	2.3.1.2: Livestock: 6,191,113,990	2.3.1.2: Livestock: 7,429,336,788	
		TZS	2.3.1.3: Fisheries: 3,332,847,422	2.3.1.3: Fisheries: 4,332,847,422	
	2.3.2 Number of agricultural technologies developed	Number	2.3.2.1: Crop: 7	2.3.2.1: Crop: 20	Annual performance report
2.4 Strengthen and promote mechanization	2.4.1 Number of agricultural households using agro-machinery	Number	2.3.2.2: Livestock: 38	2.3.2.2: Livestock: 46	
		Number	2.3.2.3: Fisheries: 3	2.3.2.3: Fisheries: 7	
		Number	2.4.1.1: Crop: 2,308,754	2.4.1.1: Crop: 2,930,791	
	2.4.2 Area (hectares) utilized agro-machinery	Number	2.4.1.2: Livestock: 137,200	2.4.1.2: Livestock: 178,360	Annual performance report
		Ha	2.4.1.3: Fisheries: TBD	2.4.1.3: Fisheries: TBD	
2.5. Food and Nutrition security	2.4.3 Number of agro-mechanization hiring centers	Number	2.4.2.1: Ha: 6,697,500	2.4.2.1: Ha: 8,232,676	ARDS Annual reports
	2.5.1 Average number of meals consumed per day (Rural/Urban)	Number	2.4.3.1: 43	2.4.3.1: 54	Annual performance report
	2.5.2 Percent of Population by the Number of Daily meals (Rural)	%	2.5.1.1: (Rural: 2.5, Urban: 2.7)	2.5.1.1: (Rural: 3, Urban: 3)	National Agriculture Census reports (source: HBS 2017 - 2018)
	2.5.3 Percent of Population by the Number of Daily meals (Urban)	%	2.5.2.1: Rural 1. Meal 0.5 2. Meal 33.3 3. 66.1	2.5.2.1: Rural 1. Mmeal TBD 2. Meal TBD 3. TBD	Source: NPS 2014/15
			2.5.3.1: Urban 1. Meal 0.7 2. Meal 18.4 3. 80.9	2.5.3.1: Urban 1. Meal TBD 2. Meal TBD 3. TBD	Source: NPS 2014/15

OUTPUT

Program Name: AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)				
Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.				
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)
	2.5.4 Average number of rural household with low dietary diversity	Number	2.5.4.1: TBD	2.5.4.1: TBD
COMPONENT THREE: Commercialization and Value Addition for Agricultural Commodities				
OUTPUT	3.1.1 Number of market infrastructures in operations	3.1.1.1: Market centres for Fisheries sector: 11, (for Crop: TBD)	3.1.1.1: Market centres for Fisheries sector: 15, (for Crop: TBD:)	Annual performance report
		3.1.1.2: Livestock markets (Secondary and Border Markets): 463	3.1.1.2: Livestock markets (Secondary and Border Markets): 690	
		3.1.1.3: Warehouses: 612 (MIT); Warehouse: 90 (Fisheries)	3.1.1.3: Warehouses: 700 (MIT); Warehouses: 100 (Fisheries)	
		3.1.1.4: Milk collection centres: 150	3.1.1.4: Milk collection centres: 188	
		3.1.1.5: Cold rooms: 52 (Fisheries)	3.1.1.5: Cold rooms: 70 (Fisheries)	
		3.1.1.6: Holding grounds: 87	3.1.1.6: Holding grounds: 105	
		3.1.1.7: Quarantine stations: TBD	3.1.1.7: Quarantine stations: TBD	
		3.1.1.8: Landing sites: 1,356	3.1.1.8: Landing sites: 1300	
		3.1.1.9: Feeder roads: TBD	3.1.1.9: Feeder roads: TBD	
		3.1.2.1: 10	3.1.2.1: 16	
	3.1.2 Number of commodities traded through WRS	3.1.3.1: Cashewnuts: 219,889,221	3.1.3.1: Cashewnuts: 275,000,000	Annual performance report
	3.1.3 Volume of commodities traded through WRS	3.1.3.2: Coffee: 4,230,467	3.1.3.2: Coffee: 15,000,000	
		3.1.3.3: Maize: 203,780	3.1.3.3: Maize: 200,000,000	
		3.1.3.4: Paddy: 1,102,737	3.1.3.4: Paddy: 10,000,000	

Program Name: AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTPUT		Tone	3.1.3.5: Sesame: 64,294,591	3.1.3.5: Sesame: 150,000,000	
		Tone	3.1.3.6: Pigeon peas: 1,130,453	3.1.3.6: Pigeon peas: 40,000,000	
		Tone	3.1.3.7: Green Gram: 775,543	3.1.3.7: Green Gram: 100,000,000	
		Tone	3.1.3.8: Cocoa: 7,944,442.50	3.1.3.8: Cocoa: 20,000,000	
		Tone	3.1.3.9: Chicken Pea: 80,804	3.1.3.9: Chicken Pea: 20,000,000	
		Tone	3.1.3.10: Soya: 2,892,004	3.1.3.10: Soya: 5,000,000	
		Number	3.1.4.1: Commodities: 9	3.1.4.1: Commodities: 16	Annual performance report
	3.1.4 Number of commodities listed under the commodity exchange market				
	3.1.5 Volume of agricultural commodities traded through commodity exchange market	Tone	3.1.5.1: Volume: 4,632.1	3.1.5.1: Volume: 6,948.15	Annual performance report
	3.1.6 Volume of priority commodities traded through formal markets	Tone	3.1.6.1: TBD	3.1.6.1: TBD	Annual performance report
	3.1.7 Number of agricultural households accessing market information services	Number	3.1.7.1: TBD	3.1.7.1: TBD	Household based survey
	3.1.8 Number of sources disseminating market information	Number	3.1.8.1: 4	3.1.8.1: 6	Household based survey
3.2 Development of agro-processing for crop, livestock and fishery products	3.2.1 Number of agro-processing infrastructure in operation	Number	3.2.1.1: Crop: TBD	3.2.1.1: Crop: TBD	Annual performance report
		Number	3.2.1.2: Fisheries: 14	3.2.1.2: Fisheries: 18	
		Number	3.2.1.3: Livestock: 345	3.2.1.3: Livestock: 552	
	3.2.2 Volume of processed agricultural commodities	Tone	3.2.2.1: Fisheries: 350.3	3.2.2.1: Fisheries: 400	Annual performance report
		Tone	3.2.2.2: Crop: TBD	3.2.2.2: Crop: TBD	

Program Name:		AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)				
Program Goal:		Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.				
	RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
		3.3.1 Number of post-harvest technologies promoted	Number	3.3.1.1: Crop: 4	3.3.1.1: Crop: 8	Annual Performance report
			Number	3.3.1.2: Fisheries: 2	3.3.1.2: Fisheries: 3	
		3.3.2 Number of agricultural households using post-harvest technologies or practices	Number	3.3.2.1: Crop: TBD	3.3.2.1: Crop: TBD	Annual Performance report
			Number	3.3.2.2: Fisheries: 100	3.3.2.2: Fisheries: 300	
	3.3.3 Number of storage facilities constructed	Number	3.3.3.1: Crop: 3,400	3.3.3.1: Crop: 3430	Annual performance report	
		Number	3.3.3.2: Fisheries: 72	3.3.3.2: Fisheries: 100		
		3.3.4 Number of operational storage facilities	Number	3.3.4.1: Crop: 3,028	3.3.4.1: Crop: 3,058	Annual performance report
COMPONENT FOUR: Sector Enablers, Coordination and M&E						
OUTPUT	4.1 Policy and regulatory business environment improved	4.1.1 Number of policies reviewed	Number	4.1.1.1: Crop: 3	4.1.1.1: Crop: 5	Annual performance report
			Number	4.1.1.2: Livestock: 1	4.1.1.2: Livestock: 1	
			Number	4.1.1.3: Fisheries: 1	4.1.1.3: Fisheries: 1	
			Number	4.1.1.4: Industry and Trade: 0	4.1.1.4: Industry and Trade: 4	
		4.1.2 Number of policies formulated	Number	4.1.2.1: Crop: 3	4.1.2.1: Crop: 4	Annual performance report
			Number	4.1.1.2: Livestock: 1	4.1.1.2: Livestock: 1	
			Number	4.1.1.3: Fisheries: 1	4.1.1.3: Fisheries: 1	
			Number	4.1.1.4: Industry and Trade: 0	4.1.1.4: Industry and Trade: 1	
		4.1.3 Number of business regulations reviewed	Number	4.1.3.1: Crop: 1	4.1.3.1: Crop: 6	Annual performance report
			Number	4.1.3.2: Livestock: 105	4.1.3.2: Livestock: 116	
			Number	4.1.3.3: Industry and Trade: 4	4.1.3.3: Industry and Trade: 11	
			Number	4.1.3.4: Fisheries : 1	4.1.3.4: Fisheries : 2	

Program Name: AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTPUT	4.1.4 Number of business regulations formulated	Number	4.1.4.1: Crop: 3	4.1.4.1: Crop 9	Annual performance report
		Number	4.1.4.2: Livestock: 54	4.1.4.2: Livestock: 54	
		Number	4.1.4.3: Industry and Trade: 0	4.1.4.3: Industry and Trade: 1	
		Number	4.1.4.4: Fisheries: 1	4.1.4.4: Fisheries: 1	
	4.1.5 Number of new private sectors investing in Agricultural sector	Number	4.1.5.1: Crop: 109	4.1.5.1: Crop: 259	Annual performance report
		Number	4.1.5.2: Livestock: 372	4.1.5.2: Livestock: 655	
		Number	4.1.5.3: Fisheries: 81	4.1.5.3: Fisheries: 105	
	4.1.6 Value of private sector investment in Agricultural sector	TZS	4.1.6.1: Crop: 3.5 Trillion	4.1.6.1: Crop: 8 Trillion	Annual performance report
		TZS	4.1.6.2: Livestock: 3.7 Billion	4.1.6.2: Livestock: 6.623 Billion	
	4.2.1 Number of small-scale agricultural groups in operations	Number	4.2.1.1: 22,199	4.2.1.1: 68,497	Annual performance report
	4.2.2 Number of small-scale agricultural groups capacitated	Number	4.2.2.1: 1,081	4.2.2.1: 3,291	Annual performance report
	4.2.3 Number of operational SACCOs	Number	4.2.3.1: Crop: 3,332	4.2.3.1: Crop: 5,037	Annual performance report
		Number	4.2.3.2: Livestock: 161	4.2.3.2: Livestock: 180	
		Number	4.2.3.3: Fisheries: 102	4.2.3.3: Fisheries: 109	
4.3 Sector coordination improved	4.2.4 Value of loans issued through SACCOs	TZS	4.2.4.1: 1,299,661,801,996 (crop sub-sector)	4.2.4.1: 1,850,553,381,765 (crop sub-sector)	Annual performance report
	4.3.1 Number of private sectors participating in Agricultural programs	Number	4.3.1.1: Livestock: 1037 (for Crop and Fisheries: TBD)	4.3.1.1: Livestock: 1940 (for Crop and Fisheries: TBD)	Annual performance report
	4.3.2 Number of platforms in operations	Number	4.3.2.1: Platforms: 3 (crop sub-sector)	4.3.2.1: Platforms: 8 (crop sub-sector)	Annual performance report
	4.4.1 Number of agricultural surveys conducted timely.	Number	4.4.1.1: Agricultural surveys: 1	4.4.1.1: Agricultural surveys: 4	Annual performance report (Source: NBS)

Program Name: AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Goal: Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTPUT	4.4.2 Number of agricultural statistics reports produced.	Number	4.4.2.1: Crop: 8 (for Crop and Fisheries: TBD)	4.4.2.1: Crop: 12 (for Crop and Fisheries: TBD)	Annual performance report
	4.4.3 Number of LGAs collecting and submitting agricultural routine data (ARDS) in operation	Number	4.4.3.1: 105	4.4.3.1: 185	Annual performance report
	4.4.4 Number of established linkages, networking and information systems	Number	4.4.4.1: Crop: 4	4.4.4.1: Crop: 8	Annual performance report
	4.5.1 Number of M&E reports produced	Number	4.5.1.1: Crop: 5	4.5.1.1: Crop: 8	Annual performance report
	4.5.2 Number of M&E experts capacitated	Number	4.5.1.2: Fisheries: 4	4.5.1.2: Fisheries: 4	Annual performance report
		Number	4.5.2.1: Crop: 2	4.5.2.1: Crop: 6	
		Number	4.5.2.2: Fisheries: 2	4.5.2.2: Fisheries: 6	Annual performance report
	4.6.1. Number of sources of agricultural information	Number	4.6.1.1: Crop: 3	4.6.1.1: Crop: 8	Annual performance report
	4.6.2. Number of agricultural ICT products	Number	4.6.2.1: MoA - 3	4.6.2.1: MoA - 8	Annual performance report
		Number	4.6.2.2: MIT - 4	4.6.2.2: MIT - 5	
		Number	4.6.2.3: Livestock: TBD	4.6.2.3: Livestock: TBD	
4.7 Access to agricultural finance expanded	4.7.1. Number of financial institutions providing financial services to Agricultural sector	Number	4.6.2.4: Fisheries: 1	4.6.2.4: Fisheries: 2	Annual performance report
		Number	4.7.1.1: 43 (Banks regulated in Dec 2018)	4.7.1.1: 53 Banks	
		Number			
	4.7.2 Number of agricultural smallholder accessing financial services by gender	Number	4.7.2.1: Male: 2,098,308 (4.0%) Female: 2,139,691 (4.1%)	4.7.2.1: Livestock sector: Male increase by 3%; Female increase by 5% (other sector: TBD) Fisheries sector: Male increase to 4.5%; Female increase to 5%	Annual performance report (Source: HBS 2017-18)

Program Name:					
AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP II)					
Program Goal:					
Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.					
RESULTS CHAIN	INDICATOR	UNIT	BASELINE (2017/2018)	TARGET (2012/2023)	MEANS OF VERIFICATION
OUTPUT	4.7.3 Number of agricultural households accessed loans from financial institutions by gender	Number	4.7.3.1: Male=401,253 (0.8%) Female= 408,158 (0.8%)	4.7.3.1: Livestock sector: Male increase by 5%;Female increase by 8% (other sector: TBD)	Annual performance report (Source: HBS 2017-18)
	4.7.4 Amount of credits to Agricultural sector	TZS	4.7.4.1: 952,884,000,000	4.7.4.1: 1,395,117,000,000	Annual performance report
	4.7.5 Government budget allocated to agricultural sector	TZS	4.7.5.1: 1,047,840,149,000	4.7.5.1: 1,687,557,038,366	Budget analysis report
	4.7.6 Amount of agricultural budget allocated by the development partners	TZS	4.7.6.1: TBD	4.7.6.1: TBD	Budget analysis report

****TBD = To be defined - data gaps need to be filled**

Annex 2: Detailed indicators for ASDP II

Details of indicators for ASDP II	
Outcome indicator 1.1	Proportion of agricultural households with secure land tenure by gender
Definition	Number of agricultural households with secure land tenure by gender divided by total number of agricultural households
Rationale/Purpose	To assess whether there is an increase in number of households with secured land rights by gender. This would provide evidence on whether the land management component of the program is effective
Data Collection/methodology	Data collector will ask farm household in the program area whether they have CCROs for securing their land. Any farm household with CCRO will be termed as he/she has secure land rights
Tool	One to one interview, Questionnaire
Frequency of reporting	Annually.
Outcome statement concerned	Improved and Sustained Integrated Management of Land and Water Resources Use (for example, for Irrigation, Water for Livestock, Cropped Land, Pastures, Ponds/Cages and Soil Fertility)
Data sources	LGAs, MLHHSD
Responsibility for data collection	MLHHSD
Disaggregation	Village, District, National
Reporting	Number of agricultural households with CCRO will be reported in the quarterly progress reports submitted by village land committee to the District Land officer. The District officer will combine the data from each village land committee to create full list of farm households with security of land rights. The District total number of farm households who have secure land right will be included in the Regional and Ministry report. At national level the report will be compiled on annual basis
Quality Control	ARDS has a check mechanism at district, regional and national level
Comments	None
Outcome indicator 1.2	Growth rate of the size of irrigated area
Definition	Difference between irrigated area in the current year and irrigated area in the baseline year, expressed as percentage of the irrigated area in the baseline year. Apply to developed irrigation schemes only
Rationale/Purpose	The indicator is used to measure the growth of the size of irrigated area in the country
Data Collection/methodology	IOs committee to provide information about size of the schemes irrigated area
Tool	ARDS, Surveys
Frequency of reporting	Annual
Outcome statement concerned	Improved and Sustained Integrated Management of Land and Water Resources Use (for example, for Irrigation, Water for Livestock, Cropped Land, Pastures, Ponds/Cages and Soil Fertility)
Data sources	LGAs, MoA, NBS
Responsibility for data collection	MoA
Disaggregation	District, National
Reporting	The individual farm household irrigated area and the total scheme irrigated area will be reported annually by the scheme manager to the District agricultural/ irrigation officer who will combine the data from each village/scheme to create full list of farm households/ scheme irrigated area. This will be used to calculate the growth rate of irrigated area by using the definition above. The growth rate of the size of irrigated area will be included in the ASDP II annual report

Details of indicators for ASDP II	
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Outcome indicator 1.3	Growth rate of cage fish farming
Definition	Difference between number of fish cages in the current year and in the baseline year
Rationale/Purpose	The indicator is used to measure the growth rate of cage fish farming in the current year and the baseline year
Data Collection/methodology	Documentary review
Tool	Questionnaire or reporting sheet
Frequency of reporting	Annually
Outcome statement concerned	Increased number of fish cages for increased fresh water fish catches
Data sources	Administrative data
Responsibility for data collection	MLF
Disaggregation	District, National
Reporting	Annual
Quality Control	Audit or district report whose aquaculture practices has increased.
Comments	
Outcome indicator 1.4	Number of Agricultural land conflict
Definition	Agricultural lands conflicts reported in the current year and base year
Rationale/Purpose	To assess whether there is a decrease in agricultural land conflicts cases reported in the current year and the baseline year. This would provide evidence on whether the land management component of the program is effective
Data Collection/methodology	ARDS
Tool	Land conflicts reporting questionnaire
Frequency of reporting	Annually
Outcome statement concerned	Land conflicts and disputes decreased
Data sources	Administrative data
Responsibility for data collection	MLHHSD
Disaggregation	District, National
Reporting	Annual
Quality Control	Annual audit of the report will be done in sampled villages and district where many land conflicts are experienced.
Comments	
Outcome indicator 1.5	Percentage increase of operational water sources infrastructures for livestock
Definition	Difference between total number of all water sources infrastructures for livestock and number of operational water sources infrastructures for livestock), expressed as percentage of the number of all water sources infrastructures for livestock.
Rationale/Purpose	The indicator is used to monitor the Percentage increase of operational water sources infrastructures for livestock in the country.
Data Collection/methodology	ARDS/ The District livestock officer will prepare a list of all water sources infrastructures for livestock in the program area. Then after, he will conduct a visit to collect and mark all water sources infrastructures for livestock which are operational.
Tool	ARDS/ Water sources infrastructures for livestock list/ questionnaire
Frequency of reporting	Annual
Outcome statement concerned	Improved and Sustained Integrated Management of Land and Water Resources Use (for example, for Irrigation, Water for Livestock, Cropped Land, Pastures, Ponds/Cages and Soil Fertility).

Details of indicators for ASDP II	
Data sources	LGAs, MLF
Responsibility for data collection	MLF
Disaggregation	District, National
Reporting	The number of operational water sources infrastructures for livestock will be reported in the quarterly report submitted by each District to the Region which will submit to the Ministry of Livestock. This will be used to calculate the Percentage increase of operational water sources infrastructures for livestock using the definition above. The percentage increase will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the Percentage increase of operational water sources infrastructures for livestock submitted by the District/Region, the program officer will randomly select one District every six months to audit. This audit will involve counting all operational water sources infrastructures for livestock and comparing the results to the results submitted by the District
Comments	
Outcome indicator 1.6	Percentage increase of operational water sources infrastructures for aquaculture
Definition	Difference between total number of all water sources infrastructures for aquaculture and number of operational water sources infrastructures for aquaculture
Rationale/Purpose	The indicator is used to monitor the Percentage increase of operational water sources infrastructures for aquaculture in the country
Data Collection/methodology	ARDS/ The District livestock officer will prepare a list of all water sources infrastructures for livestock in the program area. Then after, he will conduct a visit to collect and mark all water sources infrastructures for livestock which are operational
Tool	ARDS/ Water sources infrastructures for livestock list/ questionnaire
Frequency of reporting	Annually
Outcome statement concerned	Improved and Sustained Integrated Management of Land and Water Resources Use (for example, for Irrigation, Water for Livestock, Cropped Land, Pastures, Ponds/Cages and Soil Fertility)
Data sources	LGAs, MLF
Responsibility for data collection	MLF
Disaggregation	District, National
Reporting	The number of operational water sources infrastructures for livestock will be reported in the quarterly report submitted by each District to the Region which will submit to the Ministry of Livestock. This will be used to calculate the Percentage increase of operational water sources infrastructures for livestock using the definition above. The percentage increase will be included in the ASDP II annual report
Quality Control	To verify the accuracy of the Percentage increase of operational water sources infrastructures for livestock submitted by the District/Region, the program officer will randomly select one District every six months to audit. This audit will involve counting all operational water sources infrastructures for livestock and comparing the results to the results submitted by the District
Comments	
Outcome indicator 1.7	Percentage increase of CSA technologies practiced
Definition	Difference between CSA technologies practiced in the current year and baseline year

Details of indicators for ASDP II	
Rationale/Purpose	To measure the rate of households who adopted and use CSA technologies in the country
Data Collection/methodology	The District agro officer will conduct the study to all farm households in the program area to identify those who have adopt and use CSA technologies. Each selected agricultural household will be assessed individually in his farm. Farmer will be asked to show whether he has use of CSA technology and whether there is any positive results of the use of CSA technology
Tool	Questionnaire, observation, survey
Frequency of reporting	Annually
Outcome statement concerned	Improved and Sustained Integrated Management of Land and Water Resources Use (for example, for Irrigation, Water for Livestock, Cropped Land, Pastures, Ponds/Cages and Soil Fertility).
Data sources	District
Responsibility for data collection	MoA
Disaggregation	District, National
Reporting	Percentage of households adopts and use CSA technologies will be reported in the six-monthly progress reports submitted by each District agricultural officer to the Program Manager. The Program Manager will then combine the data from each District to create full list of farm households who adopts and use CSA technologies. This will be used to calculate the percentage of farm households who adopt and use CSA Technologies. The answer will be included in the ASDP II annual report
Quality Control	To verify the accuracy of the Percentage of households adopt and use CSA technologies submitted, Program Manager will randomly select one District every six months to audit. This audit will involve field visit to the farm of the selected household to verify if he has adopt and use CSA technologies comparing the results to the results submitted by the District Agricultural officer.
Comments	
Outcome indicator 1.8	Percentage decrease of agricultural Households under risk of floods and drought
Definition	Difference between agricultural households under risk of floods in the current year and baseline year
Rationale/Purpose	To measure the reduction of households which are vulnerable to floods and drought in the country
Data Collection/methodology	The District land officer will conduct the study to all households in the program area to identify those who are living in floods prone areas and the district agricultural officer will assess those farms which have been affected by drought
Tool	Questionnaire, observation, survey
Frequency of reporting	Annually
Outcome statement concerned	Improved living standards of households though housing that are located in non-flooding areas and reduction of food deficit households caused by drought
Data sources	District
Responsibility for data collection	MoA, MLHHD
Disaggregation	District, National
Reporting	Data collection at village levels, compiled at district level and then submitted to national level (ASLMs) through the regional level.
Quality Control	Annual audit of the report will be done in sampled villages and district in areas prone to floods and drought

Details of indicators for ASDP II	
Comments	
Outcome indicator 2.1	Productivity/Yield of the priority commodities
Definition	This is the quantity produced per unit area for priority commodities in crops, livestock and fisheries sub sectors.
Rationale/Purpose	The indicator is used to measure productivity for priority commodities.
Data Collection/methodology	(Total production/unit area)
Tool	ARDS
Frequency of reporting	Annually
Outcome statement concerned	Increased agricultural productivity and profitability through commercial and market-oriented agriculture
Data sources	MoA
Responsibility for data collection	MoA
Disaggregation	National
Reporting	Data collection at village levels, compiled at district level and then submitted to national level (ASLMs) through the regional level.
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Outcome indicator 2.2	Production of priority commodities
Definition	Total quantity produced for priority commodities in crops, livestock and fisheries sub sectors
Rationale/Purpose	The indicator is used to measure the production levels for priority commodities
Data Collection/methodology	Administrative data
Tool	ARDS
Frequency of reporting	Annual
Outcome statement concerned	Increased agricultural productivity and profitability through commercial and market-oriented agriculture
Data sources	MoA
Responsibility for data collection	MoA
Disaggregation	National
Reporting	Data collection at village levels, compiled at district level and then submitted to national level (ASLMs) through the regional level.
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Outcome indicator 2.3	Proportion of Adoption of Agricultural technologies and practices
Definition	The proportion of agricultural smallholder households using improved agricultural technologies and practices
Rationale/Purpose	The proportion of agricultural smallholder households using improved agricultural technologies and practices
Data Collection/methodology	Census
Tool	Questionnaire
Frequency of reporting	Periodic
Outcome statement concerned	Increased agricultural productivity and profitability through commercial and market-oriented agriculture
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National/Regional
Reporting	Data collection at village levels, compiled at district level and then submitted to national level (ASLMs) through the regional level.
Quality Control	ARDS has data check mechanism at district, regional and national level.

Details of indicators for ASDP II	
Comments	
Outcome indicator 2.4	Proportion of Agricultural Research funding as share of agriculture GDP
Definition	The ratio of agricultural research spending (salary related expenses, operating and program costs, and capital investments by government, non-profit, private sector, and higher education agencies) to agricultural GDP.
Rationale/Purpose	The indicator is used to measure the level of investment in research and development in the agricultural sector.
Data Collection/methodology	(Total spending on Agricultural research/agriculture GDP)*100
Tool	ASR/PER Agriculture sector review and Public expenditure review
Frequency of reporting	Annual
Outcome statement concerned	Increased agricultural productivity and profitability through commercial and market-oriented agriculture
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	National
Reporting	Ministry of Agriculture to compile the report and disseminate results
Quality Control	Joint sector review (JSR)
Comments	
Outcome indicator 2.5	Food self-sufficiency ratio
Definition	The percentage of gross domestic food production to domestic food requirement.
Rationale/Purpose	The indicator measures whether national food production meets gross food requirements. SSR<100% Food deficit 100%≤SSR<120% Self-sufficient SSR≥120% Surplus
Data Collection/methodology	(Total food production/Total food requirement)
Tool	Questionnaire
Frequency of reporting	Annual
Outcome statement concerned	Increased agricultural productivity and profitability through commercial and market-oriented agriculture
Data sources	MoA
Responsibility for data collection	MoA
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Outcome indicator 2.6	Malnutrition incidence (chronic and transitory) in Tanzania
Definition	Percentage of rural population who lack proper nutrition caused by not having enough to eat, not eating the right food, or being unable to use the food that one eats.
Rationale/Purpose	The indicator is used to measure nutrition status in the country
Data Collection/methodology	Survey
Tool	questionnaires
Frequency of reporting	Annual
Outcome statement concerned	Increased agricultural productivity and profitability through commercial and market-oriented agriculture
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National

Details of indicators for ASDP II	
Reporting	Data collection at village levels, compiled at district level and then submitted to national level (ASLMs) through the regional level.
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Outcome Indicator 3.1	Gap between farm gate price and market price
Definition	This is the percentage change between farm gate prices to wholesale prices. The indicator addresses the concern with the prices that wholesalers pay to producers. High market margin can result from high transaction costs, including transportation, existence of monopoly or cartel, information asymmetry, etc.
Rationale/Purpose	To reduce the transaction costs so that smallholder farmers can benefit from low market margin.
Data Collection/methodology	<p>- The gap between farm gate price and market price is calculated as the percentage to the wholesale price and the difference between the wholesale price (WP) and farm gate price (FGP).</p> <p>- The average weighted wholesale price is the weighted mean computed from the monthly means of the commodities. It is calculated using wholesale value.</p> $Gap = \frac{FGP - WP}{AWWP} \times 100$
Tool	Questionnaire
Frequency of reporting	Monthly
Impact statement concerned	To improve and expand market by narrowing the gap between farm gate price and wholesale price. Low market margin implies profitability of agricultural smallholder farmers.
Data sources	MIT
Responsibility for data collection	MIT
Disaggregation	National
Reporting	Annual
Quality Control	<p>To ensure the quality of price data collected, the following is done:</p> <p>a). Price quotation is always done by visiting the market and observing the major transactions, supplemented by oral enquiries from a number of dealers in the market.</p> <p>b). Prices are collected from different vendors to avoid bias.</p> <p>c). The data collectors for collecting prices are properly trained in the price collection work</p>
Comments	Malabo indicator
Outcome Indicator 3.2	Ratio of value of processed agricultural export to total agricultural export
Definition	This is the ratio of the value of all processed agricultural products that have been exported from Tanzania to the rest of the world and the total value of all exported agricultural products.
Rationale/Purpose	<p>This indicator is intended to measure the rate of processed agricultural export and the total agricultural export.</p> <p>Currently many agricultural products are exported without being processed. As a result, little value has been added domestically.</p>
Data Collection/methodology	Secondary data from BoT/TPA and TRA.
Tool	Forms
Frequency of reporting	Annual

Details of indicators for ASDP II	
Impact statement concerned	To increase the export of processed agricultural commodities in order to increase the value added within the country.
Data sources	Document Review
Responsibility for data collection	TRA
Disaggregation	National
Reporting	Annual
Quality Control	Triangulation with BoT data
Comments	
Outcome Indicator 3.3	Reduction rate of Post-Harvest Losses for the national priority commodities
Definition	Percentage of total production that is lost (quantitative and qualitative) during all stages of the post-harvest phases for priority commodities. It includes the losses that occur during harvesting, storage, transport, processing, packaging and sales.
Rationale/Purpose	The indicator provides logistics support to all stages of the food production chain (harvest, storage, processing, transportation, packaging and sales) to limit degradation both in quantity and quality of the produced food
	$\text{Total PHL for Commodity}_i$ $= \text{Harvesting losses} + \text{Storage losses} + \text{Transportation losses}$ $+ \text{Processing losses} + \text{Packaging losses} + \text{Losses at sales}$
	$\text{Rate of PHL for Commodity}_i = \frac{\text{Total PHL for Commodity}_i}{\text{Production}} \times 100$
Tool	Questionnaires
Frequency of reporting	Annual
Impact statement concerned	Improved and expanded marketing and value addition of agricultural produce
Data sources	Survey, Census
Responsibility for data collection	MoA, MLF, NBS
Disaggregation	National
Reporting	Annual
Quality Control	To ensure the quality of data collected, the following should be adhered: survey planning, questionnaire design, training, supervision, data entry, data cleaning/editing and validation
Comments	Malabo Indicator
Outcome indicator 4.1	Proportion of private investment to agricultural vs total investment
Definition	Referring to the ratio of the monetary value of the private sector investment to the agricultural sector and total investment to the sector.
Rationale/Purpose	To measure private investment supporting agriculture industry
Data Collection/methodology	Reports
Tool	Document review and secondary data from BoT and TRA.
Frequency of reporting	Annual
Outcome statement concerned	Strengthened Sector Enablers, Coordination and M&E
Data sources	Bank of Tanzania
Responsibility for data collection	MoA, MLF, MIT
Disaggregation	National
Reporting Procedures	Document review

Details of indicators for ASDP II	
Quality Control	Data to be triangulated with those collected from TIC and the institution responsible for private investment in the Country
Comments	5YDP II Indicator
Outcome indicator 4.2	Share of financial sector lending to agricultural sector.
Definition	The ratio of financial sector lending/loans to the agricultural sector over the total lending
Rationale/Purpose	The indicator is used to monitor the trend-flow of loans towards agricultural sector.
Data Collection/methodology	Reports
Tool	Document review and secondary data from BoT and TRA.
Frequency of reporting	Annual
Outcome statement concerned	Strengthened Sector Enablers, Coordination and M&E
Data sources	MoFP
Responsibility for data collection	MoFP
Disaggregation	National
Reporting Procedures	BoT Report
Quality Control	Data are collected from Banks and FIs mandated for lending
Comments	5YDP II Indicator
Outcome Indicator 4.3	Proportion of rural women empowered in agricultural sector
Definition	Women empowerment in agricultural sector in five domains: (1) decisions about agricultural production, (2) access to and of empowerment (5DE) in agriculture, (3) control of use of income, (4) decision-making power about productive resources, and (5) time allocation.
Rationale/Purpose	The indicator measures the level of women economic empowerment based on the role-played and benefits obtained by participating in the agricultural sector.
Data Collection/methodology	Generating Total Number of women that meet at least 5 of the 7 (At least 65%) of the domains listed
Tool	Survey, Census
Frequency of reporting	Annual
Outcome statement concerned	Strengthened Sector Enablers, Coordination and M&E
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National
Reporting Procedures	Data are collected through surveys from households level, and received at the HQ for analysis
Quality Control	Trained enumerators are using structured questionnaire
Comments	5YDP II Indicator
Outcome indicator 4.4	Percentage of youth that is engaged in the agricultural sector along value chains
Definition	Refers to the share of the total number of youth of 15-35 old age range that is employed in the in agricultural sector
Rationale/Purpose	The indicator is used to measure the extent of youth participation in agriculture value chain.
Data Collection/methodology	(Number of youth engaged in agriculture in current year/number of youth in previous year) *100
Tool	Questionnaire
Frequency of reporting	Annual
Impact statement concerned	Contribute to agricultural growth
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National

Details of indicators for ASDP II	
Reporting procedure	Data is collected from the field and well received at the centre for analysis
Quality Control	Data collected by trained enumerators using structured questionnaire
Comments	5YDP II indicator.
Outcome indicator 4.5	Proportion of women and men engaged in Agriculture with access to financial services
Definition	Ratio of men and women engaged in agricultural sector who are financially included.
Rationale/Purpose	The indicator is used to measure the total number of women and men engaged in agriculture in the country who access financial services
Data Collection/methodology	Total number of women and men with access to financial services/ total number of farmers in the country
Tool	Questionnaire
Frequency of reporting	Annual
Impact statement concerned	Contribute to agricultural growth
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National
Reporting procedure	Data is collected from the field and well received at the centre for analysis and interpretation
Quality Control	Data collected by trained enumerators using structured questionnaire
Comments	5YDP II indicator.
Outcome indicator 4.6	Public agricultural sector expenditure as a share of total public expenditure
Definition	It is a measure of agricultural spending intensity ratio, which is a more relevant measure of the country's agriculture commitments.
Rationale/Purpose	The indicator is used to measure the amount of public expenditure in agriculture
Data Collection/methodology	(Total amount of public expenditure in agriculture/Total public expenditure) *100
Tool	Questionnaire
Frequency of reporting	Annual
Impact statement concerned	Contribute to agricultural growth
Data sources	MoFP
Responsibility for data collection	NBS
Disaggregation	National
Reporting procedure	Document review
Quality Control	Data collected by trained enumerators with financial management skills.
Comments	5YDP II indicator.
Output indicator 1.1.1	Number of villages with land certificate.
Definition	Sum of all villages with land certificates in the country.
Rationale/Purpose	To assess how many villages in the program area have village certificates
Data Collection/methodology	Counting all villages in the program area with village certificates in the country
Tool	Checklist
Frequency of reporting	Annual
Output statement concerned	Land use planning and water shade management
Data sources	MLHHSD
Responsibility for data collection	MLHHSD
Disaggregation	National

Details of indicators for ASDP II	
Reporting	The Ministry responsible for Land will be collecting the data for the number of villages with land certificates. The collected data will be submitted to the ASDP II national coordinator for compilation.
Quality Control	To assure the accuracy of number of villages with land certificate, the Program manager will randomly select a sample of some village within some selected Districts for verification.
Comments	
Output indicator 1.1.2	Number of villages with Land use plan
Definition	Total number of villages with land use plan, where the land use plan is a document designed to guide the future actions of a community on the specific available village land.
Rationale/Purpose	The indicator is used to monitor the number of villages with land use plan.
Data Collection/methodology	Counting the number of villages with land use plan
Tool	Checklist
Frequency of reporting	Annual
Output statement concerned	Land use planning and water shade management
Data sources	MLHSD
Responsibility for data collection	MLHSD
Disaggregation	National
Reporting	The Land Use Commission will be collecting the data about the number of villages with land use plan and submit it to the Ministry Responsible for Land. The Ministry for Land will be submitting that particular data to the ASDP II country coordinator.
Quality Control	Ministry responsible for land will be verifying the number the villages with land certificates to assure the accuracy.
Comments	
Output indicator 1.1.3	Number of Customary Right of Occupancy (CCRO) provided
Definition	Total number of agricultural households who own CCRO
Rationale/Purpose	The indicator is used to monitor the number of agricultural households whose land is secured through having the CCROs.
Data Collection/methodology	Counting the total number of villagers who have CCROs.
Tool	Checklist
Frequency of reporting	Annual
Output statement concerned	Land use planning and water shade management
Data sources	LGA, MLHSD
Responsibility for data collection	LGA, MLHSD
Disaggregation	National
Reporting	The Local Government Authority will be collecting the data for the number of agricultural households with CCROs and that data will be submitted to PO – RALG before being submitted to the ASDP II NCU.
Quality Control	To verify the accuracy of the data submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the village/District to verify and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.2.1	Number of irrigation schemes constructed
Definition	Total of irrigation schemes which have been constructed
Rationale/Purpose	To assess whether there is an increase in number of irrigation schemes which have been constructed by the program. This would provide evidence on whether the specified component of the program is effective.

Details of indicators for ASDP II	
Data Collection/methodology	ARDS
Tool	ARDS, Questionnaire
Frequency of reporting	Quarterly, Annual
Output statement concerned	Irrigation infrastructures development
Data sources	LGAs, NIRC
Responsibility for data collection	MoA
Disaggregation	District, National
Reporting	The Number of irrigation schemes constructed in each District will be reported in the quarterly progress reports submitted by District to the Program Manager. The Program Manager will combine them to create full list of irrigation schemes constructed. This will be used to calculate the total number of all schemes constructed using the definition above. The total number will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the number of irrigation schemes constructed submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the irrigation schemes to verify and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.2.2	Number of irrigation schemes rehabilitated
Definition	Total of irrigation schemes which have been rehabilitated
Rationale/Purpose	To assess whether there is an increase in number of irrigation schemes which have been rehabilitated by the program. This would provide evidence on whether the specified component of the program is effective.
Data Collection/methodology	ARDS
Tool	ARDS, Questionnaire
Frequency of reporting	Annual
Output statement concerned	Irrigation infrastructures development
Data sources	LGAs, NIRC
Responsibility for data collection	MoA
Disaggregation	District, National
Reporting	The Number of irrigation schemes rehabilitated in each District will be reported in the quarterly progress reports submitted by District to the Program Manager. The Program Manager will combine them to create full list of irrigation schemes rehabilitated. This will be used to calculate the total number of all schemes rehabilitated using the definition above. The total number will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the number of irrigation schemes rehabilitated submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the irrigation schemes to verify and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.2.3	Hectares under irrigation
Definition	Sum of all hectares which are under irrigation
Rationale/Purpose	To assess whether total area under irrigation is increasing. This would provide evidence on whether the specified component of the program is effective.
Data Collection/methodology	ARDS

Details of indicators for ASDP II	
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Irrigation infrastructures development
Data sources	LGAs, NIRC
Responsibility for data collection	NIRC, MoA
Disaggregation	National
Reporting	Total hectares under irrigation in each District will be reported in the annual reports submitted by District to the Program Manager. The Program Manager will combine them to create total hectares under irrigation. This will be used to calculate the total hectares under irrigation using the definition above. The total hectares under irrigation will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the Total hectares under irrigation submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the irrigation schemes to verify the hectares under irrigation and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.2.4	Number of operational schemes (100% developed).
Definition	Sum of all schemes which are full developed by the program and which are operational
Rationale/Purpose	To assess whether there is 100% development of schemes by the program and whether the developed schemes are operational
Data Collection/methodology	ARDS
Tool	ARDS, Questionnaires
Frequency of reporting	Annual
Output statement concerned	Irrigation infrastructures development
Data sources	LGAs, NIRC
Responsibility for data collection	MoA
Disaggregation	National
Reporting	Number of operational schemes (100% developed) in each District will be reported in the quarterly and annual reports submitted by District to the Program Manager. The Program Manager will combine them to create total Number of operational schemes (100% developed). This will be used to calculate the total Number of operational schemes (100% developed) using the definition above. The total Number of operational schemes (100% developed) will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the Number of operational schemes (100% developed) submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the irrigation schemes to verify whether they have been developed (100%) and are in operational and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.3.1	Number of Irrigators Organization (IO) strengthened
Definition	Sum of all Irrigators Organization (IOs) which have been strengthened.
Rationale/Purpose	To assess number of IOs which have been strengthened by the program
Data Collection/methodology	ARDS
Tool	Questionnaire, ARDS
Frequency of reporting	Annual
Output statement concerned	Irrigation scheme management and operation

Details of indicators for ASDP II	
Data sources	LGAs, NIRC, MoA
Responsibility for data collection	NIRC, MoA
Disaggregation	District, National
Reporting	Number of IO strengthened in each District will be reported in the quarterly and annual reports submitted by District to the Program Manager. The Program Manager will combine them to create total Number of IO strengthened. This will be used to calculate the total Number of IO strengthened using the definition above. The total Number of IO strengthened will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the Number of IO strengthened submitted by the District, the Program Manager will randomly select one District each six months to audit. This audit will involve visiting and interview IOs to verify whether they have been strengthened and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.4.1	Number of livestock water infrastructures constructed
Definition	Sum of all livestock water infrastructures constructed
Rationale/Purpose	To assess whether there is an increase in number of livestock water infrastructures which have been constructed by the program. This would provide evidence on whether the specified component of the program is effective.
Data Collection/methodology	ARDS
Tool	ARDS, Questionnaire
Frequency of reporting	Annual
Output statement concerned	Water sources development for livestock and fisheries
Data sources	LGAs
Responsibility for data collection	MLF
Disaggregation	District, National
Reporting	The Number of livestock water infrastructures constructed in each District will be reported in the quarterly progress reports submitted by District to the Program Manager. The Program Manager will combine them to create full list of livestock water infrastructures constructed. This will be used to calculate the total number of all livestock water infrastructures constructed using the definition above. The total number will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the number of livestock water infrastructures constructed submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the livestock water infrastructures constructed to verify and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.4.2	Number of livestock water infrastructures rehabilitated
Definition	Sum of all livestock water infrastructures rehabilitated
Rationale/Purpose	To assess whether there is an increase in number of livestock water infrastructures which have been rehabilitated by the program. This would provide evidence on whether the specified component of the program is effective.
Data Collection/methodology	ARDS
Tool	ARDS, Questionnaire
Frequency of reporting	Annual

Details of indicators for ASDP II	
Output statement concerned	Water sources development for livestock and fisheries
Data sources	LGAs
Responsibility for data collection	Ministry of Livestock and Fisheries
Disaggregation	District, National
Reporting	The Number of livestock water infrastructures rehabilitated in each District will be reported in the quarterly progress reports submitted by District to the Program Manager. The Program Manager will combine them to create full list of livestock water infrastructures rehabilitated. This will be used to calculate the total number of all livestock water infrastructures rehabilitated using the definition above. The total number will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the number of livestock water infrastructures rehabilitated submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the livestock water infrastructures which have been rehabilitated to verify and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.4.3	Number of water infrastructures for aquaculture constructed
Definition	Sum of all aquaculture water infrastructure constructed
Rationale/Purpose	The indicator is used to assess the water infrastructures for aquaculture which have been constructed
Data Collection/methodology	ARDS
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	Water sources development for livestock and fisheries
Data sources	MLF
Responsibility for data collection	MLF
Disaggregation	District, National
Reporting	The Number of water infrastructures for fisheries constructed in each District will be reported in the quarterly progress reports submitted by District to the Program Manager. The Program Manager will combine them to create full list of water infrastructures for fisheries constructed. This will be used to calculate the total number of all water infrastructures for fisheries constructed using the definition above. The total number will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the Number of water infrastructures for fisheries constructed submitted by the District, the Program Manager will randomly select one District each year to audit. This audit will involve visiting the water infrastructures for fisheries which have been constructed to verify and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.5.1	Number of CSA technologies developed
Definition	Sum of all CSA technologies developed
Rationale/Purpose	To assess whether there are CSA technologies developed in the country
Data Collection/methodology	ARDS
Tool	Questionnaire
Frequency of reporting	Quarterly, Annual
Output statement concerned	Promote Climate Smart Agriculture Technologies (CSA) and practices
Data sources	MoA
Responsibility for data collection	MoA

Details of indicators for ASDP II	
Disaggregation	Village, District
Reporting	Number of CSA technologies developed in each District will be reported in the quarterly progress reports submitted by District to the Program Manager. The Program Manager will combine them to create full list of Number of CSA technologies developed by the program. This will be used to calculate the total Number of CSA technologies developed using the definition above. The total number will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the Number of CSA technologies developed by the program Submitted by the District, the Program Manager will randomly select one District each year to audit, verify and comparing the results to the results submitted by the District Officer.
Comments	
Output indicator 1.5.2	Number of households practicing CSA technologies
Definition	Sum of all households who are practicing CSA technologies. This include technologies and practices such as rain water harvesting and storage technologies, soil and water conversation, terraces etc.
Rationale/Purpose	To assess whether there is an increase in number of households who are practicing CSA technologies
Data Collection/methodology	ARDS
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	Promote Climate Smart Agriculture Technologies (CSA) and practices
Data sources	MoA
Responsibility for data collection	MoA
Disaggregation	District, National
Reporting	Number of households practicing CSA technologies in each District will be reported in the quarterly progress reports submitted by District to the Program Manager. The Program Manager will combine them to create full list of households practicing CSA technologies developed by the program. This will be used to calculate the total number of households practicing CSA technologies using the definition above. The total number will be included in the ASDP II annual report.
Quality Control	To verify the accuracy of the Number of households practicing CSA technologies Submitted by the District, the Program Manager will randomly select one District each year to audit, verify and comparing the results to the results submitted by the District Officer.
Comments	
Output Indicator 2.1.1	Number of Extension staff.
Definition	The total number of extension staff for crops, livestock and fisheries subsectors
Rationale/Purpose	This indicator is used to measure the number of extension staff required to deliver extension services to farmers.
Data Collection/methodology	Summation of the extension staff
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Strengthened Extension services
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	National
Reporting	PO-RALG collects data from the LGAs and compile the report

Details of indicators for ASDP II	
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.1.2	Number of agricultural households having access to extension services
Definition	Agricultural households having access to agricultural advisory services (ASS) through training information sharing, and other extension support related services to farmers and small-to-medium enterprises in rural value chains. The ASS can be provided through public extension services, agribusiness private companies, CSOs, Farmer organizations, cooperatives, integrated rural development project. AAS can be organized through physical trainings, ICT, Video, pamphlets, training school farms etc.
Rationale/Purpose	The indicator is used to monitor the spreading of good farming practices in the country.
Data Collection/methodology	Sum of all recorded farmers covered by extension workers or having access to AAS by other means
Tool	ARDS/Surveys
Frequency of reporting	Annual
Output statement concerned	Strengthened Extension services
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	Regional, National
Reporting	MOA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	Malabo decl.3(a), SDG target
Output indicator 2.1.3.	Number of agricultural households trained
Definition	Agricultural households received physical training in rural value chains. The training can be provided through public extension services, agribusiness private companies, CSOs, Farmer organizations, cooperatives, integrated rural development project.
Rationale/Purpose	The indicator is used to monitor the spreading of good farming practices in the country.
Data Collection/methodology	Sum of all recorded Agricultural households trained by extension workers
Tool	ARDS/Surveys
Frequency of reporting	Annual
Output statement concerned	Strengthened Extension services
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	Regional, National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.1.4	Number of Extension staff trained
Definition	The total number of extension staff received training
Rationale/Purpose	The indicator is used to measure capacity strengthening to extension staff
Data Collection/methodology	Summation of the number of extension staff trained
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Strengthened Extension services
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	National

Details of indicators for ASDP II	
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.1.5	Number of Extension staff retooled
Definition	The total number of extension staff supplied with working gears i.e. motorbikes, bicycles, extension tool kit, computers, photocopiers,
Rationale/Purpose	The indicator is used to measure the extent to which the extension staffs are capacitated to deliver their work.
Data Collection/methodology	Summation of the number of extension staff retooled
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Strengthened Extension services
Data sources	MoA, MLF, PO-RALG
Responsibility for data collection	MoA, MLF, PO-RALG
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.1.6	Number of Ward Agricultural Resources Centers (WARCs)
Definition	The total number ward agriculture resources centre (WARCs) in the country. WARCs are agriculture resources centre established in each ward to provide agricultural advisory services, demonstration on improved productive technologies aimed at increasing productivity and production.
Rationale/Purpose	The indicator is used to measure the extent to which the farmers have access to extension services
Data Collection/methodology	Counting ward resources centers
Tool	ARDS
Frequency of reporting	Annual
Impact statement concerned	Contribute to extension service delivery
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	Regional, National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.2.1	Amount of improved seeds used
Definition	The total amount of improved seeds (Certified Seeds, Quality Declared Seeds, Quality Semen, fingerling) used for priority value chains
Rationale/Purpose	The indicator is used to measure the extent to which agricultural households adopt the use of improved seeds
Data Collection/methodology	Administrative data
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Improved access to agricultural inputs and health services
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	

Details of indicators for ASDP II	
Output indicator 2.2.2.	Amount of fertilizer applied
Definition	The total amount of fertilizer in metric tons of plant nutrient consumed in agriculture
Rationale/Purpose	The indicator is used to measure the extent to which farmers adopt the use of fertilizer.
Data Collection/methodology	Total fertilizer consumption
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Improved access to agricultural inputs and health services
Data sources	MoA
Responsibility for data collection	MoA
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	Malabo decl 3(a)
Output indicator 2.2.3	Number of agricultural Household applying agrochemicals
Definition	The number of agricultural households applying agrochemicals (herbicides, insecticides, fungicides and acaricides) to control diseases and pests in crops and livestock.
Rationale/Purpose	The indicator is used to measure the extent to which agricultural households adopt the use of agrochemicals.
Data Collection/methodology	Administrative data
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Improved access to agricultural inputs and health services
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.2.4	Number of stockiest at village level
Definition	Total numbers of stockiest who serve agricultural households in the country, where stockiest means agro-dealer who sells agriculture inputs in retail.
Rationale/Purpose	The indicator is used to monitor the growth of sectors of the economy in the country.
Data Collection/methodology	Questionnaire
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	Improved access to agricultural inputs and health services
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	MoA and MLF will be regularly rechecking the data from the Regional Authorities for verification
Comments	
Output indicator 2.3.1	Budget allocation to agricultural research
Definition	Total amount of budget allocated to agricultural research
Rationale/Purpose	The indicator is used to monitor the level of investment to agricultural research activities.
Data Collection/methodology	Administrative data

Details of indicators for ASDP II	
Tool	ASR/PER - Agriculture Sector Review/ Public Expenditure Review
Frequency of reporting	Annual
Output statement concerned	Contribute to research and development
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	National
Reporting	Ministry of Agriculture to compile the report and disseminate results
Quality Control	Joint Sector Review (JSR)
Comments	
Output indicator 2.3.2	Number of agricultural technologies developed
Definition	The total number of agricultural technologies developed
Rationale/Purpose	The indicator is used to monitor the number of agricultural technologies which have been developed and disseminated to farming, livestock keeping and fishing households
Data Collection/methodology	Administrative, Survey
Tool	ARDS/Questionnaire
Frequency of reporting	Annually
Output statement concerned	Contribute to research and development
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	National
Reporting	Ministry of Agriculture to compile the report and disseminate results
Quality Control	Joint Sector Review (JSR)
Comments	
Output indicator 2.4.1	Number of agricultural households using agro-machinery
Definition	The total number of farming households using agro-machinery (tractor and oxen).
Rationale/Purpose	The indicator is used to monitor the extent to which farmers adopt the use of agro-machinery.
Data Collection/methodology	Administrative
Tool	ARDS
Frequency of reporting	Annually
Output statement concerned	Strengthen and promoting mechanization
Data sources	MoA, MLF
Responsibility for data collection	MoA, MLF
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.4.2	Area (hectares) utilized agro-machinery
Definition	The total area (hectares) cultivated by using agro-machinery (tractor and oxen).
Rationale/Purpose	The indicator is used to measure the extent to which farmers are using agro-machinery in the country.
Data Collection/methodology	Questionnaire
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Strengthening and promoting mechanization
Data sources	MoA, MLF
Responsibility for data collection	NBS
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	FYDP II Indicator

Details of indicators for ASDP II	
Output indicator 2.4.3	Number of agro-mechanization hiring centers
Definition	The total number of agro-mechanization (tractor and oxen) hiring centres in the country.
Rationale/Purpose	The indicator is used to measure utilization of agro-mechanization (tractor and oxen) in the country.
Data Collection/methodology	Questionnaire
Tool	ARDS
Frequency of reporting	Annual
Output statement concerned	Strengthening and promoting mechanization
Data sources	MoA
Responsibility for data collection	MoA
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	FYDP II Indicator
Output indicator 2.5.1	Average number of meals consumed per day
Definition	Average number of meals consumed per day by a farming household
Rationale/Purpose	The indicator is used to monitor the availability of food in farming households in the country.
Data Collection/methodology	Questionnaire
Tool	ARDS
Frequency of reporting	Periodic
Output statement concerned	Contribute to food and nutrition security
Data sources	MoA/NBS
Responsibility for data collection	MoA
Disaggregation	National
Reporting	MoA collects data from the LGAs and compile the report
Quality Control	ARDS has data check mechanism at district, regional and national level.
Comments	
Output indicator 2.5.4	Number of households with low dietary diversity
Definition	The number of population that have low access to variety of food (Rural/urban)
Rationale/Purpose	The indicator is used to measure household with low dietary diversity.
Data Collection/methodology	Survey
Tool	Questionnaire
Frequency of reporting	Periodical
Output statement concerned	Contribute to food and nutrition security
Data sources	NBS, MoHCDGEC
Responsibility for data collection	NBS, MoHCDGEC
Disaggregation	National
Reporting	Data collection at village levels, compiled at district level and then submitted to national level (ASLMs) through the regional level.
Quality Control	Verification will be done to double - check the accuracy of data.
Comments	
Output indicator 3.1.1	Number of market infrastructures in operations
Definition	This is the total number of all market infrastructure (market centres, livestock market, fisheries markets, warehouses, milk collection centre, cold rooms, holding ground, quarantine station, landing sites and feeder roads) that are in operation.
Rationale/Purpose	The indicator is used to measure the extent at which the ASLMs will effectively and efficiently manage the implementation of the programme through assessing access to market infrastructures.

Details of indicators for ASDP II	
Data Collection/methodology	Survey reports
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	To improve and expand market infrastructures that contribute to the growth of agriculture sector
Data sources	Survey / Census
Responsibility for data collection	MoA, MLF, PO-RALG
Disaggregation	National, Regional
Reporting	Annual reports
Quality Control	To ensure the quality of data collected, the following should be taken into consideration: survey planning, questionnaire design, training, supervision, data entry, data cleaning/editing and validation
Comments	
Output indicator 3.1.2	Number of commodities traded through WRS
Definition	This is the total number of all commodities that have been traded through WRS.
Rationale/Purpose	Formalize the existing marketing systems, which aim at minimizing various constraints hindering effective production and marketing of the agricultural produce.
Data Collection/methodology	Surveys and operational reports.
Tool	Questionnaire and checklist
Frequency of reporting	Annual
Output statement concerned	To improve the earnings of smallholder agricultural producers and small-scale traders of the commodity trade which will eventually increase their shares and volumes in the marketing channels and encourage value addition.
Data sources	Administrative data
Responsibility for data collection	MIT/Warehouse Receipt Regulatory Board (WRRB)
Disaggregation	National and by men, women, youths and the disadvantaged people
Reporting	Annual reports
Quality Control	Trained enumerators to be involved in data collection.
Comments	
Output indicator 3.1.3	Volume of commodities traded through WRS
Definition	This is the amount of all commodities that have been traded through WRS
Rationale/Purpose	Formalize the existing marketing systems aiming at minimizing various constraints hindering effective production and marketing of the agricultural produce.
Data Collection/methodology	Survey and documents reviews
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	To improve the earnings of smallholder agricultural producers and small-scale traders of the commodity trade which will eventually increase their shares and volumes in the marketing channels and encourage value addition.
Data sources	Administrative data
Responsibility for data collection	MIT/Warehouse Receipt Regulatory Board (WRRB)
Disaggregation	National
Reporting	Annual reports
Quality Control	Trained staff will be involved in data collection.
Comments	
Output indicator 3.1.4	Number of commodities listed under the commodity exchange market
Definition	The total number of agricultural commodities that have been traded through commodity exchange market

Details of indicators for ASDP II	
Rationale/Purpose	The indicator measures the total number of agricultural commodities listed and traded through exchange market.
Data Collection/methodology	Summation of all agricultural commodities traded through exchange market.
Tool	Forms
Frequency of reporting	Annually
Output statement concerned	Contribute to national economy
Data sources	TRA, MoFP, MoA, Cereals and Other Crops Board
Responsibility for data collection	MoA, Cereals and Other Crop Board
Disaggregation	National
Reporting	Annual reports
Quality Control	Trained staff will be involved in data collection.
Comments	
Output indicator 3.1.5	Volume of agricultural commodities traded through commodity exchange market
Definition	The total volume of agricultural commodities traded under commodity exchange market.
Rationale/Purpose	The indicator measures the total volume of agricultural commodities traded through exchange market.
Data Collection/methodology	Summation of all commodities traded through exchange market.
Tool	Forms
Frequency of reporting	Annual
Output statement concerned	Contribute to national economy
Data sources	TRA, MoFP, MoA, Cereals and Other Crops Board
Responsibility for data collection	MoA, Cereals and Other Crop Board
Disaggregation	National
Reporting	Annual reports
Quality Control	Trained staff will be involved in data collection.
Comments	
Output indicator 3.1.6	Volume of priority agricultural commodities traded through formal markets
Definition	The total number of agricultural commodities listed under commodity exchange market.
Rationale/Purpose	The indicator measures the total commodities traded through exchange market.
Data Collection/methodology	Summation of all commodities traded through exchange market.
Tool	Forms
Frequency of reporting	Annual
Output statement concerned	Contribute to national economy
Data sources	TRA, MoFP, MoA, Cereals and Other Crops Board
Responsibility for data collection	MoA, Cereals and Other Crop Board
Disaggregation	National
Reporting	Annual reports
Quality Control	Trained staff will be involved in data collection.
Comments	
Output indicator 3.1.7	Number of agricultural households accessing market information services
Definition	The number of agricultural households having access to market information services. The total number of Households who can access market information by any means e.g. Phones, Newspaper, Radio etc.
Rationale/Purpose	The indicator intended to measure the number of households have access to market information.
Data Collection/methodology	Summation of all household that access market information.

Details of indicators for ASDP II	
Tool	Questionnaire
Frequency of reporting	Annually
Output statement concerned	Contribute to national economy
Data sources	TRA
Responsibility for data collection	TRA
Disaggregation	National
Reporting	Annual reports
Quality Control	Trained staff will be involved in data collection
Comments	FYDP II Indicator
Output indicator 3.1.8	Number of sources disseminating market information
Definition	The number of sources used to provide market information to producers and buyers of agricultural product. (the means used to deliver market information to customers and producers.) e.g. Mobile phones, Radio, TV etc.
Rationale/Purpose	The indicator intended to know the means of used by sellers to get market information for their products.
Data Collection/methodology	Summation of all sources used to deliver market information to buyer and seller of agricultural produces
Tool	Questionnaire
Frequency of reporting	Annually, periodically
Output statement concerned	Contribute to national economy
Data sources	ARDS, Annual surveys, Census.
Responsibility for data collection	MIT, MoA, MLF, NBS
Disaggregation	Region
Reporting	Data are collected in the field using questionnaire by asking household questions about how do they get market information and then the answers filled in the form
Quality Control	Trained enumerators to be involved in data collection
Comments	FYDP II Indicator
Output indicator 3.2.1	Number of agro-processing infrastructure in operation
Definition	The number of agro-processing infrastructure in operation (abattoirs, milling machines, ginneries, pulpier, livestock and fish processing industries)
Rationale/Purpose	The indicator intended to measure the number of agro-processing infrastructures that re operating in the programme areas
Data Collection/methodology	Summation of all agro-processing infrastructures which are operational
Tool	Forms
Frequency of reporting	Annually
Output statement concerned	Contribute to national economy
Data sources	MoA, MIT, MLT, NBS
Responsibility for data collection	MoA
Disaggregation	National
Reporting	Annual
Quality Control	Trained enumerators to be involved in data collection
Comments	
Output indicator 3.2.2	Volume of processed agricultural commodities.
Definition	Total volume of agricultural commodities processed in different stages of production (crops, livestock and fisheries)
Rationale/Purpose	The indicator intended to measure the volume of agricultural products processed locally and sold as consumer goods (as processed agricultural product).

Details of indicators for ASDP II	
Data Collection/methodology	Summation of all agricultural products processed in the country and sold as consumer good (as processed agricultural product)
Tool	Forms
Frequency of reporting	Annually
Output statement concerned	Contribute to national economy
Data sources	TRA
Responsibility for data collection	TRA
Disaggregation	National
Reporting	Annual
Quality Control	Trained enumerators to be involved in data collection
Comments	FYDP II Indicator
Output indicator 3.3.1	Number of post-harvest technologies promoted
Definition	The total number of post-harvest technologies promoted
Rationale/Purpose	Intended to measure the number of post-harvest technologies promoted
Data Collection/methodology	Summation of all post-harvest technologies promoted
Tool	Questionnaire
Frequency of reporting	Annually
Output statement concerned	Contribute to national economy
Data sources	NBS, MoA, MLF
Responsibility for data collection	NBS
Disaggregation	Region
Reporting	Annual reports
Quality Control	Trained enumerators to be involved in data collection
Comments	FYDP II Indicator
Output indicator 3.3.2	Number of households using post-harvest technologies or practices
Definition	The total number of households using PH technologies or practices
Rationale/Purpose	Intended to measure the number of households using PH technologies or practices
Data Collection/methodology	Summation of households using PH technologies or practices
Tool	Questionnaire
Frequency of reporting	Annually
Output statement concerned	Contribute to national economy
Data sources	NBS, MoA, MLF
Responsibility for data collection	NBS
Disaggregation	Region
Reporting	Annual reports
Quality Control	Trained enumerators to be involved in data collection
Comments	FYDP II Indicator
Output indicator 3.3.3	Number of storage facilities constructed
Definition	The total number of storage facilities constructed (warehouses, pack houses, cold chains).
Rationale/Purpose	Intended to monitor storage facilities that are rehabilitated.

Details of indicators for ASDP II	
Data Collection/methodology	Summation of all constructed storage facilities
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	Contribute to national economy
Data sources	NBS, MoA, MLF
Responsibility for data collection	NBS
Disaggregation	Region
Reporting	Annual reports
Quality Control	Trained enumerators to be involved in data collection
Comments	FYDP II Indicator
Output indicator 3.3.4	Number of operational storage facilities
Definition	The total number of storage facility (warehouses, pack houses, cold chains) which are operational
Rationale/Purpose	Intended to measure the number of storage facilities which are operational.
Data Collection/methodology	Summation of households using PH technologies or practices
Tool	Questionnaire
Frequency of reporting	Annually
Output statement concerned	Contribute to national economy
Data sources	NBS, MoA, MLF
Responsibility for data collection	NBS
Disaggregation	Region
Reporting	Annual reports
Quality Control	Trained enumerators to be involved in data collection.
Output indicator 4.1.1	Number of policies reviewed
Definition	To review the existing agricultural policy frameworks which include policies, strategies and plans to support the sector
Rationale/Purpose	Strengthen existing policy frameworks to successfully support agricultural transformation in the country.
Data Collection/methodology	Track the number of policies reviewed
Tool	Questionnaire and/or Checklist
Frequency of reporting	Annually
Impact statement concerned	Contribute to policy environment
Data sources	ASLMs
Responsibility for data collection	ASLMs, MoFP
Disaggregation	National and local
Reporting procedures	Annual reports
Quality Control	The results will be checked through the JSR
Comments	The reviewing if the polices can be done in collaboration with non-state actors such as CSOs.
Output indicator 4.1.2	Number of policies formulated
Definition	Number of agricultural policies, strategies and plans developed/updated in order to support the sector
Rationale/Purpose	Strengthen existing policy frameworks to successfully support agricultural transformation in the country.
Data Collection/methodology	Compilation of the total number of agricultural policies and strategies formulated to support the sector
Tool	Reports Analysis
Frequency of reporting	Annual
Output statement concerned	Policy and Regulatory business environment improved
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	National

Details of indicators for ASDP II	
Reporting	Periodic reports (annual, quarterly, monthly) from ASLMs
Quality Control	JSR
Comments	BLUEPRINT/Malabo Declaration
Output indicator 4.1.3	Number of business regulations reviewed
Definition	Number of agricultural (crops, livestock and fisheries) procedures and processes including all laws and regulation related to testing, standardization, certification and inspection with conflicting mandates reviewed in order to improve the sector
Rationale/Purpose	The indicator is used to measure the business environment in the country.
Data Collection/methodology	Compilation of the total number of agricultural business regulations reviewed at both levels.
Tool	Reports analysis
Frequency of reporting	Annual
Output statement concerned	Policy and Regulatory business environment improved
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	National and local
Reporting	Periodic reports (annual, quarterly, monthly)
Quality Control	JSR
Comments	BLUEPRINT
Output indicator 4.1.4	Number of business regulations formulated/adjusted reviewed
Definition	Number of changes made to the agricultural (crops, livestock and fisheries) procedures and processes including all laws and regulations related to testing standardization, certification and inspection with conflicting mandates in order to improve the sector
Rationale/Purpose	The indicator is used to measure the business environment in the country.
Data Collection/methodology	Compilation of the total number of changes made to the agricultural business regulations at all levels in the country
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	Policy and Regulatory business environment improved
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	National and local
Reporting	Periodic reports (annual, quarterly, monthly) from ASLMs
Quality Control	The results will be checked through the JSR
Comments	BLUEPRINT
Output indicator 4.1.5	Number of new private investment in Agricultural sector
Definition	The total number of private domestic and foreign investments (large scale) to the agriculture sector
Rationale/Purpose	The indicator is used to measure private sector involvement in the agricultural sector in the country.
Data Collection/methodology	Summation of the total number of private sectors who have invested in the agricultural sector in the country
Tool	Reports analysis
Frequency of reporting	Annual
Output statement concerned	Policy and Regulatory business environment improved - Put in place or strengthen mechanisms to attract private investment in agriculture
Data sources	ASLMs
Responsibility for data collection	ASLMs
Disaggregation	National and local

Details of indicators for ASDP II	
Reporting	Private sector registered with the district authorities to engage in Agriculture sector will be captured and shared with the ministry, the national level investors registered through TIC will also be captured and reported to the NBS for compilation.
Quality Control	JSR
Comments	Malabo Declaration
Output indicator 4.1.6	Value of private sector investment in Agricultural sector
Definition	Total monetary value of the private investment (small scale and large scale) to the agriculture sector
Rationale/Purpose 6	Increased investment is the predominate source of economic growth in the agricultural and other economic sectors. Private sector investment is critical because it indicates that the investment is perceived by private agents to provide a positive financial return and therefore is likely to lead to sustainable increases in agricultural production.
Data Collection/methodology	For a given year, ratio of private sector (domestic and foreign) investment in agriculture as % of agriculture value added is:
	$PrPbt_i = \frac{PrIA}{AgVA} \times 100$
Tool	Analysis
Frequency of reporting	Annually
Output statement concerned	Policy and Regulatory business environment improved- Put in place or strengthen mechanisms to attract private investment in agriculture
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National and local
Reporting	NBS to consolidate information from the ASLMs and financial institutions
Quality Control	JSR
Comments	Malabo Declaration. 2(b)
Output indicator 4.2.1	Number of small-scale agricultural groups in operations
Definition	Summation of operational groups made up of members from subsistence system of farmers/livestock keepers/fisheries communities
Rationale/Purpose	The indicator is used to monitor the extent at which small-scale farmers are empowered towards accessing loans from various financial institution/organizations for agricultural purposes in the country.
Data Collection/methodology	Summation of all operational small-scale agricultural groups over all agricultural groups existing in the Agricultural Sector.
Tool	Questionnaire and document review.
Frequency of reporting	Quarterly
Output statement concerned	Strengthening organizational and technical capacity and new small-scale producers, trade and processing farmers organization and cooperatives
Data sources	ARDS
Responsibility for data collection	ASLMs
Disaggregation	Regional
Reporting Procedures	Collected from village, 1st consolidation at ward level, second consolidation, Data entry and Report submission to higher levels through designed software is done at LGA level
Quality Control	Trained VAEs/WAEs are collecting data using harmonized Data Collection Formats
Comments	5YDP II Indicator

Details of indicators for ASDP II	
Output indicator 4.2.2	Number of small-scale agricultural groups capacitated
Definition	Summation of farmer groups made up of members from subsistence system that are capacitated in various agricultural and finance management skills.
Rationale/Purpose	The indicator is used to monitor and recognize the efforts done by various agricultural stakeholders to empower small scale farmer groups on different skills that will contribute to sustainable development of agricultural sector in the country.
Data Collection/methodology	Summation of all small-scale agricultural groups that were provided with various agricultural related skills.
Tool	Questionnaire and document review
Frequency of reporting	Quarterly
Output statement concerned	Strengthening organizational and technical capacity and new small-scale producers, trade and processing farmers organization and cooperatives
Data sources	ARDS
Responsibility for data collection	ASLMs
Disaggregation	National
Reporting Procedures	Collected from village, 1st consolidation at ward level, second consolidation, Data entry and Report submission to higher levels through designed software is done at LGA level
Quality Control	Trained VAEs/WAEs are collecting data using harmonized Data Collection Formats
Comments	5YDP II Indicator
Output indicator 4.2.3	Number of operational SACCOS
Definition	Refers to the summation of active SACCOS
Rationale/Purpose	Total number of SACCOS
Data Collection/methodology	Summation of all small-scale agricultural groups that were provided with various agricultural related skills.
Tool	Questionnaire and document review.
Frequency of reporting	Quarterly
Output statement concerned	Strengthening organizational and technical capacity and new small-scale producers, trade and processing farmers organization and cooperatives
Data sources	ARDS, NBS
Responsibility for data collection	ASLMs
Disaggregation	National
Reporting Procedures	Collected from village, 1st consolidation at ward level, second consolidation, Data entry and Report submission to higher levels through designed software is done at LGA level
Quality Control	Trained VAEs/WAEs are collecting data using harmonized Data Collection Formats
Comments	5YDP II Indicator
Output indicator 4.2.4	Value of loan issued through SACCOS
Definition	The total number and value of loans issued through SACCOS
Rationale/Purpose	The indicator is used to monitor a number of credits and amount of monies issued by SACCOS
Data Collection/methodology	Summation of all small-scale agricultural groups that were provided with various agricultural related skills.
Tool	Questionnaire and document review
Frequency of reporting	Quarterly

Details of indicators for ASDP II	
Output statement concerned	Strengthening organizational and technical capacity and new small-scale producers, trade and processing farmers organization and cooperatives
Data sources	ARDS
Responsibility for data collection	ASLMs
Disaggregation	National
Reporting Procedures	Collected from village, 1st consolidation at ward level, second consolidation, Data entry and Report submission to higher levels through designed software is done at LGA level
Quality Control	Trained VAEOs/WAEOs are collecting data using harmonized Data Collection Formats
Comments	5YDP II Indicator
Output indicator 4.3.1	Number of private sectors participating in Agricultural programs
Definition	Summation of all private sector institutions/organizations that are formerly involved various Agricultural programs focussing in developing and investing in Agricultural Sector in the country
Rationale/Purpose	The indicator is used to monitor the extent at which private sector is involved in agricultural development in the country.
Data Collection/methodology	Summation of all private sector institutions/organizations dealing with agricultural activities through various ongoing agricultural programs/projects.
Tool	Forms
Frequency of reporting	Quarterly
Output statement concerned	Sector Coordination improved
Data sources	ARDS
Responsibility for data collection	ASLMs
Disaggregation	Regional
Reporting Procedures	Collected from village, 1st consolidation at ward level, second consolidation, Data entry and Report submission to higher levels through designed software is done at LGA level
Quality Control	Trained VAEOs/WAEOs are collecting data using harmonized Data Collection Formats
Comments	5YDP II Indicator
Output indicator 4.3.2.	Number of platforms in operations
Definition	Number of multi-stakeholders' platforms (meetings) organized and held during the year under ASDP II
Rationale/Purpose	This indicator shows the extent to which the Agricultural Stakeholders are brought together through various platforms during the implementation of ASDP II.
Data Collection/methodology	Summation of all platforms conducted on Agricultural Sector development.
Tool	Questionnaire and document review
Frequency of reporting	Quarterly
Output statement concerned	Sector Coordination improved
Data sources	ASLMs
Responsibility for data collection	PMO
Disaggregation	National
Reporting Procedures	Reports prepared by ASLMs and Submitted to PMO
Quality Control	Government reports using agreed formats
Comments	5YDP II Indicator
Output indicator 4.4.1	Number of agricultural surveys conducted timely
Definition	The number of scheduled agricultural surveys conducted as planned.

Details of indicators for ASDP II	
Rationale/Purpose	The indicator is used to track performance of the programme from LGAs to ASLMs as part of M&E
Data Collection/methodology	Questionnaire
Tool	Periodic
Frequency of reporting	Annual
Output statement concerned	Improved capacity and agricultural data collection and management systems
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	Regional and National
Reporting Procedures	Data are collected through surveys from households level, and received at the HQ for analysis
Quality Control	Trained enumerators are using structured questionnaire
Comments	5YDP II Indicator
Output indicator 4.4.2	Number of agricultural statistics reports produced
Definition	Total periodical Agricultural Statistics reports produced and disseminated
Rationale/Purpose	The indicator indicates the effectiveness of reporting flows from LGAs to ASLMs through Regions, which is a part of institutional strengthening.
Data Collection/methodology	Questionnaire
Tool	Periodic
Frequency of reporting	Annual
Output statement concerned	Improved capacity and agricultural data collection and management systems
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	Regional and National
Reporting Procedures	Data are collected through surveys from households level, and received at the HQ for analysis
Quality Control	Trained enumerators are using structured questionnaire
Comments	5YDP II Indicator
Output indicator 4.4.3	Number of LGAs collecting and submitting agricultural routine data (ARDS) in operation
Definition	The total number of LGAs creating and submitting agricultural routine data in ARDS in operation
Rationale/Purpose	The indicator is used to measure agricultural routine data collected and managed monthly quarterly and annually and used for informed decision
Data Collection/methodology	Field data collection
Tool	Forms and web-based system
Frequency of reporting	Periodical (monthly, quarterly, Annually)
Impact statement concerned	Informed decision making
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National
Reporting procedure	Information collected from the field and received at the centre for analysis
Quality Control	Data collected by trained enumerator using structured questionnaire
Comments	5YDP II indicator

Details of indicators for ASDP II	
Output indicator 4.4.4	Number of established linkages, networking and information systems
Definition	The number of agricultural related domestic and foreign business opportunities linkages established, networking opportunities created and systems to collect and manage data created
Rationale/Purpose	To enhance linkages, networking and data management
Data Collection/methodology	Survey
Tool	Questionnaire
Frequency of reporting	Semi-annual
Output statement concerned	Improved capacity and agricultural data collection and management systems
Data sources	MIT
Responsibility for data collection	NBS/MIT
Disaggregation	National and local
Reporting	All business linkages and networking meeting reports to be
Quality Control	JSR
Comments	Malabo Declaration
Output indicator 4.5.1	Number of M&E reports produced
Definition	The total number M&E reports produced monthly, quarterly and annually
Rationale/Purpose	The indicator is used to measure if the M&E reports are produced monthly quarterly and annually and used for informed decision
Data Collection/methodology	Field data collection
Tool	Questionnaire
Frequency of reporting	Quarterly
Impact statement concerned	Informed decision making
Data sources	NBS
Responsibility for data collection	NBS
Disaggregation	National and local
Reporting procedure	Information collected from the field and received at the centre for analysis
Quality Control	Data collected by trained enumerator using structured questionnaire
Comments	5YDP II indicator.
Output indicator 4.5.2	Number of M&E experts capacitated
Definition	M&E experts trained on M&E analytical skills preferably short courses and post graduate training
Rationale/Purpose	The indicator is used to measure the M&E analytical skills at National and Local level.
Data Collection/methodology	Conduct interview to beneficiaries
Tool	Questionnaire/Forms
Frequency of reporting	Periodical
Impact statement concerned	Improved performance on data collection and analysis
Data sources	ASLMs, NBS
Responsibility for data collection	ASLMs, NBS
Disaggregation	National
Reporting procedure	Information collected direct from beneficiaries and analysed
Quality Control	Data collected by trained enumerator using structured questionnaire
Comments	5YDP II indicator.
Output indicator 4.6.1	Number of sources of agricultural information
Definition	Inventory of various sources that disseminate agricultural information in different rural areas of the country.

Details of indicators for ASDP II	
Rationale/Purpose	Sources of agricultural information are one of the important aspects of strengthened Agricultural Sector in the country.
Data Collection/methodology	Document Review
Tool	Formats
Frequency of reporting	Annual
Output statement concerned	ICT for agricultural information services and system improved.
Data sources	ARDS
Responsibility for data collection	ASLMs
Disaggregation	Regional
Reporting Procedures	Collected from village, 1st consolidation at ward level, second consolidation, Data entry and Report submission to higher levels through designed software is done at LGA level
Quality Control	Trained VAEOs/WAEOs are collecting data using harmonized Data Collection Formats
Comments	5YDP II Indicator
Output indicator 4.6.2.	Number of agricultural ICT products
Definition	ICT products developed and in use for various agricultural development interventions
Rationale/Purpose	The indicator is used to measures the quality and extent of use, absorption, and procurement of information and communication technologies in an economy
Data Collection/methodology	Document Review
Tool	Formats
Frequency of reporting	Annual
Output statement concerned	ICT for agricultural information services and system improved.
Data sources	ARDS
Responsibility for data collection	ASLMs
Disaggregation	National
Reporting Procedures	Collected from village, 1st consolidation at ward level, second consolidation, Data entry and Report submission to higher levels through designed software is done at LGA level
Quality Control	Trained VAEOs/WAEOs are collecting data using harmonized Data Collection Formats
Comments	5YDP II Indicator
Output indicator 4.7.1.	Number of financial institutions providing financial services to Agricultural sector
Definition	The number of legal financial institutions providing financial services (credit and savings) to the agriculture, livestock, and business (e.g., marketing and processing).
Rationale/Purpose	Financial Institutions are very important for farmers to improve agricultural production and productivity. This indicator addresses farmers' accessibility to credit.
Data Collection/methodology	Summation of all operational small-scale agricultural groups over all agricultural groups existing in the Agricultural Sector.
Tool	Survey and document review.
Frequency of reporting	Annual
Output statement concerned	Access to agricultural finance expanded
Data sources	MoFP, LGAs
Responsibility for data collection	LGAs and Commission for Cooperatives
Disaggregation	District, Region, National

Details of indicators for ASDP II	
Reporting	BoT Report
Quality Control	Data are collected from Banks and FIs mandated for lending
Comments	5YDP II Indicator
Output indicator 4.7.2	Number of agricultural smallholder accessing financial services by gender
Definition	Number of men and women engaged in agriculture that are financially included.
Rationale/Purpose	Access of smallholder farmers/rural households to and use of financial services for the purposes of transacting agricultural business (purchasing inputs, machinery, storage technologies, etc.) is crucial in transforming Agricultural Sector.
Data Collection/methodology	Reports
Tool	Survey and document review
Frequency of reporting	Annual
Output statement concerned	Access to agricultural finance expanded
Data sources	Survey
Responsibility for data collection	NBS
Disaggregation	National
Reporting	Data are collected through surveys from households level, and received at the HQ for analysis
Quality Control	Trained enumerators are using structured questionnaire
Comments	5YDP II Indicator
Output indicator 4.7.3	Number of agricultural households accessed loans from financial institutions by gender
Definition	Number of men and women engaged in agricultural sector who access loans from Financial Institutions (FIs),
Rationale/Purpose	Access of smallholder farmers/rural households to and use of Financial Institutions for the purposes of transacting agricultural business (purchasing inputs, machinery, storage technologies, etc.) is crucial in transforming Agricultural Sector.
Baseline	Average score:
Target	Average score:
Data Collection/methodology	Reports
Tool	Questionnaire
Frequency of reporting	Annual
Output statement concerned	Access to agricultural finance expanded
Data sources	Survey
Responsibility for data collection	NBS
Disaggregation	National
Reporting	Data are collected through surveys from households level, and received at the HQ for analysis
Quality Control	Trained enumerators are using structured questionnaire
Comments	5YDP II Indicator
Output indicator 4.7.4	Amount of credits to Agriculture sector
Definition	The amount of credits consumed by farmers for Agricultural Sector Development
Rationale/Purpose	Credits are very important for farmers to improve agricultural production and productivity. This indicator addresses farmers' accessibility to credits.

Details of indicators for ASDP II	
Data Collection/methodology	Reports
Tool	Forms
Frequency of reporting	Annual
Output statement concerned	Access to agricultural finance expanded
Data sources	Survey
Responsibility for data collection	MoFP, NBS
Disaggregation	Subsectors/National
Reporting	BoT Report
Quality Control	Data are collected from Banks and FIs mandated for lending
Comments	5YDP II Indicator
Output indicator 4.7.5	Amount of agricultural budget allocated by the Government
Definition	Expenses incurred on a set of administrative, construction, and operational support activities related to the production of crops, livestock, and fisheries.
Rationale/Purpose	Budget allocated by the Government for agricultural purposes is essential to monitor the ongoing efforts done by the Government to improve agricultural sector in the Country.
Data Collection/methodology	Annual Reports
Tool	Document review
Frequency of reporting	Annual
Output statement concerned	Access to agricultural finance expanded
Data sources	MoFP
Responsibility for data collection	MoFP
Disaggregation	Subsectors/National
Reporting	MoFP Report
Quality Control	Data are collected from MoFP mandated for National Budget
Comments	5YDP II Indicator
Output indicator 4.7.6	Amount of agricultural budget allocated by the development partners
Definition	Refers to the amount of off budget agricultural budget by development partners
Rationale/Purpose	Budget allocated by the development partners for agricultural purposes is essential to monitor the ongoing efforts done by the Government to improve agricultural sector in the Country.
Data Collection/methodology	Annual Reports
Tool	Document review
Frequency of reporting	Annual
Output statement concerned	Access to agricultural finance expanded
Data sources	MoFP
Responsibility for data collection	MoFP
Disaggregation	Subsectors/National
Reporting	MoFP Report
Quality Control	Data are collected from MoFP mandated for National Budget
Comments	5YDP II Indicator

Annex 3: ASDP II Indicators Matrix

AGRICULTURAL SECTOR DEVELOPMENT PROGRAM (ASDP) II								
Program Name:								
Program Goal:	Transform the agricultural sector (crops, livestock & fisheries) towards higher productivity, competitiveness, and commercialization and improve smallholder farmers' incomes, livelihoods, and food and nutrition security.							
RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
1.0 Improved and Sustained Integrated Management of Land and Water Resources Use (for example, for Irrigation, Water for Livestock, Cropped Land, Pastures, Ponds/Cages and Soil Fertility).	1.1: Proportion of agricultural households with secure land tenure by gender	Number of agricultural households with secure land tenure by gender divided by to total number of agricultural households	%	Village, District, National	Administrative data	Enumeration	Annually	MLHSD
	1.2: Growth rate of the size of irrigated area	Difference between irrigated area in the current year and irrigated area in the baseline year	%	District, National	Administrative data	Enumeration	Annually	MoA (NIRC)
	1.3 Growth rate of aquaculture practices	Difference between number of aquaculture practices in the current year and in the baseline year	%	District, National	Administrative data	documentary review	Annually	MLF
	1.4: Proportion of Agricultural land conflict	Difference of agricultural lands conflicts reported in the current year and base year	%	District, National	Administrative data	ARDS	Annually	MLHSD
	1.5: Percentage increase of operational water sources infrastructures for livestock	Difference between total number of all water sources infrastructures for livestock and number of operational water sources infrastructures for livestock	%	District, National	Administrative data	ARDS	Annually	MLF
	1.6: Percentage increase of operational water sources infrastructures for aquaculture	Difference between total number of all water sources infrastructures for aquaculture and number of operational water sources	%	District, National	Administrative data	ARDS	Annually	MLF
OUTCOMES								

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
2.0 Increased agricultural productivity and profitability through commercial and market-oriented agriculture		infrastructures for aquaculture						
	1.7: Percentage increase of CSA technologies practiced	Difference between CSA technologies practiced in the current year and baseline year	%	District, National	Administrative data	Enumeration	Annually	MoA (NIRC)
	1.8: Percentage decrease of agricultural Households under risk of floods and drought	Difference between agricultural households under risk of floods in the current year and baseline year	%	District, National	Administrative data	Enumeration	Annually	MoA (NIRC)
	2.1 Productivity/Yield of the priority commodities	This is the quantity produced per unit area for priority commodities in crops, livestock and fisheries sub sectors.	Ton/Ha, Kg, L/A/D,	National	Administrative data	Documentary review	Annually	MoA (DCD)
	2.2: Production of priority commodities	The proportional quantity produced for priority commodities in crops, livestock and fisheries sub sectors	%	National	Administrative data	Documentary review	Annual	MoA (DCD)
	2.3 Proportion of Adoption of Agricultural technologies and practices	The proportion of agricultural smallholder households using improved agricultural technologies and practices	%	National/Regional	Survey / Census report	Census	Annual	NBS
	2.4. Proportion of Agricultural Research funding as share of agriculture GDP	The ratio of agricultural research funding (salary related expenses, operating and program costs, and capital investments by government, non-profit, private sector, and higher education agencies) to agricultural GDP.	%	National	Administrative data	Documentary review	Annual	MoA (TARI)
	2.5 Food self-sufficiency ratio	The percentage of gross domestic food production to domestic	%	National	Administrative data	Documentary review	Annual	MoA (DNFS)

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
		food requirement.						
	2.6 Malnutrition incidences (chronic and transitory) in Tanzania	Percentage of rural population who lack proper nutrition caused by not having enough to eat, not eating the right food, or being unable to use the food that one eat.	%	National	Administrative data	Documentary review	Annual	DNFS
3.0. Improved and expanded marketing and value addition by thriving competitive private sector and effective farmer organizations	3.1 Gap between farm gate price and market price	This is the percentage change between farm gate prices to wholesale prices. The indicator addresses the concern with the prices that wholesalers pays to producers. High market margin can result from high transaction costs, including transportation, existence of monopoly or cartel, information asymmetry, etc.	%	regional, National	Administrative data	Document Review	Annually	MIT
	3.2: Ratio of value of processed agricultural export to total agricultural export	This is the ratio of the value of all processed agricultural products that have been exported from Tanzania to the rest of the world to the total value of all exported agricultural products.	%	National	Administrative data	Document Review	Annually	MIT
	3.3: Reduction rate of Post-harvest losses for the national priority commodities	Percentage of total production that is lost (quantitative and qualitative) during all stages of the post-harvest phases for priority commodities. It includes the losses that occur during harvesting, storage, transport, processing, packaging and sales.	%	National	Administrative data	Document Review	Annually	MoA (DNFS)

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
4.0. Strengthened Sector Enablers, Coordination and M&E	4.1: Proportion of private investment to agricultural sector vs total investment	Referring to the ratio of the monetary value of the private sector investment to the agricultural sector and total investment to the sector.	%	National	Administrative data	Documentary review	Annually	PMO/ASLMs
	4.2: Share of financial sector lending to agricultural sector.	the ratio of financial sector lending/loans to the agricultural sector over the total lending	%	National	Administrative data	Documentary review	Annually	MoFP
	4.3: Proportion of rural women empowered in agricultural sector	Women empowerment in agricultural sector in five domains : (1) agricultural production , (2) access to and of empowerment (SDE) in agriculture , (3) control of use of income , (4) decision-making power about productive resources , and (5) time allocation .	%	National and district	Administrative data	Documentary review	Annually	PMO
	4.4: Percentage of youth that is engaged in the agricultural sector along value chains	Refers to the share of the total number of mature young of 15-35 old age range that is employed in the in agricultural sector (Agriculture, forestry and fishing)	%	National	Administrative data	Documentary review	Annually	PMO
	4.5: Proportion of women and men engaged in Agricultural sector with access to financial services	Ratio of the number of men and women engaged in agricultural sector that are financially included. Financial inclusion includes ownership/use of at least one of any financial service, including bank and non-bank financial institutions (bank and savings accounts), mobile money, etc.	%	National	Administrative data	Enumeration	Annually	NBS

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
	4.6: Public agricultural sector expenditure as a share of total public expenditure	It is a measure of agricultural spending intensity ratio, which is a more relevant measure of the country's agriculture commitments.	%	National	Administrative data	Budget analysis Reports	Annually	MoFP
COMPONENT ONE: Sustainable Land and Water use Management for crop, Livestock and Fisheries								
OUTPUT	1.1 Land use planning and water shade management	1.1.1 Number of villages with village land certificate. 1.1.2 Number of villages with Land use plan 1.1.3 Number of CCRO provided	Number	National	Administrative data	documentary review	Annually	MLHSD
		Total number of villages with land use plan	Number	National	Administrative data	documentary review	Annually	MLHSD
		Total number of agricultural households who own CCRO	Number	National	Administrative data	documentary review	Annually	MLHSD
	1.2 Irrigation infrastructures development	1.2.1 Number of irrigation schemes constructed 1.2.2 Number of irrigation schemes rehabilitated 1.2.3 Hectares under irrigation	Number	District/Regional/National	Administrative data	documentary review	Annually	MoA (NIRC)
		Total of irrigation schemes which have been constructed	Number	District/Regional/National	Administrative data	documentary review	Annually	MoA (NIRC)
		Sum of all hectares which are under irrigation	Ha	District/Regional/National	Administrative data	Enumeration	Annually	MoA (NIRC)
		Sum of all schemes which are full developed by the program and which are operational	Number	District/Regional/National	Administrative data	documentary review	Annually	MoA (NIRC)
	1.3 Irrigation scheme management and operation	1.3.1 Number of IO strengthened	Number	District/Regional/National	Administrative data	documentary review	Annually	MoA (NIRC)
	1.4 Water infrastructure development for livestock and fisheries	1.4.1 Number of livestock water infrastructure constructed 1.4.2 Number of aquaculture water infrastructure constructed 1.4.3 Number of Livestock water user committees strengthened	Number	District, National	Administrative data	ARDS	Annually	MLF
		Sum of all aquaculture water infrastructure constructed	Number	District, National	Administrative data	ARDS	Annually	MLF
		Sum of all livestock water user committees which have been strengthened	Number	District, National	Administrative data	ARDS	Annually	MLF

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
1.5 Promote Climate Smart Agriculture Technologies (CSA) and practices	1.4.4 Number of fisheries water user committees strengthened	Sum of all fisheries water user committees which have been strengthened	Number	District, National	Administrative data	ARDS	Annually	MLF
	1.5.1 Number of CSA technologies developed	Sum of all CSA technologies developed	Number	Village, District	Administrative data	ARDS	Annually	MoA (MES/HEMU)
	1.5.2 Number of households practicing CSA technologies	Sum of all households who are practicing CSA technologies.	Number	District, National	Administrative data	ARDS	Annually	MoA (MES/HEMU)
COMPONENT TWO: Productivity and Profitability through Market oriented Agriculture								
2.1 Strengthened Extension services	2.1.1 Number of extension staff	The total number of extension staff for crops, livestock and fisheries subsectors	Number	National	Administrative data	ARDS	Annually	MoA/MLF (MES)
	2.1.2 Number of agricultural smallholders having access to Agricultural advisor services	Farmers having access to agricultural advisory services (ASS) through training information sharing, and other extension support related services to farmers and small-to-medium enterprises in rural value chains. The ASS can be provided through public extension services, agribusiness private companies, CSOs, Farmer organizations, cooperatives, integrated rural development project. AAS can be organized through physical trainings, ICT, Video, pamphlets, training school farms etc.	Number	regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DRTE)

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
	2.1.3 Number of agricultural smallholders trained	Farmers received physical training in rural value chains. The training can be provided through public extension services, agribusiness private companies, CSOs, organizations, cooperatives, integrated rural development project.	Number	regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DRTE)
	2.1.4 Number of extension staff trained	The total number of extension staff received training	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DRTE)
	2.1.5 Number of extension staff retooled	The total number of extension staff supplied with working gears i.e. motorbikes, bicycles, extension tool kit, computers, photocopyers,	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DRTE)
	2.1.6 Number of ward agricultural resources centers (WARS)	The total number ward agricultural resources centre (WARCs) in the country. WARCs are agriculture resources centre established in each ward to provide agricultural advisory services, demonstration on improved productive technologies aimed at increasing productivity and production.	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DRTE)
	2.2.1 Amount of improved seeds used	The total amount of improved seeds (Certified Seeds, Quality Declared Seeds, Quality Semen, fingerling) used for priority value chains	Tone/L/Pcs	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DCD)
2.2 Improved access to inputs and health services	2.2.2 Amount of fertilizer applied	The total amount of fertilizer in metric tons of plant nutrient consumed in agriculture	Tone	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DCD)

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
	2.2.3 Number of agricultural smallholders utilizing agrochemicals	The number of agricultural smallholders utilizing agrochemicals (herbicides, insecticides, fungicides and acaricides) to control diseases and pests in crops and livestock.	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DCD)
	2.2.4 Number of households practice biological control measures	The indicator is used to measure the number of farmers practicing biological control measures.	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DCD)
	2.2.5 Number of stockiest at village level.	Total number of stockiest who serve farmers in the country, where stockiest means agro-dealer who sell agricultural inputs in retail.	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DCD/ASA)
2.3. Research and Development	2.3.1 Budget allocation to agricultural research	Total amount of budget allocated to agricultural research	TZS	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (TARI/DPP)
	2.3.2 Number of agricultural technology developed	The total number of agricultural technologies developed	Number	National	Administrative data	Documentary review	Annually	MoA/MLF (TARI)
	2.4.1 Number of agricultural households using agro-machinery	The total number of agricultural households using agro-machinery	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DMI)
2.4 Strengthen and Promote mechanization	2.4.2 Area cultivated using agro-machinery	The total area cultivated by using agro-machinery.	Ha	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DMI)
	2.4.3 Number of agro-mechanization hiring centers	The total number of agro-mechanization hiring centres in the country.	Number	Regional, National	Administrative data	Enumeration	Annually	MoA/MLF (DMI)
	2.5.1 Average number of meals consumed per day	Average number of meals consumed per day by agricultural household	Number	Regional, National	Survey	Questionnaire	Annually	NBS
2.5. Food and Nutrition Security	2.5.2 Number of household with low dietary diversity	The number of rural population that have low access to variety of food	Number	Regional, National	Survey	Questionnaire	Annually	NBS

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
COMPONENT THREE: Commercialization and Value addition for Agricultural Commodities								
3.1: Develop market access for all priority commodities	3.1.1 Number of market infrastructures in operations	This is the total number of all market infrastructure (market centres, livestock markets, warehouses, milk collection centre, cold rooms, holding ground, quarantine station, landing sites and feeder roads) that are in operation.	Number / Km	National, Regional	Administrative data	Documentary Review	Annually	MIT/ASLMs
	Market infrastructure Definitions	Market Centre is a physical place where buyers and sellers can gather to facilitate the exchange of agricultural goods and services	Number	National, Regional	Administrative data	Documentary Review	Annually	
		Warehouse is a building for storing agricultural goods/crop	Number	National, Regional	Administrative data	Documentary Review	Annually	
		Milk collection centre is a place where milk are collected from several agricultural members where by the milk can be processed or transported to processing centre or market	Number	National, Regional	Administrative data	Documentary Review	Annually	
		Feeder road is a road that serves as feeder from production area to the more important or main road	Km	National, Regional	Administrative data	Documentary Review	Annually	
		Cold room is a room in which a specific temperature is artificially generated to stop agricultural crops from decaying	Number	National, Regional	Administrative data	Documentary Review	Annually	

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
		Landing site is a site within coastline over which troops or equipment and supplies of agricultural crops (fish) can be landed by surface means	Number/km	National, Regional	Administrative data	Documentary Review	Annually	
		Hide/Skin Shed: Shed for curing/tanning animal skins and hides	Number	National, Regional	Administrative data	Documentary Review	Annually	
	3.1.2 Number of commodities traded through WRS	This is the total number of all commodities that have been traded through WRS.	Number	Regional/ National	Administrative data	Documentary Review	Annually	MIT
	3.1.3 Volume of commodities traded through WRS	This is the total volume of all commodities that have been traded through WRS.	Tone	National	Administrative data	Documentary Review	Annually	MIT
	3.1.4 Number of commodities listed under the commodity exchange market	This is the total number of all commodities that have been traded through commodity exchange market	Number	National	Administrative data	Documentary Review	Annually	MIT
	3.1.5 Volume of agricultural commodities traded through commodity exchange market	The total volume of agricultural commodities listed under commodity exchange market.	Tone	National	Administrative data	Documentary Review	Annually	MIT
	3.1.6 Volume of priority agricultural commodities traded through formal markets	The total volume of priority agricultural commodities traded through formal markets.	Tone	National	Administrative data	Documentary Review	Annually	MIT
	3.1.7 Number of agricultural households accessing market information services	The number of agricultural households having access to market information services. The total number of Households who can access market information by any mean of communications e.g. Phones, Newspaper, Radio etc.	Number	Regional/ National	Administrative data	ARDS	Annually	MIT

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
3.2 Development of processing and value addition for crop, livestock and fisheries products	3.1.8 Number of sources disseminating market information	The number of sources used to provide market information to producers and buyers of agricultural product. (the means used to deliver market information to customers and producers.) e.g. Mobile phones, Radio, TV etc.	Number	National	Administrative data	Documentary Review	Annually	MIT
	3.2.1 Number of agro-processing infrastructure in operation.	Total number of agro-processing infrastructure in operation (abattoirs, milling machines, ginneries, pulpiers, livestock and fish processing industries)	Number	National	Administrative data	Documentary Review	Annually	MIT
	3.2.1 Volume of commodities processed	Total volume of agricultural goods processed in different stages of production (crops, livestock and fisheries)	Ton	National	Administrative data	Documentary Review	Annually	MIT
3.3 Improved post-harvest management	3.3.1 Number of post-harvest technologies promoted	The total number of post-harvest technologies promoted	Number	Regional/ National	Administrative data	Documentary Review	Annually	MoA (DNFS)
	3.3.2 Number of households using post-harvest technologies or practices	The total number of households using post-harvest technologies or practices	Number	Regional/ National	Administrative data	Documentary Review	Annually	MoA (DNFS)
	3.3.1.3 Number of storage facilities constructed	The total number of storage facility (warehouses, pack houses, cold chains) constructed)	Number	Regional/ National	Administrative data	Documentary Review	Annually	MoA (DNFS)
	3.3.1.4 Number of operational storage facilities	The total number of storage facility (warehouses, pack houses, cold chains) which are operational	Number	Regional/ National	Administrative data	Documentary Review	Annually	MoA (DNFS)
COMPONENT FOUR: Sector Enablers, Coordination and M&E								
4.1 Policy and Regulatory business environment improved	4.1.1 Number of policies reviewed	To review the existing agricultural policy frameworks which include policies, strategies and plans to	Number	National	Administrative data	Documentary review	annually	PMO

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
		support the sector						
	4.1.2 Number of policies formulated	Number of agricultural policies, strategies and plans developed/updated in order to support the sector	Number	National	Administrative data	Documentary review	Annually	PMO
	4.1.3 Number of business regulations reviewed	Number of agricultural (crops, livestock and fisheries) procedures and processes including all laws, by-laws and regulation related to Testing standardization, certification and inspection with conflicting mandates reviewed in order to improve the sector	Number	National and local	Administrative data	Documentary review	Annually	PMO
	4.1.4 Number of business regulations formulated/adjusted	Number of changes made to the agricultural (crops, livestock and fisheries) procedures and processes including all laws and regulations related to testing, standardization, certification and inspection with conflicting mandates in order to improve the sector	Number	National and local	Administrative data	Documentary review	Annually	PMO
	4.1.5 Number of new private investment in Agricultural sector	Referring to the total number of private domestic and foreign investments (large scale) to the agriculture sector	Number	Domestic and foreign	Administrative data	Documentary review	Annual	PMO
	4.1.6 Value of private sector investment in Agricultural sector	Referring to the total monetary value of the private investment (small scale and large scale) to the agriculture sector	TZS	small scale/large scale, local and foreign	Administrative data	Documentary review	Annual	PMO

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
4.2 Strengthening organizational and technical capacity and new small-scale producers, trade and processing farmers organization and cooperatives	4.2.1 Number of small-scale agricultural groups in operations	Summation of operational groups made up of members from subsistence system of farmers/livestock keepers/fisheries communities	Number	National and local	Administrative data	Documentary review	Annual	MoA
	4.2.2 Number of small-scale agricultural groups capacitated	Summation of farmer groups made up of members from subsistence system that are capacitated in various agricultural and financial management skills.	Number	National and local	Administrative data	Documentary review	Annual	MoA
	4.2.3 Number of SACCOS	Refers to the summation of active SACCOS	Number	National and local	Administrative data	Documentary review	Annual	MoA
4.3 Sector Coordination improved	4.2.4 Volume of loans issued through SACCOS	Refers to the total number of loans issued through SACCOS	Number	Men and women	Administrative data	Documentary review	Annual	MoA
	4.2.5 Value of loans issued by SACCOS	Refers to the total value of loans issued by SACCOS	TZS	Men and women /local and national	Administrative data	Documentary review	Annual	MoA
	4.3.1 Number of private sectors participating in Agricultural programs	Summation of all private sector institutions/organizations that are formerly involved in various Agricultural programs focussing in developing and investing in Agricultural Sector in the country	Number	Local and national , profit making and non-profit making	Administrative data	Documentary review	Annually	PMO/ASLMs
4.4 Improved capacity and agricultural data collection and management systems	4.3.2 Number of platforms in operations	Number of multi-stakeholders platforms (meetings) organized and held during the year under ASDP II	Number	Local and national	Administrative data	Documentary review	Annually	PMO
	4.4.1 Number of agricultural surveys conducted timely	Refers to the number of scheduled agricultural surveys conducted as planned.	Number	National	Administrative data	Survey report	Annually	NBS
	4.4.2 Number of agricultural statistics reports produced.	Total periodical Agricultural Statistics reports produced and disseminated	Number	National	Administrative data	Survey report	Annually	NBS

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
	4.4.3 Number of LGAs collecting and submitting agricultural routine data (ARDS) in operation	The total number of LGAs creating and submitting agricultural routine data in ARDS in operation	Number	LGAs, regional and national	Administrative data	ARDS	Monthly, quarterly and annual	MoA (MES)
	4.4.4 Number of established linkages, networking and information systems.	Refers to the number of agricultural related domestic and foreign business opportunities linkages established, networking opportunities created and systems to collect and manage data created	Number	LGAs, regional, National and International	Administrative data	Documentary review	Annually	PMO
4.5 Agricultural Sector M&E system strengthened	4.5.2 Number of M&E reports produced	The total number M&E reports produced monthly, quarterly and annually	Number	National, and local	Administrative data	Documentary review	Annually	PMO
	4.5.3 Number of M&E experts capacitated	To ensure M&E experts are trained on M&E analytical skills preferably at master's degree both at National and Local level	Number	National and local, skills level	Administrative data	Documentary review	Annually	PMO
4.6 ICT for agricultural information services and system improved.	4.6.1. Number of sources of agricultural information	Inventory of various sources that disseminate agricultural information in rural areas of the country.	Number	National and local, by type, private and public	Administrative data	Documentary review	Annually	PMO
	4.6.2. Number of agricultural ICT products	ICT products developed and in use for various agricultural development interventions	Number	National and local	Administrative data	Documentary review	Annually	PMO
	4.7.1. Number of financial institutions providing financial services to Agricultural sector	The number of legal financial institutions providing financial services (credit and savings) to the agriculture, livestock, and business (e.g., marketing and processing).	Number	National and local, type (banks, Microfinance etc.)	Administrative data	Documentary review	Annually	MoFP

RESULTS CHAIN	Indicator	Definition	Unit of Measurement	Level of Disaggregation	Data type	Method of Data Collection	Frequency	Responsible Entity/Data Source
4.7 Access to agricultural finance expanded	4.7.2 Number of agricultural smallholders accessing financial services by gender	Number of men and women engaged in agricultural sector that are financially included. Financial inclusion includes ownership/use of at least one of any financial service, including bank and non-bank financial institutions (bank and savings accounts), mobile money, etc.	Number	men and women, type of financial services	Administrative data	Survey	Annually	NBS
	4.7.3 Number of agricultural smallholders accessed loans from financial institutions by gender	Proportion of men and women engaged in agricultural sector with access to Financial Institutions (FIs),	Number	men and women	Administrative data	Survey	Annually	NBS
	4.7.4 Amount of credits to Agriculture sector	The amount of credits consumed by farmers for Agricultural Sector Development	TZS	Men and women	Administrative data	Documentary review	Annually	PMO
	4.7.1.5 Amount of agricultural budget allocated by the government	Expenses incurred on a set of administrative, construction, and operational support activities related to the production of crops, livestock, fisheries	TZS	national	Administrative data	Documentary review	Annually	PMO
	4.7.1.6 Amount of agricultural budget allocated by the development partners	Refers to the amount of off budget agricultural budget by development partners	TZS	national	Administrative data	Documentary review	Annually	PMO

