THE UNITED REPUBLIC OF TANZANIA

Tanzania Agriculture Statistics Strategic Plan (2014/15– 2018/19)

Strengthening Agricultural Statistics

National Team

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LIST OF ABBREVIATIONS

AASS	Annual Agriculture Sample Survey
AfDB	African Development Bank
ARDS	Agriculture Routine Data System
ASDP	Agriculture Sector Development Programme
ASDS	Agriculture Sector Development Strategy
ASLMs	Agriculture Sector Lead Ministries
ASS	Agricultural Statistics System
ASSP	Agriculture Statistics Strategic Plan
BEO	Block Extension Officer (Zanzibar)
BMGF	Bill and Melinda Gates Foundation
BOT	Bank of Tanzania
CAADP	Comprehensive Africa Agricultural Development Programme
DALDO	District Agriculture and Livestock Development Officers
DALO	District Agriculture and Livestock Officer (Zanzibar)
DPs	Development Partners
DPP	Director of Policy and Planning
GDP	Gross Domestic Product
GIS	Geographic Information System
GPS	Global Positioning System
EASTC	Eastern Africa Statistical Training Center
FAO	Food and Agriculture Organization of the United Nations
HBS	Household Budget Survey
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
JWGs	Joint Working Groups
LGA	Local Government Authority
MAFC	Ministry of Agriculture, Food Security and Cooperatives
MNRT	Ministry of Natural Resources and Tourism
MDAs	Ministries, Departments and Agencies
MLFD	Ministry of Livestock and Fisheries Development

MIT	Ministry of Industry and Trade
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
MIS	Management Information System
MoU	Memorandum of Understanding
NASS	National Agricultural Statistics Service
NBS	National Bureau of Statistics
NEPAD	New Partnership for Africa's Development
NIMES	National Integrated Monitoring and Evaluation Strategy
NPS	National Panel Survey – Integrated Survey on Agriculture
NSCA	National Sample Census of Agriculture
NSDS	National Statistics Development Strategy
NSGRP	National Strategy for Growth and Reduction of Poverty
NSO	National Statistics Office
NSS	National Statistical System
OCGS	Office of Chief Government Statistician
PMO-RALG	Prime Minister's Office – Regional and Local Governments
RALO	Regional and Livestock Officer (Zanzibar)
RSs	Regional Secretariats
TOR	Terms of Reference
TRA	Tanzania Revenue Authority
TSMP	Tanzania Statistical Master Plan
TWG	Technical Working Group
UNFPA	United Nations Population Fund
USDA	United States Department of Agriculture
VAEO	Village Agriculture Extension Officer
WAEO	Ward Agricultural Extension Officer
WTO	World Trade Organization

FOREWORD

The Agricultural Statistics Strategic Plan is an integrated part of the Tanzania Statistical Master Plan (TSMP) which is a framework that aims at providing strategic directions and appropriate mechanisms for guiding and accelerating the development of sustainable statistical capacity in the country. It is part of the activities of the Tanzania National Statistical System, to provide harmonized, coordinated and quality statistics including for agriculture and rural development.

The Global Strategy to Improve Agricultural and Rural Statistics was adopted by the United Nations in 2010. The objective of the global strategy was to provide a framework and methodology for improving the quality and availability of national and international food and agricultural statistics; and to guide policy analysis and decision making in 21st Century. It is within this framework and the African Action Plan of the Global Strategy that Tanzania undertook to prepare this Agriculture Statistics Strategic Plan (ASSP).

In drafting the ASSP for Tanzania, it was recognized that, the country was already pursuing other development initiatives like the National Strategy for Growth and Reduction of Poverty (NSGRP) commonly known as MKUKUTA for Tanzania Mainland and Zanzibar Poverty Reduction Plan (ZPRP) which is also known as MKUZA, Agricultural Sector Development Strategy (ASDP), Millennium Development Goals (MDGs) and other national and sectoral development frameworks for the purpose of addressing results-based agenda. The achievement of these initiatives requires quality statistics for systematic measurements and reporting of development results and for monitoring and evaluation of the development initiatives. Also there is an increased focus on evidence-based policy and decision-making which requires that public policy decisions are informed by carefully and rigorously analyzed credible and quality statistics.

The ASSP has a number of strategic objectives and targets to be achieved. Indeed availability of quality agriculture statistics facilitates planning. The achievement of the targets will have an impact in many ways but most importantly in assisting policy makers in making decisions on a rational basis and in monitoring and evaluating the impact of agricultural policies and programmes. Critical information on crop area, yield and production, livestock population and many other indicators will be available to all users but more importantly to policy and decision makers including Development Partners in Tanzania.

The preparation of this Plan has been undertaken by the National Bureau of Statistics (NBS) in collaboration with the Office of the Chief Government Statistician (OCGS) Zanzibar with the assistance of the National Team composed of members from NBS, OCGS and Agriculture Sector Lead Ministries (ASLM) including the Eastern Africa Statistical Training Centre (EASTC) and technical support from FAO experts and consultants. The work undertaken by the team enabled the collaboration of their institutions and other stakeholders, agricultural data producers and users within the National Statistical System of Tanzania.

Throughout the preparation of the ASSP, the development partners in Tanzania have been associated in order to ensure that their views were taken into account. At the same time the Senior Tanzania Government officials in the various ASLM ministries and the Prime Minister Office were associated to ensure their contribution to the development of the ASSP.

On behalf of the Government of United Republic of Tanzania, the NBS and OCGS acknowledges with thanks the contribution of the Food and Agriculture Organization of the United Nations (FAO), The World Bank, African Development Bank (AfDB) and other stakeholders for their contributions in the development of the Tanzania ASSP.

Hon. Mizengo Peter Pinda (MP),
Prime Minister, United Republic of Tanzania

EXECUTIVE SUMMARY

The agricultural sector in Tanzania (crop production, livestock, fisheries and forestry) is about 23 percent of National GDP, with around 30% contribution in Zanzibar. Agriculture crops and livestock, forestry and fisheries are also a key provider of employment and livelihoods for the rural population and therefore contribute to the reduction of poverty in Tanzania.

The importance of accurate and reliable agricultural statistics cannot be overemphasized in particular for planning and evidence based decision making. In addition, agricultural statistics are required in order to determine the growth of the sector, measure employment and reduction of poverty of the population in the rural areas of the country.

In recent years, Tanzania launched a number of policy initiatives, strategies and plans for development purposes. These policies and plans included Tanzania Development Vision 2025 (MKUKUTA); Development Vision 2020 for Zanzibar (MKUZA); The Medium Term Development Plans 2011-2016; the National Poverty Eradication Strategy (NPES) (1998); and the Poverty Reduction Strategy (PRSP) (2000).

The development of the ASSP was in line with TSMP which envisaged strengthening the National Statistical System in the country, focusing on the following: (i) Addressing data limitations which are constraining the development process; (ii) Providing a framework for prioritizing the use of limited resources; (iii) Integrating statistics within policy processes; and (iv) Providing a robust and coherent framework for statistics and statistical capacity, and (v) Building programmes across the entire National Statistical System.

The situation analysis of the Tanzania National Statistics System showed a number of weaknesses as follows: (i) Decentralization of powers to local government lead to lack of control on data collection and reporting at district and village levels from central line ministries in Tanzania mainland.; The number of professional statisticians requires to be increased; Village Agriculture Extension Officers (VAEOs) and District Agriculture and Livestock Development Officers (DALDOs) lack basic statistical skills; Sensitization of district level management on importance of evidence based policy and data use was lacking; Skills in data analysis, data quality checking, data interpretation and reporting required improvement ; Methodologies for

collection and analysis of data on agriculture production estimation needed updating; Data collection and reporting by VAEOs/DALDOs lacked systematic methods and were inadequate; Therefore it is expected that ASSP implementation will have a significant impact to PMO-RALG who are one of key stakeholders in the country. There was lack of timely and complete data due to data flow problems during collection and delays in processing; There was overlap in data collection systems for agriculture statistics; ASLMs did not routinely publish data on existing databases; There is inadequate office space, office equipment (computers, printers, photocopiers) and statistical software for data analysis; and Field equipment was lacking at district and village levels.

The following challenges were reported in the situation analysis: Lack of coordination of initiatives among Development Partners (DPs) on strengthening agricultural statistics; Inadequate and uneven flow of financial resources for production of agricultural statistics; Need to encourage even greater use of statistics by district and regional governments; and required data not always available for monitoring and evaluation purposes.

The following were the vision and mission that were formulated: Vision: "To become an efficient, sustainable and well integrated agricultural statistical system that produces quality agricultural statistics for planners, researchers, decision makers and general public in an objective, timely and cost effective manner"; and Mission "To facilitate the process of production, dissemination and archiving of quality agricultural statistics in Tanzania".

The strategic goals of ASSP were in line with the three pillars of the Global Strategy to Improve Agriculture and Rural Statistics namely: (a) Integration of agriculture into a National Statistical System; (b) Identification of the minimum set of core data and determination of the national priorities; and (c) Sustainability of agricultural statistics through governance and statistical capacity building.

In addressing the weaknesses and challenges of the Tanzania National Statistical System and in order to achieve the objectives of the Plan, the following strategic goals were formulated:

    i)   Strengthening Legal and Institutional Framework and Coordination of Agricultural Statistics System;

ii) Developing Human Resource Capacity to meet data production effort;

iii) Rationalizing Statistical Operations and processes, improving quality and user relevance of agricultural statistics data;

iv) Statistical Infrastructure improved; and

v) Physical Infrastructure and Equipment improved.

The specific actions in terms of targets and activities to be undertaken for each strategic goal have been described in the document and the responsible Institutions for undertaking the actions have been specified in the Logical Framework of the ASSP.

With regard to implementation of the ASSP, the institutional, arrangements, committee composition, roles and responsibilities have been described in the document. The Monitoring process will help to track the performance of the strategic plan in terms of inputs, activities, and expected outputs, so as to determine whether the ASSP implementation is on course and also to assess how much was being achieved. Monitoring of the ASSP would enable players to get a picture of where the Plan is going in relation to the set objectives.

The ASSP will be a living document that will require adjustments as conditions change. Monitoring will also be essential in providing information that is required for accountability purposes. The achievement of the objectives of the ASSP will be measured through a set of designed performance indicators.

With regard to evaluation, the ASSP will be evaluated twice, at the middle and at the end of the implementation period. The evaluation process will assess the performance of the implementation of the ASSP towards the set objectives. The progress of the implementation of ASSP will be reported on quarterly and annual basis. Monitoring and Evaluation of the ASSP will be coordinated by NBS and OCGS in collaboration with the ASLMs.

An annual work plan will be prepared together with the Procurement, Monitoring and Evaluation as well as training plans. In the process of preparing the plans, the inputs will be drawn from implementing Ministries and Institutions within the ASS. The plans will constitute tangible and measurable performance indicators, targets, activities timeline and persons responsible. It will also ensure that operational plans are incorporated and aligned with available budget.

In order to create the awareness among the key players including decision makers and Development Partners on the importance of the ASSP, there will be need to embark on different measures of sensitization. The measures will focus on the use of statistics for evidence based policy and decision making, prioritization of resources towards agricultural statistics activities and soliciting funds from different sources.

The estimated budget for ASSP activities is USD 17 million for the period July 2014 to June 2019. This estimation is based on a detailed work plan with the list of activities to be carried out during the next five years by the eight major Statistical Units producing Agricultural Statistics at NBS, OCGS and in the ASLMs.

CHAPTER ONE

1   INTRODUCTION

1.1   Objective and Rationale for Agriculture Statistics Strategic Plan

The overall objective of the ASSP is to provide an overall strategic framework for strengthening the Agricultural Statistics System (ASS) in Tanzania so as to facilitate the production of quality agricultural statistics for policy formulation, planning and decision making. It identifies the key issues and challenges constraining the development of agricultural statistics. The strategic plan has been developed to address the issues identified in the situation analysis.

The ASSP will enable the Agricultural Statistics System to sustain optimum capacity to assess and satisfy user needs, providing a "road map" for developing the ASS over a five year period to materialize an effective and efficient agricultural data system (collection, analysis, reporting and utilization).

The rationale of developing ASSP derives from increased demand of agricultural statistics to inform national development processes. In particular, the benchmarking, monitoring and evaluation of national development initiatives and programmes, has necessitated the need of having a strategic plan in the country. Changes in the institutional context in Tanzania with Devolution by Decentralization have led to difficulties for the agriculture statistics system and in production of data having the quality, reliability and timeliness required by users. Under the Global Strategy to Improve Agriculture and Rural Statistics, the development of strategic plans for agriculture in countries is seen as a primary step which will enable coordinated interventions in the agriculture statistics system and development which addresses the priority needs of the Tanzanian agriculture statistics stakeholders.

The focal institutions responsible for executing the ASSP are National Bureau of Statistics (NBS) in Tanzania Mainland and Office of Chief Government Statistician OCGS) in Tanzania Zanzibar. Other players in Tanzania Mainland are the Ministry of Agriculture, Food Security and Cooperatives (MAFSC); Ministry of Livestock and Fisheries Development (MLFD); Ministry of Industry and Trade (MIT); Prime Minister Office, Regional Administration and Local Government (PMO-RALG); and Ministry of Natural Resource and Tourism (MNRT). In Zanzibar, the players are the Ministry of Agriculture and Natural Resource (MANR) and Ministry of Livestock and Fisheries (MLF). Other stakeholders are

Farmers, Development Partners, Farmers Organizations, Crop and Livestock Boards and Trade Companies.

1.2   Background Information

The agricultural sector in Tanzania (crops production and livestock, fisheries and forestry) is about 23 percent of National GDP, with around 30% contribution in Zanzibar. Agriculture crops and livestock, forestry and fisheries are also a key provider of employment and livelihood for the rural populations and is therefore key to poverty reduction. The importance of accurate and reliable agricultural statistics cannot be overemphasized for planning and evidence based decision making.

1.3   Policy Context and Resulting Demand for Agricultural Data

The demand for agricultural statistical data and information has increased dramatically over the past few years. This increase has been brought about by the increasing need of quality statistics that supports and serves as a basis for analyzing, monitoring and evaluating development policies and programmes for the agricultural sector.

The agricultural policies driving this demand are outlined:

	Mainland URT			Zanzibar
Long-term	Tanzania Development Vision (TDV) 2025			Vision 2020
Medium-term	National Strategy for Growth and Reduction of Poverty (MKUKUTA I) 2005/6–2009/10	MKUKUTA II 2010/11–2014/15	Five-Year Development Plan (FYDP) 2011/12–2015/16	Zanzibar Strategy for Growth and Reduction of Poverty
Sector-level	Agricultural Sector Development Strategy (ASDS) 2001			
Private investment framework	*Kilimo Kwanza* (Agriculture First) 2009			Agricultural Transformation Initiative
	Agricultural Sector Development Programme (ASDP) 2006–2012/13			Agriculture Strategic Plan 2002–2011 (revised in 2004 and 2008)
	Participatory Agricultural Development and Empowerment Project (PADEP)			Agricultural Service Support Programme
	District Agriculture Sector Investment Project (DASIP)			
	Agricultural Marketing Systems Development Programme (AMSDP)			
	Rural Financial Services Programme (RFSP)			
	Marine and Coastal Environment Management Project (MACEMP)			
Comprehensive Africa Agriculture Development Programme (CAADP) financing mechanism and framework	Tanzania Agriculture and Food Security Investment Plan (TAFSIP) 2011/12–2020/21			

Source: Author's elaboration.

Source: MAFAP/SPAAA (2013)

Agriculture has been identified as a priority area for strategic intervention under MUKUKUTA 1, MUKUKUTA II AND FYPD. The Agricultural Sector Development Strategy was adopted in 2001 to support the realization of TDV 2025 and to achieve the sectoral policy objectives of MKUKUTA.

The second key policy is the Tanzania Agricultural and Food Security Investment Plan (TAFSIP) under the Comprehensive Africa Agriculture Development Programme (CAADP) process. Within a sector wide approach (SWAP), the TAFSIP addresses national level aspirations expressed in Vision 2020/25 and implements the Agricultural Sector Development Strategy (ASDS), complemented by Kilimo Kwanza to embark Tanzania's Green Revolution to transform its agriculture into a modern and commercial sector. TAFSIP will be implemented through the ASDP and other government- and private sector led programmes/projects for the Mainland, and the Agricultural Support Programme (ASP-Z) for Zanzibar.

The key data indicators for monitoring of these two policies mapped to data sources is provided in Annex 1.

1.4   Integration with the Tanzania Statistical Master Plan (TSMP)

The development of the Agriculture Statistics Strategic Plan is in line with TSMP which envisaged strengthening Statistics System in the country, focusing on the following:-

    i)   Addressing data limitations which are constraining the development process;

    ii) Providing a framework for prioritizing the use of limited resources;

    iii) Integrating statistics within policy processes; and

    iv) Providing a robust and coherent framework for all statistics and statistical capacity, and build programmes across the entire National Statistical System.

The TSMP design process involved the design of Sector Strategic Plans for Statistics (SSPSs), which were used as building blocks for the overall plan. In this connection, it was found necessary that a strategic plan for the development of agricultural statistics be developed to address in more detail, specific issues on the Agricultural Statistics System.

1.5   The Process of Developing the Agriculture Statistics Strategic Plan (ASSP)

The ASSP was fully developed and owned by the government of Tanzania. The ASSP development process was led by a National Team of NBS and Agricultural Sector Lead Ministries (ASLMs): National Bureau of Statistics (NBS), Ministry of Agriculture Food Security and Cooperatives (MAFC), Ministry Industry and Trade (MIT), Ministry of Livestock and Fisheries Development (MLFD), Zanzibar – Ministry of Livestock and Fisheries (MLF), Zanzibar– Office of Chief Government Statistician (OCGS), Zanzibar–

Ministry of Agriculture and Natural Resources (MANR) and Eastern Africa Statistical Training Centre (EASTC). The process was fully participatory and included consultations with key stakeholders as outlined in section 2.3 facilitated by NBS and OCGS.

The process included review and alignment to the key agriculture policies discussed in section 2.1. It included an identification of all key stakeholders, including users and producers and an assessment of their data needs. The process included a detailed situation analysis of the existing agriculture statistics system. The assessment and situation analysis took into account findings from the Country Assessment Questionnaire of the Global Strategy as well as findings from joint FAO/USDA/AfDB missions and other assessment studies 8JICA, DfID, etc.). The situational analysis included the TSMP sector strategic plans where their main roles and functions were considered. The situational analysis came up with areas for improvement and critical issues that needed to be addressed while implementing the Plan. The critical issues identified in the situational analysis together with interventions were the basis for developing not only of mission, vision and core values, but also objectives, strategies, targets and key performance indicators of ASSP. The resulting draft plans were widely circulated to stakeholders, including NBS and ASLMs, Directors of Policy and Planning and Development Partners. The comments were used to further revise and adjust the plan to better meet the priorities and needs expressed by stakeholders. The revised plan was presented to official government stakeholders and development partners at meetings on May 15th and 16th 2014.

1.6   Key Stakeholders

The following are the key stakeholders covering producers and users of data:
  i)   Policy makers in Government and its agencies;
  ii) Public sector investors (donors, international organizations, etc.);
  iii) Private sector investors (small and large scale farmers, traders, processors and inputs manufacturers);
  iv) Agricultural researchers (technology);
  v)   Other researchers (policy, academic institutions, etc.); and
  vi) Other users (e.g. consumers, media).

Key data producers are the NBS and Agriculture Sector Lead Ministries responsible for production of data on agriculture: MAFC (agriculture), MLFD (livestock and fisheries), MIT

(prices), Ministry of Natural Resource and Tourism (forestry), Zanzibar – MLF, Zanzibar – OCGS, Zanzibar – MANR and outside the ASLMs - TRA (trade and markets). ASLMs as key stakeholders are also key users of data for policy design, decision making, monitoring and evaluation. Table 1.1 below, provides a summary overview of stakeholder analysis. Further detail on the data items collected under each collection are covered in a data collection matrix in Annex 5.

Table 1.1: Stakeholders Analysis

Stakeholder	Service Offered	Expected results
President's Office Public Service Management	Accommodate and facilitate human resource requirements and production of quality routine statistics for the Ministries.	
Ministry of Finance	Provision of adequate and timely financial resources including sourcing funds from development partners	A sustainable coordinated agriculture statistical system Good management of financial and human resources
Prime Minister's Office, Regional Administration and Local Governments	Identifying priority data at regional and district levels. Provision of human resources for data collection at sub-national level. Jurisdiction for management of sub-national level officers.	Improved routine data system
National Bureau of Statistics (NBS) and Office of Chief Government Statistician (OCGS) (Zanzibar)	To produce and coordinate the production of official agricultural statistics (agriculture sample census and sample surveys and administrative records)	Compliance to statistical standards and methods to produce quality agricultural statistics products and services

Stakeholder	Service Offered	Expected results
<u>Agriculture Sector Lead Ministries and Other Key Producers</u> Ministry of Agriculture, Food Security and Co-Operatives Ministry of Industry and Trade Ministry of Livestock and Fisheries Development Ministry of Natural Resources and Tourism Zanzibar – Ministry of Livestock and Fisheries Zanzibar – Office of Chief Government Statistician Zanzibar –Ministry of Agriculture and Natural Resources Local Government Authorities Tanzania Revenue Authority	Collection, analysis, dissemination and storage of agricultural data and marketing information	Guidelines for producing official statistics from NBS/OCGS, A sustainable coordinated agriculture statistical system, Adequate and timely financial and human resources, Production of quality agriculture statistics products and services, Use of agriculture data for policy purposes
<u>Other Ministries with interest in Agricultural Data (users)</u> Ministry of Finance and Economic Affairs Ministry of Water and Irrigation Ministry of Health and Social Welfare Ministry of Home Affairs Ministry of Infrastructure Development Ministry of Lands, Housing and Human Settlements Ministry of Labour, Employment and Youth Development Ministry of Community Development, Gender and Children Ministry of Education and Vocational Training Ministry of Information, Culture and	Use and analysis of agriculture data for policy design and monitoring and evaluation	Improved policies and more effective M&E

Stakeholder	Service Offered	Expected results
Sports Ministry of East African Cooperation President's Office, Planning Commission Ministry of Communication, Science and Technology Ministry of Foreign Affairs and International Cooperation Local Government Authorities		
Eastern African Statistical Training Centre and Higher Learning Institutions	Training in Statistics and Agricultural Statistics for long term and short term courses Research Consultancy	Quality agricultural statistics products and services, Qualified trained professionals employed in the agriculture statistics system
Research Institutions and Universities	Responsible for further analysis of agriculture data	Improved policy relevance of data
Development Partners	Provide Technical Assistance, capacity building and additional funds	Quality agricultural statistics products and services, A sustainable coordinated agriculture statistical system, Good management of financial and human resources
Non-Governmental Organizations	Provide Technical Assistance, capacity building and additional funds	Quality agricultural statistics products and services, A sustainable coordinated agriculture statistical system, Good management of financial and human resources

Stakeholder	Service Offered	Expected results
Private Sector/investors	Decision making on investments, and marketing	More effective investments and marketing decisions
Farmers/Producers	Agriculture, livestock, forestry and fisheries production and marketing decisions and	More effective production and marketing decisions
Media	Dissemination and discussion based on Agriculture, livestock, forestry and fisheries data	Wider use of data, enhanced general statistical culture
General Public	Provision of Quality Agricultural data, Good cooperation during Agricultural data collection	Confidentiality of data Feedback on results of surveys, censuses and other data collection activities

Table 1.2: Summary of responsible institutions mapped to data collection activities

Major Data Collection activities	Institutions Responsible for Producing Data	Uses
National Sample Census of Agriculture	NBS and OCGS Zanzibar, MAFC, MLFD, MIT, MANR-Zanzibar, MLF-Zanzibar	Basic data for designing, monitoring and evaluation of agricultural development policies and programmes. National Accounts.
Population and Housing Census)	NBS and OCGS Zanzibar	Basic information for building sampling frames and improving design of sample censuses and surveys on Agriculture: Enumeration Area maps, data from agricultural module.
National Panel Survey	National Bureau of Statistics and OCGS Zanzibar	Data for Poverty Monitoring and tracking results for agricultural development programmes
Annual Agriculture Sample Survey (under development in 2014)	NBS and MAFC, MLFD, MIT and OCGS Zanzibar, MANR-Zanzibar, MLF-Zanzibar	Current annual data on major crop area, yield and livestock inventory for monitoring food security and results of agricultural development programmes
Large Scale Farmers Survey	NBS , MAFC, MLFD,	
Agriculture Routine Data System (with technical assistance from JICA)	MAFC, PMO-RALG, MLFD, MIT, NBS	Main source of current data on agriculture and food security (articulation with current and upcoming surveys will be discussed later)
Routine Data for compiling national accounts	NBS, Department of Agriculture and OCGS-Zanzibar	Compilation of National accounts, including value added by Agriculture Sector
Crop Monitoring and Early Warning	MAFC, National Food Security Information Directorate, Crop	Food security information

	Monitoring and Early Warning Section	
Crop and Livestock Price Data using a network of Extension workers in selected Regional and District level rural markets	MIT and MANR-Zanzibar (crop prices)	Price information used by Government, Farmers, investors, general public for marketing and investment decisions
External Trade Data (formal)	TRA	National Accounts
Collectors of non-official Statistics on Trade: • Marketing boards • East Africa Grain Council/RATIN. • Strategic Grain Reserve – stocks for major grains		Used for compiling food balance sheets and food security analysis
Livestock Technical Conversion Factors	MLFD	Used to compile estimates of livestock production
Livestock and Fisheries Contribution to GDP, Study	MLFD	Better estimates of Livestock and Fishery GDP
Fisheries Routine Data Collection	MLFD and MLF- Zanzibar	National Accounts, Food security
Forestry Routine Data	MNRT and MANR-Zanzibar	Monitoring forestry and natural resources policy
Other Collections with Agricultural Data (used to understand the place of farm households for poverty monitoring, labour force etc. but not for agricultural policy making)		
Household Budget Survey	NBS and OCGS-Zanzibar	
Labour Force Survey (agriculture labour)	NBS and OCGS Zanzibar	Estimates of labour force statistics

CHAPTER TWO

2 SITUATION ANALYSIS

2.1 Overview

This Chapter presents a summary of the analysis of the situation of the Agricultural Statistics System in the country with focus on issues that need to be addressed in order to substantially improve the performance of the Agricultural Statistics System and the quality of the data produced. Strengths, weaknesses opportunities and challenges (SWOC) are presented in relation to the following aspects:

- Legal and institutional framework,
- Human resources.
- Infrastructure and equipment, and
- Current data collections activities.

The detailed situation analysis is presented in annex 5, which provides a brief description of the data and methods, and examines the issues in terms of purpose, availability, frequency, geographical level, cost and use. Further detail on the data items collected are presented in a data collection matrix in Annex 6.

2.2 Summary of the analysis and critical issues to be addressed

The analysis of the situation of agricultural statistics system indicates the existence of various data producers and a large number of data collection activities which are not always well coordinated and integrated. The decentralization with empowerment of Local Government Authorities (LGAs) with regard to field personnel, the staffing level and skills of staff in statistical units and at field level as well as budget and equipment issues have an impact on the functioning of the ASS. As a result, the performance of the system and the quality of data produced and its relevance to user needs are below expectations and often questions are raised about the contribution of the sector and its subsectors to the economy.

i) Consequences of decentralization: Data flow

Data collection is carried out at local government level. After the decentralization with devolution of powers to LGAs, District Agricultural and Livestock Development Officer's (DALDOs), Ward Agricultural Extension Officers (WAEOs) and Village Agricultural Extension Officers (VAEOs) all under the direct authority of District Executive Director

(DED) in Tanzania Mainland and no longer reporting directly to the Ministries in Tanzania Mainland. Thus ASLMs responsible for producing agriculture data through routine system have to rely on District Authorities since they have no authority over field staffs who are the data collectors and reviewers. This has been a major challenge in the data flow with large delays and non-reporting from VAEOs, WAEOs and DALDOs. This has caused data flow issues for all the routine data systems. Unless ownership of the data collection activities and use of data by LGAs (at district and village level) are enhanced, challenges in data flow and data quality will remain. Therefore improvements in the routine data system require that greater attention be paid to the district and village levels in future development initiatives.

ii) Staffing and skill level

There is an insufficient number of trained statisticians working for the ASLMs and regional and district offices to support the Tanzania Government's agricultural data needs. In many cases, officers carrying out statistical work in ASLMs statistical units do not have sufficient training or experience to do their jobs well. This is particularly the case in areas of data analysis and reporting and a strong demand exists. Analyzing survey results to find inconsistencies in the data and plausible explanations for unusual results or presenting a statistical report is often a challenge.

At the district level training on basic statistics, including methods of estimating area and production for completion of relevant data collection forms is needed for VAEOs, WAEOs and DALDOs in Tanzania Mainland and for RALOs, DALOs, and Block Extension Officers (BEOs) in Zanzibar. Having sufficient number of staff and improving their skills would improve the quality of data reported.

Also at district level, it would be important to sensitize/train senior management (District Executive Officers and District Heads of Departments) on the value and use of agricultural data for policy making and planning. This would increase the ownership of the data collection activities.

iii)   Diversity of data sources, overlap and inconsistencies in data and proposed roles for data collections

A number of agricultural data collection activities are being conducted, including censuses, surveys and use of administrative sources. However, many of these activities have a specific

purpose and are designed and conducted on an ad hoc basis with no integrated survey framework. The reference periods, the concepts and data collection methods are often different, which results in lack of comparability, synergies and complementarities of the data.

Statistics derived from the various data collection efforts often show inconsistent results, largely due to the vastly different methodologies used. A lack of analytical capacity prevents statistical units from determining the reliability of each set of numbers. Multiple estimates with limited assessment of reliability, and can be a challenge for effective policy and marketing decisions. In the MAFC, the Routine Data Harmonization Technical Working Group operates to reconcile figures from different units in the Ministry, to achieve one agreed figure. Issues remain with methods and data collection which leads to some inconsistencies in the data so there is a need to improve methods and train data collectors.

Of the routine data system, the NBS Quarterly Report, the MAFC, Crop Forecasting and Early Warning Unit data and the ARDS collect data on production at district, national and regional level. The planned AASS will collect national and regional level figures on production. The National Sample Census of Agriculture (Agriculture Census) collects periodic data on production up to the district level which serves as a benchmark for estimates for all collections. The proposed focus and complementarities between ARDS, ASSS and Census of Agriculture is discussed below in the section on proposed roles and purpose of data collection.

Price data is also collected by both ARDS and the MIT price monitoring system. There is also some overlap between the ARDS data and the Crop Forecasting Unit Data on crop conditions. The level at which results are reported, and the timing of collection and reporting differs but there is substantial overlap. Although several systems exist the basic source of data at field level for all routine collections remains the VAEO, WAEOs and DALDOs.

iv) Early Warning and Crop Forecasting

The ARDS and Crop Forecasting Early Warning collect some similar data, using the same data source of VAEOs, WAEOs and DALDOs. However, timing and reporting frequency differ with Crop Forecasting and Early Warning system providing earlier estimates for food security and early warning. The Routine Data Harmonization Technical Working is used to reconcile the figures.

The data collected by the crop forecasting and early warning unit should be used for crop forecasting purposes to give forecasted production rather than to create national estimates of final production. The AASS would be used for national estimates and should be integrated/harmonized into the crop forecasting/early warning system for the following year. In addition, greater linkage should be made between the AASS, the Agriculture Census and the Crop Forecasting and Early Warning through the use of a Master Sample Frame which would link the collections through common enumeration areas.

v) Prices

The MIT is the main source for market price data. The ARDS also collects data on village retail prices for crops and livestock. In addition, the MIT collects both wholesale and retail prices from the district and regional markets. The frequency differs, ARDS collects only once a month while MIT collects much more frequently (3 times a week for wholesale and twice a month for retail). The purpose of the price data in the ARDS is to inform the district of food security situation, while the MIT system provides information for national uses. At present no system exists to collect farm gate prices, which is required for national accounts. Instead the farm gate prices are estimated using adjusted rural market prices.

Proposed roles and purposes for data collections

Crop Production
The National Sample Census of Agriculture (Agriculture Census) collects periodic data on production which serves as a benchmark for estimates for all collections.

National and regional level: At present the ARDS data is the only source of agricultural production data in between census years. Once the AASS is implemented it would be expected to be the source for national and regional level production estimates for major crops and livestock inventories. The extended version of AASS should also cover data requirements for monitoring ASDP which are now in the NSCA. The ARDS could provide data for minor crops not collected by the AASS.

For district level data - the ARDS and NSCA would provide the structure to break down the AASS estimates to district level using statistical methods. The main use of the ARDS data would be to show change and trends for district level planning and to provide data for minor crops not covered by the AASS.

In general, some redundancies are needed in the data collections to allow for cross-checking of estimates by comparison of data sources and which are also necessary to overlap variables for the creation of small area data using multiple sources. However, the level of redundancies should be minimized and be developed with a clear rationale. The Routine Data Harmonization Technical Working should include the AASS data.

vi)   Data Collection

Burden - There is a need to balance the level of detail in the ARDS data forms and the time needed to fill them as detail of the questionnaires tend to extend the time needed to collect and process the data. This can contribute to delays in availability of results for users. For each of the monthly, quarterly and annual ARDS forms there are many complex items and the data collected could be limited to the minimum data needed. In addition, the multiple collections using the VAEOs, WAEOs and DALDOs, as reporting units creates additional burden. Table x shows the data collections completed by these officers.

Routine data collections completed by DALDOs, WAEOs or VAEOs, and RALOs, DALOs, and BEOs in Zanzibar (for Fisheries Routine Collection)

Table 2.1: Data Collection and Intended Periodicity

Institution	Type of Data Collected and Intended Period
NBS/OCGS	Crop Production and Livestock Statistics collected on Quarterly basis
MAFC/	▪ Crop Forecasting/ Early Warning Unit, WRS 1-5 Crop, Forecasting and Early Warning Unit bi-weekly or weekly ▪ Crop Forecasting/ Early Warning Unit, FSQ1, seasonally ▪ Crop Forecasting/ Early Warning Unit, RRS 1, monthly
MIT	▪ Crop and Livestock Retail Prices collected two times a month, ▪ Wholesale Prices three times a week, livestock prices collected once a week
MLFD	Fisheries Statistics Routine Collection: reports monthly, mainland visits landing site 10 days out of 30 and in Zanzibar 16 days out of 30.

Supervision– training is provided by MAFC for VAEOs, WAEOs and DALDOs and by RALOs, DALOs, and BEO in Zanzibar on data collection. However, resources for supervision are minimal and as a result officers' conduct the collection according to several various methods. Greater levels of training and supervision are needed on data collection for these officers.

vii) Methodological Issues

Methods and instruments being used are not always those indicated for specific data. For example, data collections are required to cover qualitative and quantitative variables at a level of detail and complexity beyond the capacity of the data source. Survey questionnaires and reporting forms are often too lengthy with an evident consequence on the quality of responses. Specific issues have been raised on the reliability of the NSCA district level estimates and there is ongoing concern from the Ministry of Livestock and Fisheries Development that the livestock inventory is under reporting the number of livestock.

The sampling frame used in several surveys goes back to the previous Population and Housing Census of 2002. With the new PHC of 2012 which included an agricultural module, there is a good opportunity to substantially improve the situation for future surveys.

viii)   Data reliability and Timeliness

The level of accuracy of data is often unknown, and there are large inconsistencies in time series, and discrepancies among various data sources even for the most basic data on crop production. The users are therefore unable to know which data reflects best the reality. Also, data users are concerned about the lack of timeliness of data produced by some of the key agricultural statistics surveys and routine data system.

ix)   Data gaps

Despite the abundance of data, there are wide data gaps for some sub-sectors – livestock (inventories and production), cash crops (marketing data is used as proxy for production), forestry and water.

x)   Data dissemination and archiving

There is a need to improve the data dissemination mechanisms and inclusion of agriculture censuses and surveys in existing archiving systems.

xi)   Performance of the ASS system

Several data collections are conducted in the face of limited capacity and budget. At the same time, users are not always satisfied with the data being produced and face gaps. This situation raises the question of relevance, and alignment of data collection efforts with priority needs. This is essential in the budget situation where Ministries have routinely reported that the budget received is less than the budget requested. For example, questions have been raised about the 5 years frequency of NSCA given its cost (the 2007/08 NSCA was around 7 million USD, and 2014/15 NSCA is estimated at of 8 million).

2.3   SWOC Analysis

2.3.1 Strengths and Weaknesses (internal to the agriculture statistical data producer)

	Strengths to build on	Weaknesses to be addressed
Legal and Institutional Framework	Statistical legal framework with clear responsibility for statistics in one institution (NBS) with delegation to ASLMs for production	Decentralization of powers to local government has led to lack of control from central line ministries in Mainland over data collection and reporting at district and village levels
	Tanzania Statistical Master Plan (TSMP) provides framework for agriculture statistics improvements	
	Existence of collaboration between NBS/OCGS and ASLMs. Technical Working Group for development of ASSP, AASS.	
	Existence of NBS/OCGS and Statistics Units in some of the ASLMs.	
Financial Support	Existence of Tanzania Statistical Master Plan (TSMP): funding and advocacy already initiated through TSMP for agriculture statistics improvements	
	Existence of collaboration between Government and Development Partners.	
	Willingness and commitment of Government to support agricultural statistics	Budgets of ASLMS for statistics below level requested and major activities rely on external funding
Human Resources	Availability of experienced staff involved in undertakings of census, surveys and administrative data	Number of professional statisticians to be increased and use of agriculture and livestock experts to conduct statistical work
		VAEOs, WAEOs, DALDOs , RALOS, DALOS, BEOS lack basic statistical skills
	Existence of statistical training institutions to teach agriculture EASTC to establish MSC programme in Agriculture Statistics in 2014	▪ Training at district and village level needed for field enumerators. ▪ Sensitization of district level management on importance
		Skills in survey methodology, data analysis, data quality assessment, data analysis, interpretation of statistics and reporting lacking
		Need to improve capacity for collection use of new technologies, like tablets, PDAs, and GPS
Data and Methods	Availability of National Sample Census of Agriculture (NSCA) data (2002/03 & 2007/08) which provide benchmark data	Need to improve skills and knowledge in agricultural data analysis.
	Improved Methodologies to be introduced for ARDS, AASS, livestock conversion factors and methodologies available	Methodologies for collection and analysis of data on agriculture production, estimation need updating.

	Strengths to build on	**Weaknesses to be addressed**
	(international and national guidelines)	Data collection and reporting by VAEOS, WAEOS, VAEOS, RALOs, DALOs, BEOs not implemented systematically
		Lack of timely and complete data due to data flow problems in collection and delays in processing.
		Overlap in data collection systems for agricultural statistics.
Dissemination	Existence of CountrySTAT website and Tanzania National Data Archive (TNADA) for agricultural statistics.	ASLMs do not routinely publish data on existing databases
		Need to ensure anonymization of micro-data
Infrastructure	Good IT platforms exist at central level and new technologies for data collection in use at village and district level for some collections	Inadequate office space, office equipment (computers, printers, photocopiers) and statistical software for data analysis
		Field equipment (both technical survey equipment such as GPSs, crop cutting instruments and operational equipment and material) lacking at district and village level

2.3.2   Opportunities and Challenges (external to agriculture statistics data producers)

	Opportunities to be exploited	**Challenges to be addressed**
Institutional and Legal	Existence of statistical legal reforms process.	
Support	Development Partners willing to support and collaborate on initiatives to strengthen agricultural and rural statistics in the country.	Lack of coordination of initiatives among DPs on strengthening agricultural statistics
	Participation in Global Strategy to Improve Agriculture and Rural Statistics capacity development activities for Africa Region	Inadequate and uneven flow of financial resources for production of agricultural statistics
Institutional	Availability of regional blocks to support agricultural statistics (EAC, SADC, AU).	
Use	Strong demand from users of agricultural statistics at international, national, regional and other lower levels.	Need to encourage even greater use of statistics by district and regional governments
	Strong use of statistics in monitoring and evaluation of Agriculture Sector Development Plans	Required data not always available for monitoring and evaluation purposes (issue to be addressed I the user needs survey recommended in the Plan)

2.4   Funding and Support for the Agricultural Statistics System

The Government is the main source of funding of the Agricultural Statistics System through the current budget system. Some of the Development Partners supporting the Agriculture Statistics System in the country are FAO, World Bank, AfDB, USAID, DfID, EU, JICA and CIDA. However; the funding obtained is not adequate to carry out the agriculture censuses, surveys and collect administrative data as planned. In this regard, not all planned activities are undertaken on time under the agriculture statistics umbrella.

CHAPTER THREE

3 THE STRATEGIC PLAN: VISION, MISSION, CORE VALUE, STRATEGIC GOALS, TARGET AND ACTIVITIES

3.1 Overview

The ASSP is developed with the view of addressing the critical issues identified during the situational analysis of the current Agricultural Statistics System. The plan is anchored on the vision and mission statements, objectives, strategies and targets an d in line with the TSMP Strategic components.

3.2 Vision, Mission and Core Values

Vision

"To become an efficient, sustainable and well integrated agricultural statistical system that produces quality agricultural statistics for planners, researchers and decision makers in an objective, timely and cost effective manner".

Mission

"To facilitate the process of production, dissemination and archiving of quality agricultural statistics in Tanzania".

Core Values

These are the guiding principles to be adhered to in the whole process of data production, analysis, dissemination and archiving of Official Agricultural Statistics. The core values shall be:

(a) *User -focus:* All activities of the ASS constitute the main basis for its existence and must be focus on meeting data needs and expectations of users and producers for a wide variety of purposes;

(b) *Credibility and integrity:* To create and maintain public trust in official agricultural statistics by proactively promoting professionalism, maintain ethics and transparency in data production, dissemination and archiving;

(c) *Quality awareness*: Efforts should focus on continuous development and improvement of the ASS to ensure high quality products and services; and

(d) *Effectiveness*: Resources should be used effectively, in conformity with the principles of good governance.

3.3 Overall Objective of the Plan

The overall objective of ASSP is to strengthen the Agricultural Statistics System in Tanzania so as to facilitate the production of quality agricultural statistics for policy formulation, planning and decision making. The strategic goals of this plan are in line with the three pillars of the Global Strategy to Improve Agricultural and Rural Statistics namely:-

a) Integration of agriculture into a National Statistical System;

b) Identification of the minimum set of core data and determination of the national priorities; and

c) Sustainability of agricultural statistics through governance and statistical capacity building.

3.4 Strategic Goals and targets

In order to achieve this objective, the following strategic goals will be addressed:

i) Strengthened Legal and Institutional Framework and Coordination of Agricultural Statistics System;

ii) Human Resource Capacity to meet data production effort developed;

iii) Rationalized Statistical Operations and processes, improving quality and user relevance of agricultural statistics data;

iv) Statistical Infrastructure improved; and

v) Physical Infrastructure and Equipment improved.

3.4.1 SG1: Strengthening Legal and Institutional Framework and Coordination of Agricultural Statistics System

As discussed in the situation analysis, the legal and institutional framework in which agricultural statistics is produced needs to be revisited to ensure it reflects the current administrative and organizational structure of the country. The roles and responsibilities of the main actors need to be clarified, taking into account the growing role of LGAs in the agricultural data production

process. It is also recommended in the TSMP that all ASLMs need to have a functional statistical unit with effective coordination mechanisms thus forming part of the Agricultural Statistics System. The periodic review of the Statistical Act will be an opportunity to ensure more visibility and mainstreaming of agricultural statistics system within the national statistics system.

Strategies:
- *Strengthening operational structure for agricultural statistics*
- *Enhanced coordination and collaboration within ASS*

Targets

T1.1: Improving existing Statistical Act for better mainstreaming and visibility of agricultural statistics in NSS – at next review of Act.

T1.2: Memorandum of Understanding clarifying roles and responsibilities of main agricultural statistics producers (taking into account growing role of Districts and LGAs), defining coordination and collaboration mechanisms between NBS/OCGS-Zanzibar and other producers of agricultural statistics within ASS - signed by December 2015

T1.3: Statistics units (3) established in Policy and Planning Departments MIT, MLFD and Ministry of Natural Resources and Tourism in Mainland, as defined in TSMP - by June 2016

T1.4: Guidelines on concepts, definitions, standards and methods for producing agricultural statistics within ASS (in line with International Standards) promoted - by June 2016

T1.5: Establish User-Producer dialogue as part of current Data Harmonization Technical Working Group - by June 2015

Activities

1.1: At next review of Statistics Act, ensure better mainstreaming and visibility of agricultural statistics in NSS.

1.2: Review the existing texts defining roles, responsibilities and collaboration between ASLMs, NBS and OCGS; and prepare a Memorandum of Understanding or an appropriate text to update roles and responsibilities of main agricultural statistics producers and define

coordination and collaboration mechanisms between NBS/OCGS-Zanzibar, ASLMs and LGAs (taking into account growing role of Districts and LGAs).

1.3: Take the necessary administrative and financial actions to establish statistical units in Policy and Planning Departments of Ministry of Industry and Trade, Ministry of Livestock and Fisheries Development and Ministry of Natural Resources and Tourism in Mainland, as recommended in TSMP.

1.4: Establish mechanism for effective dialogue with data users and data producers through User - Producer national/regional workshops.

1.5: Carry out statistical advocacy and awareness campaign for sensitization on the importance of statistics, including at LGA level.

3.4.2   SG2: Develop Human Resource capacity to meet data production effort

The situation analysis reveals that there are an insufficient number of staff and also that skills need to be updated in various areas of statistical work at all levels, NBS, OCGS, ASLS, and LGAs which is a major constraint for effective functioning and performance of the agricultural statistics system. The activities under this objective will focus on training in various areas of statistics to upgrade skills and recruitment of staff after a detailed review of staffing situation in Statistical units within ASS.. The detailed staffing review will provide the basis for specific proposals of training for staff in each Statistical unit.   Training needs range from basic agricultural statistics for field staff to statistical methodology, data analysis and reporting, IT and use of new tools. A comprehensive training programme should be established in collaboration with the EASTC in Dar-es Salaam.

Strategies:
- Design and implement effective human resource training plan in agricultural statistics within ASS
- Enhanced staffing levels for agricultural statistics in ASS

Targets
  T2.1: VAEOs, WAEOS, DALDOs (Mainland) and RALOs, DALOs, and BEOs (Zanzibar) trained in basic agriculture statistics - by June 2018

T2.2: 20% of staff (as in TSMP) from NBS, MAFC, MLFD, MIT, MNRT, OCGS-Zanzibar, MLF-Zanzibar, MANR-Zanzibar trained annually in agriculture statistical methodology, data analysis and reporting, IT and use of new tools – July 2015 - July 2019

T2.3: Conduct a comprehensive review of current staffing level of statistical units and expected tasks within NBS, MAFC, MLFD, MIT, MNRT, OCGS-Zanzibar, MLF-Zanzibar, MANR-Zanzibar and establish a recruitment plan to fill gaps - by June 2018

T2.4: Pay structure and incentive scheme reformed in line with TSMP - by June 2018

Activities

2.1: Training of Extension Officers on methodology of data collection, area and production estimation

2.2: Training of NBS, OCGS and MDAs staffs on data processing, analysis, report writing and dissemination

2.3: Long term training on survey methodology for NBS, OCGS and MDAs

2.4: Conduct a comprehensive review of current staffing level of statistical units and expected tasks within NBS, MAFC, MLFD, MIT, MNRT, OCGS-Zanzibar, MLF-Zanzibar, MANR-Zanzibar and establish a recruitment plan to fill gaps

2.5: Recruit gradually the additional staff to fill the gap

3.4.3   SG3: Rationalizing statistical operations and processes, improving quality and relevance to users of agriculture statistics data

The situation analysis and various assessments conducted indicate that there are a large number of agricultural data sources, including censuses and surveys and routine data systems. However, there are large overlaps in data collected and sometimes inconsistencies in results. Users are concerned about the quality of the data, including reliability and timeliness. The overall performance of the agricultural data system is questioned. This Strategic Goal aims at responding to the issues related to agricultural data and proposes actions to gradually improve the situation. It is proposed to start with prioritization of users' data needs, which will serve as the basis for integration and rationalization of the various data collection operations by reducing duplication

and ensuring complementarity, improving data collection methods and promoting new and cost effective tools. Data processing, analysis and dissemination are essential to ensure their use and will be enhanced.

Strategies

- Establishing national priorities for a minimum set of core data corresponding to priority user needs
- Promoting an integrated data collection approach for ASS combining censuses, sample surveys and data from routine systems covering all sub-sectors (crop, livestock, market, fishery, forestry)
- Developing an integrated survey framework and a master sampling frame to ensure complementarity of various surveys
- Promoting the use of new cost/effective methods and tools for data collection, processing, analysis, dissemination and archiving
- Advocating the use of agricultural statistics for planning and decision making

Targets

T3.1: A users' needs assessment survey conducted and a user producer workshop organized to establish a minimum set of priority core data at necessary levels of disaggregation (national, regional, district) - by December 2014.

T3.2: Based on the agreed minimum set of core data, perform a detailed technical rationalization of all major existing and planned data collection operations (censuses, surveys, routine systems) in order to minimize duplications and overlaps, fill gaps, improve complementarity and reduce respondent burden as well as number of questionnaires to be filled by VAEOs, WAEOs, DALDOs, and RALOs, DALOs, and BEOs in Zanzibar - by June 2015.

T3.3: Prepare by June 2015 and implement from 2015 to 2019 an integrated survey programme with calendar for the next 10 years of major censuses and surveys, main data to be produced, frequency, running cost and use of data starting as shown in table 3.1 below.

T3.4: Promote the use of new cost/effective methods and tools for agricultural statistics developed by the Global Strategy (GPS for area measurement, use of CAPI methods, use of smart phones for prices, satellite images, etc) – July 2015- July 2019.

T3.5: Improve performance and quality of routine data systems (including ARDS) for all sub-sectors (crop, livestock, market, fishery, forestry) by simplification of questionnaires, introduction of standard data collection methods across LGAs, increased training, equipment and greater field supervision and control in collaboration with LGAs - by December 2016.

T3.6: Developing/ implementing a dissemination policy (data release calendar, annual reports, databases etc.) in NBS and ASLMs, and improving levels of data processing and analysis, dissemination and archiving.

Table 3.1: The integrated survey programme calendar for the next 10 years

Survey Name	Frequency	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Population and Housing Census	10 yearly								X		
Agricultural Sample Census	10 yearly			X							
Annual Agriculture Sample Survey	Annually	Pilot	Roll out		X	Expanded Module	X	X	Expanded Module	X	X
National Panel Survey –	2 yearly	X		X		X		X		X	
Household Budget Survey	5 yearly				X					X	

Activities

3.1: Design and Implement users' need assessment survey

3.2: Organize User - Producer workshop

3.3: Design and Implement a technical rationalization of all major existing and planned data collection operations (censuses, surveys, and routine systems) in order to minimize duplications and overlaps, fill gaps, improve complementarity and reduce respondent burden.

3.4: Prepare and conduct an integrated programme of censuses and surveys for next 10 years:

- *Implement NSCA in 2015/16 Agricultural year (every 10 Years)*
- *Pilot testing for Annual Agriculture Survey – (October, 2014)*
- *Conduct a full scale (Annual Agriculture Survey - 2016/17)*
- *Conduct NPS – (October 2014)*
- *Large Scale Farms Survey - Annually*
- *Technical Livestock Conversion Factors (Sheep, Goat, Pigs and Chickens) – (2014/15). To be extended to Zanzibar in 2014/15*
- *Early Warning and Food Security Survey – Annual*
- *Fishery Frame Survey (mainland and Zanzibar)*

3.4: Review of the new methods and tools developed by the GS (Master sampling frame, new, use of GPS for crop area measurement, software for PDAs) and test applicability in the context of Tanzania for improved RDS, AAS and NSCA.

3.5: Prepare the instruction manuals and use of methods and tools for censuses and surveys

3.6: Train the staff in the use of new methods and tools

3.7: Design dissemination policy in ASLMs where these policies does not exist

3.8: Review and implement the existing dissemination policy

3.9: Develop a tabulation plan for each survey to improve data processing

3.10: Develop a data analysis plan for each survey

3.11: Adapt TNADA to Agriculture Statistics and make it user friendly

3.12: Train ASLMs staff on the use of the TNADA

Routine Data Systems

3.13: Implementation of ARDS in Zanzibar

3.14: Updating and developing methods of field collection for crop cutting, and measuring area with GPS

3.15: Simplification of ARDS questionnaire and implementation

3.16: Strengthening supervision of village, ward and district collectors from Central and Regional level

3.17: Awareness of data use at District and Regional level

3.18: Increased use of smart phones for collecting and transmission of rural market retail prices

3.4.4 SG4: Statistical Infrastructure improved

Due to the diverse nature of data producers within the ASS (various routine systems, censuses, surveys), the harmonization of agricultural data production is a challenge, given the high potential for errors due to lack or inadequate use of well defined standards. Improvement of statistical infrastructure will ensure improvement and harmonization of agricultural data. The integrated approach to censuses and surveys requires the use of an appropriate sampling frame which should be centrally managed and updated. An integrated approach also requires use of well defined concepts, definitions, international classifications and standards across the ASS.

Given the nature of agricultural activities, remote sensing information, Satellite images and use of modern technologies in particular Geographical Information Systems are becoming widely used for data collection and presentation for decision making. Therefore this objective aims at improving sampling frames based on Population and Housing information, particularly digitized EAs, harmonizing statistical concepts and definitions in line with international standards and classification schemes as well as development and effective usage of business registers and spatial data systems.

Strategies

- Developing a centrally maintained and updated master sampling frame and master sample for use by all NBS, OCGS-Zanzibar and ASLMs
- Promote collaboration with GIS and Remote Sensing Units for access to good quality satellite images
- Promote adoption of common statistical concepts, definitions, and classification in line with national and international standards

Targets

T4.1: Business register for agricultural activities updated annually

T4.2: Agricultural Master Sampling Frame for Censuses and Surveys established and maintained - by June 2015

T4.3: Adoption of Statistical Concepts, Definitions, and Classification in line with national and international standards within ASS - by June 2016

T4.4: Use of National GIS database and database of EAs boundary shape files for Master Sample Frame - by June 2015.

Activities

4.1: Maintain agricultural register annually.

4.2: Establish Agricultural Master Sampling Frame for Census and Surveys from Population and Housing Census of 2012 (June 2016).

4.3: Update and adopt agricultural statistical concepts, definitions, methodologies and Agricultural Statistical Classifications within ASS in line with national and international standards (June 2016).

4.4: Populate basic GIS data with information on agriculture sector.

3.4.5   SG5: Physical Infrastructure and Equipment improved

Most of the statistical units currently available in ASLMs, LGAs, NBS and OCGS lack a minimum level of ICT equipment for carrying out their activities, including routine data production. Also, the use of new data collection tools (GPS, Tablet for CAPI, Smartphones) can be cost effective ways of overcoming some of the key operational constraints for data collection, processing and timely dissemination. These types of equipment can be kept in a pool and shared among producers to minimize costs. Transportation facilities are also inadequate.

This Goal focuses on improvement of physical infrastructure and equipment for the 8 main statistical units in NBS, OCGS, ASLMs and LGAs with appropriate ICT infrastructure, data collection tools and transportation facilities to conduct the improved methods and procedures. Implementation of ASSP will involve expanded activities in all Statistical Units and current facilities for most of them do not provide conducive working environment for statistical

production. This issue should be addressed gradually addressed within the ministries and for NBS and OCGS, new buildings should provide better space for the statistical units.

Strategies:

- *Agriculture Statistics Units within NBS, OCGS-Zanzibar and ASLMs equipped and provided with ICT infrastructure, modern data collection and processing tools, transport facilities and office space.*

Targets

T5.1: Statistical units within NBS, OCGS-Zanzibar and ASLMs (8) equipped with ICT infrastructure and office equipment by 2018.

T5.2: Acquisition of a stock of data collection tools to be used within NBS, OCGS-Zanzibar and ASLMs (GPS, CAPI, weight, Smart phones, etc.) by June 2015.

T5.3: Transport facilities for data collection improved by 2018.

T5.4: Adequate office space to agriculture statistical units within the NBS, OCGS-Zanzibar and ASLMs provided by June 2018.

Activities

5.1 *Procure ICT infrastructure (computers, printers, projectors, photocopier, cameras and scanners) and office equipment (June 2016).*

5.2 *Procure stock of data collection tools (GPS, CAPI, Smart phones, weighing scale) (June 2016).*

5.3 *Procure motor vehicles, motor bike, and bicycles for data collection (June 2020).*

5.4 *Maintain available transport facilities for data collection (June 2020).*

5.5 *Ensure adequate office space is provided for statistical units within ASLMs (June 2018).*

CHAPTER FOUR

4   IMPLEMENTATION ARRANGEMENTS

4.1   Overview

This Chapter discusses about how the plan will be implemented during the reference period based on the institutional arrangement, monitoring and evaluation, possible risks, annual work plan, advocacy and funding arrangements.

4.2   Institutional Arrangement

The ASSP will be implemented in coordinated manner across all institutions in the Agricultural Statistics System. Based on the five year work plan, annual work plans and budgets will be prepared by NBS, OCGS and Statistical Units at ASLMs with discussion by ASSP Coordination and Technical Working Group (responsible persons from agricultural statistics units) before submission to ASSP Executive Board (DPP level) who will provide review and endorse for submission to ASSP Steering Committee (PS level) for approval.

Director General at NBS and Government Statistician at OCGS will coordinate the implementation of ASSP. The ASSP Institutional Arrangement will be as follows:

Note

↓ Directives

⇕ Feedback
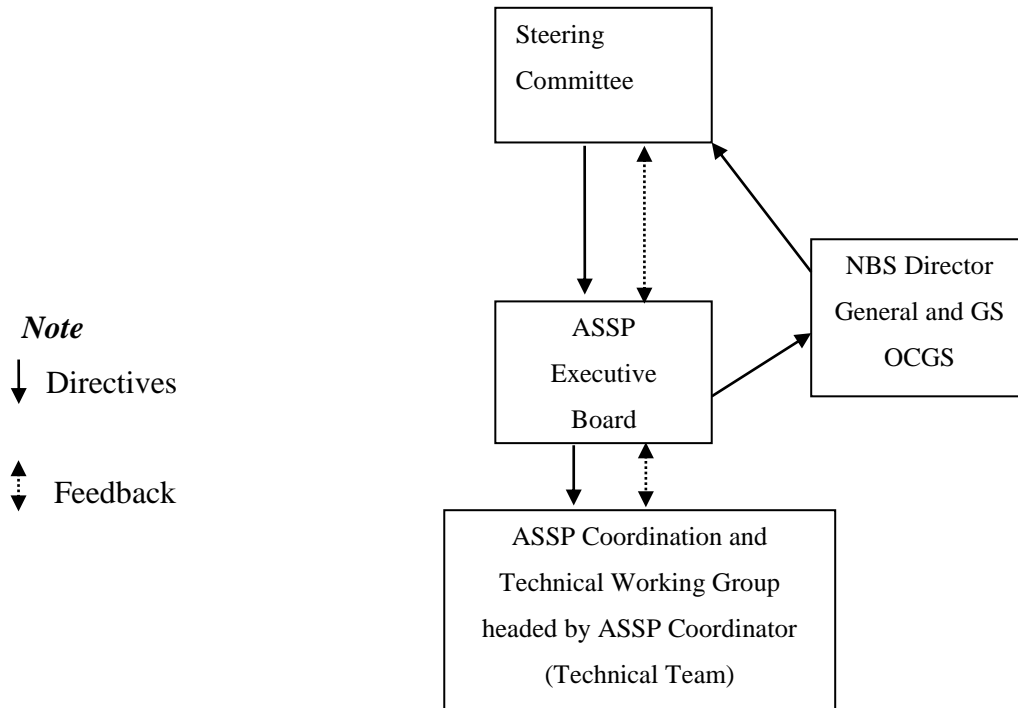
Table 4.1: Composition, Roles and Responsibilities

Committee	Composition	Roles and Responsibilities
1. Steering Committee	i) Restricted meeting ASLMs, Permanent Secretaries, NBS DG and GS OCGS ii) Extended meeting NBS DG and GS Statistician OCGS, Development Partners contributing to the implementation of ASSP. PS - MOF, PMO-RALG, Secretary - Planning Commission and Private Sector	▪ Provide policy guidance and key institutional linkages for agriculture statistical development within the ASS. ▪ To approve annual agriculture plans and budgets. ▪ Oversee the overall performance to ensure that goals and objectives of the ASSP are achieved. ▪ Recommendation on the Government and DPs contributions to the ASSP. ▪ Memorandum of Understanding between Government and DPs.
2. NBS and OCGS Chief Executive Officers	NBS Director General and Government Statistician OCGS	▪ Responsible for coordinating and ensuring effective implementation of ASSP. ▪ Coordination of M and E.
3. ASSP Executive Board	Director of Policy, Planning and Research (DPPR) for Zanzibar and Directors of Policy and Planning (DPP) for Mainland ASLMs, and NBS and OCGS Directors responsible for agricultural statistics	▪ To make recommendations to the Steering Committee on the effective implementation of the ASSP ▪ Review and endorse annual work plans and budget as well as progress reports of the ASSP

Committee	Composition	Roles and Responsibilities
4. ASSP Coordinator (Assistant Coordinator from Zanzibar)	ASSP Coordination and Technical Working Team Chair	▪ Responsible for coordination, monitoring and coordination of resourcing for the plan
5. ASSP Coordination and Technical Working Team	Technical Officers from ASLMs, Planning Commissions Mainland and Zanzibar, NBS and OCGS responsible for agricultural statistics Link to Agricultural Statistics Sub-Working Group of the TSMP	▪ Coordinate the implementation of ASSP plans ▪ Sensitization, communication and advocacy of the ASSP ▪ Consolidating annual work plans, procurement plans and budget within ASSP, ▪ Prepare progress report for submission to Executive Board ▪ Interact with DPs on technical issues of the ASSP ▪ Propose agricultural statistics national priorities ▪ Prepare annual work plan, procurement plan and training plan for Agricultural Statistics.

The ASSP Coordination and Technical Working Group will be one of the Working Groups under the TSMP to ensure articulation and coherence with TSMP process. Close coordination to be carried out with PMO-RALG and Local Government Authorities to coordinate statistical activities, budgeting and implementation.

4.3 Monitoring and Evaluation

The overall responsibility for implementation of ASSP will be with the Director General, NBS and Government Statistician, OCGS who will be accounting officers of the programme.

The implementation and effectiveness of the ASSP in improving agricultural statistics within ASS should be closely monitored and evaluated. The detailed logframe which includes Outcome indicators and Targets for Strategic Goals will be the basis for monitoring progress.

The Monitoring process will help to track the performance of the strategic plan in terms of inputs, activities, and expected outputs, so as to determine whether the ASSP implementation is on course and also to assess how much is being achieved. Therefore monitoring of the ASSP will provide regular updates of the progress made in implementation in relation to the set objectives.

In order to monitor ASSP effectively, actions will be taken in response to what is measured and reported. In this regard, if monitoring shows that the Plan is off track, appropriate interventions will be taken or the implementation strategies will be revised accordingly. Therefore, the ASSP will be a living document that will require adjustments as objective conditions change. Monitoring will also be essential for providing information that is required for accountability purposes. The achievement of the objectives of the ASSP will be measured through a set of designed performance indicators.

The ASSP will be evaluated twice, at the mid and at the end of the implementation period. The evaluation process will assess the performance of the implementation of the ASSP towards the set objectives. The progress of the implementation of ASSP will be reported quarterly and annually. M&E of the ASSP will be coordinated by NBS and OCGS in collaboration with the ASLMs.

4.4 Risks and uncertainties

During the implementation of the ASSP risks are expected which may affect implementation and achievement of the goals. These risks and uncertainties include:

i) Insufficient funding for ASSP implementation.

The success of the implementation depends on the timely availability of adequate funds allocated to implement the plan from both the Government as well as Development Partners;

ii) Availability of human resource within the ASS to support the agricultural statistics activities.

4.5 Annual Work Plan

The ASSP is a five year plan, starting from 2014/2015 to 2018/2019 to be implemented on an annual basis. An annual work plan will be prepared each year together with the procurement, monitoring and evaluation and training plans. In the process of preparing the plans, the inputs will be drawn from implementing Ministries and Institutions within the ASS. The plans will constitute tangible and measurable performance indicators, targets, activities timeline and persons responsible. It will also ensure that operational plans are incorporated and aligned with available budget.

4.6 Advocacy

In order to create the awareness among the key players including decision makers and Development Partners on the importance of the ASSP, there is a need for sensitization. The measures will focus on the use of statistics for evidence based policy and decision making, prioritization of resources towards agricultural statistics activities and soliciting funds from different sources. The advocacy of the ASSP at the political and policy levels needs to be emphasized for the sake of its sustainability. Lack of awareness of the important role played by agricultural statistics in the development may lead to poor policy design, uninformed decisions, inability to monitor as well as to evaluate the implementation of policies and development programmes in the agricultural sector.

4.7   Resource Mobilization and Funding arrangement

Funding of this strategic Plan will be through the Government Budget   in collaboration with Development Partners. Areas in which the Government is expected to fund include the following:-

a)   Salaries for the staff,

b)   Staff recruitment,

c)   Provision of conducive office space for the statistical operations to be effectively conducted,

d)   Provision and maintenance of infrastructures,

e)   Support and facilitation of staff training,

f)   Part funding of censuses, surveys, studies and routine data collection activities; and

g)   Other operational costs e.g. telephone and electricity bills.

On the other hand, Development Partners are expected to contribute in the following areas but not limited to:

a)   Technical assistance in the identified areas;

b)   Part funding of censuses, surveys, studies and routine data collection activities;

c)   Support of short and long term training.

The implementation of the ASSP will be in line with the Joint Assistance Strategy for Tanzania (JAST) guidelines and hence the activities will be aligned with Government priorities. In funding the ASSP, some Development Partners with common understanding will contribute through the Basket Fund and others through parallel funding mechanisms that will be agreed by both the Government of Tanzania and Development Partners.

CHAPTER FIVE

5   Workplan, Budget and Sustainability

5.1   Proposed Workplan and Budget

The estimated budget for ASSP activities is USD 17,000,000 for the period July 2014 to June 2019 as indicated in the table below. This estimation is based on a detailed workplan with the list of activities to be carried out during the next five years by the eight major Statistical Units producing Agricultural Statistics at NBS, OCGS and in the ASLMs. The breakdown of the cost by Strategic Goal is as follows:

  i)   Strengthened Legal and Institutional Framework and Coordination of Agricultural Statistics System;
 ii)   Human Resource Capacity to meet data production effort developed;
iii)   Rationalized Statistical Operations and processes, improving quality and user relevance of agricultural statistics data;
iv)   Statistical Infrastructure improved; and
 v)   Physical Infrastructure and Equipment improved.

The ASSP covers activities for development of the agriculture statistical system. To ensure sustainability of statistical operations, costs of operating routine data collections need to be budgeted for regularly in annual budgets through coordinated discussions between NBS, OCGS, ASLMs, PMO-RALG and Local Government Authorities. The estimated annual cost of ARDS is around 814,000 USD annually, with a cost of 4.07 million USD over the five year period of the ASSP.

Table 5.1: Budget by Strategic Goals

	2014/15	2015/16	2016/17	2017/18	2018/19	Total USD	% of total
SG 1: Strengthened Legal and Institutional Framework and Coordination of Agricultural Statistics System	10,000	115,000	10,000	10,000	10,000	155,000	0.9
SG 2: Human resource capacity to meet data production effort developed	237,331	581,719	198,543	0	0	1,017,593	6
SG3: Rationalized Statistical Operations and processes, improving quality and user relevance of agricultural statistics data	3,076,121	7,226,220	1,900,584	1,216,750	1,216,750	14,636,425	86.7
SG4: Statistical Infrastructure improved	90,205	0	0	0	0	90,205	0.5
SG5: Physical Infrastructure and Equipment improved	907,394	50,279	7,855	7,855	7,855	981,236	5.8
Total	**4,321,051**	**7,973,218**	**2,116,982**	**1,234,605**	**1,234,605**	**16,880,459**	**100**

The detailed workplan and budget is available in annex 6

5.2   Funding and sustainability

The development of ASSP has been a joint effort by the Government supported by its Development Partners under the leadership of a National Team from NBS, OCGS and all ASLMs. Activities are aligned with the priorities defined in TSMP and with major Government development policies related to agriculture and food security. It is expected that the total budget will be financed through GOT contribution supplemented by contributions from Development Partners. Some of the activities are already partly or totally funded by TSMP Basket funds and Bilateral/Multilateral Agencies and funding gap will be sought from other development partners who are interested to support ASSP.

The main objective of the Plan is to ensure a more focused and coordinated effort to improving agricultural data system and building institutional, technical and operational capacity to respond to users' needs. Since Agricultural Statistics System is part of the National Statistics System, the proposed implementation arrangement is integrated in the TSMP and government structures. Given the strong national ownership of the development process of the Plan, it is expected that all statistical activities and subsequent routine operating costs will be integrated in the workplans and budgets of NBS, OCGS and ASLMs, and LGAs. This should create conditions for sustainability of the efforts beyond the period of the plan and external support.

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ANNEXES

Annex 1: Scope of Agriculture

The detail of the sub sectors of agriculture are as follows:-

a) Crop production account for a major proportion of agricultural land use, overall food supply, and value added from agriculture. Data required for these core items include: area planted and harvested, yield, and production; amounts in storage at the beginning of harvest; area of cropland that is irrigated; producer and consumer prices; amounts utilized for own consumption, food, feed, seed, fibre, oil for food, bio-energy and net trade or imports and exports; and early warning indications such as precipitation, windshield surveys of crop conditions, and vegetative indices provided by satellite observations;

b) Core livestock items include cattle, sheep, pigs, goats, and poultry and bees which are major sources of food supply and agricultural income. Data required for these livestock items include: inventory and annual births; production of products such as meat, milk, eggs, skins and hides, wool and honey and net trade or imports and exports; and producer and consumer prices;

c) Forestry and agro-forestry relate both to the production of forest products and to the interface between forestry and agriculture as an area of environmental impact. Forestry is a major land use which provides income, and has a significant role in understanding the forces affecting climate change. Data required include: area in woodlands and forests, quantities removed for different uses, and their prices, land associated with agricultural holdings and from non-agricultural holdings and respective utilizations;

d) Aquaculture and capture fisheries are important components of both food supply and security and household income. All aquaculture and capture production provides employment, and food security information which is within the scope of agricultural statistics. In the case of aquaculture, production entails the use of land as well as of water resources. Fisheries provide livelihoods for operators of small-scale and inland holdings. Data required include: area cultured, production, prices, frequency of stocking and net trade or imports and exports; quantity landed and discarded, amounts processed for food and non-food uses; and prices and exports/ imports;

e) Water use includes use of water for agricultural purposes, including irrigation, livestock and other uses.

f) Rural households fall within the scope of agricultural statistics and thus form an important part within the Sector.

g) Social aspects covering the risks and vulnerabilities, food security and gender issues requiring social, economic and demographic data

h) Environmental – relation between agriculture and the environment, including use of soils and forests, use of forest products and water use.

Annex 2: Definitions

a) Agriculture

Agriculture *(also called farming or husbandry)* is an economic activity mainly involved in cultivation of crops, rearing of livestock, aquaculture, fishing and forestry activities to sustain and enhance human life.

b) Agricultural Statistics

It is the aggregate of numerical information of different fields of agriculture and its economy. These include information on crops, livestock, fisheries and forestry activities.

i) Basic Agricultural Statistics

These are statistics dealing with enduring characteristics of agriculture such as agricultural holdings, their numbers, form of land tenure, land utilization, agricultural population, agricultural implements and machinery. These statistics are enduring in that they do not change so frequently. Basic Statistics are mainly collected through censuses at a periodicity of 5 – 10 years.

ii) Current Agricultural Statistics

These are statistics that provide information on the more dynamic aspects of agriculture. These activities include areas under crops, production of crops, yields of crops, livestock and their products and prices. These statistics change more often than the Basic Agricultural Statistics. Current Statistics are collected more frequently (i.e., annually, semi-annually or quarterly).

c) Agricultural Statistics System

Tanzania's Agricultural Statistics System comprises of data producers/providers/suppliers and users as well as statistical training institutions and centers in Tanzania Mainland and Tanzania Zanzibar. The players of Agricultural Statistics System are; MDAs, Researchers, Private Sectors, NGOs, Development Partners, International Community/Organizations, Media and the Public in general. Various Ministries, Agencies and Institutions also collect data and produce statistics as part of their administrative work.

Annex 3: ASDP short-listed impact, outcome and output indicators

Latest set of M&E indicators (2011)	Trends
1. Real agricultural GDP growth rate per annum [MKUKUTA]	*Annual growth in agricultural GDP moves from 5 to 10% by 2010* *06/7 3.8%, 07/8 4.0%, 08/9 4.6%, 09/10 3.2%*
2. Headcount ratio in rural areas – basic needs poverty line [MKUKUTA]	*Target 24%* *06/7 37.6% 08/9 40.1%*
3. Value of agricultural exports	*Year 2006 2007 2008 2009 2010 2011* * ($m)* *Target 606 662 706 741 816* *Actual 505 648 726 821*
1. Food self-sufficiency ratio [MKUKUTA]	*Target 122%* *06/7 112% 07/8 109% 08/9 104% 09/10 102* *2013 118%*
2. Production and productivity of crops and livestock.	*Productivity in participating LGAs rises by 10% over programme period* *Productivity in crop and livestock enterprises increases by at least 20%.* * NSCA1 NSCA2 NPS1* *Maize 02/3 2.6 mt 07/8 5.4mt 08/9 3mt* *Rice 02/3 0.6mt 07/8 1.4mt 08/9 0.9mt* *MLDF figures 06/7- 09/10* *Beef 181,000 219,000 225,000 244,000 tonnes* *Milk 1.41 1.42 1.5 1.6 billion litres*

Latest set of M&E indicators (2011)	Trends				
3. Proportion of smallholder households using improved technologies		*NSCA1*	*NSCA2*	*NPS2012/13*	*Target*
	% HHs using				
	Improved Seeds	*18*	*24*	*19.5*	*35%*
	Chemical Fertilizer	*12*	*13*	*11.6*	*25%*
	Insecticide /Fungicide	*17*	*14*	*22.8*	*-*
	Irrigation	*8*	*7*	*4.7*	*15%*
	Improved dairy	*2*	*4*	*-*	*5%*
	Erosion Control	*10*	*9*	*24*	*15%*
4. Flow of lending into the agricultural sector	*Flow of private funds into agricultural sector increases by 5% p.a.*				
	2006 *2007* *2008* *2009* *2010*				
	Tshs. Billion				
	258 *286* *516* *467* *-*				
5. Proportion of smallholder households using mechanization	*Target Oxenisation 18 to 20%*				
	NSCA1 *NSCA2* *NPS1*				
	Ox plough *23* *14* *8*				
	Tractor *2.8* *4.4* *2.2*				
6. Ratio of processed exported agricultural products to total exported agricultural products	*2006* *2007* *2008* *2009*				
	Ratio *21.8* *27.7* *29.6* *23.3*				
7. Proportion of smallholder households participating in contracting production and out-growers schemes [MKUKUTA]	*2005/6* *2006/7* *2007/8* *2008/9*				
	229,433 *468,660* *399,905* *--*				
8. Proportion of LGAs that qualify to receive top-up grants	*Enhanced DADG rises from 50 to 90*				
	05/6 *06/7* *07/8* *08/9* *09/10*				
	40% *51%* *83%* *96%* *97%*				
9. Proportion of LGAs that qualify to receive performance bonus	*Rises from 0 to 45*				
	06/7 *07/8* *08/9* *09/10*				
	73% *64%* *61%* *90%*				
10. %age of farmers having visits from public or private extension staff	*Access to crop extension rises 35% to 45%; and to livestock advice: 16% to 21%*				
	NSCA1 *REPOA* *NSCA2* *NPS*				
	Crop *33* *21* *60* *59*				
	Livestock *-* *90*				
11. Number of agricultural production infrastructure	*Irrigation* *2006/7* *2008/9* *2009/10*				
	Dams *145* *239*				
	Charcos *712* *1089*				
	Dips *1208* *1638*				
	Vet clinics *101* *134*				
12. Number of agricultural marketing infrastructure and machinery	*Livestock market* *295* *366*				
	Slaughter house *126* *160*				
	Slabs *1258* *1502*				
	Oil extractors increased in 59 LGAs since 2005/6				
	Milling machines increased in 86 LGAs since 2005/6				
13. Number of extension officers trained on improved technological packages	*Not available*				
4. Number of SACCOs, its members and value of loans provided for agriculture	*No target* *2007/8* *2008/9*				
	SACCOS *4048* *4381*				
	Membership 'doubled'				
	Loans n/a				

Latest set of M&E indicators (2011)	Trends			
15. Number of agricultural marketing regulations and legislation in place	*Regulations* *Legislation*	*2006/7* *2* *10*	*2009/10* *4* *20*	
6. Number of markets where wholesale or retail prices are collected	*2006/7* *73*	*2007/8* *73*	*2008/9* *93*	*2009/10* *107*
7. Number of ASDP Basket Fund Steering Committee meetings held	*Quarterly meetings all on time*			
8. Proportion of regions which submitted DADP quarterly progress reports on time	*2006/7* *29%*	*2007/9* *33%*	*2008/9* *62%*	
9. Proportion of female members of Planning and Finance Committee	*Target 40%* *2006/7* *29%*	*2008/9* *'14 LGAs met target' (10%)*		
10. Number of research projects related to crops, livestock and marketing/ processing, conducted through ZARDEF	*2008/9* *73*	*2009/10* *126*		

Annex 4: Details of the Situational Assessment

A4: Legal and Institutional Framework

A4.1.1: Statistical Law Mainland and Zanzibar

The Statistics Act, 2002 does not explicitly refer to the National Statistical System but gives NBS the mandate to carry out and coordinate statistical activities in Tanzania Mainland. Consequently, the Act de facto puts NBS at the centre of the NSS in Tanzania Mainland, but does not provide appropriate mechanisms to cover the entire NSS, for instance by guiding coordination and consultation arrangements between NBS and ASLMs or between NBS, PMO-RALG and the LGAs. The Statistics Act is, therefore, in need of revision and also because many of the stakeholders consulted during the preparation of this TSMP felt that it should provide for full autonomy and budgetary independence of NBS. Although the mandate to disseminate official statistics of Tanzania outside the country is under the National Bureau of Statistics of the United Republic of Tanzania, NBS is required to consult OCGS which is mandated by the Statistics Act No 9 of 1999 of Zanzibar.

A4.1.2: Existing statistical units (NBS, ASLM)

Under the TSMP – NBS, OCGS, and ASLMs should have a Department of Policy and Planning with statistical units. The Ministries of MIT, MLFD, MNRT have not yet consolidated statistical units although staffs are working on statistics. At the NBS, the Department for Agriculture

Statistics is responsible for the NSCA, the Quarterly returns on agriculture for national accounts and developing the AASS.

At lower administrative levels an assessment covering the statistics infrastructure of the Prime Minister's Office – Regional and Local Government (PMO-RALG) found that only 44% of the 21 Regional Secretariats (RSs) in Tanzania Mainland have a Statistics unit, 38% have only a Management Information System (MIS) and only 36% of RSs have both Statistics and MIS units. Moreover, findings show that of the 64% of RSs that do not have Statistics/MIS units, only 28% have indicated plans of action to establish Statistics/MIS units in the year 2007/2008.

A4.1.3: MoU NBS/ASLM

A4.1.4: Existing coordination mechanisms

The MAFC Data Harmonization Working Group exists to discuss agriculture data produced within the Ministry and to agree on final figures with users. Also existing are the TSMP Working Group for agriculture statistics and the various M&E Technical Working Groups

A4.2: Human Resources

The agriculture statistics units in the ASLMs are under resourced both in terms of numbers of staff and skill levels. At present the units are staffed by a mixture of trained statisticians and agricultural experts who perform statistical tasks. The staff have several tasks and are hard pressed therefore further steps are needed to strengthen the general statistical capacity.

The ASLMs of MAFC, MLFD, MIT all have some qualified statisticians but agriculture and livestock experts are also carrying out statistical work and lack basic skills in statistics. For the qualified statisticians additional training in new methods is needed such as price data collection using smart phones at MIT and in Zanzibar training on the fisheries routine collection methods.

Additional training is needed on statistical skills relevant to the special subject area: improved methods for livestock estimation and growth rates, price data collection, etc. For staff without statistical qualifications the training is needed on basic statistical skills and data collection methodologies relevant to the topic area.

In addition to basic data analysis for data processing and dissemination, data analysis is also required for interpreting the data and reporting. Data products interpreting the data have been strongly requested by users. This is a strong need for all ASLMs: MAFC, MLFD, MIT to increase skills in interpretative analysis and reporting of results. In MAFC some reports are already produced but in other line ministries only the raw data is disseminated and there is therefore little or no experience in analysis and reporting of results. Training is therefore needed in interpretative analysis (graphing, charting etc) and reporting on summaries of main results and trends.

At local level there is also a need for basic training for district and village extension workers who cover statistical activities, including basic concepts and purposes of statistics, and the basic principles and method of data collection. Training is also required at village and district levels to sensitize decision makers to the value and use of statistics; and to introduce basic statistical concepts and methods to the VAEOs, WAEOs, DALDOs, RALOs, DALOs and BEOs responsible for data collection.

A4.3: Financial Resources

A4.4: Statistical Infrastructure

The sampling frame is a key element of effective agricultural statistics sampling frames. The sampling frames used are the Population and Housing Census enumeration areas, National Agriculture Sample Census and the area frame being developed with the USDA for the Annual Agriculture Sample Survey.

There is not currently as Master Sample Frame which provides a link between the different data collections in the agriculture statistical system. The Master Sample Frame coordinates data collections across sectors producing national statistics by linking the units involved - land, the holding and households. However, the Population and Housing Census EAs are being used to link to the AASS area frame.

A4.5: Physical infrastructure and Information Technology equipment

More detailed assessment is needed on the physical infrastructure required. However, ASLMs have all expressed a need to develop the IT equipment (computers, printers, photocopiers, etc) and the type of statistical software available.

Data Processing Systems: Many sophisticated data processing and reporting systems are already in use at central level: LINKS at MIT for livestock price, LGMD2 under the Improved ARDS for crops and livestock, TANCIS at TRA for trade data, TAD/Info at MLFD for livestock health, AgriMarket for Prices and TANFIS for fisheries. In addition, at district and village level there is already experience with use of smart phones for reporting of data under the LINKS system and tested with the retail price monitoring.

New technologies: some new technologies are already in use, for instance smart phones are used in the MIT prices data collections for livestock prices and for some markets for retail prices.

Field Equipment: basic field equipment is needed at village and district level for all data collections. For instance, weighing scales for price data collection and fisheries routine data collection are not available. VAEOs, WAEOs, DALDOs, RALOs, DALOs and BEOs lack transport and therefore cannot visit the villages, landing sites or markets regularly. The equipment for price and fisheries is not available therefore the data is not being collected using objective measures as designed. Other basic field equipment (boots, raincoats, aprons etc) also create additional difficulties in completing an already onerous and burdensome task.

A4.6: Data Dissemination and Archiving

Only limited agricultural data are made available on official websites. Data users must visit individual Ministry, regional and/or district offices to obtain the data they need. There is very little use by ASLMs of existing data platforms such as CountrySTAT or the Tanzania National Data Archive for dissemination of results. The TNADA exists at NBS for archiving however; ASLMs do not use this system

A4.4: Key Sources of Agricultural Data – Censuses and Surveys

A4.4.1: Population and Housing Census

The Population and Housing Census (PHC), is the most comprehensive source of benchmark on social, economic and demographic data required for national development is undertaken after every ten years, with the last PHC conducted in 2012. A module on agriculture was included in the 2012 PHC, the data is currently being processed (2014) and covers the basic data items on agriculture – own account agriculture and livestock production. The PHC enumeration areas are used to provide sampling frame for the sample censuses of agriculture and agriculture surveys.

The assessment and any improvements needed for the PHC have been covered under the Tanzania Statistical Master Plan and are not repeated here. However, it is important to acknowledge its place in the agriculture statistics system.

A4.4.2: National Sample Census of Agriculture (NSCA)

The NSCA is collected every five years, the latest in 2007/08 with the next NSCA planned for 2014/15. Previous censuses were conducted in 2002/03, 1994/95 and 1971/72. The unit of reporting is both smallholder farmers in rural areas and large scale farms. For smallholder farmers data estimates are provided at national, regional and district levels. For large farms estimates are provided only at the national level.

The data for the 2007/08 census has been released in 2014 sometime after the planned release data. Users have identified this delay as a concern for the timeliness of the data.

Summary of Data

The NSCA collects structural data on agriculture: structure of agricultural land, land area of crops grown and livestock inventory, inputs, agricultural practices, agricultural services, agricultural equipment, aquaculture, fisheries detailed data on crop production, crop marketing, inputs, crop storage, agriculture credits, irrigation, household characteristics, livestock production, fish farming and poverty indicators. These types of items give a picture of the structure of agriculture and are typical for an agriculture census.

However, some of the data items, for example input costs go beyond the level of detail usually collected in a census. The NSCA also collects data on crop production, livestock production, animal health and a quite extensive demographic section with several data items relevant for poverty analysis. This type of data is less typically collected in a census but has been included in the NSCA in the absence of other survey collections based on statistical methodologies. The AASS once in place the possibility could collect some of these items which are more suitable for a frequent annual collection, particularly production data and some of the detail on the structural items.

Although not typical, the inclusion of a demographic section with several poverty related items (housing material, consumption etc), by allowing cross tabulation with agriculture data allows for in depth analysis of the role of agriculture in poverty reduction. These items are also collected in the PHC.

Methods

A two stage sample design was used for the 2007/08 agricultural census. In 2002/03 and 2007/08, this sampling scheme yielded 52-53,000 households.

Data for the NSCA was collected by village agricultural extension officers (VAEOs) with oversight from district agricultural and livestock development officers (DALDOs) and regional NBS staff. DALDOs visited each extension officer to supervise their work and gather completed questionnaires.

The main issues related to the NSCA are the burden on the data collection and the impact on timely release of results. The level of data items collected is very heavy and this has delayed data processing and release of the data. The 2007/08 NSCA was released in 2013, several years after collection. This issue which has been highlighted by several users.

Use

The NSCA provides data at district level based on a reliable statistical methodology. The ASDP is one of the primary users of census data and it is one of the main data sources for monitoring of the ASDP indicators.

The NSCA also provides the basic data on agriculture and can be used to derive benchmark figures for annual changes. It is also at present the only other source of district level data and is a useful benchmark for figures from the Annual Routine Data System (ARDS). Together with district data from ARDS there is the potential to use this together with the Annual Agriculture Sample Survey to estimate district level data on production annually using statistical methods such as 'small area estimation'.

A very specific key use is to provide the livestock inventory and this is the main source for livestock inventory figures.

Costs

The cost of the 2007/08 NSCA was around 4 million USD. The budget for the planned 2016/17 NSCA is 8 million USD.

A4.4.3: Annual Agriculture Sample Survey (in development)

In the 1980's a regular collection of annual data which focused mainly on cash crops rather than food crops was in place. This was conducted in only a few urban markets in the country. It fell into disuse and in 2014 no regular annual agriculture survey is in place.

USDA-NASS is providing technical assistance to implement an Annual Agriculture Sample Survey. The AASS development is lead by NBS together with a team from Agriculture Sector Line Ministries (ASLMs). For regular implementation of the survey the management arrangements between NBS and ASLMs are to be determined.

The survey will provide annual data by season on crop production for crops and livestock production at national and regional levels. Data items included in the questionnaire are currently restricted to major crops but cover cash and food crops and will provide estimates for the total national production, including both smallholder farm households and large scale commercial farms. As the survey is still in development the data items have been kept limited so as not to distort the understanding of the feasibility of the area frame method.

Methodology

The survey is being designed to use a multiple frame sample (an area frame point sampling technique for household sector and a list frame for the large scale farmers). The area frame method stratifies the land and then selects a sample of points adjusting for the amount of agricultural land in each strata. The work carried out from 2012 to mid-2014 established the methodology, prepared the sampling frames, developed sample design, and data collection methodology. Capacity development has been conducted with the National Team and NBS GIS unit involved in every stage of development, and including a study tour to the US for study of the area frame methodology.

The cognitive pre-test has been conducted in October 2013, the pilot is to be conducted end October 2014 and the first full survey is to be decided for implementation is planned for 2014/15 or 2016/17. The data for the cognitive pre-test is being analyzed mid 2014 and based on the results adjustments will be made to the sampling design before the pilot.

Cost

The annual operational cost is estimated at around 500,000 USD. This does not include costs for periodic updating of the sample frame – this would be no more frequently than every 10 years.

Use

A major use of the AASS data would be to provide reliable national and regional figures on production for national accounts. Regional level data would be suitable for national accounts provided it is reliable. Production data also has multiple uses for other data users particularly food security, agriculture development, productivity estimates, etc.

A4.4.4: Livestock Conversion Factors Survey

Livestock production can be estimated using technical conversion factors (TCFs) which convert an easily observable quantity (such as animals slaughtered) into a measure of output (meat production). The TCFs currently employed are outdated and not regularly updated. A survey was conducted to update the livestock conversion factors. A draft report was prepared in 2013 and mid 2014.

Conversion factors only need updating approximately every 5 years or more and in the interim years the factors are used together with livestock inventory figures to give estimates of production. This is useful in the absence of regular data collections on production and also as a way of cross-checking production figures from annual surveys.

Data can be produced at district level as livestock inventory data from the census are available at district level. The frequency of estimates would depend on the frequency of update to the livestock inventory figures.

Method of Updating TCFs

The Tanzanian Ministry of Livestock and Fisheries Development (MLFD) in co-operation with the National Bureau of Statistics (NBS) has implemented a data collection exercise to obtain accurate estimates of meat, milk and egg production in traditional farming systems (production from indigenous breeds). This involved measuring production parameters in three slaughterhouses and in 540 livestock farms over a time period of two weeks in June and July 2013 (long rainy seasons) in the Nothern, Lane and Central agro-ecological zones. In particular, daily milk yield per cow, carcass weight per cattle and daily egg production per hen were measured in the Arusha, Dodoma and Mwanza regions.

The survey covered three out of Tanzania's six agro-ecological zones and in the long rainy season. Future rounds of data collection will cover the short rainy seasons and the other three agro-ecological zones both in the short and long rainy season.

Uses

Data on livestock production is a key data item in agriculture particularly for national accounts.

A4.4.5: National Panel Survey – Integrated Surveys on Agriculture (NPS- ISA)

The National Panel Survey (NPS) was conducted in 2008-09, 2010-2011 and 2012-2013. The frequency is every two years. Data is available at national level and for the groupings of urban and rural.

The NPS monitors progress in raising standards of living, and assesses the impact of government policies on households. In particular, the NPS was designed to be part of a system of "multi-topic, nationally representative panel household surveys with a strong focus on agriculture. The primary objective of the project is to foster innovation and efficiency in statistical research on the links between agriculture and poverty reduction in the region."

The NPS includes community, household and agriculture modules (corresponding to the LSMS-ISA, Integrated Survey on Agriculture) and the 2010/11 NPS also includes a module on fisheries. It collects data on items relevant for measuring the impact of agriculture on poverty such as production of agriculture crops, livestock and fisheries including production, non-farm income

generating activities, production, sales, labour consumption expenditures and other socio-economic characteristics. Several items on value of crops, livestock products etc are collected. It is a very good source of gender disaggregated data.

Method

The NPS is a panel survey which tracks households over time. The sample for the first NPS was 3265 households, all of which are included in the second round. Around 2200 of the sampled households were in rural areas. Not all rural households are involved in agriculture, so the number of agricultural households included in the sample will likely be somewhat smaller.

Note on Other Household Surveys

The Household Budget Survey (HBS) and Labour Force Survey also collect some data on agriculture. The purpose is to provide data for understanding the role of agriculture on poverty reduction by allowing for cross tabulations with other household variables. They are not designed to provide estimates of official production on agriculture. There could be exploration of the possibility for reconciliation between the HBS and NPS. As the purpose of these collections is for poverty monitoring, rather than data on the agriculture sector this should be addressed under the TSMP.

Uses

The agricultural modules in the NPS are appropriate for analyzing the impact of agricultural activities on household living standards. It is not currently used for official estimates of agricultural production.

Cost

The operational cost is approximately 3.3 million USD.

A4.4.6: Large Scale Farmers Survey

The large scale farms are those where:

- the farm has at least 20 hectares of cultivated land, or 50 head of cattle, or 100 goats, sheep or pigs, or 1000 chickens;
- the greater part of the farm's produce goes to the market;

- operation of the farm is continuous;

- machinery is used on the farm; and

- The farm has at least one permanent employee.

A detailed report is collected from over 1000 large scale farms on an annual basis. This data is collected by regional NBS officers.

Tanzania Statistical Master Plan Basket Fund is funding an update to the large scale farmers list will be conducted. This will be incorporated into the business register.

A4.5: Key sources of agriculture data - administrative and routine sources

A4.5.1: Agricultural Routine Data System

The Agricultural Routine Data System (ARDS) is at present the only annual source of annual data on agriculture production. The data collected at village and ward level includes the number of livestock, land utilization, crops area planted, crop production (food and cash crops), market prices (agriculture and livestock), inputs (agriculture and livestock), rainfall and weather, early warning (pests and diseases and shocks), food supply and shortages.

The ARDS is designed to provide district and regional level agricultural data to the Agriculture Sector Lead Ministries (ALSMs) on a quarterly basis. The reporting unit for the ARDS, the National Accounts Quarterly Questionnaire and the Crop Forecasting and Early Warning are the same DALDOs, WAEOs and VAEOs;. Therefore although the ARDS system is not designed to be used for national data, as the same reporting units are providing data for these systems, reported data is at present also informing national level estimates.

Method

Under the design of the WAEOs and VAEOs should submit monthly, quarterly and annual reports to their district agriculture and livestock development officers (DALDOs). The DALDOs review the reports and aggregate the data to the district level, then seek approval from their District Councils. District reports are forwarded to regional secretariats, where they are reviewed and approved by regional consultative committees, prior to submission to PMO-RALG for final review. Once PMO-RALG approves the regional results, the ALSMs use the data.

ASLMs have been working with the Japan International Cooperation Agency (JICA) to provide a coordinated structure to what has been a free-form reporting system. The needs of the ALSMs have been coordinated and standardized monthly, quarterly and annual questionnaires to be completed by WAEOs and VAEOs have been developed. A web-based database management system (LGMD2) has been developed that allows the data to be entered electronically at the district level and forwarded through the subsequent approvals process. The resulting database provides the ASLMs easier access to current and historic data.

The new system was piloted in four districts – 2 in Dodoma Region, 2 in Morogoro Region. The system has been rolled out throughout the country with standardized reporting forms at village, district and regional level, provision of equipment (computers and motorbikes) at district level, training for regional officials and district officers on the new reporting formats, training for VAEOs/WAEOs on the VAEO format and training of regional officials and IT officers on excel and LGMD 2.

Issues

An assessment of the system was conducted in December 2012, Srivastava et al., 2012. After the decentralization with devolution of powers to local government, DALDOs, WAEOs and VAEOs no longer report directly to the Ministry. Thus ASLMs responsible for putting out the data therefore rely on data collectors and reviewers over whom they have no authority. This has caused problems in the data flow with large delays and non reporting from VAEOs and DALDOs.

The assessment found issues in the use of VAEOs/WAEOs for reporting on agriculture data. The reporting is based on expert judgment subject to potential conflicts of interest in the data reported. VAEOs/WAEOs often use subjective methods or different methods of expert judgment for deriving the estimates. Under the improved system a method has not been developed for a standard methodology for VAEOs/WAEOs to fill in the reporting forms.

Another issue for data collection is that not all villages have village extension officers, and as a result data is completed by ward extension officers who have a less direct knowledge of the situation. There is also a lack of transport for officers to collect the data.

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The data requested in the monthly VAEO/WAEO reporting form is extensive. This creates a heavy burden on the extension officers. The other routine data systems mentioned in this assessment also use these same VAEOs/WAEOs to obtain the data for their forms. A heavy burden is placed on these extension officers. As there is no direct mandate for extension officers to collect ARDS data this level of burden creates problems in incentivizing regular reporting. The Srivastava, et al 2012 assessment recommends reducing the number of variables collected to those for routine administrative monitoring purposes, such as early warning of crop conditions, livestock conditions, food shortages, surpluses etc.

The main issues are thus impacts on the quality of data and delays in reporting. Reporting forms have been returned incomplete and with long delays in reporting. The number of reports returned monthly is often lower than expected.

Uses

At present ARDS is a unique source for most annual agriculture data at district level on food security, early warning, livestock etc. ARDS data is also used by other routine data collections or together with farmer enquiry by VAEOs/WAEOs to complete their forms.

Costs

One cost needed is the staffing costs for additional village extension officers to fill these remaining gaps in posts. The cost of improvements to ARDS under the JICA assistance was Tsh. 21,000,000 over 3 years.

A4.5.2: Early warning and crop forecasting

The Ministry of Agriculture, Food Security and Cooperatives, Department of National Food Security, Early Crop Warning Section, is responsible for providing a forecast of crop production for Tanzania Mainland. This system was established in the 1980s in the MAFCs. The system is not yet established in Tanzania Zanzibar.

The main data products are the Preliminary Forecast of Food Crop Production, in June which reports on the situation up to end May and is produced using reports from October previous year to end May current year, over the growing period. The second product is the Final Forecast of

Food Crop Production, in December current year which is produced using data from October previous year to September current year, end of season, giving final crop production estimate. The situation is reported at national and district level.

The forms WRS 1-5 and RRS1 are the main source used to produce the Preliminary and Final Forecast Bulletins. WRS1 and 2 are bi-weekly, and WRS3, 4, 5 are weekly. RRS1 is monthly. An agro meteorological model for crop forecasts of production was developed by FAO in the 1980s and is used together with the direct data collection.

District identified from the forecasts as being at risk have a further Rapid Vulnerability Assessment carried out.

Method

The crop warning section operates its own data collection system. The different components are:

WRS1-5: collects estimates of area and yield plus various crop conditions. This should be collected every two weeks. Responsibility for completion of the forms is with the DALDOs. The data to complete the form comes from the VAEOs/WAEOs – either through their performance report or a direct visit, or phone calls. A compiled report for each district is prepared and sent to the Ministry's crop warning section.

The forms cover:

WRS1: Implementation of targets for food crops at mid-month and end of month

WRS2: assessment of food crops up to the mid-month and end of month – crop stages

WRS3: pests and diseases

WRS4 food availability by crop, price and stocks

WRS 5 weather – rainfall data

Other forms collected are the RRS1 – the District Routine Reporting System is compiled monthly. This is compiled by DALDOs and gives a subjective assessment of the food security situation for three states normal, current situation and forecast (categories deficit, adequacy and excess).

A FSQ1 – Sample Village Questionnaire is collected using a sample of villages coming from NBS. This is collected annually by season. The village questionnaire is completed directly by VAEOs. This gives a subjective assessment of food security conditions (e.g. pasture, water availability). The purpose of the collection is for checking the WRS and RRS, but in recent years the WRS1-5 and RRS1 have been the main data sources and FSQ1 has been less used due to logistical constraints.

Similar issues on data collection exist as reported for the ARDS, as the data collection method uses the same reporting unit of DALDOs and VAEOs/WAEOs. That is the forms are not received regularly, and often batches of several weeks are received, as a result the data is not produced to time and the quality of the data is affected - there are often gaps in the villages reported or other missing data items. Data validation meetings were held between the Ministry and Regional and District Level to validate and agree the data and results produced. Lack of resources means that such validations have not been conducted for Final Forecast 2013 and Preliminary Forecast 2013 was conducted late.

The crop forecasting bulletins are well used by stakeholders. They are also used by the Ministry to identify district as risk of food insecurity for the rapid vulnerability assessments.

A4.5.6: National accounts agriculture production form

The NBS, Department of Agriculture has its own form to collect data on agricultural production for the national accounts. The system was set up due to issues with timeliness of the ARDS data. Data is collected on the monthly production figures for each district and the average farm gate prices - for each quarter or annually, as applicable, for the crops and livestock used in the national accounts. This is returned within 90 days after the end of each quarter.

Data is collected at District level to allow for data editing and imputation, although regional level data would be suitable for the national accounts if of good quality.

The National Accounts is sent to the Regional Statistical Managers (RSMs) of NBS to complete. In this case the statistical manager reports to NBS, but the DALDOs responsible for completion in the ARDS system do not report to the Ministry but to the local government authority. The

form is filled by the VAEOs/WAEOs directly. The RSM returns the questionnaire to NBS, Department of Agriculture. Data returns are more regular as there is greater control from the centre in follow up with the RSM who is an NBS staff.

There is interest in using the AASS data once quality is appropriate. Data from some cash crops are also obtained from marketing boards.

A4.5.7: Livestock Projections and Production Estimates

The MLFD is not responsible for direct collection of data. The Ministry technical units produce estimates: the veterinary unit on livestock health, production and marketing, research, extension and training, fisheries and aquaculture.

On livestock production the main primary data needed is the livestock inventory for use with conversion factors for production data. This is based on the agriculture census data – the latest figures are from the 2001/02 and 2007/08 agriculture census. The livestock inventory is some years behind. In between censuses, updating of the inventory is needed. These projections of livestock numbers are based on previous census results adjusted by standard set of parameters. These methods could be updated and discussions are ongoing to include a module on livestock in the AASS for annual figures.

The main concern of the Ministry with sample based systems is whether the sample is representative for livestock and livestock production. Under the Tanzania Statistical Master Plan, a study has been conducted in mid 2014 to examine the contribution of livestock to GDP.

A second major area is the livestock health data. This is considered reasonably adequate. The vaccination programmes use a mixture of data including that reported directly by the districts. An established system called TAD/Info set up by FAO is used for Transboundary Animal Disease Information set up in 1999.

A4.5.6: Crop and livestock price system

MIT runs its own market price collection. Retail crop prices are disseminated monthly; wholesale crop prices are disseminated three times a week. Livestock prices are reported weekly. Prices are disseminated as raw data.

Market Monitors for Crop and Livestock

Data collection for crop price is carried out by 'market monitors' who in reality are DALDOS. The DALDOs also have several other tasks of which price monitoring is only one, and which is not a formal part of their duties. Collection therefore operates to some extent on a 'goodwill' basis. The market monitors are under the control of the district authorities and do not report to the Ministry. It is difficult to incentivize the DALDOs to carry out the work as formal controls are weak and the task is note requested by the Local Government Authority. Other issues are lack of equipment to travel to the markets and to weigh commodities.

The livestock markets are covered by livestock extension officers – there is no issue there as the monitor is at the market as part of his regular duties.

Method: Crop Prices

Retail prices are collected two times a month for 44 crops in 100 district and regional markets. Wholesale prices are collected for 8 food crops (maize, rice, beans, sorghum, wheat, potato, millet and prices of sugar, cooking oil (palm and sunflower oil) from 25 regional markets three times a week. There are 113 market monitors across the country reporting retail and some of them also wholesale prices. Agricultural input prices are collected from traders once a month in 100 districts.

Wholesale prices are transmitted by phone from the monitors to the Ministry. Officers at the Ministry call the market monitors to collect the prices when the market opens, the prices are recorded and disseminated the same day as a data file of raw data. This system works well. The main issue is that there is a lack of analysis and reporting of which the Ministry would like to do more.

<u>Retail Prices</u> - a computerized system was implemented in 2004 for retail prices – the AgriMarket System developed by FAO. Market monitors post retail prices in hardcopy to the centre which can take some time. In 30 districts smartphones have been tried for transmission of the data. This is showing improvements in collection. There is interest in extending the use of smartphones for data collection.

For retail prices similar issues are reported as with the other routine data systems where monitors do not send data regularly. For example, data is sent in batches are sent every 2-3 months instead of monthly. This impact on timeliness and quality of data reported. There is also a need to carry out spot checks on market monitors for which funding is not currently available.

<u>Livestock Prices</u> – the web based Livestock Market Information System - called LINKS - Livestock Information Network and Knowledge System - is used for livestock prices. Prices are collected for live animals and for livestock products. Livestock prices are collected from 53 markets in 53 districts. Market monitors send the prices on market day by SMS giving the price and quantity. The results are sent directly to the server located at University of Dar es Salaam. A weekly report is produced by the system which takes an average of the prices received per district. Not all markets open at the same time of the month, so the frequency of reporting naturally varies. There is full compliance and the system works very well. The Ministry would like to extend the number of markets covered under the system.

The Ministry disseminates primarily raw data and there is a desire to increase the level of analysis and reporting conducted.

Uses

Data is well received by users and prices reports appear in newspapers. The data collected by the Ministry meets stakeholders demand for data on price and supply of traded agricultural products. Type of data collected include input prices, price received by farmers (producer prices), wholesale prices and retail prices.

However, little analysis is done using the price reports and there is a need to improve capacity for market analysis. The Ministry does not issue any reports on market trends.

A4.5.7: External Trade Statistics

The Tanzania Revenue Authority (TRA) collects and disseminates data on agricultural imports and exports. The data is regularly available to a wide range of users, with the most frequent being NBS Trade Department, Bank of Tanzania, Ministry of Industry and Trade and Private Sector. Data is regularly available and would be used to give national level data on trade flows.

TRA has developed an online system, called ASYCUDA, for importers and exporters to register the identity, volume, and value of all products entering or leaving the country. The system has recently been updated and improved to one called TANCIS. This database is the source of official NBS numbers on imports and exports. TRA agents randomly inspect some of the trucks and ships as they are loaded.

The main area not covered is informal cross-border trade. This is difficult to capture routinely and periodic special studies would be needed.

Uses

This is the source of official figures on trade.

A4.5.8: Fishery statistics routine collection

This covers capture fishing in the open sea shared by other countries, captures in the coastal zones managed by Tanzanian, captures from lakes, rivers and other fresh water sources, and finally aquaculture which involves the use of land, feeding and capture of fish stock. Data items collected are equipment (boat, gear, size of gear, other), capacity (number of fishermen, duration of fishing, others), species, (number caught and weight), seaweed and marine products (weight and price). Data is available at district level and is produced quarterly and annually.

Method

The main data source is a fish catch routine collection conducted by the MLFD and MLF at national level. This was established in 2005 and data is recorded at landing sites by beach recorders, sampled at 10% coverage of each district using statistical methodology.

The recorder samples 16 out of 30 days of the month and sends the data, usually in hard copy, to the district Natural Resource Office. A customized software is used to process the data and the data is then sent to the MLFD, Aquaculture Department and MLF.

The main issues found have been in the data flow and therefore timeliness of the data and data quality, as with other routine systems. The system itself has been improved previously and is fairly up to date. In Zanzibar the beach recorders have difficulty to regularly visit the land sites due to lack of field equipment. Data may also be collected but only sent in batches every 2-3 months. This results in delays at district level and also at central level. Data quality is also affected as data on districts not reporting regularly will result in gaps in the data released.

In Zanzibar concern has been raised as to whether the sample of landing sites is representative.

Uses

The basic fisheries statistics required are the quantity and value of captures, trade and uses for food and other utilizations such as fish meal.

A4.5.9: Forestry statistics

The Forestry Statistics are collected mainly by Forestry Extension Officers located in the district. They are usually collected without using standard statistical procedures. The data are normally compiled primarily for internal use, covering the area covered by forest, volume of wood harvested as measured by National forest inventories, quantities and value of wood harvested, utilization by purpose such as paper, fuel wood, charcoal, timber, and the value of other services provided.

Annex 5: Data Matrix (see digital annex)

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Conducted	yearly	5 yearly	Routine	Routine	2 yearly	Routine	Routine	10 yearly
Geographical Level of Estimates	national, regional	national, regional, district	District, Regional, used for National	District, Regional, National	national, urban, rural	Regional and District Markets, raw prices	District (national, regional?)	
Land								
Area of land by land use types		Area by land use; area of available land used, area used for agriculture, annual	grazing land by type of animal and no of animals on the land, land by categories (used, demarcated area, leased, improved pasture, area for seed production, area for hay (a)		3 land use types (cultivated, forest, fallow), value of land and cost for rented land by season			presence of agriculture
Holdings/Farm households	total area of holding only	Area of holding and no of holdings	no of holdings and total population in agriculture vs total households and pop in village (a)		total area: plots owned or cultivated; measured with GPS/farmers estimate and GPS location by season. All land owned/used by household. Information on co-ownership and management			

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Land tenure and ownership		Land tenure and ownership by gender	no of households in contract production or out growing schemes, no of contractors and major products (a)		land tenure and ownership by gender and season			
Soil			type of erosion by village, area affected, controls and area controlled (q)		soil type, quality and degradation by season			
Economic					Income from land by season, distance from plot or home to market			
CROP PRODUCTION								
Crop type only		by season		FSQ 1: food and cash crops grown by importance no production				
Area	Area planted, harvested, by crop type, by season	Area planted, by crop type, by season	Area planted by crop type (m) + targets	WRS 1: area planted by crop type - main food crops and cash crops + targets	Area planted (w/ gender), harvested (w/ details on harvest), by crop type, by season			

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Production	Annual by crop type, by season, incl. crop products	annual by crop type, by season, incl. crop products, decisions on use by gender	by crop type, yield (asked directly) (m)	WRS 1: forecasted production and final production by main food crops (wording = "estimated yield (ton)"; + forecasted target. RRS1: by main food crops and % change from previous season	by crop type, by season, value, gender			
Storage		Storage, presence (y/n), by crop type, quantity stored, by method of storage; Commercial - amount stored by crop type. All annual by season			quantity stored and method, purpose and protections, all by season			
Marketing		Marketing: producing for sale (y/n), quantity sold, where sold, issues. Commercial - amount sold by crop type, annual (all by season)			quantity sold, value season, by customer by crop, includes secondary products and value of sales gender disagg			
Pre and Post Harvest Loss					presence, by season			
Crop Residue			type of crop, amt of hay bales, areas of farm plots (a)		use, quantity sold and value, customers			
Livestock								

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Livestock (age=category) (type = dairy, meat, castrated, improved, indigenous)	nos by age, type , annual	nos by age, type, annual , + no of households rearing, no of herds	Nos by type, age, total registered (a)	FSQ1: types of livestock by importance. RRS1: nos by age and type	Nos. by age and type, flows (born, purchased, gifts, etc)			presence of livestock rearing only
Sale: live and products	Live nos , products sold, annual	Live Nos, annual, ; products (hhold: nos, type, quantity, by season) ; honey incls type of market+ commercial farms (as hhold + price);	Live no slaughtered and avg retail price by type (m); milk quantity, cheese, butter, ghee, skin/hides (processed and unprocessed, method of processing)		Live Nos, value, live weight; products (as above + price, market) all by gender; milk production(animal conditions, home consumption, sale, market, value, by gender			
Other details on production		No of days milked by type and age, by sason; price of product by category and season; method of cattle						
Animal power					Dung use, sales, value, use for draught animals			
Animal Health								
Curative treatments		deworming, pest and parasite problems and methods of control, annual	Nos dipped, medicated, sprayed and vaccinated by type of vaccine for each type of livestock (m); diseases, no affected, treated, recovered, died by type livestock (m);		obtained, source, total costs of all curative treatments, type of vaccines, tick prevention, deworming source, diseases and if vaccinated, pest and parasite diseases, annual			

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Access to livestock services		yes/no	no of livestock serviced by type of service (m)					
Livestock practices				FSQ1: livestock condition, pasture and water availability (good avg bad)	feeding: type, cost, months purchased feed; watering frequency, source, costs; breeding type of practice			
Livestock infrastructure			livestock infrastructure: working, not working, no required, no registered reasons not working (a)		animal housing by type of housing			
Labour on livestock					by activity, household or hired labour, gender, cost			
Other:			meat inspection: place for slaughter, type of animal, no animals condemned, reason for condemnation (m)					
Agricultural Inputs								

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Irrigation	Area irrigated, by source of water supply, by method of irrigation, seasonally	No of households irrigating; area irrigated by crop type, by season; source of water supply, method of irrigation, seasonally	area, crops, irrigated, production/yield for irrigated area+crops, water source, seasonally; status of irrigation scheme, no of members in irrigation scheme + gender; no using irrigation infrastructure (by improved/trasitional, by gender) (a);		plot irrigated (w/ id so can derive crop type and area), source of water supply, method of irrigation, method of pumping, seasonally			
Fertilizer		Area and crop type, by type of fertilizer (organic and inorganic), quantity of fertilizer, cost of fertilizer, seasonal	type of fertilizer, amount needed annually, amount applied (a)		by plot (w/ id derive area and crops) (type, quantity, purchased and cost), seasonal			

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Pesticides		Area by crop, treated with pesticides (by fungicide, herbicide, insecticides) and no of households using: total and by crop; cost of each type, by season	pests and diseases by crop, severity (ordinal), affected area, no of villages affected, pesticide used, amount of pesticide, no of villages and households served (m) disease by crop, control measure, area controlled no of household (q) type of pesticide, unit kg/l, amount used (a)		area, quantity cost by season			
Seeds		Area planted with improved and local seed by season; cost improved and local seeds	improved seeds, annual need, name of seed, amount used of quality declared and certified		details on seed types , quantity , costs, sources by season			
Employees types		Types of employees, annual commercial farms only			hired labour by activity , household labour by activity (all seasonal by gender); use of input management by gender, seasonal			
Agricultural Services								

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Marketing		Marketing issues by no of households (and by crop), seasonal; type of market for commercial farms; type of transport to market commercial farms			Details on transport by crop			
Credit		credit by source, annual by gender; reason not receiving credit	no of SACCPS farmers groups, no of members by gender and amount of loans by product (q)		inputs on credit, and repayment by season; and specifically on input vouchers; credit by source			
Extension Servicces		Households receiving extension service by type of service and type of advice (crops and livestock)	no of farmers receiving by gender, type of advice, frequency, method and providers (q) farmer field schools by no schols, no farmers gender, duration, no completed gender, no villages, no farmers applying technique (a)		type of service and type of advice including prices, details, gender annual;			
Other			dissemination of ag information by type, places covered, name of media outlet, name of progam, frequency of broadcast (a)		Outgrower schemes and contract farming, details on this by season			
Agricultural Equipment								

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Machinery by type Number		use and nos owned	no of machines by type working, not working, individually and group owned and reason not working a		machinery by type no, ownership / rental, cost of rental annual			
Draught animals by type Number		draught animals by type						
Agricultural Practices								
Erosion problems		erosion problems, erosion control and water harvesting facilities						
Crop rotation					left fallow, annually			
Other issues		Households with agricultural constraints by type of constraint	area cultivated , planted, weeded, harvested by type of cultivation (q) area under recommended spacing (a)					
Prices			market price per unit by crop type (market not defined, method of taking price not defined)	RRS1: monthly prices of food crops and livestock	price for outgrower schemes	wholesale, retail, input prices and livestock (measured at markets not farmers as with others)		
Aquaculture								

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Aquaculture		No of households practicing, sale and type of market, source of water, source of fingerlings, production of fish for sale and own consumption, size of ponds and no of fingerlings by type, frequency of stocking, level of care of pnds, annually						
Fisheries								
Fishing					No of households, time spent fishing; time spent processing, time spent trading		no of fishermen, duration of fishing	
Labour					employees, remuneration by type			
Inputs					type of fishing gear, ownership, costs, maintenance, rental of gear, other costs		number of boats, gear, size of gear	
Outputs					types of fish, location, method of fishing, quantity of catch quantity sold, quantity home consumption, processed fish		number of fish by species, weight, seaweed and marine products, by weight and price	

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Trade					amount sold, type, processed/unprocessed bought and sold, prices			
Demographic Data								
Basic Demographic		Sex, age, household head, household size, marital status, literacy and education, education status,			Basic demographic items			
Economic		main household activity, main source of income						
Housing		roofing material, rooms per household, floor materials, wall materials, type of toilet						
Assets and other household conditions		assets, lighting, cooking fuel, source of drinking water, distance to drinking water, time to get to drinking water						
Food consumption		no of meals per day, no of meals meat consumed, fish consumed, status of food satisfaction,						
Crop Conditions								
Rain			no of days, mm of rain (m)	WRS5: amount of rainfall and farmer assessment of rain				

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
Conditions (ordinal)			disaster and activities in ag sector (m)	WRS2: growth stage, % at that stage, % affected by shock RRS1: pest disease, damage by shocks, agri inputs (good,avg, bad); assessment of pasture and water WRS3: crops affected by type of pest, pesticide used, quality, % improved				
Food Security			village food situation, no of households in particular food situations (q)	FSQ1 and RRS 1 assessment of food situation and livestock type and source of food stuff available (ordinal)				
				FSQ1normal food situation (shortge, adequate excess)				
				FSQ1 expectation of food situatin this season				
				strategy for shortage				

Main Data Items (based on questionnaires)	Annual Agriculture Survey in development (yearly)	Agriculture Sample Census (every 5 years) 2007	ARDS m=monthly form q=quarterly form a= annual form	MAFC Early Warning Forms (uses LGA data) FSQ1 yearly , RRS and WRS 1-5	LSMS-ISA Panel 08-09, 10-11, 12-13 - questionnaire ltd agriculture data reported Household sector only	MITM prices	Fisheries Routine Collection district level, quarterly and annual	Population and Housing Census 2012 Agriculture Module
				WRS 4: availability of food crop, where, low and high prices, stocks for traders RRS: availability of main food crops				

Annex 6: Budget

Strategic Goal	Strategy	Activities	2014/15	2015/16	2016/17	2017/18	2018/19	Total USD
SG 1: Strengthening Legal and Institutional Framework and Coordination of Agricultural Statistics System								
	1.1	Ensure better mainstreaming and visibility of agricultural statistics in NSS at next review of Statistics Act						
	1.2	Prepare MoU between NBS, OCGS, ASLMs and LGAs						
	1.3	Retooling new statistical units in Policy and Planning Departments of MIT, MLFD, MNRT in Mainland		105,000				105,000
	1.4	Establish mechanism for effective dialogue with data users and data producers through User - Producer national/regional workshops	5,000	5,000	5,000	5,000	5,000	25,000
	1.5	Carry out statistical advocacy and awareness campaign for sensitization on the importance of statistics, including at LGA level	5,000	5,000	5,000	5,000	5,000	25,000
		Sub Total	*10,000*	*115,000*	*10,000*	*10,000*	*10,000*	*155,000*
SG 2: Developing human resource capacity to meet data production effort								0
	2.1	Training of Trainers for POM-LGAs on methodology of data collection, area and production estimation	46,838					46,838
	2.2	Training of Extension Officers on methodology of data collection, area and production estimation		581,719				581,719
	2.3	Training of NBS,OCGS and MDAs staffs on Data processing , analysis, report writing and Dissemination	8,594		9,453			18,047
	2.4	Long term training on survey methodology for NBS, OCGS and MDAs	171,900		189,090			360,990
	2.5	Conduct a study on staffing in the Statistical units in NBS. OCGS and ASLMs	10,000					10,000
		Sub Total	*237,331*	*581,719*	*198,543*	*0*	*0*	*1,017,593*

SG3: Rationalizing Statistical Operations and processes, improving quality and user relevance of agricultural statistics data;								
3.1	Design and Implement user need assessment survey	57,310						57,310
3.2	Organize User - Producer workshop	7,000						7,000
3.3	Design and Implement a study to establish core data and to minimize duplications and overlaps, fill gaps, improve complementarity and reduce respondent burden	100,000						100,000
3.4	Prepare a programme of census and surveys for next 10 years	1,000						1,000
3.5	*Implement NSCA in 2016/17 Agricultural Year (Every 10 Years)*	1,334,561	6,144,970	533,834				8,013,365
3.6	*Pilot testing for Annual Agriculture Survey - October, 2014*	300,000						300,000
3.7	*Conduct a full scale Annual Agriculture Survey - 2016/17*				500,000	500,000	500,000	1,500,000
3.8	*Conduct NPS - October 2014 - covered in TSMP*							0
3.9	*Large Scale Farms Survey - Annual*	300,000	300,000	300,000	300,000	300,000		1,500,000
3.10	*Livestock Technical Conversion Factors (Sheep, Goat, pigs and Chickens) - Mainland and Zanzibar 2014/15*	500,000						500,000

Strateg ic Goal	Strateg y	Activities	2014/15	2015/16	2016/17	2017/18	2018/19	Total USD
	3.11	Early Warning and Food Security Survey - Annual	300,000	300,000	300,000	300,000	300,000	1,500,000
	3.12	Review of the new methods and tools developed by the GS and test applicability in the context of Tanzania		50,000				50,000
	3.13	Prepare the Instruction Manual use of Methods and tiools		5,000				5,000
	3.14	Train the staff in the use of new methods and tools		100,000				100,000
	3.15	Design Dissemination policy in ASLMs where these Policies does not exist	10,000	10,000				20,000
	3.16	Review and Implement the existing dissemination policy	10,000	10,000				20,000
	3.17	Develop tabulation plan for each survey to improve data processing	7,000	7,000				14,000
	3.18	Develop data analysis plan for each survey	8,000	8,000				16,000
	3.19	Adapt TNADA to Agriculture Statistics and make it user friendly	20,000	20,000				40,000
	3.20	Train ASLMs staff on the use of the TNADA	8,000	8,000				16,000
	3.21	Fisheries frame survey -Mainland and Zanzibar		100,000				100,000
	3.22	Zanzibar implementation of ARDS Improved - 10 districts training at village, district and regional level, including consultant, stationery and printing	55,000					55,000
	3.23	Operating cost of ARDS: to be covered by GoT						0
	3.24	Updating and Developing Methods of field collection -for crop cutting, and measuring area with GPS						0
	3.25			100,000	150,000			250,000
	3.26	Simplification of ARDS questionnaire	20,000					20,000
	3.27	Strengthening supervision from Central and Regional level	38,250	38,250	38,250	38,250	38,250	191,250
	3.28	Awareness of data use at District and Regional level			53,500	53,500	53,500	160,500
	3.29	Prices -increased use of smartphones for retail prices		25,000	25,000	25,000	25,000	100,000
		Sub Total	*3,076,121*	*7,226,220*	*1,900,584*	*1,216,750*	*1,216,750*	*14,636,425*
SG4: Statistical Infrastructure improved;								0
	4.1	Establish Agricultural Master Sampling Frame for Census and Surveys from Population and Housing Census of 2012 by June 2016	36,152					36,152
	4.2	Update and adopt agricultural statistical concepts, definitions, and Agricultural Statistical Classifications within ASS in line with national and international standards by June 2016	31,333					31,333
	4.3	Populate National GIS database with information on agriculture sector	22,720					22,720
		Sub Total	*90,205*	*0*	*0*	*0*	*0*	*90,205*

Strategic Goal	Strategy	Activities	2014/15	2015/16	2016/17	2017/18	2018/19	Total USD
S5: Physical Infrastructure and Equipment improved								0
	5.1	Procure ICT infrastructure (computers, printers, projectors, photocopier, cameras and scanners) and office equipment by June 2016	201,212	0	0	0	0	201,212
	5.2	Procure stock of data collection tools (GPS, CAPI, Smartphones, weighing scale) by June 2016.	314,545	0	0	0	0	314,545
	5.3	Procure motor vehicles, motor bike, and bicycles for data collection by June 2020	339,394	0	0	0	0	339,394
	5.4	Maintain available transport facilities for data collection by June 2020	9,818	7,855	7,855	7,855	7,855	41,236
	5.5	Ensure adequate office space is provided for statistical units within ASLMs by June 2017.	42,424	42,424	0	0	0	84,848
	5.6	Construct data collection unit at fish landing sites by June 2016	0	0	0	0	0	0
		Sub Total	*907,394*	*50,279*	*7,855*	*7,855*	*7,855*	*981,236*
								0
		TOTAL PROPOSED BUDGET (USD)	**4,321,051**	**7,973,218**	**2,116,982**	**1,234,605**	**1,234,605**	**16,880,459**

Annex 7: Core Programme of Data Collection 2014/15 – 2018/19

Survey Name	Frequency	Year				
		2014/15	2015/16	2016/17	2017/18	2018/19
Population and Housing Census	10 yearly					
Agricultural Sample Census	10 yearly		X			
Annual Agriculture Sample Survey	Annual	Pilot		Rollout	X	Expanded Module
National Panel Survey – ISA	2 yearly	X		X		X
Household Budget Survey	5 yearly				X	
Population and Housing Census	10 yearly					
NBS Quarterly Production Questionnaire	Quarterly or Annually	X	X	X	X	X
Crop Forecasting and Early Warning	Bi-weekly	X	X	X	X	X
Price monitoring routine collections	Wholesale (3x week); Retail – monthly; Livestock- weekly	X	X	X	X	X
Trade data routine collection		X	X	X	X	X
Fisheries Routine Data Collection		X	X	X	X	X

Annex 8: Workplan for Targets

	2014/15	2015/16	2016/17	2017/18	2018/19
SG1: Strengthened Legal and Institutional Framework and Coordination of Agricultural Statistics System					
T1.1: Improving existing Statistical Act for better mainstreaming and visibility of agricultural statistics in NSS – at next review of Act					
T1.2: Memorandum of Understanding clarifying roles and responsibilities of main agricultural statistics producers (taking into account growing role of Districts and LGAs), defining coordination and collaboration mechanisms between NBS/OCGS-Zanzibar and other producers of agricultural statistics within ASS - signed by December 2015		x			
T1.3: Statistics units (3) established in Policy and Planning Departments MIT, MLFD and Ministry of Natural Resources and Tourism in Mainland, as defined in TSMP - by June 2016		x			
T1.4: Guidelines on concepts, definitions, standards and methods for producing agricultural statistics within ASS (in line with International Standards) promoted - by June 2016		x			
T1.5: Establish User-Producer dialogue as part of current Data Harmonization Technical Working Group - by June 2015	x				
SG2: Develop Human Resource capacity to meet data production effort					
T21:VAEOs, WAEOS, DALDOs (Mainland) and RALOs, DALOs, and BEOs (Zanzibar) trained in basic agriculture statistics - by June 2018				x	
T2.2: 20% of staff (as in TSMP) from NBS, MAFC, MLFD, MIT, MNRT, OCGS-Zanzibar, MLF-Zanzibar, MANR-Zanzibar trained annually in agriculture statistical methodology, data analysis and reporting, IT and use of new tools – July 2015 - July 2019		x	x	x	x
T2.3: Conduct a comprehensive review of current staffing level of statistical units and expected tasks within NBS, MAFC, MLFD, MIT, MNRT, OCGS-Zanzibar, MLF-Zanzibar, MANR-Zanzibar and establish a recruitment plan to fill gaps - by June 2018				x	
T2.4: Pay structure and incentive scheme reformed in line with TSMP - by June 2018				x	
SG3- Rationalizing statistical operations and processes, improving quality and relevance to users of agriculture statistics data					
T3.1: A users' needs assessment survey conducted and a user producer workshop organized to establish a minimum set of priority core data at necessary levels of disaggregation (national, regional, district) - by June 2015	x				

	2014/15	2015/16	2016/17	2017/18	2018/19
T3.2: Based on the agreed minimum set of core data, perform a detailed technical rationalization of all major existing and planned data collection operations (censuses, surveys, routine systems) in order to minimize duplications and overlaps, fill gaps, improve complementarity and reduce respondent burden as well as number of questionnaires to be filled by VAEOs, WAEOs, DALDOs, and RALOs, DALOs, and BEOs in Zanzibar - by June 2016	x	x			
T3.3: Prepare by June 2015 and implement from 2015 to 2019 an integrated survey programme with calendar for the next 10 years of major censuses and surveys, main data to be produced, frequency, running cost and use of data starting with table below:	x	x	x	x	x
T3.4: Promote the use of new cost/effective methods and tools for agricultural statistics developed by the Global Strategy (GPS for area measurement, use of CAPI methods, use of smart phones for prices,., satellite images, etc) – July 2015- July 2019		x	x	x	x
T3.5: Improve performance and quality of routine data systems (including ARDS) for all sub-sectors (crop, livestock, market, fishery, forestry) by simplification of questionnaires, introduction of standard data collection methods across LGAs, increased training, equipment and greater field supervision and control in collaboration with LGAs - by December 2016	x	x			
T3.6: Developing/ implementing a dissemination policy (data release calendar, annual reports, databases etc.) in NBS and ASLMs, and improving levels of data processing and analysis, dissemination and archiving.		x			
SG4: Statistical Infrastructure improved					
T4.1: Business register for agricultural activities updated annually	x	x	x	x	x
T4.2: Agricultural Master Sampling Frame for Censuses and Surveys established and maintained - by June 2015	x				
T4.3: Adoption of Statistical Concepts, Definitions, and Classification in line with national and international standards within ASS - by June 2016		x			
T4.4: Use of National GIS database and database of EAs boundary shape files for Master Sample Frame - by June 2015	x				
SG5: Physical Infrastructure and Equipment improved					
T5.1: Statistical units within NBS, OCGS-Zanzibar and ASLMs (8) equipped with ICT infrastructure and office equipment by 2018					x
T5.2: Acquisition of a stock of data collection tools to be used within NBS, OCGS-Zanzibar and ASLMs (GPS, CAPI, weight, Smart phones, etc..) by June 2015	x				
T5.3: Transport facilities for data collection improved by 2018					x
T5.4: Adequate office space to agriculture statistical units within the NBS, OCGS-Zanzibar and ASLM*s* provided by June 2018				x	

Annex 9: Logical Framework

OUTPUT	ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
General strategy: Agriculture integrated into a National Statistical System; Minimum set of core data determined together with national priorities and Agricultural statistics sustained through governance and statistical capacity building.				
Agriculture statistics integrated into the National Statistical System Minimum set of core data identified and national priorities determined Agricultural statistics through governance and statistical capacity building sustained	Integration of agriculture into a National Statistical System Identification of the minimum set of core data and determination of the national priorities Governance and statistical capacity building sustained.	Overlaps of major data sources and data inconsistencies reduced to minimum acceptable Number of data producers in ASLMs, NBS and OCGS conforming to acceptable statistical standards increase by 80 percent Number of users satisfied with agricultural statistics increased by 50 percent Reduction in time lag between data collection and dissemination for core agricultural data All 8 key data producers (NBS, OCGS and ASLMs) have functional statistic unit Statistical outputs are released within the time limits and with frequency meeting users' requirements	Reports of the Harmonization Technical Working Group	Harmonization Technical Working Group meets regularly
Strategy 1: Strengthened Legal and Institutional Framework and Coordination of Agricultural Statistics System				

OUTPUT	ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
Statistics Act improved at next review	T1.1: Improving existing Statistical Act for better mainstreaming and visibility of agricultural statistics in NSS – at next review of	Next review of Act considers mainstreaming and visibility of Agricultural Statistics		Minutes of Ag Stats Review Meetings when occurs
Memoranda of understanding prepared and signed by 2015	T1.2: Memorandum of Understanding clarifying roles and responsibilities of main agricultural statistics producers (taking into account growing role of Districts and LGAs), defining coordination and collaboration mechanisms between NBS/OCGS-Zanzibar and other producers of agricultural statistics within ASS - signed by 2015	MOU in place by 2015	MOU document signed	
Statistics units established in MIT and MNRT Tanzania Mainland by June 2016	T1.3: Statistics units (3) established in Policy and Planning Departments MIT, MLFD and Ministry of Natural Resources and Tourism in Mainland, as defined in TSMP - by June 2016	3 Statistics Unit established June 2016	Formal agreement to units	
Guidelines on concepts and definitions, standards and methods promoted by June 2016	T1.4: Guidelines on concepts, definitions, standards and methods for producing agricultural statistics within ASS (in line with International Standards) promoted - by June 2016	Updated statistical concepts, definitions and methodologies published and adopted for censuses and surveys	Census and survey manuals	
User producer dialogue as part of the Data harmonization Technical Working Group established by June 2015	T1.5: Establish User-Producer dialogue as part of current Data Harmonization Technical Working Group - by June 2015	User Producer Review Meeting	Minutes of meeting	

OUTPUT	ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
Strategy 2: Developed Human Resource capacity to meet data production effort				
VAEs, WAEOs, DALDOs Mainland and RALOs, DALOs and BEOs trained in basic agricultural statistics by June 2018	T21: VAEOs, WAEOS, DALDOs (Mainland) and RALOs, DALOs, and BEOs (Zanzibar) trained in basic agriculture statistics - by June 2018	District and Village Level Trainings held on basic agriculture statistics	Report of training workshops	Trained staff continue to work with NBS/ OCGS and ASLMs
NBS, MAFC, MLFD, MLF-Zanzibar, MANR-Zanzibar trained annually in agriculture statistical methodology, data analysis and reporting, IT and use of new tools-period July 2015-July 2020	T2.2: 20% of staff (as in TSMP) from NBS, MAFC, MLFD, MIT, MNRT, OCGS-Zanzibar, MLF-Zanzibar, MANR-Zanzibar trained annually in agriculture statistical methodology, data analysis and reporting, IT and use of new tools – July 2015 - July 2020	National Level trainings for Ministry Staff held on statistical methodology, data analysis and Reporting	Report of training workshops and participants list	
Comprehensive review of current staffing level of statistical units and expected tasks within NBS, MAFC, MLFD, MIT, MNRT conducted by June 2018	T2.3: Conduct a comprehensive review of current staffing level of statistical units and expected tasks within NBS, MAFC, MLFD, MIT, MNRT, OCGS-Zanzibar, MLF-Zanzibar, MANR-Zanzibar and establish a recruitment plan to fill gaps - by June 2018	Staffing review and recruitment plan conduct	Review report and recruitment plan	
Pay structure and incentive scheme reformed in line with TSMP by June 2018	T2.4: Pay structure and incentive scheme reformed in line with TSMP - by June 2018	TSMP activity	TSMP reports on pay and incentive scheme	TSMP activity
Strategy 3- Rationalized statistical operations and processes, improving quality and relevance to users of agriculture statistics data				

OUTPUT	ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
A users' needs assessment survey conducted and a user producer workshop organized by June 2015	T3.1: A users' needs assessment survey conducted and a user producer workshop organized to establish a minimum set of priority core data and level of disaggregation (national, regional, district) - by June 2015	Minimum set of core data agreed by key ASLMs	Core data list	Stakeholders willing to cooperate
Minimize duplications and overlaps, fill gaps, improve complementarity and reduce respondent burden by June 2016	T3.2: Based on minimum set of core data agreed, perform a detailed technical review of all major existing and planned data collection operations (censuses, surveys, routine systems) in order to minimize duplications and overlaps, fill gaps, improve complementarity and reduce respondent burden as well as number of questionnaires to be filled by VAEOs, WAEOs, DALDOs, and RALOs, DALOs, and BEO in Zanzibar - by June 2016	Technical review of surveys, censuses and routine data collections for overlaps	Technical review of data collections for duplications, overlaps etc. report	
An integrated survey programme with calendar for the next 10 years of major censuses and surveys prepared and implemented	T33: Prepare by June 2015 and implement from 2015 to 2019 an integrated survey programme with calendar for the next 10 years of major censuses and surveys, main data to be produced, frequency, running cost and use of data starting with table below:	Survey calendar for 10 years	Survey Calendar document	

OUTPUT	ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
Use of new cost/effective methods and tools for agricultural statistics developed by the Global Strategy promoted	T3.4: Promote the use of new cost/effective methods and tools for agricultural statistics developed by the Global Strategy (GPS, use of CAPI methods, use of smartphones for prices etc., satellite images, etc.) – July 2015-July 2019	Guidelines on methods available to all NBS, OCGS, and ASLMs	Guidelines documents	
Performance and quality of routine data systems (including ARDS) for all sub-sectors (crop, livestock, market, fishery, forestry) by simplification of questionnaires improved	T3.5: Improve performance and quality of routine data systems (including ARDS) for all sub-sectors (crop, livestock, market, fishery, forestry) by simplification of questionnaires, introduction of standard data collection methods, training, equipment and field supervision and control in collaboration with LGAs - by Dec 2016	Questionnaire simplified

Methods of data collection documented and trainings held | ARDS Questionnaires
Manuals
Training Reports | |
| Dissemination policy (data release calendar, annual reports, databases etc.) in NBS and ASLMs prepared and implemented | T3.6: Developing/ implementing dissemination policy (data release calendar, annual reports, databases etc.) in NBS and ASLMs, and improving data levels of data processing and analysis, dissemination and archiving | Data Release Calendar in place

Agricultural data included in TNADA | Calendar document

TNADA catalog | |
Strategy 4: Statistical Infrastructure improved				
Agricultural activities for large scale farmer business register updated annually	T41: Business register for agricultural activities updated annually	Large Scale Farm Survey updated list included in Business Register	Business Register	
Agricultural Master Sampling Frame for Censuses and Surveys established	T42: Agricultural Master Sampling Frame for Censuses and Surveys established and maintained - by June 2015	Master Sampling Frame in place	MSF documentation	

OUTPUT	ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
Statistical Concepts, Definitions, and Classification in line with national and international standards within ASS adopted by June 2016	T43: Adoption of Statistical Concepts, Definitions, and Classification in line with national and international standards within ASS - by June 2016	NBS, OCGS and ASLMs using common concepts, definitions and classifications		
National GIS database and database of EAs boundary shape files for Master Sample Frame – used by June 2015	T44: Use of National GIS database and database of EAs boundary shape files for Master Sample Frame - by June 2015	Digitized EA boundaries and AASS GIS products included in National GIS Database	National GIS database catalog	
Strategy 5: Physical Infrastructure and Equipment improved				
NBS, OCGS-Zanzibar and ASLMs (8) equipped with ICT infrastructure by 2018	T51: Statistical units within NBS, OCGS-Zanzibar and ASLMs (8) equipped with ICT infrastructure and office equipment by 2018	ICT equipment procured and distributed to NBS, OCGS and ASLMs	Procurement units reports	
Data collection tools to be used within NBS, OCGS-Zanzibar and ASLMs to be acquired by June 2015	T52: Acquisition of a stock of data collection tools to be used within NBS, OCGS-Zanzibar and ASLMs (GPS, CAPI, weight, Smart phones, etc..) by June 2015	GPS, Weighing Scales, smart phones and CAPI hardware purchased and distributed to Zanzibar and Mainland	Procurement units reports	
Transport facilities for data collection improved by 2018	T53: Transport facilities for data collection improved by 2018	Transport – four wheel drive, motorbikes procured	Procurement unit reports	
Adequate office space for agriculture statistical units within the NBS, OCGS-Zanzibar and ASLMs provided by June 2018	T54: Adequate office space to agriculture statistical units within the NBS, OCGS-Zanzibar and ASLMs provided by June 2018	Office equipment procured	Procurement unit reports	

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