

**UNITED REPUBLIC OF TANZANIA**



**AGRICULTURAL SECTOR DEVELOPMENT STRATEGY**

**October 2001**

# TABLE OF CONTENTS

TABLE OF CONTENTS .....	i
FOREWORD .....	Error! Bookmark not defined.
EXECUTIVE SUMMARY .....	v
Strategic Context of the Strategy .....	v
Agricultural Sector Features .....	v
Agricultural Sector Performance .....	v
Agriculture's Strengths and Weaknesses .....	vi
Formulating the Strategy .....	vi
Strategic Areas for Intervention .....	vii
Costs, Implementation and Monitoring Arrangements .....	ix
LIST OF ABBREVIATIONS AND ACRONYMS .....	x
<b>1 BACKGROUND .....</b>	<b>1</b>
1.1 Strategic Context of the Agricultural Sector Development Strategy .....	1
1.2 Why Agriculture is Important .....	2
1.3 Importance of the Strategy for Agricultural Development .....	3
<b>2 STATUS OF THE AGRICULTURAL SECTOR .....</b>	<b>4</b>
2.1 Agricultural Sector Features .....	4
2.2 The Performance of the Agricultural Sector .....	6
2.3 Agriculture's Strengths, Weaknesses, Opportunities and Threats .....	8
2.3.1 Agriculture's Strengths and Opportunities .....	8
2.3.2 Agriculture's Weaknesses and Threats .....	11
<b>3 FORMULATING THE STRATEGY .....</b>	<b>12</b>
3.1 The Agricultural Sector Vision .....	12
3.2 Sector Growth Targets .....	12
3.3 Mission of the Agricultural Sector Ministries .....	13
3.4 Policy Framework for Agricultural Development .....	13
3.4.1 Current Agricultural Policies .....	13
3.4.2 Agriculture Related Policies .....	14
3.5 Implications of Major Reforms for the ASDS .....	15
3.6 Strategic Options for ASDS .....	16
3.7 Critical Assumptions in ASDS Formulation .....	17
3.8 The Coordination of Actors .....	17
3.9 Innovative Features of the Strategy .....	18
3.10 Priority Issues Addressed by the Strategy .....	19
<b>4 STRENGTHENING THE INSTITUTIONAL FRAMEWORK .....</b>	<b>20</b>
4.1 Public Sector Organizations .....	20
4.1.1 The Lead Ministries .....	20
4.1.2 The Regional Secretariats .....	21
4.1.3 The LGAs .....	22
4.1.4 Other Public Institutions .....	22
4.1.5 Parastatal Organizations .....	23
4.1.6 Commodity Boards .....	23
4.2 Private Sector Organizations .....	24
4.2.1 Farmers .....	24
4.2.2 Farmers' Organizations .....	24
4.2.3 Agribusiness .....	25
4.2.4 Financial Institutions .....	25
4.3 Civil Society Organizations (CSOs) .....	26
4.4 Other Service Providers .....	26
4.5 Development Partners .....	27

<b>5</b>	<b>CREATING A FAVOURABLE CLIMATE TO FOSTER COMMERCIAL ACTIVITIES.....</b>	<b>26</b>
5.1	Sustaining Macroeconomic Stability.....	28
5.1.1	The Lending Interest Rate.....	28
5.1.2	Taxes, Levies and Fees on the Sector.....	28
5.1.3	Energy Tariffs and Prices on The Sector.....	28
5.2	Reviewing, Harmonizing and Publicizing the Agricultural Sector Legislation.....	29
5.3	Reviewing, Harmonizing and Publicizing Legislation of Collaborating Sectors.....	29
5.4	Providing Legal Empowerment for Stakeholders to Control Commodity Boards.....	29
5.5	Legalizing and Promoting Cross-border Trade.....	29
5.6	Formulating and Implementing a Food Security Policy.....	30
5.7	Streamlining Procedures for Legal Access to Land.....	30
5.8	Undertaking Land Demarcation and Surveys in Agricultural Investment Zones.....	30
<b>6</b>	<b>PUBLIC AND PRIVATE SECTOR ROLES IN IMPROVING SUPPORT SERVICES.....</b>	<b>31</b>
6.1	Research.....	31
6.2	Extension Services.....	32
6.3	Training.....	32
6.4	Regulatory Services.....	33
6.5	Animal Health and Crop Protection Services.....	33
6.6	Rangeland Management.....	34
6.7	Land and Water Resource Utilization and Management.....	35
6.8	Agricultural Mechanization.....	36
6.9	Agricultural Information Services.....	36
6.10	Investment and Finance.....	37
6.10.1	Promoting Micro-Finance Institutions (MFIs).....	37
6.10.2	Establishing Institutional Arrangement for Investment Finance.....	38
<b>7</b>	<b>MARKETING INPUTS AND OUTPUTS.....</b>	<b>39</b>
7.1	The Private Agribusiness Sector Support (PASS) Unit.....	39
7.2	Promoting Agro-processing and Rural Industrialization.....	40
7.3	Increasing Access to Inputs in Rural Areas.....	40
7.4	Strengthening Marketing Information Services.....	40
7.5	Improving Rural Marketing Infrastructure.....	41
7.6	Promoting Partnerships between Smallholder Farmers and Agribusiness.....	41
7.7	Implementing Incentive Mechanisms.....	41
<b>8</b>	<b>MAINSTREAMING PLANNING FOR AGRICULTURAL DEVELOPMENT IN OTHER SECTORS.....</b>	<b>42</b>
8.1	DADPs and DDPs.....	42
8.2	Improving Rural Infrastructure.....	42
8.3	Improving Rural Electrification and Communication.....	43
8.4	Mitigating the Effects of HIV/AIDS and Malaria.....	43
8.5	Mainstreaming Gender in Agricultural Development.....	44
8.6	Empowering Youth.....	44
8.7	Strengthening Environmental Management.....	45
<b>9</b>	<b>COSTS AND IMPLEMENTATION ARRANGEMENTS.....</b>	<b>47</b>
9.1	Costs.....	47
9.2	The Phasing of Implementation.....	47
9.3	The Poverty Monitoring Framework.....	48
9.4	Monitoring and Evaluating the ASDS.....	49
<b>ANNEX 1: PARTICIPATORY PROCESS FOR THE PREPARATION OF THE AGRICULTURAL SECTOR DEVELOPMENT STRATEGY.....</b>		<b>50</b>
<b>ANNEX 2: AGRICULTURAL LEGISLATION IN TANZANIA.....</b>		<b>53</b>
<b>ANNEX 3: LOGFRAME.....</b>		<b>54</b>

## FOREWORD

**Agricultural Sector** is the leading sector of the economy of Tanzania and accounts for over half of the GDP and export earnings. Over 80% of the poor are in rural areas and their livelihood depends on agriculture. Moreover, about 80% of the population live and earn their living in rural areas with agriculture as the mainstay of their living.

The agricultural sector has maintained a steady growth rate of over 3 percent per annum over the last decade. Although this is greater than the growth rate of the population, this rate is considered to be unsatisfactory because it has failed to improve the livelihood of the rural people whose major occupation is agriculture. This includes localized food insecurity and hunger that continues to be influenced by lack of access to and inadequate resources endowments at the households level. The Strategy is a step forward towards laying the foundation for the ways to develop the agricultural sector, hence the national economy at large as well as poverty reduction especially in the rural areas.

The primary objective of the Agricultural Sector Development Strategy (ASDS) is to create an enabling and conducive environment for improving profitability of the sector as the basis for improved farm incomes and rural poverty reduction in the medium and long-term.

The process of preparing ASDS began in the year 1998 after the preparation and finalization of the Agricultural and Livestock Policy and the Cooperatives Development Policy of 1997. Between 1998 and 2000, the Government conducted various studies as well as participatory and intensive consultation with stakeholders at national and grass root levels with the objective to review

the sector performance, factors contributing to dismal performance of the sector and recommend strategic interventions critical to restoration of profitability. Information was also obtained from different Task Force Reports like the Agricultural Sector, Performance and Strategies for sustainable Growth (2000); Special Advisory Committee on Agricultural Development appointed by the Prime Minister (1999); Task Force on Cooperatives Report appointed by the President of the United Republic of Tanzania (March 2000) and other reports from the Ministry of Water and Livestock Development based on wide consultations with stakeholders in the Livestock Sub-Sector.

In addition, the Strategy has been further refined by the outcome of the consultations with representatives of the Government Ministries directly associated with agricultural sector, farmer organizations at national and local levels, NGOs, individual farmers, livestock keepers, agribusiness representatives, financial institutions and development partners.

The ASDS process was closely coordinated among the various key Government Ministries, including Ministry of Agriculture and Food Security, Ministry of Cooperatives and Marketing, Ministry of Water and Livestock Development, President's Office Regional Administration and Local Governments, the Prime Minister's Office, the President's Office – Planning and Privatization, Ministry of Finance and the Development partners. The coordination was carried out through a joint Food and Agriculture Sector Working Group (FASWOG) Task Force.

Mr. Wilfred Ndirwa  
Permanent Secretary  
Ministry of Agriculture  
and Food Security

Dr. L.C. Komba  
Permanent Secretary  
Ministry of Cooperatives  
And Marketing

Mr. Bakari A. Mahiza  
Permanent Secretary  
Ministry of Water and  
Livestock Development

## **EXECUTIVE SUMMARY**

### **Strategic Context of the Strategy**

This strategy is an integral component of the ongoing macroeconomic adjustment and structural reforms that are supported by Tanzania's development partners. The medium term objectives are determined by the Poverty Reduction Strategy Paper and the long term goals by the Tanzania Development Vision 2025. Agriculture is important to Tanzania's immediate and long term economic and social development goals for three reasons. First, widespread improvements in farm incomes are a precondition to reduction of rural poverty. Second, any strategy for addressing food security must involve actions to improve agricultural and livestock production and farm incomes. Third, agriculture, as the single major contributor to national GDP, is key to the country's overall economic development now and in the near future. Its potential in this regard is substantial.

The Agricultural Sector Development Strategy, which is the conclusion of a participatory consultative process among a wide range of sector stakeholders, provides a basis for action by both the public and private sectors to support Tanzania's efforts to stimulate agricultural growth and to reduce rural poverty.

### **Agricultural Sector Features**

Tanzania has a large untapped land resource. Despite this abundance of unutilized land, Tanzanian agriculture is dominated by small-scale subsistence farming. The major limitation on the size of land holdings and utilization is the reliance on hand hoes as the main cultivating tool. Efforts to increase agricultural production can include technologies to expand utilized land area or intensification of the existing cultivated area. In the short run the most practical approach is to focus on labour productivity enhancing technologies that are affordable. For commercial farmers, improved marketing systems and an appropriate policy environment for private investment will hopefully help to raise farm profitability and encourage the adoption of new technologies.

The growth of the labour force is a major determinant of the growth of agricultural output. Rural-urban migration, non-farm employment opportunities and the HIV/AIDS and malaria pandemics mean that the agricultural labour force is currently growing at less than 2.8 per cent p.a. In recent years, illiteracy rates have increased among the rural population. These high levels of illiteracy pose a major obstacle to agricultural transformation.

### **Agricultural Sector Performance**

The agricultural sector has maintained a steady, if unspectacular growth rate of over 3 per cent p.a. over the last decade. This is greater than both the rate of total population growth and the rate of growth of the agricultural labour force. However, this is considered unsatisfactory because it has not been able to bring a sufficient number of the rural poor above the poverty line and has perpetuated the existing pervasive poverty among the farming communities. Given the importance of agriculture as the mainstay of rural livelihoods, agriculture must grow much faster if rural poverty reduction is to become a reality in Tanzania.

Several factors have contributed to the modest performance of the agricultural sector in the country. One undoubted factor has been the heavy reliance on hand hoe cultivation in rainfed agricultural systems. In addition, the incentive structure in the sector over the past decade has not encouraged growth or investment in the sector.

## **Agriculture's Strengths and Weaknesses**

Tanzania has a comparative advantage in the production of almost all industrial export crops and some non-traditional export crops. There is a large potential for increasing production of items such as wheat and rice to replace imports and to expand food and livestock exports to neighbouring countries. Another opportunity is the expanding domestic market for food, especially for livestock products and crops with a high income elasticity of demand. Similarly, Tanzania's membership in regional trade groupings and as a signatory to international trade protocols is making markets within the region and globally increasingly available.

At the same time, the unexploited natural resource stock permits virtually unlimited expansion and diversification in crop and livestock production. Furthermore, the development of private agribusiness enterprises and a few large-scale farming enterprises in Tanzania is creating potential opportunities for strategic partnerships between these enterprises and smallholder farmers. The agricultural sector will also benefit from the ongoing structural reforms and the move towards devolved government that are envisaged to improve the efficiency and effectiveness of providing public services.

Weaknesses and threats constitute the development agenda that must be addressed by the ASDS. Tanzanian agriculture has numerous weaknesses, including low productivity, poor coordination and limited capacity, underdeveloped supporting facilities, erosion of the natural resource base, inappropriate technology, dependency on rainfed agriculture, impediments to food market access and low public expenditure levels.

## **Formulating the Strategy**

The Government and stakeholders in agriculture envisage an agricultural sector that by the year 2025 is modernized, commercial, highly productive and profitable, utilizes natural resources in an overall sustainable manner and acts as an effective basis for intersectoral linkages. The PRSP Progress Report 2000/01 set extremely ambitious growth targets for the agricultural sector for the coming five years. However, this was set before a full analysis of the constraints facing the agricultural sector had been completed. In the light of these considerations, a more realistic target for the overall agricultural sector would be to achieve an average annual rate of growth of 5 per cent p.a. over the 3-year period 2005/07. If this was broad-based and accompanied by increased off-farm rural employment opportunities, it could make a significant impact on the poverty reduction targets by the end of the decade.

The mission of the agricultural sector Ministries will be to facilitate the growth and development of the agricultural sector so that both the medium and long term objectives are achieved.

The policy environment is key to agricultural development at two levels. First, a favourable and stable macroeconomic environment is a precondition to profitable private investment in agriculture. Second, sector specific policies have an important bearing on its productivity and

profitability. Several policies related to agriculture have been developed recently with the aim of providing a more favourable environment for agricultural growth. The ASDS proposes further modifications to permit private agribusiness to expand investments in primary production directly or through partnerships with smallholders, input distribution, produce marketing, and agro-processing.

The ASDS will be implemented within the context of several major Government reform programmes, including the Macroeconomic Reform Programmes, the Local Government Reform Programme and the Public Sector Reform Programme. The strategic options available for the ASDS are largely constrained by the Government's priority objectives, recent policy pronouncements and the ongoing reform programmes. The overarching Government objective is poverty reduction and this calls for strategies that are capable of raising the incomes and living standards of a large proportion of the rural population in the relatively near future. This does not preclude the simultaneous creation of the enabling environment to encourage larger scale activities and investments in agriculture by the private sector.

At the same time, the macroeconomic reforms rule out the possibility of profligate government expenditure or subsidies and limit the role of the Government to policy formulation, the establishment of a regulatory framework, and the provision of public goods and safety nets for the most vulnerable in society. Government is unlikely to be a major provider or funder of those goods and services that the private sector is capable of providing itself. The strategic options are also influenced by the local government reforms that give a substantially larger role to LGAs and local communities in policy implementation and financing, which are increasingly likely to reflect local needs and priorities. These various considerations largely determine the choice of an overall strategy for agricultural development.

The strategy is based upon a number of assumptions concerning mobilization of inherent strengths and comparative advantages of Tanzanian agriculture. The most fundamental assumption and risk is the sustained commitment to implement the politically difficult aspects of the strategy. The wide range of actors that will be involved in the ASDS will require a harmonized and coordinated framework for effective and efficient management of activities and resources. This will be achieved through: an Inter-ministerial Coordination Committee (ICC) composed of Permanent Secretaries of the lead and collaborating Ministries and representatives of the private sector that will coordinate the planning of the ASDS at national level and monitoring its implementation; a Technical Inter-ministerial Committee (TIC) to act as the Secretariat for the ICC; an Annual Conference of Stakeholders; the relevant Standing Committee of LGAs, and; the Regional Secretariats.

The ASDS contains a set of innovative and practical actions including: a focus on agricultural productivity and profitability; the promotion of private sector/public sector and processor/contract grower partnerships, and; the participatory implementation of the strategy through District Agricultural Development Plans (DADPs).

## **Strategic Areas for Intervention**

In practical terms, the ASDS can only address some of the many issues that constrain the performance of Tanzanian agriculture and lead to continuing rural poverty. Within a given timeframe and resource envelope, focusing on the following issues is considered critical:



- a. **Strengthening the institutional framework** for managing agricultural development in the country. In particular, there is a need to define what Government, at central and local level, can and cannot do versus the role of the private sector in agricultural development. Actions are proposed to strengthen public sector organizations and restructure the Commodity Boards. Farmers' organizations will be promoted and the Government will help to overcome the constraints experienced by the private sector and strengthen its capacity.
- b. Increased private sector participation and agricultural development in general requires the **creation of a favourable climate for commercial activities**. This assumes that macroeconomic stability will be maintained and that actions will be taken to: monitor agricultural lending rates; rationalize the taxation regime and devise appropriate investment incentives for the agricultural sector; review energy tariffs and oil prices; review, harmonize and publicize the agricultural sector legislation and that of collaborating sectors; provide legal empowerment for stakeholders to control Commodity Boards; legalize and promote cross-border trade; formulate and implement a food security policy; streamline procedures for legal access to land, and; undertake land demarcation and surveys in agricultural investment zones.
- c. **Clarifying public and private roles in improving support services**, including agricultural research, extension, training, regulation, information and technical services and finance. The private sector will increase its role in providing a wide range of demand-driven support services to smallholder farmers. The public sector will gradually, but increasingly, limit its role to financing the provision of collective goods and services that the private sector is unwilling to provide, and the targeted financing of goods and services to overcome rural poverty. Mechanisms will also be developed for private and public sector collaboration in the delivery of effective support services. Specific actions are proposed for research, extension, training, regulatory services, animal health and crop protection services, rangeland management, land and water resource utilization and management, agricultural mechanization, agricultural information services and investment and finance services.
- d. Improving net farm returns and commercializing agriculture both require attention to be paid to **marketing inputs and outputs**. Proposed actions include: a private agribusiness sector support unit; promoting agro-processing and rural industrialization; increasing access to inputs in rural areas; strengthening marketing information collection and dissemination; improving rural marketing infrastructure; promoting partnerships between smallholder farmers and agribusiness, and; implementing incentive mechanisms.
- e. Mechanisms will need to be found for **mainstreaming planning for agricultural development in other sectors** so that due attention is paid to issues such as rural infrastructure development, the impact of HIV/AIDS and malaria, gender issues, youth migration, environmental management, etc. Most of these will be more adequately addressed in the Rural Development Strategy.

This document deals with the broad actions or interventions to be taken to address each of these priority issues. The detailed activities and implementation timetable will be contained in the Agricultural Sector Development Programme (ASDP), a 3-year rolling programme that will be revised and updated annually.

## **Costs, Implementation and Monitoring Arrangements**

An indicative budget has been prepared of the likely costs of the interventions that will be required to implement the ASDS. This amounts to around US\$255m. This budget only includes those items that will be channelled through the three agricultural sector Ministries but excludes the Personnel Emolument (PE) elements of these budgets.

Four major factors will influence the phasing of implementation. These are the availability of funds, the capacity of Ministries, Programmes and LGAs to disburse and use funds effectively, the priority accorded to different outputs and/or interventions and the need for sequencing of interventions. These are all issues that will need to be considered during the ASDP preparation process.

Monitoring and evaluation will focus on the medium-term objective of the ASDS, namely, to achieve the PRSP objectives. A comprehensive framework for monitoring and evaluating the PRSP process and poverty reduction has been established under the oversight of the Vice President's Office and overseen technically by a National Poverty Monitoring Steering Committee. A poverty monitoring master plan is being developed to foster a coherent approach to the monitoring of poverty in Tanzania. Monitoring the implementation of the ASDS at national level by the ICC and at the district level by the TIC will be greatly assisted by the data generated by the various components of the poverty monitoring master plan. As the ASDS operates as a sectoral component of the RDS, the work of the ICC and TIC will have to be coordinated with the RDS monitoring and evaluation framework. At the district level, the relevant Standing Committee of the LGA will be responsible for monitoring the implementation of DADPs and Regional Secretariats will monitor implementation of DADPs in their respective regions.

## **LIST OF ABBREVIATIONS AND ACRONYMS**

ACP	African Caribbean and Pacific
AIDS	Acquired Immune Deficiency Syndrome
ASDS	Agricultural Sector Development Strategy
ASU	Agricultural Statistics Unit
BOT	Bank of Tanzania
CBO	Community Based Organization
COSTECH	Commission of Science and Technology
CSO	Civil Society Organization
DADC	District Agriculture Development Committee
DADP	District Agricultural Development Programme
DAFCO	Dairy Farming Company Ltd
DDP	District Development Programme
DFZ	Disease Free Zone
EAC	East African Community
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FASWOG	Food and Agricultural Sector Working Group
FEE	Foreign Exchange Earnings
GDP	Gross Domestic Product
ha.	Hectare
HIPC	Highly Indebted Poor Countries
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
LGA	Local Government Authority
LGRP	Local Government Reform Programme
LITI	Livestock Training Institutes
M & E	Monitoring and Evaluation
MAC	Ministry of Agriculture and Cooperatives
MAFS	Ministry of Agriculture and Food Security
MATI	Ministry of Agriculture Training Institute
MCDWC	Ministry of Community Development Women Affairs and Children
MCM	Ministry of Cooperatives and Marketing
MCT	Ministry of Communication and Transport
MEC	Ministry of Education and Culture
MEM	Ministry of Energy and Minerals
MF	Ministry of Finance
MFI	Micro-Finance Institution
MH	Ministry of Health
MIT	Ministry of Industry and Trade
MLHS	Ministry of Lands and Human Settlements
MW	Ministry of Works
MWLD	Ministry of Water and Livestock Development
NAFCO	National Agricultural and Food Corporation
NARCO	National Ranching Company Ltd
NBS	National Bureau of Statistics
NCSSD	National Conservation Strategy for Sustainable Development

NEAP	National Environmental Action Plan
NEF	National Extension Fund
NEMC	National Environmental Management Commission
NGO	Non Governmental Organization
NMC	National Milling Corporation
NPB	National Pharmacy Board
NRM	Natural Resource Management
PASS	Private Agribusiness Sector Support
PC	Planning Commission
PE	Personnel Emolument
PER	Public Expenditure Review
PMO	Prime Minister's Office
PO-P&P	President's Office – Planning and Privatization
PO-RALG	President's Office - Regional Administration and Local Government
PRA	Participatory Rural Appraisal
PRGF	Poverty Reduction and Growth Facility
PRSP	Poverty Reduction Strategy Paper
PSAC	Programmatic Structural Adjustment Credit
PSRP	Public Service Reform Programme
RDS	Rural Development Strategy
REOPA	Research into Poverty Alleviation
SACA	Savings and Credit Associations
SACCO	Savings and Credit Cooperative Societies
SADC	Southern Africa Development Community
SUA	Sokoine University of Agriculture
TANESCO	Tanzania Electrical Supply Company
TAS	Tanzania Assistance Strategy
TBS	Tanzania Bureau of Standards
TCAL	Tanzania Chamber of Agriculture and Livestock
TCCIA	Tanzania Chamber of Commerce Industry and Agriculture
TDV	Tanzania Development Vision
TOSCA	Tanzania Official Seed Certification Agency
TPRI	Tropical Pesticides Research Institute
TRA	Tanzania Revenue Authority
UDSM	University of Dar es Salaam
URT	United Republic of Tanzania
VPO	Vice President's Office
VTTP	Village Travel and Transport Project
WB	World Bank
WTO	World Trade Organization
ZRF	Zonal Research Fund

# 1 .BACKGROUND

## 1.1 Strategic Context of the Agricultural Sector Development Strategy

Tanzanian agriculture, like the entire economy, is in a transition from being a command- to a market-based production system. The transition process started in the mid-1980s as part of the economic adjustment and structural reform programmes supported by the development partners. Despite some impressive macroeconomic achievements resulting from the reform programmes, agricultural growth and rural poverty reduction continue to present daunting challenges. In response to these and other pertinent development issues, the Government recently adopted the *Tanzania Development Vision 2025 (TDV)* to provide broad guidance on the strategic goals of social and economic development in the country. The TDV envisages raising the general standard of living of Tanzanians to the level of a typical medium-income developing country by 2025, in terms of human development. It identifies three priority goals: ensuring basic food security, improving income levels and increasing export earnings. Agriculture is one of the priority sectors for achieving these goals.

Subsequent to the TDV, Government, with the support of the development partners, has initiated a national strategic policy framework aimed at progressively achieving the Vision's goals in the country. The completion of a *Poverty Reduction Strategy Paper (PRSP)* in 2000 was a contribution to this. Poverty reduction has become the overarching priority objective in the national economy and the PRSP provides the medium term national framework for this focus. The PRSP recognises that agriculture is critical to poverty reduction (Box 1).

### Box 1

#### **Why Agriculture is Critical to Poverty Reduction**

According to the latest (1991/92) Household Budget Survey in Tanzania, the majority of the poor are found in rural areas, where agriculture is the mainstay of livelihoods. Agriculture, as defined in this report, has such a dominant role in the economy that it is the most critical of the sectors that have been identified as the *priority poverty reduction sectors* in the PRSP. In the long run, commercializing smallholder agriculture and accelerating its growth rate are critical in pulling the majority of the rural poor out of abject poverty. The ASDS lays the foundation stones for this long run objective but also proposes interventions with a more immediate impact on rural poverty alleviation through diversified and increased production and productivity of smallholder agriculture.

In the rural sector, these poverty reduction objectives will be achieved through a *Rural Development Strategy (RDS)* and a complementary *Agricultural Sector Development Strategy (ASDS)*. The RDS will cover the entire rural sector, including agriculture, non-farm economic activities, social services, and economic and social infrastructures. The ASDS will cover crop and livestock production and related agribusiness activities in more detail. Fisheries, forestry and hunting, normally included in the formal definition of the agricultural sector, have been excluded. This strategy report is the conclusion of a participatory consultative process amongst a wide range of stakeholders in the sector. Details of the process are given in Annex 1.

Agriculture as defined in the ASDS falls within the mandate of three ministries: the Ministry of Agriculture and Food Security (MAFS), the Ministry of Co-operatives and Marketing

(MCM) and the Ministry of Water and Livestock Development (MWLD). These ministries are responsible for formulating the ASDS and facilitating its implementation at the national level. With the cooperation and support of the President Office Regional Administration and Local Government (PO-RALG), which has jurisdiction over the local authorities, they will also supervise and monitor its implementation at district or local authority level. The lead ministries will also facilitate, co-ordinate and monitor its implementation by private sector stakeholders' and non-government organizations (NGOs).

## 1.2 Why Agriculture is Important

Agriculture is important to Tanzania's economic and social development goals espoused in the TDV for several reasons. First, recent studies by the World Bank and others indicate that about 50 per cent of Tanzanians can be defined as poor. This means that they have a per capita income of less than US\$1 per day (national average per capita GNP in 1997 was US\$210). The studies also conclude that well over 80 per cent of the *poor* are in rural areas and depend on agriculture for their livelihood. In addition, 82 per cent of the *population* live and eke a living in rural areas, with agriculture as the mainstay of their living. *This implies that improvement in farm incomes of the majority of the rural population is a precondition for reduction of rural poverty in Tanzania.*

Second, food insecurity is often a manifestation of poverty. Recent studies on the state of food security in Tanzania indicate that satisfactory indicators at the national level may mask severe food insecurity at household and individual levels, largely due to lack of access to food, poor nutritional quality and biases in intra-household food distribution. Current estimates are that around 42 per cent of households regularly have inadequate food. Localized food insecurity and hunger are common and reflect inadequate resource endowments at the household level. Food price fluctuations put the poor (as producers or customers) in a more precarious condition. *These factors suggest that any strategy to address food security must involve actions to improve agricultural and livestock production and farm incomes to ensure availability and access to food respectively.* Indeed, the PRSP proposes steps to raise the quality and quantity of marketed products as a key to improving agricultural incomes and alleviating poverty among the rural poor.

### Box 2

Agriculture's Share of Real GDP and Foreign Exchange Earnings (FEE)  
(Per cent)

	<u>1987-1990</u>	<u>1990-1993</u>	<u>1994-1998</u>	<u>1998-2000</u>
Contribution to GDP	48.2	48.4	50.0	50.0*
Contribution to FEE	55.0	56.0	56.2	54.2*

Source: URT/WB. Tanzania Agriculture: Performance and Strategies for Sustainable Growth, February 2000

\* Figures for 1999 and 2000 are provisional

Third, over the years, agriculture has been the single largest contributor to GDP and foreign exchange earnings (Box 2). Furthermore, a recent study<sup>1</sup> concluded that agriculture's growth linkages (multipliers) in Tanzania were higher than those of other sectors and are felt in both rural and urban areas. Because of these factors, agriculture remains the engine of economic growth in the economy. *Accordingly, agricultural development is key to the country's overall*

<sup>1</sup> World Bank (2000) Agriculture in Tanzania since 1986: Follower or Leader in Growth. World Bank/JFPRI, Washington DC.

*economic development now and in the near future. Its potential in this regard is considered substantial.*

### **1.3 Importance of the Strategy for Agricultural Development**

The need for an ASDS derives from three considerations. First, it is an integral component of the ongoing macroeconomic and structural reforms that are being supported by Tanzania's multilateral and bilateral partners. Some of these reforms, including those being supported under the Poverty Reduction and Growth Facility (PRGF), Programmatic Structural Adjustment Credit (PSAC-1) and PRSP, are expected to have a significant impact on the welfare of the rural poor in general and small crop and livestock producers in particular. Accordingly, *Government has chosen, as detailed in the strategy, to complement the interventions of these reforms with sector specific actions to enhance the impact on farm incomes and poverty reduction in the rural areas.*

Second, the strategy is viewed as an instrument for guiding public and private efforts towards broadly shared sector objectives and specific inputs and outputs. Implementation of the Local Government Reform Programme (LGRP), aimed at transferring responsibility for formulating, implementing and monitoring agricultural development programmes and projects to the districts and grassroots communities has started, but it will take time to complete. The ASDS will, therefore, need to be implemented flexibly to accommodate local development needs and opportunities within the framework of the envisaged District Agricultural Development Programmes (DADPs) (see Section 3.4). *Thus, the ASDS will provide a basis for action by both the public and private sectors to meet agreed or specified inputs and outputs in the agricultural sector at national and district levels.*

Third, and most importantly, the ASDS is critical to rural poverty reduction as briefly described in Box 1. Government strongly believes that *a strengthened agricultural sector, if properly assisted, will have strong forward and backward linkages and a positive impact on farm incomes and rural poverty reduction.*

## 2 STATUS OF THE AGRICULTURAL SECTOR

### 2.1 Agricultural Sector Features

**Land area.** Features of the Tanzanian agricultural sector are summarized in Box 3. Tanzania is endowed with an area of 94.5 million ha. of land, out of which 44 million ha. are classified as suitable for agriculture. However, part of this arable land may be only marginally suitable for agricultural production for a variety of reasons, including soil leaching, drought proneness, and tsetse infestation. According to recent studies, only 10.1 million ha., or 23 percent of the arable land is under cultivation. This includes around 2.2 to 3.0 million ha. of annual crops, fallow of up to 5 years duration, permanent crops and pasture. It is also estimated that out of 50 million ha. suitable for livestock production only 26 million ha., or 50 per cent is currently being used mainly due to tsetse fly infestation. Thus, the country has a large untapped land resource but its utilization would require the development of physical infrastructure and eradication of tsetse. This is obviously not feasible in the short run, but efforts to bring new land under production could be done by either small farmers or large private investors once the necessary favourable environment is in place. *Government will work towards creating an enabling environment for medium and large-scale investors to make use of the abundant land resource in the country.*

#### **Box 3**

##### **Selected Main Features of the Agricultural Sector in Tanzania**

Land Resource (million ha.):	
Total land	95.5
Arable land	44.0
Rangeland	50.0
Land under livestock	24.0
Tsetse infested area	26.0
Cultivated land	10.1
Area suitable for irrigation	1.0
Area under irrigation	0.2
Land under medium and large-scale farming	1.5
Per capita landholding (hectare per head)	0.1
Livestock Population (million):	
Cattle	15.6
Goats	10.7
Sheep	3.5
Poultry (chicken)	27.0

Sources: URT/WB. Tanzania Agriculture: Performance and Strategies for Sustainable Growth, February 2000.  
MWLD. Livestock Subsector Memorandum, 2000.

**Farm size.** Despite this abundance of unutilized land, Tanzanian agriculture is dominated by small-scale subsistence farming. Approximately 85 percent of the arable land is used by smallholders who operate between 0.2 and 2.0 ha. and traditional agro-pastoralists who keep an average of 50 head of cattle. It is estimated that the average per capita land holding is only 0.12 ha. The major limitation on the size of land holdings and utilization is the heavy reliance on the hand hoe as the main cultivating tool, which sets obvious limitations on the area of crops that can be grown using family labour, the achievement of food security and poverty reduction. This "hand-hoe syndrome" among Tanzanian smallholder farmers is both a cause



and symptom of rural poverty. Given the generally abundant land supply, households' capacity to maintain and increase their production through land expansion depends on the extent to which they can hire labour or use labor-saving technologies (e.g. animal traction, power tillers, tractor hire services, minimum cultivation techniques, herbicides, etc.).

**Assets and productivity.** Box 4 provides data on the characteristics of the rural population in terms of the use of modern inputs and technology, the ownership and distribution of assets and cropping patterns and how the poor fare on those yardsticks. It is observable that poor farmers had lower access to, or use of, each listed item than the overall rural population, although the differences were not significant in most cases. The lower degree of diversification among poorer farmers creates an erratic income and cash flow and may partially explain their need to sell part of their food crops immediately at harvest time when prices are low.

<b>Box 4</b>	<b>Characteristics of Rural Farm Households</b>			
	<b>1983</b>		<b>1991</b>	
	<b>All Rural</b>	<b>Rural Poor</b>	<b>All Rural</b>	<b>Rural Poor</b>
	-----Per cent-----			
<u>Access to Inputs and Technology:</u>				
Hiring labour in agriculture	12.1	9.9	22.3	17.3
Buying fertilizer	27.7	27.9	26.7	23.9
Buying pesticides	16.1	16.5	18.8	14.3
Using ploughs	12.0	10.8	20.6	17.8
Using carts	1.8	1.2	7.4	7.6
<u>Ownership of Livestock</u>				
	65.4	59.8	63.5	63.2
<u>Pattern of Production:</u>				
More than 1 crop	84.8	85.4	57.0	48.6
2 or 3 crops	68.8	70.5	42.7	42.3
4 crops	9.6	9.7	8.2	4.3
1 cash crop	50.0	51.2	26.0	20.3
More than 1 cash crop	3.9	4.1	3.7	0.7
More than 1 cereal	61.2	59.2	42.3	32.8
Share of sales of cash crops in total sales	34.0	33.0	53.0	40.0
Source: M. Luisa Ferreira. Poverty and Inequality During Structural Adjustment in Rural Tanzania				

**Livestock.** Box 4 also shows that the majority of rural farm households own at least some livestock. Indeed, livestock output has accounted for around 15 per cent of agricultural GDP in recent years. The total number of livestock is shown in Box 3. There is substantial potential to increase the contribution of livestock to agricultural output and rural incomes. Ways of overcoming many of the constraints currently limiting the livestock sub-sector are outlined in Sections 4 to 8.

**Available technologies.** With no serious land constraint in most districts, efforts to increase smallholder agricultural production can include both technologies to expand utilized land area and/or intensification of the existing cultivated area. However, best Natural Resource

Management (NRM) practices indicate that the focus should first be on environmentally friendly and sustainable intensification. In the short run, the most practical approach is to focus on the increased use of existing labour productivity enhancing technologies that are affordable, given the human, physical and financial assets available to poor households.

There are many technological innovations that are yet to be adopted by the majority of smallholder farmers, such as improved seeds, storage facilities and animal breeds. In many cases they are not adopted because they are unknown to smallholder farmers or there are no effective delivery systems in place. In other cases they are not profitable given existing relative input and output prices and husbandry practices: *The ASDS will therefore focus on improving the dissemination of viable farm production technologies to smallholder farmers and livestock keepers as a matter of priority. Improving agricultural productivity and commercializing farm production among smallholder farmers is the linchpin of the ASDS.* For farmers engaged in commercial production there is a 'Catch 22' situation regarding profitability and technology uptake. Productivity-enhancing technologies are often the key to profitability but equally, increased farm profitability is often critical to the adoption of new technologies. The reduction in transaction costs and the development of competitive agricultural marketing systems for both inputs and crop and livestock outputs will, hopefully, help to raise farm profitability and encourage the adoption of new technologies. This will require the development of an appropriate policy environment for private investments in general and in agriculture-related activities in particular.

***The agricultural labour force.*** As long as Tanzania's agriculture is dominated by hand hoc technology, the growth of the agricultural labour force will remain one of the major factors determining the growth of agricultural output. The size of the agricultural labour force is probably just under 11 million. The most active age group is that between 15 and 59 years, accounting for about 89 per cent of the agricultural labour supply with women contributing about 70 per cent of this supply. While the total labour force is growing at around 3.1 per cent p.a., it is estimated that the agricultural labour force is growing at a maximum of 2.8 per cent p.a. due to rural-urban migration and the growth of non-agricultural informal sector activities in the rural areas. The effective labour force is probably growing more slowly than this due to the effect of the HIV/AIDS and malaria pandemics.

***Literacy rates.*** The literacy rate for the rural areas is about 61 per cent for those aged above 10 years. In recent years, illiteracy rates have increased due to deterioration in the quality of adult education and basic education in primary schools, together with a fall in primary school enrolment rates. These high levels of illiteracy pose a major obstacle to agricultural transformation because empirical evidence in Tanzania and elsewhere in developing countries suggests a correlation between literacy among farmers and improvements in farm productivity. Accordingly, literacy, especially among women, has a considerable impact on poverty reduction. Unless the current trend is reversed, illiteracy may serve to perpetuate poverty in rural Tanzania. *The Government will address this issue in the context of the Rural Development Strategy.*

## **2.2 The Performance of the Agricultural Sector**

According to a recent study<sup>2</sup>, the agricultural sector has maintained a steady, if unspectacular growth rate of over 3 per cent p.a. over the last decade (Box 5). This is greater than the rate

<sup>2</sup> CRT/WB (2000) *Tanzania Agriculture: Performance and Strategies for Sustainable Growth*

of total population growth, which means that there has been a small but steady growth in per capita agricultural output. It is also a faster rate of growth than that of the agricultural labour force, indicating a continuous slight increase in agricultural labour productivity over this period. Indeed, real agricultural growth has maintained the same average growth rate as the rest of the economy, with the result that its contribution to total GDP, at around 50 per cent, has not fallen during the past decade. This is very different to the typical pattern in development where industrial and service sector growth rates normally outpace the agricultural sector growth rate leading to a steadily declining share of agriculture in total GDP.

A similar pattern emerges in terms of agricultural exports where the real growth has averaged around 7 per cent p.a., a similar rate to overall export growth so that the share of agricultural exports in total exports has remained virtually unchanged at 56 per cent (Box 5).

### **Box 5**

#### **Selected Indicators of Agricultural Sector Performance**

	1990-93	1994-98
Total Real GDP Growth (per cent p.a.)	2.8	3.3
Real Agricultural Growth (per cent p.a.)	3.3	3.2
Real Growth in Agricultural Exports (per cent p.a.)	7.5	6.8
Share of Agriculture in GDP (per cent)	48.4	50.0
Share of Agricultural Exports in Total Exports (per cent)	56.0	56.2

Source: URT/WB. Tanzania Agriculture: Performance and Strategies for Sustainable Growth, February 2000 (draft).

However, the level of real agricultural growth during the last decade is considered unsatisfactory because it has not been able to bring a significant number of the rural poor above the poverty line, perpetuating the existing pervasive rural poverty. Given the importance of agriculture as the mainstay of rural livelihoods, agriculture must grow much faster if rural poverty reduction is to become a reality in Tanzania.

Several factors have contributed to the modest performance of the agricultural sector in the country. One undoubted factor has been the heavy reliance on hand hoe cultivation in rainfed agricultural systems. In these situations, and in the absence of major technological breakthroughs or diversification into new crops, the rate of growth of the agricultural labour force tends to be a major determinant of the agricultural sector's potential growth. In addition, the incentive structure in the sector over the past decade has not encouraged growth or investment in the sector. Agriculture's barter terms of trade, that measure the relative change in agricultural producer prices compared to the price of industrial goods have not changed significantly over the past decade (Box 6). Breaking down this global indicator suggests that the real price of food crops has fallen over the decade whilst the real price of export crops has risen. However, these figures need treating with caution as there have been dramatic year-to-year changes in all crop prices due to weather and/or world market conditions. In particular, extremely high coffee prices in 1995-96 largely account for the rise in export crop prices in the 1994-99 period.

The farmers' share of retail or export prices is another indicator of agriculture's incentive structure. As a result of market liberalization for the major food crops, margins between producer prices and consumer prices have narrowed significantly, indicating a high degree of

market integration. For the major export crops, the farmer's share in export prices has generally increased over time, but the magnitude has remained modest. Detailed surveys of the processing and marketing costs associated with these margins would be required to indicate whether there are inefficiencies, perhaps related to the existence of non-competitive markets. Moreover, despite a considerable rationalization and streamlining of taxes in recent years, there are still significant direct and indirect taxes on many marketed agricultural products. *The ASDS will therefore address these issues in its pursuit of efficient and responsive markets for agricultural and livestock products in the country so as to make agriculture more profitable.* The proposed restructuring of the existing Commodity Boards will give more control to stakeholders and should encourage them to improve the sector's incentive structure.

### **Box 6**

#### **Selected Indicators of Agriculture's Incentive Structure**

	<u>1990 - 1993</u>	<u>1994 - 1999</u>
<u>Terms of Trade for Agriculture</u>		
ToT index (agric/industry) 1992 = 100	95	98
Real Producer Prices (food) Tsh/kg*	36.8	32.6 <sup>a</sup>
Real Producer Price (export) Tsh/kg**	137.3	165.7
<u>Farmers' share of consumer price (per cent)</u>		
Maize	66.8	87.9
Rice	35.0	38.4
Sorghum	50.0	99.4
<u>Farmers' Share in Export Prices (per cent):</u>		
Cashews	52.4	64.7
Coffee Arabica	59.0	58.5
Coffee Robusta	51.0	45.7
Tea	51.2	34.5
Fire Cured Tobacco	51.8	74.9
Flue Cured Tobacco	29.4	* 56.5
Lint Cotton	35.0	51.2
Pyrethrum	25.5	21.8

a. 1994-1998

\* Weighted average of maize, rice and wheat.

\*\* Weighted average of coffee, tobacco, cotton and cashewnuts.

Source: URT/WB. Tanzania Agriculture: Performance and Strategies for Sustainable Growth, February 2000

## **2.3 Agriculture's Strengths, Weaknesses, Opportunities and Threats**

The consultative process with stakeholders revealed their perceptions of agriculture's strengths, weaknesses, opportunities and threats. The strengths and opportunities can be built on, while weaknesses and threats constitute the agenda that the sector's development strategy must address.

### **2.3.1 Agriculture's Strengths and Opportunities**

*Comparative advantage.* Comparative advantage measures whether there is a net foreign exchange saving or earning from using domestic resources in the production of different

commodities. In this sense, Tanzania has a comparative advantage in the production of almost all industrial export crops and some non-traditional export crops (Box 7). This can be further enhanced by increasing farm productivity and improved marketing efficiency. Moreover, as a relatively small supplier of most export commodities (except cashews), Tanzania can increase its production without affecting their global supply and market prices.

With regard to food crops, Tanzania is, for the most part, a food self-sufficient country with imports and exports often accounting for less than 2 to 4 per cent of total food production and around 10 per cent of cereal requirements. However, there is a large potential for increasing production of items such as wheat and rice to replace imports and to expand food and livestock exports to neighbouring countries, most of which are likely to remain food deficit areas for the foreseeable future. Accordingly, a key assumption of the ASDS is that a considerable potential opportunity for expansion in farm production of most crops, livestock and livestock products. However, this requires the comparative advantage to be translated into financial profitability. This may not occur if direct or indirect taxation of agricultural products is too high and/or market prices are not favourable and stable.

#### Box 7

#### Tanzanian Agricultural Sector Comparative Advantage Indicators (Domestic Resource Coefficients)

	Average	Improved	Potential
Maize (Iringa) <sup>a</sup>	0.93	0.72	0.61
Maize (Dodoma) <sup>a</sup>	0.66	0.71	0.96
Rice (rainfed, upland) <sup>a</sup>	0.82	-	-
Rice (rainfed, lowland) <sup>a</sup>	0.60	0.78	-
Rice (irrigated, Morogoro) <sup>a</sup>	0.63	0.72	0.66
Cotton (Shinyanga)	0.43	0.50	0.53
Tobacco (flue cured)	0.62	0.56	0.47
Tobacco (fire cured)	0.56	0.56	0.44
Cashew (Mtwara)	0.27	0.26	0.22
Cashew (Tanga)	0.50	0.90	0.81
Coffee (Arabica)	0.39	0.27	0.22
Coffee (Robusta)	0.59	0.56	0.49
Tea (smallholder, Iringa)	0.97	0.92	-
Tea (estate, Iringa)	-	0.55	0.43
Sugarcane, Morogoro)	-	0.80	0.77

Note: The DRC measures the opportunity cost of the domestic resources required to save (or earn) US\$1 of foreign exchange. A coefficient of 0.61 indicates that there is a potential for only spending US\$1 cents to save US\$1 in maize imports. Any coefficient less than 1 implies that it is competitive at world prices

a. Food crop DRCs are measured using import parity prices. There is a foreign exchange saving when substituting for imports, but it is unlikely that Tanzania could export on world markets competitively.

Source: URT/WB, op. cit., Table 7.28

**Expanding market opportunities.** Another opportunity for Tanzanian agriculture is the expanding domestic market for food, especially for livestock products and crops with a high income elasticity of demand. With expansion in the rapidly growing mining and tourism industries and income growth in general, domestic demand for beef, milk, and other high-protein products is likely to grow rapidly. Similarly, markets within the region and globally are increasingly becoming available as a result of Tanzania's membership of regional trade groupings (e.g., EAC and SADC) and as a signatory to international trade protocols (e.g.,

WTO and EU-ACP). *Exploitation of these trading opportunities is central to the design of the ASDS.*

**Natural resources.** Tanzania's unexploited natural resource base of 44 million ha. of arable land, 50 million ha. of rangeland, abundant sources of surface and underground water and several agro-ecological zones, permits virtually unlimited expansion and diversification in crop and livestock production. Accordingly, *expansion and diversification in crop and livestock production is not likely to be constrained by the supply of natural resources in the country, although access to these natural resources may be a binding constraint in some cases.*

**Farming as part of the national culture.** Farming and livestock keeping are a way of life amongst the majority of Tanzanians. This is likely to remain the case in the foreseeable future, provided agriculture is made increasingly profitable. At the same time small-scale farmers maintain strong social networks, which provide social capital and facilitate the diffusion of information. Accordingly, *ASDS will facilitate farmers to organize themselves collectively in order to solve some of their problems with minimal external assistance.*

**Growth of agribusiness.** The development of private agribusiness enterprises and a few large-scale farming enterprises in Tanzania is creating potential opportunities for strategic partnerships between these enterprises and smallholder farmers. These partnership schemes have shown promising prospects in increasing the production and quality of cash crops, such as sugar cane in Mtibwa, tobacco in Tabora and Iringa, and oilseeds in Morogoro. For certain farm enterprises this could be an effective mechanism for overcoming the institutional void left behind by the collapse of the rural finance and the cooperative marketing systems in the country. It would also improve the availability and utilization of farm inputs and modern technology at the farm level, leading to increased productivity and production. *The ASDS will facilitate the spread of these partnership schemes to other areas and crops and livestock products (beef, dairy and pigs) where such demand will be established or indicated.*

**Ongoing structural reforms.** Agriculture's transition towards a market-based production system has been part of the adjustment and structural reform programmes that have been implemented by Government with the assistance of development partners. A key assumption underlying the ASDS design is that *internal political commitment to the adjustment and structural reform process (especially in the agricultural sector) will continue unabated with the support of the development partners.* It is also expected that, given its pivotal role in the PRSP for poverty alleviation, *agriculture will receive the high priority it deserves in public and donor resource allocation.*

**Devolved government.** Government is implementing a number of key institutional reforms that are envisaged to improve the efficiency and effectiveness of providing public services to the public. These include the LGRP and the Public Service Reform Programme (PSRP). One of the key improvements would be the transfer of political, financial and development planning and implementation authority from the central ministries to the Local Government Authorities (LGAs) and rural communities. *Consequently, the ASDS design is premised on the expectation that structures for decentralized planning and execution of local programmes are evolving at district level and calls for this to be accompanied by participatory planning, implementation and coordination mechanisms.*

### 2.3.2 Agriculture's Weaknesses and Threats

Tanzanian agriculture has numerous weaknesses and threats that constitute the development agenda for the ASDS, but only the most important ones are discussed here.

**Low productivity.** The most critical weakness in agriculture is low productivity of land, labour and other inputs. This is caused mainly by inadequate finance to obtain productivity-enhancing inputs or capital, limited availability of support services and appropriate technologies forcing the majority to produce only for subsistence. Moreover, low returns to labour and the drudgery of rural life results in migration of youth from rural to urban areas and depletes the agricultural labour force. Low rates of return in agriculture compared to other sectors of the economy also result in low levels of private investment in agriculture. *Creating the requisite environment for raising productivity and also increasing agriculture's profitability to attract private investment is fundamentally critical to the design of the ASDS.*

**Poor coordination and limited capacity.** The agricultural sector involves many actors within the public sector who are currently not well coordinated in policy formulation, programme planning or implementation (see Section 4). Many public institutions, particularly LGAs, also lack capacity in terms of staff, funding, and facilities for carrying out their mandated activities. The private sector is still relatively undeveloped and many of those currently involved in agribusiness lack entrepreneurial skills, information and capital to expand their agribusinesses.

**Underdeveloped supporting facilities.** Weak agro-industries and poor linkages within the marketing, processing and production chains affect the performance of agriculture, as do poor market-orientation and inadequate processing of commodities, coupled with high levels of waste. The poor state or lack of rural infrastructure is a cause of high transport costs for distribution and marketing of inputs and produce, leading to lower farm gate prices to the producer. Incomplete liberalization and poor regulation of food markets critically constrains agricultural development. All these lead to low profitability for the sector.

Inadequate private sector capacity to provide agricultural support services is a critical constraint that the strategy will address. At the same time, private sector capacity is adversely affected by lack of support services for agribusiness development, non-conducive legal, trade and tax regimes, and underdeveloped or lack of financial services in agriculture. The agricultural legislation is outdated, scattered among various Ministries, non-harmonized, and is largely unknown to the public (Annex 2). Most of the legislation governing livestock dates back to the colonial period or command economy era, with little relevance to the needs of the market economy.

**Other weaknesses and threats.** Other weaknesses include: erosion of the natural resource base; inappropriate technology especially for women; dependency on rainfed agriculture; impediments to food market access, and; low public expenditure levels. Other threats that are likely to influence agricultural performance include depressed demand for primary commodities in global markets and high variability of rainfall. Environmental degradation in cultivated and rangelands threatens sustainable agricultural development. In addition, frequent pest and disease outbreaks and floods and droughts cause losses in crop and livestock production. An even more serious threat to agricultural development is now posed by the reduction in human capital in agriculture caused by the HIV/AIDS pandemic and malaria. The need to address these threats constitutes the *justification* of the ASDS.

## **3 FORMULATING THE STRATEGY**

### **3.1 The Agricultural Sector Vision**

As a component of the TDV 2025, the Government and stakeholders in agriculture envisage an agricultural sector that by the year 2025 is modernized, commercial, highly productive and profitable, utilizes natural resources in an overall sustainable manner and acts as an effective basis for inter-sectoral linkages.

Achieving these long-term goals will require the existing subsistence-dominated agricultural sector to be transformed progressively into commercially profitable production systems. However, the ASDS represents a time slice of only 5 years (2002–2007). *The primary objective of the ASDS is therefore to create an enabling and conducive environment for improving the productivity and profitability of the sector. This will serve as the basis for improved farm incomes and rural poverty reduction in the long term, whilst contributing to the medium term (2003/5) and long-term (2010) goals of the PRSP.*

### **3.2 Sector Growth Targets**

As indicated in Box 1, the PRSP recognizes the agricultural sector as one of the priority poverty reduction sectors because of its dominant role in the economy and the high incidence of poverty in rural areas. A high rate of sustained, broad-based growth in the sector is critical to achieving the poverty reduction targets set out in the PRSP. These are:

- Reducing the proportion of the population below the basic poverty line from 48 percent in year 2000 to 42 percent in 2003 and 24 percent by year 2010.
- Reducing the proportion of rural population below the basic poverty from 57 percent to 49.5 percent in year 2003 and 29 percent in year 2010.
- Reducing the proportion of food poor from 27 percent to 23.5 percent in year 2003 and 14 percent in year 2010.

These are subject to revision, as more up-to-date information becomes available from the surveys being conducted as part of the poverty monitoring master plan.

The PRSP Progress Report 2000/01 set growth targets for the agricultural sector for the coming five years of:

- Increasing real annual agricultural GDP growth from 3.6 per cent to 5 per cent by year 2003 and to 6 per cent by year 2005.
- Increasing real annual growth rate of the livestock component from 2.7 per cent to 5 per cent by the year 2005.
- Increasing real annual growth rate of the export crops from 6.8 per cent to 9 percent by the year 2005.

However, these targets were set before a full analysis of the constraints facing the agricultural sector had been completed. Two constraints in particular create problems of achieving marked increases in agricultural productivity in the short run. The first is the predominance of hand-hoe technology and a relative shortage of agricultural labour in the rural areas. It will



take time to change a significant proportion of farming systems and/or introduce mechanization on a sufficiently large scale to raise labour productivity significantly. The second constraint is the combination of the on-going LGRP, the transfer of responsibilities from central government to LGAs, and the current capacity shortages in LGAs to manage and implement these effectively. In time these moves will significantly improve the support services available to farmers, but it is likely to be towards the end of the ASDS five-year time slice (2002/07) before these benefits become noticeable. One further caveat relates to the contribution expected from the export sector given the unpredictability of world prices for export commodities.

In the light of these considerations, a more realistic target for the overall agricultural sector will be to achieve an average annual rate of growth of 5 per cent p.a. over the 3-year period 2005/07. If this is broad-based and accompanied by increased off-farm rural employment opportunities, it will make a significant impact on the poverty reduction targets by the end of the decade.

### **3.3 Mission of the Agricultural Sector Ministries**

The mission of the agricultural sector Ministries, within their mandates, will be to facilitate the growth and development of the agricultural sector to meet these medium- and long-term targets. This will enable the sector to contribute fully to ensuring food security and poverty reduction through increased volumes of competitive crop and livestock products, increased incomes especially of smallholder farmers and increased national income and export.

This will involve the Government in implementing the necessary institutional, legal, and administrative and policy changes as well as planning long-term investment programmes that will facilitate further transformation. These interventions are intended both to improve the well-being of smallholder farmers and to facilitate the increased participation of larger private sector businesses in agriculture. Subsistence and small-scale farmers are mainly concerned with raising the productivity of their scarcest resources, typically labour and capital, whilst the rate of return on capital is of main concern to commercial farmers and the private sector.

### **3.4 Policy Framework for Agricultural Development**

The policy environment is key to agricultural development at two levels. First, a favourable and stable macroeconomic environment (primarily the inflation rate, interest rate and exchange rate), is a precondition to profitable private investment in general and in agriculture in particular. Second, sector specific policies have an important bearing on agriculture's terms of trade with other sectors of the economy and also on its productivity and profitability. The ASDS proposes changes in the existing agricultural policy to permit private agribusiness to expand investments in primary production directly or through partnerships with smallholders, input distribution, produce marketing, and agro-processing. These policy changes will demonstrate Government's sustained political commitment to economic liberalization in the agricultural sector and remove uncertainties deterring the private agribusiness sector from spearheading the longer-term development of agriculture.

#### **3.4.1 Current Agricultural Policies**

The agricultural sector is guided by two main policies. The *Agriculture and Livestock Policy of 1997* (Box 8) seeks to ensure that the direction and pattern of development in the agricultural sector meets social objectives and outputs. The policy emphasizes the importance

of competitive markets, with the Government providing priority public goods and services and the conservation of the environment as a rational basis for agricultural development.

**Box 8**

**Objectives of the Agricultural and Livestock Policy of 1997**

The ALP of 1997 has the following as its major objectives:

- Assure food security for the nation, including improvement of national standards of nutrition
- Improve standards of living in rural areas
- Increase foreign exchange earnings
- Produce and supply raw materials and expand the role of the sector as a market for industrial outputs
- Develop and introduce new technologies for land and labour productivity
- Promote integrated and sustainable use and management of natural resources (environmental sustainability)
- Develop human resources
- Provide support services
- Promote access of women and youth to land, credit, education and information

The *Cooperative Development Policy of 1997* evolved on the basis of experiences in implementing the Cooperative Development Act of 1991. It marks a change from cooperatives being state-controlled institutions to becoming autonomous and member-controlled private organizations. The policy provides the framework for the restructured cooperatives to operate on an independent, voluntary and economically viable basis and to develop into centres for providing and disseminating agricultural inputs, implements, technologies and information. This will empower farmers to enhance their bargaining position in the market. MCM is currently facilitating consultative meetings among cooperative stakeholders to review the 1997 Policy and the Cooperative Act of 1991 to make them meet the needs of stakeholders even more effectively.

### **3.4.2 Agriculture Related Policies**

Several other policies have a bearing on the development of agriculture. The overall aim of the *National Land Policy* is to promote and ensure a secure land tenure system, encourage the optimal use of land resources, and facilitate broad-based socio-economic development without endangering the ecological balance of the environment.

The *Water Policy* is still being finalized. One of its objectives is to establish a multi-sector platform and framework for participatory agreements on the allocation of water use in a coordinated and rational manner. This will eventually ensure that the interests and rights of various water users, particularly the requirement of catchments, crops and livestock, are taken into account during the process of allocating water.

The *National Micro-finance Policy* forms the long-term basis for developing an efficient and effective micro-financial system and provides a framework for empowering farmers and livestock keepers through access to credit.

The *Gender Policy* of 2000 aims to mainstream gender issues in all aspects of policy, planning, resource allocation and implementation. Special attention is directed towards ensuring that women have access to land, other productive resources, training and labour saving technologies. Nevertheless, it will be important under ASDS to formulate special programmes to enhance women's access to technology, training and credit.

The Government has also enacted a *National Environment Policy*, which lays the foundation for coordinated, multi-sectoral action in this field (see Section 8.7).

### **3.5 Implications of Major Reforms for the ASIDS**

The ASIDS will be implemented within the context of several other major Government reform programmes, including the Macroeconomic Reform Programmes, the LGRP and the PSRP.

*Macroeconomic Reform Programmes.* Adjustment and Structural Reform Programmes began in 1986 with the aim of stabilizing and putting the economy on a sustainable growth path. They have helped to correct the macroeconomic imbalances and poor performance that characterized the Tanzanian economy during the 1980s and first half of the 1990s.

The reform programmes have consequently addressed issues relating to monetary policies (devaluation, interest rate, money supply), fiscal policies (public expenditure, taxes, subsidies, fiscal discipline) and trade policies (liberalization of markets, privatization and divestiture of state enterprises). The current reform programmes are deepening the initial reforms made in these areas. The economy is now experiencing positive growth again. In short, a more favourable environment for private investment and economic growth has been put in place and this will need to be sustained.

The impact of the structural reforms on agriculture has been profound. The removal of subsidies has had a large impact on input prices and borrowing interest rates, which increased to market determined levels. The liberalization of agricultural marketing led to an increase in product prices in the short run, but these later stabilized when they reached market-determined levels. As a consequence of trade liberalization and subsidy removal, the cooperatives ceased to be the sole buyers of crops and suppliers of inputs.

Despite some initial and short run negative effects of the reforms on agricultural development, Government has significantly improved the policy environment for private investment and sustainable agricultural growth in the long term. Crop marketing has been largely liberalized and private traders and farmers' organizations compete to provide marketing services to farmers. Crop marketing subsidies, except those relating to the grain operations of the Food Security Department in MAFS, have been eliminated. Input distribution has also been liberalized as has agricultural export and import trade. Several loss-making agricultural parastatals, including NMC and NAFCO, are in the process of being privatized or liquidated. *The ASIDS will make use of this favourable policy environment to reinforce the reform programmes' long-term effects on agricultural growth and rural poverty reduction.*

*The Local Government Reform Programme (LGRP).* This is currently under phased implementation by PO-RALG and involves:

- Transferring political, financial and development planning authority from the central Ministries to LGAs.
- District Councils taking responsibility for the delivery of social and economic services.
- Empowering local people by promoting their participation in decision-making on and, hence, ownership of local development initiatives.
- Implementing sector-specific policies formulated by the central Ministries.

These reforms will be particularly critical to the implementation of the ASDS actions concerning the delivery of support services to smallholder farmers, rural infrastructure development, and farmers' access to financial services. Using participatory approaches, LGAs and the local communities will gradually assume responsibility for formulating the proposed DADPs implementing ASDS actions, using guidelines to be developed by the lead ministries, assisted by the Planning Commission (PC) and PO-RALG (see Section 3.9). The DADPs will be an integral part of the overall District Development Programmes (DDPs).

***The Public Service Reform Programme (PSRP).*** This programme will introduce reforms involving all Government ministries and will determine the management environment under which Government, as the major stakeholder, will implement the ASDS. The changes to the Tanzanian Civil Service include:

- Making public personnel better resource managers and more accountable through training.
- Improving transparency and accountability through performance monitoring and evaluation.
- Improving service delivery under severe budget constraints.
- Restoring ethics and professionalism in the public service.
- Improving structures, systems, work environment, compensation packages and behavioural attitudes and cultures.

### **3.6 Strategic Options for ASDS**

The strategic options available for the ASDS are largely constrained by the Government's priority objectives, recent policy pronouncements and the ongoing reform programmes. The overarching Government objective is poverty reduction. The preponderance of poverty in rural areas and the importance of agriculture as the mainstay of rural livelihoods, calls for strategies that are capable of raising the incomes and living standards of a large proportion of the rural population in the relatively near future. This does not preclude the simultaneous creation of the enabling environment to encourage larger scale activities and investments in agriculture by the private sector.

At the same time, the reforms aimed at achieving macroeconomic stability rule out the possibility of profligate government expenditure or subsidies to 'enhance' rural incomes or provide a 'favourable' environment for private sector investment. Similarly, these reforms limit the role of the Government to policy formulation, the establishment of a regulatory framework to reduce transaction costs, the provision of public goods including a favourable enabling environment and the provision of safety nets for the most vulnerable in society. Government will not be a major provider or funder of those goods and services that the private sector is capable of providing itself and this will be reflected in the strategies for agricultural sector development.

The strategic options are also influenced by the ongoing LGRP that gives a substantially larger role to LGAs and local communities in implementing policy and enforcing the regulatory framework. The increasing emphasis on participatory planning indicates that policy implementation and financing will increasingly reflect local needs and priorities. These various considerations largely determine the choice of an overall strategy for agricultural development.

### **3.7 Critical Assumptions in ASDS Formulation**

Following the analysis in Section 2, the ASDS is based upon a number of assumptions regarding inherent strengths of Tanzanian agriculture. Accordingly, the ASDS seeks to exploit Tanzania's:

- Comparative advantage in the production of its major export and food commodities.
- Large human capital (population) base that is and will continue to be involved in agriculture but currently has a very low productivity.
- Underused and abundant natural resource base.
- Existing political commitment to improve agriculture's policy environment through adjustment and structural reforms and the creation of appropriate incentives to attract private investment in agriculture.
- Domestic and international trading opportunities created through membership of regional and international trade grouping and protocols.
- Potential opportunities for forging strategic partnerships between agribusiness enterprises and smallholder farmers.
- Political commitment to developing structures at district and community level for decentralized planning, execution and monitoring of local programmes under the auspices of the LGRP.

To the extent that some of these underlying assumptions may fail to materialize, they would adversely affect the implementation and impact of the strategy. In this sense, they also constitute risks for the strategy. The most fundamental assumption and risk appears to be commitment to implement the politically difficult aspects of the strategy. This may involve carefully balanced choices of priority at times, but it will be important for Government to sustain this commitment. Similarly, the participation of agribusiness, particularly in building strategic partnerships with smallholder farmers, is another critical assumption and risk for the strategy. Again, this risk can be reduced by political commitment to the commercialization of smallholder agriculture through attractive incentive packages to agribusiness.

### **3.8 The Coordination of Actors**

The wide range of actors that will be involved in the ASDS will require a harmonized and coordinated framework for effective and efficient management of activities and resources. This will be achieved through the following mechanisms:

- An Inter-ministerial Coordination Committee (ICC) will be constituted. It will be composed of Permanent Secretaries of the lead and collaborating Ministries and representatives of the private sector. ICC will be responsible for coordinating the planning of the ASDS at national level and monitoring its implementation to ensure that the goals of the ASDS are being achieved.
- The three lead ministries, together with PO-RALG, will establish a Technical Inter-ministerial Committee (TIC) to act as the Secretariat for the ICC. Its terms of reference will include:
  - Preparing the technical guidelines for LGAs to prepare DADPs and integrate them in District Development Programmes (DDPs).
  - Formulating a rolling ASDP to implement the ASDS at national level, covering the mandate, roles and functions of the lead ministries.

- **Monitoring the implementation of ASDS by the LGAs.**
- **Acting as a coordinating mechanism between the lead ministries and the cooperating ministries or agencies.**
- **Resolving any conflicts that may arise between lead ministries and LGAs regarding domains of authority and influence (such as the terms of appointment of high level personnel and the enforcement of technical standards) and their relative roles in undertaking specific functions.**
- **An Annual Conference of Stakeholders in the sector, organized by the line Ministries, to act as a consultative forum for ASDS. This would review progress in implementing the ASDS and achieving its objectives, discuss problems constraining progress and ways of overcoming them and consider current and future market prospects. The President of the United Republic of Tanzania will chair the forum.**
- **Once trained in participatory planning, LGAs will ensure that DADPs are formulated, managed implemented and monitored. The plans will be prepared through a consultative and participatory process and then scrutinized by the relevant Standing Committee of the Council (or District Agricultural Development Committee (DADC) where the Council has established one). The DADP will be integrated into the DDP and then sent to the Regional Secretariat where it will be scrutinized to ensure that it conforms to national policies. It is then returned to the LGA for final approval by the full council meeting.**
- **Regional Secretariats will monitor the implementation of DADPs in their respective regions.**

### **3.9 Innovative Features of the Strategy**

The ASDS contains a set of innovative and practical actions that are considered critical to agricultural development in the country. The new interventions include:

- ***A focus on agricultural productivity and profitability.*** This requires the creation of a favourable environment for investment in agriculture. Diversification of products will be encouraged to expand the export and local market base into more lucrative non-traditional products. The farmers will produce according to market demands, and agro-processing initiatives will be intensified to reduce post-harvest losses and waste.
- ***The promotion of private sector/public sector and processor/contract grower partnerships.*** The focus on public/private sector partnerships will, when implemented, foster more private sector funding of supporting services. The partnerships between processors and primary producers, where appropriate, will be important in ensuring access to markets, inputs and technology for primary producers and a sustainable raw material base for the processors.
- ***The implementation of ASDS through DADPs.*** The ASDS sets the broad strategies and framework for achieving the sector's objectives and targets. A 3-year rolling Agricultural Sector Development Programme (ASDP) will spell out the strategy's detailed implementation programme. The ASDP will be developed interactively by dialogue between the TIC and the LGAs acting through the Regional Secretariats. Early in the annual cycle the TIC will issue a preliminary ASDP indicating priority areas for intervention and Central government funding. LGAs will take cognizance

of this in preparing their preliminary DADPs, which will be a 3-year rolling plan of District-level priorities and activities related to the agricultural sector. The TIC will use these draft DADPs as a basis for dialogue, through the Regional Secretariats, with the LGAs leading to a reformulated ASDP and agreed DADPs. Through this process, local communities will have considerable flexibility in implementing the ASDS and this participatory implementation at the community level will ensure sustainability and entrust the rural people with their own destiny. For lead Ministries, this process creates challenges in terms of requiring an entirely new *modus operandi* and new and effective communication channels with local communities.

### 3.10 Priority Issues Addressed by the Strategy

In practical terms, the ASDS can only address some of the many issues that constrain the performance of Tanzanian agriculture and lead to continuing rural poverty. Within a given timeframe and resource envelope, focusing on the following issues is considered critical to meeting the PRSP objectives and providing the foundations for the successful commercialization of Tanzanian agriculture in the medium and long term:

- a. **Strengthening the institutional framework** for managing agricultural development in the country. At the moment this is extremely weak and is characterized by undefined roles of the various actors in the sector. In particular there is a need to define what Government, at central and local level, can and cannot do versus the role of the private sector in agricultural development. As discussed in Section 4, strengthening the capacity of actors and their coordination will play a key role in the ASDS.
- b. Increased private sector participation and agricultural development in general requires the **creation of a favourable climate for commercial activities**. This includes a stable macroeconomic environment and appropriate changes to the administrative and legal framework as discussed in Section 5.
- c. Clarifying **public and private roles in improving support services**, including agricultural research, extension, training, regulation, information and technical services and finance is discussed in Section 6. Improved delivery of these services is critical to increasing agriculture's production and productivity.
- d. Improving net farm returns in the short term and commercializing agriculture in the medium and long term both require attention to be paid to **marketing inputs and outputs**. This is the focus of Section 7.
- e. Agricultural development and rural livelihoods are also strongly influenced by several issues that are outside the mandate of the lead sector Ministries. Mechanisms will need to be found for **mainstreaming planning for agricultural development in other sectors** so that due attention is paid to issues such as rural infrastructure development, the impact of HIV/AIDS and malaria, youth migration, environmental management, etc. Most of these will be more adequately addressed in the RDS. This is the subject of Section 8.

Sections 4 to 8 deal with the broad actions or interventions to be taken to address each of these priority issues. These are also presented in the form of a logframe in Annex 3. The detailed activities and implementation timetable will form the content of the annual rolling ASDP described in Section 3.9. Work on formulating the annual plans will start immediately after the ASDS has been adopted as Government policy.

## **4 STRENGTHENING THE INSTITUTIONAL FRAMEWORK**

There are numerous types of actors involved in the agricultural sector that can be grouped under four categories: public organizations, the private sector, the civil society and development partners. This section outlines the roles that the various actors are expected to fulfil in the ASDS and actions that the Government will take to strengthen their capacity and the institutional framework in which they operate.

### **4.1 Public Sector Organizations**

#### **4.1.1 The Lead Ministries**

As explained in Section 1.1, the implementation of ASDS will be overseen by MAFS, MCM and MWLD at central Government level, while PO-RALG will be responsible for coordinating the LGAs, which have the primary responsibility for implementing the ASDS actions in their respective Districts. These ministries will have the role of setting the right policy and regulatory framework and developing mechanisms to ensure their effective implementation at national and local level. In addition, through the ICC and TIC (Section 3.8), they will be responsible for coordinating the various actors within the sector. Furthermore, implementation of the ASDS will require close coordination amongst these ministries and other government institutions. These include the Prime Minister's Office (PMO), Ministry of Finance (MF), Ministry of Works (MW), Ministry of Communication and Transportation (MCT), Ministry of Lands and Human Settlements (MLHS), Ministry of Community Development Women Affairs and Children (MCDWC), the President's Office Planning and Privatization (PO-P&P) and the Vice President's Office (VPO).

Under the ongoing civil service reform process, the respective roles of the lead Ministries have been rationalized to include sector-specific as well as cross-cutting functions. The emphasis is now on providing a facilitating environment for private sector activities. The new roles include:

- Formulating and reviewing sectoral policies and monitoring the overall performance of the agricultural sector.
- Providing and supervising the implementation of regulatory services<sup>7</sup> for crop and livestock development, marketing and farmers' organizations.
- Contributing to the development and promotion of improved agricultural practices.
- Monitoring the performance of both public and private sector agricultural sector support services in order to improve their quality and ensure competitive markets.
- Promoting the private sector's role in primary production, processing, marketing and the provision of agricultural services.
- Promoting farmers' organizations for empowering farmers, developing their advocacy and lobbying capacity, and participation in service delivery and resource mobilization.

There are several serious constraints that the Ministries need to overcome in order to play their new roles effectively including:

- Inadequate manpower and skills for policy formulation and analysis, monitoring and enforcing policies, standards and regulations.



- Lack of performance standards and a framework for assessing performance of service providers, especially at the level of LGAs, together with a lack of facilities for enforcing standards and regulations.
- Erosion of the institutional culture for good governance. This will be addressed by the ongoing PSRP.
- Lack of mechanisms for institutional coordination among the various ministries, and between central ministries and the LGAs (see Section 3.8 for strategic actions).
- A shortage of counterpart funding for development programmes, which reduces funding from development partners. *This will require the Government to place a higher priority on funding the agricultural sector.*
- A general lack of financial, human and technical capacity to generate, manage and disseminate accurate agricultural information (see Section 6.9 for strategic interventions).

To overcome the first two constraints, *the Government will strengthen the capacity of the lead Ministries including PO-RALG by:*

- *Training Ministry staff in policy formulation, analysis, as well as strategic planning and management.*
- *Reviewing employment conditions, promotion prospects and salary scales with the aim of recruiting and retaining high calibre staff.*
- *Deploying additional staff for supervising and monitoring the enforcement of standards and regulations.*
- *Providing the necessary facilities and equipment for proper monitoring of standards and regulations.*

#### **4.1.2 The Regional Secretariats**

The Regional Secretariats have been streamlined under the LGRP to play four basic roles:

- Creating a conducive environment for LGAs to operate efficiently.
- Assisting LGAs in capacity building.
- Providing technical support to LGAs.
- Monitoring the performance of LGAs.

In addition, during ASDS the Regional Secretariats are supposed to facilitate technical coordination between the sectoral Ministries and the LGAs. However, all regional secretariats are poorly staffed and equipped to provide the requisite services to LGAs. Three advisors in livestock, crops and cooperatives represent the lead ministries. This is insufficient for the roles specified at this level, particularly as the advisors lack transport and logistical support. Furthermore, because the Secretariats report to PO-RALG, technical coordination between them (and LGAs) and the lead Ministries is weak.

To overcome this problem, *PO-RALG, in consultation with the lead ministries, will:*

- *Deploy additional technical staff and the necessary logistical support to the Regional Secretariats to enable them to provide effective support to the LGAs.*
- *Review employment conditions, promotion prospects and salary scales with the aim of recruiting and retaining high calibre staff.*

### 4.1.3 The LGAs

As discussed in Section 3.5, LGAs have a critical role in the successful implementation of the ASDS because they will undertake or implement all development initiatives intended to improve the rural livelihoods. The roles pertaining to agricultural development, include:

- Promoting social and economic development.
- Designing and implementing agricultural sector plans.
- Supervizing the implementation of laws, acts and regulations relevant to the sector.
- Supervizing and coordinating the delivery of extension services.
- Mobilizing resources (financial, human and facilities/equipment) for local development programmes.
- Administration of villages for the purpose of stimulating sustained development.
- Land administration, land use planning and management for effective and sustainable land utilization.

LGAs face many constraints that limit their capacity, including:

- Lack of a legal mandate and technical skills and facilities to enforce some roles.
- A lack of expertise for strategic and financial planning and management.
- Very limited resources for local level institutional building for community participation in the development process.
- A shortage of competent personnel and, in some cases, technical equipment to manage and control the development process. For example, all LGAs lack the technical capacity for effective and timely land use planning.

Under the LGRP, 38 District Councils are already undergoing capacity building with emphasis on developing their capacity for participatory planning. This will enable broad-based sustainable development programmes, owned by LGAs and local communities, to be prepared and implemented, albeit with external financial and technical support initially. However, it will be also be important under the ASDS to *build LGAs' capacity in:*

- *Strategic and financial planning and management.*
- *Contract formulation and management for outsourcing and public/private partnerships.*
- *Multi-sectoral planning and coordination.*
- *Land use planning and management.*

It will also be important to *strengthen the quality, and conceivably the numbers, of the field extension cadre to enable them to provide quality demand-driven services. Government will also legally empower LGAs to enforce regulations and standards on behalf of the mandated institutions, possibly through the delegation of legal powers.*

### 4.1.4 Other Public Institutions

There are a variety of other public institutions that play important research and training roles in the agricultural sector. They have mandates that fall under three main categories:

- Conducting long and short-term training to meet professional needs in the sector including specific tailor-made training programmes for various clienteles. Both the professional and short courses are, in future, to be demand-driven.

- Conducting research as guided by the National Agricultural Research Master Plan, and implementing outreach programmes as one way of disseminating research results.
- Providing advisory services to the Government and the private sector through consultancy and other means.

The main constraints facing all research and training institutions (to varying degrees) and which are addressed in Sections 6.1 to 6.3 include:

- Limited funds for research and training.
- Deterioration of infrastructure and equipment.
- Limited skills among trainers for entrepreneurship and participatory development training and the design and delivery of demand driven training programmes.
- A lack of the knowledge and participatory skills required to develop client-oriented research programmes amongst research workers.

#### **4.1.5 Parastatal Organizations**

Most of the agricultural parastatals have already been divested under the privatization programme. Others such as the National Agricultural and Food Corporation (NAFCO), the National Ranching Company (NARCO) and Dairy Farming Company (DAFCO) and National Milling Corporation (NMC) are also in the process of being divested.

However, there are a number of parastatals, such as the National Environmental Management Commission (NEMC), Tanzania Bureau of Standards (TBS), Tanzania Official Seed Certification Agency (TOSCA) and the National Pharmacy Board (NPB), which will continue to play critical public roles. These include setting, monitoring and enforcing standards for the quality of agricultural inputs to ensure the safety of humans, livestock and the environment. These institutions have limited capacity in terms of the number of technical personnel, as well as equipment and facilities. They also lack a collective framework for regulation and enforcement of the standards that each is separately mandated to set, even though enforcement necessarily involves many other institutions. These issues are considered in Section 6.4.

#### **4.1.6 Commodity Boards**

There are currently six agricultural Commodity Boards, established by Acts of Parliament, for coffee, cashew, cotton, sisal, tea and pyrethrum. Commodity Boards are parastatals controlled by their parent Ministry rather than by the stakeholders. The main functions of the boards include:

- Formulating and implementing development strategies for their respective industries.
- Providing regulatory services to promote good quality products.
- Financing research and extension services for the respective industry.
- Disseminating relevant information to stakeholders in the industry.

Factors that limit the capacity of these boards include:

- Lack of skills in strategic planning, coordination and implementation of programmes that are geared towards developing their industries.

However, most of the cooperative organizations face serious liquidity and management problems and cannot function effectively. Many of the other types of organizations also have limited financial resources and managerial skills, and lack the skills and facilities necessary for lobbying and advocacy. To overcome these problems, *LGAs, MCM, NGOs and private institutions such as PASS (see Section 7.1) will continue to promote the establishment of cooperatives and other farmers' organizations on a demand-driven basis. In collaboration with the private sector, LGAs and MCM will:*

- *Streamline the procedures for their legal registration.*
- *Support membership education and management.*
- *Provide training in financial planning and management skills, contract management, marketing skills and skills in lobbying and advocacy. It is envisaged that this will entail providing advisory services and training to participating groups over a three-year period, with cost-sharing being used where appropriate.*

*Government will also facilitate the growth and development of these organizations by encouraging their participation in the processes of policy formulation, programme planning and implementation.*

### **4.2.3 Agribusiness**

This is a very diverse category comprising small-, medium- and large-scale actors who play critical roles in the agricultural sector. It includes: importers, wholesale distributors and retail suppliers of agricultural inputs; farm produce buyers; transporters; processors; and exporters of agricultural produce.

The success of ASDS will depend on the private sector playing a key role in commercial activities and the provision of many services, especially after the withdrawal of Government from these activities. However, the capacity of agribusiness actors is constrained by limited business and financial skills, lack of capital, poor infrastructure as well as an unfriendly legal and administrative framework. Many agribusiness actors also lack the ability to envisage or plan the long-term development of their businesses. *The Government will help to overcome these constraints and strengthen the capacity of the private sector by:*

- *Providing a favourable legal and administrative framework for private sector investment in key areas of agricultural development. This is discussed more fully in Section 5.*
- *Supporting training in financial management and entrepreneurial skills, as well as contract management, particularly for small and medium-scale agribusiness (see Section 6.3).*
- *Involving agribusiness in dialogue with the Government in matters related to policies, taxation, tariffs and programme formulation. An example of this is the Annual Conference of Stakeholders discussed in Section 3.8.*
- *Encouraging the formation of professional associations to represent the interests and promote the development and capacity of the various segments of the private sector.*

### **4.2.4 Financial Institutions**

The financial institutions that are important for the agricultural sector include commercial banks, microfinance institutions (MFIs), non-bank financial institutions, e.g: NSSF, and informal moneylenders. Their most critical capacity gap, especially for microfinance and

informal institutions, is limited financial management skills. Moneylenders and some of the MFIs e.g: Savings and Credit Associations (SACAs) lack an appropriate legal framework. Most institutions, especially formal banks are urban-based and have limited networks for rural outreach and, more importantly, are unable or unwilling to carry the risk of lending to the agricultural sector. *The actions being undertaken by the Government to improve the financial services available to the agricultural sector are discussed in Section 6.10.*

### 4.3 Civil Society Organizations (CSOs)

This is a diverse group of actors, comprising both local and international. Community-based organizations (CBOs) are also emerging as important players, especially with the present emphasis on participatory approaches. The most critical roles of NGOs and CBOs include:

- Providing extension and credit services.
- Lobbying and advocacy for policy changes and development.
- Funding community-based interventions.
- Providing public services on a contract basis.

While NGOs and CBOs are envisaged to play a greater role for the development of the agricultural sector, they face a number of problems including:

- Limited human resource capacity. For example, most agricultural NGOs rely heavily on staff seconded from the public services.
- Poor coordination amongst themselves and with LGAs and sectoral Ministries.
- Limited financial resources.
- Limited experience in providing agricultural services on contract.

Many of the strategic interventions designed to strengthen the capacity of the private sector and agribusiness and provide a more favourable environment for their operation are also applicable to NGOs and CBOs. For example, *staff of these organizations will be encouraged to attend the enhanced training courses outlined in Section 6.3, especially on agribusiness management.* They will also be *encouraged to form and/or strengthen umbrella organizations* to provide more effective coordination among themselves and with LGAs and sectoral Ministries.

### 4.4 Other Service Providers

There are three additional actors that fall both under public and private sector institutions, who provide specific services that are critical for implementation of the ASDS. These are:

- The *media*, which is crucial for information dissemination and public education. However, it is mostly urban-based and therefore has limited coverage of rural development activities and issues. To overcome this, *the sectoral ministries, LGAs, agricultural trade associations and NGOs and CBOs will be encouraged to delegate the task of maintaining liaison with the media to a relevant staff member.*
- Public and private *land surveyors*, who survey, demarcate and process legal titles to land. These services are essential for the implementation of the recent Land Acts but there is a very limited number of surveyors and a shortage of equipment. Private surveyors provide most of the surveying, mapping and titling services for land acquisition in agriculture but the cost of this is high and generally beyond the scope of small-scale farmers. At the same time, public sector surveyors under MLHS,

MAFS and MWLD will continue to operate. This creates an unclear operational framework for land demarcation and surveying. *The sectoral Ministries, coordinated by MLHS, will conduct a study of the manpower needs in this area, methods of increasing the affordability of these services to smallholder farmers and the relevant roles of the public and private sector in land surveying services.*

- *Legal service providers* play an important role in litigation including drawing up and overseeing the enforcement of contracts. As commercial agriculture develops, the demand for such services will grow and it will be important to expand their provision to the rural areas where they are currently not available. *TCAL and FCCIA appear to be the appropriate bodies to lobby the legal profession to ensure that an adequate level of service is provided.*

## **4.5 Development Partners**

The development partners include multilateral and bilateral organizations and agencies that support Government and community organizations in the agricultural sector through grants and soft loans. Development partners also provide technical support in the implementation of agreed programmes. Most financial and technical assistance is now provided under the Tanzania Assistance Strategy (TAS), a framework for coordinating and managing external resources and for forging closer partnership between the Government and Development Partners.

Within the agricultural sector, liaison with, and coordination between, the Government and development partners is achieved through regular meetings of the Food and Agricultural Sector Working Group (FASWOG). This group comprises high level representatives of a wide range of relevant Ministries and of development partners active in the agricultural sector. *The Government intends to continue regular meetings of FASWOG for at least the duration of the ASDS as a forum for reviewing the implementation and progress of the strategy and associated programmes with the development partners and coordinating their contributions to the sector.*

## **5 CREATING A FAVOURABLE CLIMATE TO FOSTER COMMERCIAL ACTIVITIES**

The commercialization of agriculture will proceed more rapidly with a favourable economic, administrative and legal environment. Government is responsible for creating such an environment in consultation with sector stakeholders. In this regard, the following priority focus areas are proposed.

### **5.1 Sustaining Macroeconomic Stability**

A stable macroeconomic environment is a necessary condition for agricultural profitability and growth. Stable macroeconomic variables such as the rate of inflation, the lending interest rate, the exchange rate and the tax regime make the entire economy and agriculture in particular attractive to private investments.

MF, PC and the Bank of Tanzania (BOT) have put in place a macroeconomic policy framework to ensure sustainable growth and stability of the Tanzanian economy. The ASDS is premised on the fundamental assumption that this will continue. In addition, actions will continue to be taken on the following variables that are currently imposing constraints on private investments in agriculture:

#### **5.1.1 The Lending Interest Rate**

Despite a significant decline in the inflation rate from a high of 30 per cent p.a. in the mid-1990s to 5.3 per cent in June 2001, the commercial banks' nominal lending rate to the agricultural sector remains at around 19 to 20 per cent p.a. This implies a real interest rate of 13 to 14 per cent. Such high interest rates partly reflect inefficiency in the banking sector, but mainly reflect the high risk of lending to agriculture. Many observers state that the real rate is still higher than the average rate of return in agriculture, which is claimed to be below 10 per cent p.a. for most agricultural investments. If real interest rates remain this high in the medium and long term, they will continue to deter private investment in agriculture. *BOT will monitor this situation to ensure that lending rates to the agricultural sector reflect the underlying macroeconomic situation and the risks of lending to the agricultural sector.*

#### **5.1.2 Taxes, Levies and Fees on the Sector**

As discussed in Section 2, there is a wide range of taxes, levies and fees on the agricultural sector. *The agricultural sector ministries, MF and the Tanzania Revenue Authority (TRA) will continue to work on the rationalization of the taxation regime in agriculture. They will also devise appropriate tax incentives to attract private investments in agriculture (see Section 7.7).* It should be noted that a growing and profitable agriculture would provide a sound tax base in the medium and long term.

#### **5.1.3 Energy Tariffs and Prices on The Sector**

High-energy tariffs and oil prices for the agricultural sector are a deterrent to rural processing and a cause of unfavourable trading results for agribusiness firms. *Again, MF, agricultural sector ministries, TANESCO and private oil companies will urgently review the energy tariffs and oil prices that directly affect the agricultural sector (see Section 7.7).*

## **5.2 Reviewing, Harmonizing and Publicizing the Agricultural Sector Legislation**

Harmonizing the agricultural legislation system will help to protect the legitimate interests of stakeholders. *Government, with wide and intensive consultation with stakeholders, will therefore:*

- *Review and harmonize agricultural legislation to accommodate the needs of the emerging market economy. The Cooperative Act of 1991 will be reviewed as part of this exercise to provide more autonomy to farmers' organizations.*
- *Require, within the first year of the ASDS implementation, the sector ministries, in collaboration with the Attorney General Chambers and LGAs, to review and harmonize legislation in the livestock sub-sector to take into account the liberalized market.*
- *Make the Plant Protection Act (1997) effective and harmonized with the TPRI Act (1979) in order to remove overlapping mandates in the field of inspection services.*
- *Update and enforce legislation regarding input and output marketing. This is intended to stem widespread dumping, sale of expired drugs and chemicals, inadequate labelling, price fixing and falling input and output quality.*

## **5.3 Reviewing, Harmonizing and Publicizing Legislation of Collaborating Sectors**

The lead ministries (MAFS, MCM, MWLD and PO-RALG) will take the initiative to collaborate with other relevant ministries, through the ICC and TIC, to review and harmonize legislation that has a bearing on the implementation of the ASDS. For example, *MCM will collaborate with MF to review existing financial legislation and policies, such as the Finance Banking Act of 1991, to enable the proposed interventions facilitating investment and financing in agriculture (Section 7.7).* Other legislation that may be reviewed is The Food (Control of Quality) Act No.9 of 1978, The Pharmaceuticals and Poisons Act No.10 of 1978 and The Tanzania Bureau of Standards Act No.1 of 1997.

## **5.4 Providing Legal Empowerment for Stakeholders to Control Commodity Boards**

Currently, the commodity boards are owned and controlled by the Government. Autonomous commodity boards, controlled by the stakeholders, will increase accountability to members, and be able to develop incentive schemes to produce quality outputs and to adhere to the use of recommended technologies and practices. *MAFS will accordingly restructure the commodity boards in close consultation with the stakeholders.* The boards will be responsible for self-regulating the industries under their jurisdiction, while Government will enforce the legislation.

## **5.5 Legalizing and Promoting Cross-border Trade**

Tanzania has signed various trade protocols and agreements with her neighbours in the East African Community and SADC. In order to exploit the markets in the neighbouring countries, *the Government will remove all barriers to cross-border trade except for products that are threats to health, safety and environment.* The removal of barriers will reduce substantially the uncertainties and transaction costs currently faced by traders. It will provide



a clear signal to the private sector to plan production, processing and marketing for external markets instead of production solely for subsistence and internal market use. This will be of particular benefit to farming areas adjacent to neighbouring countries.

## **5.6 Formulating and Implementing a Food Security Policy**

There are currently no clear Government policy guidelines on food security. Administrators at various levels have issued contradictory orders on food movements/markets, composition of output and forms of consumption. Impediments to the free movement of food products within the country generate high transaction costs and uncertainties for traders and destabilize prices to farmers and consumers. In order to remove these ambiguities and provide clear administrative guidelines, the *Government will formulate and implement a national food security policy* which will emphasize the role of the market in ensuring food security at all levels.

## **5.7 Streamlining Procedures for Legal Access to Land**

*MLHS, in collaboration with LGAs, will conduct an education campaign to sensitize the public to the provisions of the new Land Acts regarding legal and physical access to land, and use of land titles as collateral for loans. MLHS will also streamline the procedures for legal and physical access to land. Furthermore, MLHS, assisted by LGAs, will closely monitor the implementation of the Land Acts with a view to immediate correction of any shortcomings that may become apparent.*

## **5.8 Undertaking Land Demarcation and Surveys in Agricultural Investment Zones**

The lack of legal and physical access to land is a major hindrance to entry of medium and large-scale farmers into agriculture. *MLHS, in collaboration with LGAs, MAFS and MWLD, will, during all the ASDS duration and beyond, undertake land surveys and demarcation to identify potential investment zones.*

## 6 PUBLIC AND PRIVATE SECTOR ROLES IN IMPROVING SUPPORT SERVICES

One of the major focal areas for the ASDS is the improvement of the quality of supporting services to crops and livestock smallholders and large-scale farmers. This will enhance production and productivity, raise net returns, improve livelihoods and therefore reduce poverty. The current low level of productivity is caused *inter alia* by inappropriate livestock husbandry practices, use of low potential varieties and breeds, poor crop management systems and limited use of improved technologies. The non-replenishment of nutrients and poor management of soil and water resource has led to resource degradation.

To overcome these problems, the private sector will increase its role in providing a wide range of demand-driven support services to smallholder farmers. The public sector will gradually, but increasingly, limit its role to financing the provision of collective goods and services that the private sector is unwilling to provide and the targeted financing of goods and services to overcome rural poverty. Mechanisms will also be developed for private and public sector collaboration in the delivery of effective support services. These will entail activities such as the re-establishment of a viable improved seed production and delivery system including an expansion of the on-farm Quality Declared seed production concept currently being pioneered by MAFS through LGAs. The main areas of activity are discussed below.

### 6.1 Research

In recent years there has been a substantial restructuring of the agricultural research system. Further strategic interventions to improve the quality of agricultural research are:

- *To accelerate the process of transferring responsibility for funding export crops research to the private sector and to complete it as soon as possible. Pluralism in demand-driven and result-oriented agricultural research will be promoted, involving the Research Departments of MAFS and MWLD, the private Agricultural Research Institutes under the Commodity Boards, Sokoine University of Agriculture (SUA) and Zonal Research Centres. This policy shift and the participation of some of these agencies is already contributing to the gradual increase in the role of the private sector in agricultural research. It is also reviving the 'focus and concentrate' strategy that resulted in breakthroughs of the 1960s and 1970s for both cash and food crops. The crops to be covered include cashewnuts, cotton, coffee, pyrethrum, sisal, sugarcane and tobacco. Tea research has been financed by the private sector since 1998. The mechanisms for funding and for private sector control, within a Government-approved regulatory framework, will be finalized.*
- *Funding of agricultural research will be shared between the Central Government, LGAs, Commodity Boards and the private sector. Under this partnership arrangement, the LGAs will contribute to the Zonal Research Funds (ZRFs) or directly co-finance some of the research projects in their areas of jurisdiction. Research programmes will be reviewed regularly based on feedback from monitoring and evaluation reports. Meanwhile, farmers (for both crops and livestock) and other stakeholders will be sensitized to exert demands on the research system for relevant and high-quality research.*

- *The Committee on Agriculture and Livestock Research under COSTECH will be strengthened and become responsible for setting the national research policy and agenda, coordinating agricultural research nationwide, managing the National Agricultural Research Fund and regulating the research programmes for the benefit of stakeholders.*

## **6.2 Extension Services**

*LGAs will have primary responsibility for ensuring that extension services are adequately provided to smallholder farmers. The majority of extension service provision for smallholders will continue to be financed by central or local government. However, there will be increasing private sector involvement in delivery to complement public extension providers. The following priority issues will be addressed under ASDS:*

- *While some NGOs will be able to source funds independently, LGAs will require funds in order to (i) strengthen public sector extension delivery and (ii) contract out extension services to private providers, where this is more cost-effective. LGAs will coordinate both public and private providers to ensure all stakeholders are served. The LGAs will work with sectoral ministries to develop performance standards and a monitoring and evaluation framework for the extension services and will evaluate all providers to ensure effectiveness of services.*
- *A proportion of the central government funds available for agricultural extension will be allocated to a National Extension Fund (NEF) to be established and jointly administered by MAFS and MWLD. LGAs will be able to compete for funds from the NEF to offset part of the costs of innovative schemes involving private sector provision of extension services. An institutional framework for managing the fund, including criteria for eligibility, will be developed by MAFS and MWLD in consultation with PO-RALG.*
- *A number of extension methodologies that have demonstrated good prospects of success are currently being used by various programmes/projects in parts of the country. These include the FAO and IFAD's participatory methods and the Ward Facilitation Team approach. MAFS and MWLD will work with LGAs to evaluate and scale-up the more effective extension methodologies.*
- *To facilitate the partial privatization of extension services and improve delivery, LGAs will enter into partnership and cost-sharing arrangements with outgrower and contract schemes for the benefit of smallholder farmers (see also Section 7.7). These might involve secondment or transfer of extension staff to the schemes. Outgrower/contract farming schemes in partnership with LGAs will be eligible for support from the National Extension Fund.*

## **6.3 Training**

*Training institutions including the Ministry of Agriculture Training Institutes (MATIs), the Livestock Industry Training Institutes (LITIs), the Cooperative College Moshi and others will play an important role in updating the knowledge and skills of farmers, extension staff and other agricultural professionals. Entrepreneurial skills will be critical for the commercially oriented agricultural clientele. Extension staff will play a leading role in imparting those skills and they will make agribusiness management an important part of their extension messages. For this reason, the lead Ministries will ensure that training curricula of MATIs and LITIs are reviewed and updated to include agribusiness management and participatory knowledge and skills. Topics on HIV/AIDS, human nutrition, gender and the environment*

will also be included in all agricultural curricula. There will also be modules for demand-driven short courses for farmers and other stakeholders. The emphasis on demand-driven training calls for *a reassessment by the lead Ministries of existing training institutions with rehabilitation, re-equipping and retraining of staff in those institutions with a viable future.*

## **6.4 Regulatory Services**

Regulatory services are required to monitor practices in several areas where opportunities for deception or harm to innocent parties exists such as:

- Misleading labelling and ignoring minimum health and environmental requirements of inputs and outputs.
- Monopolistic or oligopolist market situations.
- Services provided by farmers' organizations where there is no participatory management.
- The spread of diseases and pests.
- Environmental management.

*The lead Ministries will continue to create regulatory frameworks (for example, setting standards and grades) and to supervise enforcement mechanisms, although many of these powers may eventually be transferred to LGAs. However, under the ASDS, stakeholders' organizations will increasingly be encouraged to regulate their own activities, once they are established and fully operational. Areas of intervention will include:*

- *PO-RALG, in collaboration with LGAs, MAFS MWLD and MCM will improve the capacity of regulatory institutions by streamlining their mandates and harmonizing laws and regulations to allow closer partnerships amongst themselves and with the LGAs.*
- *The lead ministries, in collaboration with LGAs, will prepare relevant training programmes to upgrade the quality of regulatory services by strengthening their technical staff and facilities. Stakeholders' associations, once they are established and operational, will prepare their own programmes for upgrading their regulatory skills.*
- *Provision of members' education to raise their awareness of the need for financial transparency, leading to demands that their organizations are audited as required by law.*
- *Strengthening regulations for crops and livestock disease control by making all legislation enforceable and relevant to present needs. This will involve immediate review and updating of outdated legislation (as listed in Annex 2). See also Sections 5.2 and 6.5.*

## **6.5 Animal Health and Crop Protection Services**

Animal health care and crop protection services are critical to increasing productivity and reducing losses in livestock and crop production. In order to strengthen these services, MAFS and/or MWLD, in collaboration with LGAs will:

- *Review and implement the laws on delivery of animal health services (see Section 5.2). The revised laws will permit MWLD and LGAs to contract paraveterinary practitioners to carry out the delivery of animal health services, under the guidance of qualified veterinary staff. This will improve the coverage and cost-effectiveness of animal health service delivery in rural areas and will make it possible to contract available expertise to control epidemic diseases.*

- *Develop and execute a disease control programme for scheduled diseases and zoonoses.* In addition, the zoosanitary and phytosanitary capacity will be strengthened through increased staffing, training and equipping.
- *Ensure that infrastructure used for the control of livestock and crop diseases is maintained or developed at least up to the legal minimum standards (See Sections 7.5 and 8.2).* This includes dips, slaughter slabs and abattoirs (as venues for meat inspection). Currently, some of this infrastructure is owned by LGAs but over time most will be owned or leased to the private sector and operated by them.
- *Establish Disease Free Zones (DFZs) in strategic areas of the country for export purposes.* NARCO ranches that are already earmarked for privatization will be considered as starting points. The DFZs will also be used for partnerships between pastoralists, feedlot operators and exporter to promote commercial livestock production by linking them with domestic and export beef markets. DFZs will also be sources of technical advisory services, inputs and new technologies that can be offered by the feedlot operators to the pastoralists.
- *Operationalize the enforcement of the Plant Protection Act of 1997 and review the TPRI Act of 1979 to harmonize it with the Plant Protection Act, as discussed in Section 5.2.*
- *Develop and institutionalize monitoring and early warning systems and related preparedness plans for crops and livestock pests and disease outbreaks at all levels.*

## **6.6 Rangeland Management**

The seasonal and geographic variation in the availability of pastures and water for livestock has been the single most important factor in determining the traditional pastoral and agropastoral mode of livestock production in the country. While the seasonal migration of livestock is an important coping mechanism in times of drought, there are problems of disease control, land degradation due to a lack of sense of ownership of the grazing lands, and occasional conflicts between crops and livestock farmers. To help to overcome these problems and increase the productivity of the extensive livestock sector, the management of rangelands will be improved through:

- *Identifying the needs of pastoralists and agro-pastoralists in terms of water, pastures, rangeland infrastructure (dams, dips, markets, etc.) through participatory processes.*
- *Demarcating and allocating land to be used by pastoralists and agro-pastoralists.*
- *Developing and implementing sensitization and educational programmes on the Land Act No. 4 of 1999 and the Village Land Act No. 5 of 1999 to increase public awareness especially among farmers, of land administration issues.*
- *Building the capacity of LGAs and sectoral ministries (MLHS, MAFS, MWLD) to undertake land use and resource management planning (see Section 4.1.3).*
- *Developing and institutionalizing a system for early warning of droughts and floods and impending fodder shortage for livestock.* These measures will be mainstreamed into the National Early Warning and Disaster Preparedness System.

## 6.7 Land and Water Resource Utilization and Management

Among factors that contribute to risk in Tanzania's agriculture is the unpredictability of rainfall and the recurrence of droughts and floods. Soil and water management practices must be improved in order to reduce these risks and improve the productivity and profitability of agriculture. With regard to these concerns, the Government (mainly MAFS, MWLD, MLHS and VPO), in close collaboration and consultation with the private sector, will:

- *Prepare comprehensive land use maps with district-by-district details.* Responsibility for preparation will be shared by MAFS, MWLD, LGAs, MLHS, the Ministry of Energy and Minerals (MEM), and the private sector. Sokoine University of Agriculture and the University of Dar es Salaam (UDSM) have the capacity to undertake land use planning. *Land for private sector investment will be surveyed and demarcated by LGAs, in collaboration with sectoral ministries, in a phased manner according to land use plans (see Section 6.7).* The programme will also identify zones with cropping and grazing potential. Priority during the first three years will be capacity building for LGAs and sectoral ministries through training of staff and equipping (see Section 4.1.3), before the actual work starts.
- *Ensure that MAFS and MWLD, in collaboration with LGAs and the private sector, coordinate efforts to improve and maintain soil fertility through increased use of organic fertilizers and the control of soil erosion and other environmental degradation processes.*
- *Enhance the efficiency of water utilization, especially rainwater, through promotion of better management practices.* A comprehensive programme for integrating soil and water conservation, rainwater harvesting and storage, irrigation and drainage will be developed by MAFS and MWLD. It will pay particular attention to ensuring long-term sustainability of water resources and making agriculture a competitive user of water in comparison with other sectors. The Government will facilitate the programme's implementation by farmers through providing technical advice on these issues.
- *Encourage farmers to focus on integrated soil and water management by sub-soiling, water harvesting and use of appropriate husbandry practices to promote the optimal use of water resources.* MAFS and MWLD will collaborate in the on-going preparation of the National Irrigation Master Plan, incorporating the principles of integrated soil and water management emphasizing the use of low-cost approaches by smallholder farmers for crops and livestock. Promotion and support of small-scale irrigation will be given particular emphasis. This support will be based on cost benefit assessments and the willingness of farmers to contribute to proposed investments.
- *Emphasize catchment and basin approaches in the planning and implementation of agricultural water management.*
- *Ensure that LGAs, in collaboration with MWLD and MAFS, adopt holistic approaches in designing community water supply schemes by integrating domestic, irrigation and livestock needs.*

## 6.8 Agricultural Mechanization

As noted in Section 2.1, a major cause of rural poverty is the heavy reliance on hand technology and the low level of mechanization in agricultural operations. Promoting utilization of labour-saving technologies (such as appropriate forms of mechanized minimum tillage techniques, etc.) is central to improvement of labour productivity. The focus of future development will be to mechanize all operations when feasible. In drought-prone areas, tillage for soil-water conservation will be given priority. Given the high cost of acquiring machinery, such as tractors, promotion of specialized private machinery services will be an important component of the agricultural mechanization strategy, *animal draft power will be encouraged wherever feasible*. Areas of strategic intervention include:

- *According to the private sector the requisite incentives to set up mechanization centres to provide machinery and equipment hire services to smallholder farmers.*
- *The provision of financial incentives by Government to local Institutes of Technology to design and develop appropriate farm tools and machinery that are suitable for different categories of farmers and farming systems.*
- *MF giving the private sector appropriate incentives to develop technologies for locally available, renewable (sustainable) energy sources of the sun, wind and bio-gas.*

Furthermore, *support services will be strengthened to promote mechanization especially among small-scale farmers by:*

- *Central Government financing of research at public and private institutions to accelerate the development of appropriate smallholder agricultural mechanization and agro-processing technologies (see Section 6.1).*
- *LGAs supporting training and demonstrations on the use of new agricultural technologies, through the extension services and private sector (see Section 6.1).*

## 6.9 Agricultural Information Services

Up-to-date and relevant information is crucial for all stakeholders in a market economy. Currently the collection and dissemination of agricultural information is focused on crop production, analysis and dissemination for planning purposes at the national level. The Agricultural Statistics Unit (ASU) and Early Warning and Crop Monitoring Unit (EWCMU) both under MAFS, and National Bureau of Statistics (NBS) of the PC undertake crop production surveys. The ASU generates agricultural information and the Market Research and Information Section of MCM generates market information. In both cases much of the data is collected on a continuous basis, but it is still limited in scope and geographical coverage. The government will increase the agricultural-related data required by LGAs to develop IDPs and DDPs.

*Government will strengthen the availability and timeliness of agricultural information data by:*

- *Streamlining data collection and dissemination by sectoral Ministries, who are responsible for information collection, management and dissemination for their respective areas, to improve both the cost-effectiveness and accuracy of data provision.*

- *Building the capacity of the sectoral ministries to facilitate data collection at LGA and community levels.*
- *Assisting LGAs gradually to establish and manage their own local databases to facilitate the preparation and monitoring of DADPs and DDPs. They will also gradually develop mechanisms for processing and disseminating important information to villages and wards on a regular basis.*
- *Ensuring that lead sectoral Ministries (MAFS, MWLD, MCM) and PO-RAIG develop a mechanism for incorporating IGA data and information into a central system and collating and disseminating this to users including LGAs.*
- *Requiring ASU and other database units to prepare user guidelines for collection, processing, storage, retrieval and dissemination of information.*

## **6.10 Investment and Finance**

Commercialization of agriculture will be a gradual process. It will require increased levels of public and, in particular, private investment at all levels of agricultural activities, including primary production, marketing, input supply and processing. Lending to agriculture by banks and financial institutions has dramatically declined following economic liberalization and privatization. However, larger trading organizations appear to be financing their marketing operations through access to funds from overseas sources. The agricultural sector is considered too risky and expensive to lend to, especially smallholder farmers. Moreover, agriculture's low profitability does not allow farmers and agribusiness to earn adequate returns for sustaining livelihoods and re-investing in the sector or to attract new investment. At the same time, MFIs in the rural areas are still too weak and too few to satisfy the financial requirements of farmers and agribusiness. The commercial banks, financial institutions and MFIs have yet to develop suitable lending instruments for agriculture.

Studies carried out in the sector indicate that smallholder crop and traditional livestock farmers mainly require short-term financial instruments such as credit for input supply, savings facilities and money transfer services. In appropriate circumstances, outgrower and contract farming schemes are seen as an effective, but interim, strategy for alleviating the lack of formal farm credit among smallholder farmers as well as providing access to extension services, farm inputs, and product markets (see Section 7.6). In the short and medium term (i.e. during the implementation of the ASDS), Government will focus its effort on supporting private sector initiatives to establish such schemes.

### **6.10.1 Promoting Micro-Finance Institutions (MFIs)**

There is need to focus on the formation of institutions to provide for the short-term financial requirements in the sector. This will involve facilitation of demand-driven community-based and legal financial institutions with a component of capacity building to ensure good governance and transparency. *A mechanism to facilitate and promote formal linkages between MFIs and the formal financial institutions will be explored. This 'linkage banking' will enable smallholder crop and livestock farmers to access to financial services indirectly from formal financial institutions. MFIs also have the potential to act as conduits for other support services such as savings mobilization, input supply and market information. Using the Financial Sector Policy and the National Micro-finance Policy as a guide LGAs, in collaboration with the BOT, MCM and private sector organizations will promote the gradual establishment of a variety of MFIs on a demand-driven basis. These MFIs will include*



Savings and Credit Cooperative Societies (SACCOs), Community Banks and SACAs, as well as other informal savings and credit groups. On the basis of the evidence from other countries, it is anticipated that the establishment of viable MFIs will be slow and, at times, a risky and uncertain process.

### **6.10.2 Establishing Institutional Arrangement for Investment Finance**

A deliberate move will be taken by the *Government to encourage commercial banks either to establish Investment Banking Departments within their existing organizations or create a new Agri-Investment Bank.* These would finance investments in agriculture and agro-industry including providing emerging medium and large-scale farmers with investment capital for agricultural development. *The Government will initiate a mechanism for creating seed capital for such an investment service. The Government will also explore the possibility of encouraging non-bank financial institutions to finance agricultural investments.*

## 7 MARKETING INPUTS AND OUTPUTS

The achievement of the Agricultural Sector Vision (Section 3.1) of commercializing smallholder agriculture requires an efficient and responsive marketing system for inputs and outputs. Commercialization also implies replacing the typical smallholder's 'food self-sufficiency syndrome' with a reliance on the market for food security. In addition, effective commercialization requires the discipline of fulfilling contractual obligations regarding reliability of supply, repayment of credit and consistency in using the required technologies.

Agricultural marketing-related problems present one of the most serious constraints to agricultural sector development in the country. The difficulties in output marketing include:

- A hesitant and lagged private sector response to market liberalization.
- Poor rural infrastructure, which reduces market access and substantially increases marketing costs.
- Administrative impediments to free market operations, especially for food crops.
- A tax regime that creates disincentives to using formal marketing channels.
- Weak farmer organizations, which are unable to access credit, markets, and inputs on behalf of the members.
- A failure to regulate markets which has resulted in unethical trade practices on the part of some agribusiness firms.

Five strategic interventions that will enhance the effectiveness of the marketing system have been discussed earlier. These are: the *promotion of farmer organizations* (Section 4.4) that allow representation of farmers' views on issues regarding input and output marketing and are often the basis for group marketing and contract farming schemes; the critical issue of *taxes, levies and fees* on marketed produce is dealt with in Section 5.1.2; the importance of *updating and enforcing marketing legislation*, which was discussed in Section 5.2; the need to *legalize and promote cross-border trade* discussed in Section 5.5 and the *formulation and implementation of a food security policy* (Section 5.6). Other strategic interventions are discussed below.

### 7.1 The Private Agribusiness Sector Support (PASS) Unit

A Private Agribusiness Sector Support (PASS) unit was established as an independent organization in December 2000 in Morogoro. PASS will provide technical assistance and advisory services on a demand basis to private agribusiness enterprises and entrepreneurs in the following critical areas: investment planning and evaluation; market information; market development and expansion; entrepreneurial skills development and training; facilitating linkages to finance, and; policy advocacy. The aim is to:

- a. Promote greater demand for smallholder farm production through improved market development and enhanced linkages between agribusiness operators and smallholders.
- b. Increase the number of agribusiness enterprises that buy output from or sell inputs and provide financial and other services to smallholders.
- c. Improve the technical and operational efficiency of agribusiness enterprises, thereby improving their profitability and competitiveness in regional and international markets.

substantial proportion of the market research and promotion activities will be contracted out to the private sector or universities.

- *Establishing a database on internal and external markets within MCM and LGAs.*
- *Timely extraction and dissemination of information from the database for use by all stakeholders.*

## **7.5 Improving Rural Marketing Infrastructure**

This intervention is further elaborated in Section 8.2. The poor state of rural markets, storage, cattle holding grounds, stock-routes, etc. has led to limited access to markets, restricted availability and expensive inputs, crop and livestock losses and generally inefficient marketing of inputs and outputs. *The LGAs, MWLD and MAFS will collaborate with the private sector to rehabilitate and improve:*

- *Holding grounds, watering points, stock-routes, and livestock markets.*
- *Milk-collection centres in major milk production areas and to establish new ones.*
- *Crop market centres and storage facilities.*
- *Slaughter slabs, abattoirs and milk processing centres.*

## **7.6 Promoting Partnerships between Smallholder Farmers and Agribusiness**

Where contractual obligations can be enforced, forging partnership arrangements between smallholders and agribusiness in the form of outgrower and contract farming schemes allows smallholders to enjoy assured markets for their products and the supply of inputs on a credit basis or through input voucher schemes. Contractors benefit from an assured supply of raw materials with improved quantity and quality. As mentioned in Section 2.3.1, such schemes are currently in use for sugar cane, tobacco, sisal and milk (in Mara Region) and they may be suited to other crop and livestock products as well. During the implementation of the ASDS, *Government will support private sector initiatives to establish outgrower and contract farming schemes using the incentive schemes outlined in Section 7.7. As described in Section 4.3.2, farmers' organizations will be promoted to represent farmers' interests and reduce the transaction costs that would be involved if contractors had to negotiate with numerous small farmers.*

## **7.7 Implementing Incentive Mechanisms**

*The agricultural sector Ministries and MF, in close consultation with stakeholders, will create and implement specific incentive packages to increase private investment. These will promote: the development of outgrower/contract farming schemes (Section 7.6); private investment in agricultural marketing and inputs supply (Sections 7.1 and 7.3), and; the development of small and medium scale rural agro-processing industries (Section 7.2). The requisite incentive mechanisms will involve preferential tax regimes, energy tariffs and cost sharing arrangements for rural infrastructure development. Government will publicize investment policy, guidelines and incentive mechanisms in order to promote transparency.*

## **8 MAINSTREAMING PLANNING FOR AGRICULTURAL DEVELOPMENT IN OTHER SECTORS**

Agricultural development is strongly influenced by a number of issues that are outside the mandate of the lead Ministries. These include rural infrastructure development, prevention and mitigation of the effects of HIV/AIDS and malaria, gender and youth and environmental management issues. *To foster agricultural development Government, in close consultation with the private sector and other stakeholders, will institute mechanisms for coordinating and mainstreaming these issues in other sectors' planning.*

### **8.1 DADPs and DDPs**

As mentioned in Section 3.9, an innovative feature of the ASDS is its implementation through DADPs. But DADPs will be nested within, and be a component of, DDPs. Thus, of necessity, agricultural development at the district level will be mainstreamed into the overall development plans of the district. *An important, and new role for the lead agricultural sector Ministries will be to ensure that LGAs appreciate the importance of a strong and vibrant agricultural sector within their districts, so that it is given due priority in their planning process and in the allocation of funds.*

### **8.2 Improving Rural Infrastructure**

A well-developed and maintained rural infrastructure is essential for agricultural growth and overall rural development. Investments in rural roads, water supply, transportation, storage, cattle dips, rural markets, electrification, communication, water management schemes, charcos, stockholding grounds, stock auction markets, stock routes and abattoirs are critical to stimulating increased agricultural production.

Not only is the stock of rural infrastructure in poor condition and inadequate for the development of the rural economy, it is also unevenly distributed, leaving some high agricultural potential areas with little or no coverage.

Some rural infrastructure falls directly within the agricultural sector (storage, dips, rural markets, charcos, stockholding grounds, stock auction markets, stock routes and abattoirs) and interventions to rehabilitate and improve these were proposed in Section 7.5. However, a significant proportion of key infrastructure lies outside the sector including rural roads, communication and electrification. *Development of this infrastructure under the relevant Ministries will take account of the needs of agricultural development and will be undertaken within the framework of the RDS.*

In view of the size and geography of Tanzania, with the high potential agriculture areas lying in the peripheries of the country, roads occupy a pivotal position in the integration of markets and the national economy. Poor rural roads, for example, limit farmers' access to markets for inputs and produce. They also increase the cost of transporting inputs and produce, reducing the net income of farmers, input suppliers and traders.

Agricultural development would be boosted by the development of rural roads (including tracks and footpaths) in areas where agriculture production is taking place and where transport

needs are critical. *The development of rural road infrastructure for agricultural development will be addressed under the RDS by:*

- *Conducting a study to establish rural transport needs to support efficient agricultural production and marketing in selected high potential districts. The study results will facilitate the rational development of an agricultural-oriented network of rural roads.*
- *LGAs incorporating within their respective DDPs, rural infrastructure components that are demand driven based on the successful Village Travel and Transport Project (VTTP) pilot studies models.*
- *Providing financial incentives (e.g. tax rebates and cost sharing) to attract private investment in rural infrastructure. The possibility of using the HIPC funds in this regard will be explored.*

### **8.3 Improving Rural Electrification and Communication**

Communication and rural electrification infrastructure is a pre-requisite for the development of agribusiness. Communication infrastructure has a key role in promoting information flows, whereas electrification is important for agro-processing. It is proposed that:

- *Lead Ministries in collaboration with the private sector will prepare guidelines for use by other sectoral Ministries (MCT, MEM) during planning to ensure the incorporation of agriculture requirements in their plans.*
- *LGAs will initiate, within their respective DADPs and DDPs, programmes for promoting alternative sources of energy including solar, wind, biogas and hydropower.*

### **8.4 Mitigating the Effects of HIV/AIDS and Malaria**

HIV/AIDS is a major health problem with profound social and economic implications. The pandemic has neither a vaccine nor cheap and effective treatment. It has severe effects on agricultural development.

Currently, it is estimated that over 1.5 million people are living with HIV/AIDS. The active age group aged between 15 and 59 years, constituting about 70 per cent of the population, is most vulnerable to the epidemic. Within this group, women and girls who constitute about 60 to 80 percent of the household labour force are more vulnerable to the disease due to both biological and social factors. The situation for women is aggravated by the added burden placed on them by the traditional responsibilities for caring for the sick.

The pandemic is consuming household savings as a result of the high health care costs. This is leading to a decline of the household asset base, causing labour shortages and breaking social bonds. Because adults die before passing down their knowledge, there is a loss of farm management resources and skills. Labour shortages and increasing dependency among households headed by survivors, notably widows, orphans and elderly people, lead families to resort to less labour-intensive crops of poor nutritional status, such as cassava. The death of productive adults who are key family providers is shattering the social networks that provide households with community help and support leading to social exclusion of survivors.

In the effort to control the spread of the pandemic and mitigate its effects on agriculture development:

- *MAFS and MWLD, in collaboration with NGOs and TACAID, will undertake a study to identify the most vulnerable farming communities and design viable mechanisms for supporting households to cope with the effects of the disease.*
- *MAFS, MWLD and the Ministry of Education and Culture (MEC) in collaboration with the Ministry of Health (MH) will introduce HIV/AIDS and malaria topics in the training institutes' curricula and incorporate the subjects in extension messages given to farmers (see Section 6.3). This will help to intensify public health education on HIV/AIDS and other epidemics such as malaria and increase public knowledge of the effects of the diseases.*

## **8.5 Mainstreaming Gender in Agricultural Development**

In principle, existing laws provide for equal rights and privileges to both men and women. However, their interpretation through common laws and social conventions often leads to difficulties and their being compromised.

Women contribute 60 to 80 percent of labour in agricultural production and contribute the largest proportion of the labour in reproductive household activities. Typically, women work longer hours than men. This contributes to their poorer health and nutritional status and to high maternal mortality. Men, who are traditionally considered heads of households, have greater access to land, credit and extension services. In schools, girl dropouts make them proportionally less educated than boys.

Based on these observations, it is clear that traditional interventions for agricultural development are likely to affect men and women differently. An effective gender approach in designing and implementing interventions in agriculture would take these differences into consideration focusing on equality and equity of the outcomes rather than just equal treatment.

As mentioned in Section 3.4.2, the Government, through MCDWC, has developed a *Gender Policy*, and is promoting the use of gender analysis in community-based development programmes. Because this is a crosscutting issue, coordination and collaboration with other sectors is necessary. However, within the agricultural sector:

- *Gender issues will be incorporated in all the proposed interventions at the community level through participatory approaches. The Gender Management System prepared by the MCDWC will be used to guide the process.*
- *MAFS, MWLD and MCM in collaboration with PO-RALG, LGAs, MLY and the private sector will develop special programmes for women and youth empowerment through enhanced access to credit, land, technology and market information. LGAs will incorporate these programmes in the DADPs and DDPs.*

## **8.6 Empowering Youth**

The agricultural sector's human resource base is currently being eroded not only by the HIV pandemic and malaria but by the continuous migration of youth from the rural to urban areas. This migration is caused by a number of factors including the drudgery of agricultural work

under current agricultural practices and the lack of attractive alternative employment in the rural areas. The Government has produced the draft *Youth Development Policy* in which measures are outlined to reduce youth urban migration. In order to sustain agricultural human resource and empower youth:

- *LGAs in collaboration with NGOs will develop ways to reduce youth migration and increase their deployment in agriculture in the rural areas.*
- *MAFS, MWLD and MCM will prepare a guide to incorporate agriculture and livestock production subjects in primary and secondary school curricula. This is intended to impart the needed knowledge and promote interest in agricultural production among the youth. The impact of adjustment in school curricula will be felt in the medium- and long-term. Meanwhile, increased profitability of farm operations, resulting from ASDS interventions, will help to retain the youth in agricultural production activities.*
- *As discussed in Section 7.2, MAFS, MWLD and MCM in collaboration with MIT, PO-RALG and LGAs will facilitate the private sector to develop agro-industries in the rural areas, which will provide supplementary or alternative employment to the youth.*

## **8.7 Strengthening Environmental Management**

To ensure sustainable agricultural development, problems relating to environmental and disaster management need to be addressed. Higher human and animal populations have resulted in additional agricultural activities and higher consumption rates leading to increased soil erosion, deforestation and soil and water contamination. Environmental destruction of landscapes, changes of streams and river courses, flooding, droughts and beach erosion affect development of sustainable agricultural production in various ways. Much of the 60 per cent of the total land area classified as dry lands is threatened by desertification, estimated to be expanding by around 300 to 400 thousand hectares per annum.

In response to these problems, the Government has enacted a *National Environmental Policy*, which lays the foundation for coordinated, multi-sectoral action to complement the three national strategy documents on the environment currently in use. These are the National Environmental Management Council (NEMC) of 1983, the National Conservation Strategy for Sustainable Development (NCSSD) of 1992, and the National Environmental Action Plan (NEAP) of 1994. In addition, the Tropical Pesticides Research Institute (TPRI) regulates and monitors the use of agro-chemicals.

While it is important to address the environmental problems separately, comprehensive solutions call for mutually reinforcing interventions. Within the agricultural sector, key actions will include:

- *The key institutions that are involved in the utilization and management of natural resources (MAFS, MWLD, MLHS, MNRT PO-RALG, LGAs, VPO, NEMC, SUA and UDSM), developing coordinated and sustainable mechanisms for:*
  - *Environmental rapid assessment and monitoring of degradation especially soil erosion and related effects (nutrient loss, gully formation, siltation).*
  - *Early warning of drought and flood disasters and impending shortages of fodder.*

Information on these will be coordinated with the monitoring and early warning systems for pests and diseases (see Section 6.5).

- As discussed in Section 6.7, *MAFS, MWLD in collaboration with MLHS, PO-RALG, VPO and LGAs will emphasize catchment and basin approaches in planning and implementation of agricultural water management programmes.*
- *Intensifying public environmental protection awareness. MEC, MWLD and MAFS in collaboration with VPO and other relevant institutions will introduce environmental issues in their training institutes' curricula and incorporate environmental issues in extension messages.*
- *MAFS, MWLD, MCM and LGAS will promote intensification and high crop and livestock productivity and profitability in order to limit encroachment of environmentally fragile areas through various interventions cited earlier in the strategy.*



## 9 COSTS AND IMPLEMENTATION ARRANGEMENTS

### 9.1 Costs

An indicative budget has been prepared of the likely costs of the interventions that will be required over the next 5 years in order to implement the ASDS. This budget only includes those items that will be channelled through the three agricultural sector Ministries. It excludes items that will be financed through other Ministries. As shown in Box 9, the total cost amounts to around US\$255m. However, the budget cost excludes the Personnel Emolument (PE) element of the budgets for the three Ministries. Individual outputs with an indicative cost exceeding US\$20m. are itemized in Box 9.

<b>Box 9</b>	
<b>Indicative Costs of Implementing the ASDS</b>	
<b>Strategic Area (Output)</b>	<b>US\$ million</b>
1. Strengthening the institutional framework	34.2
1.4 LGAs capacity strengthened	23.2
2. Creating a favourable environment for commercial activities	9.4
3. Public and private roles in improving supporting services	160.9
3.1 Client-oriented and collaborative agricultural research institutionalized	45.2
3.2 Demand-driven agricultural extension in place	45.4
3.5 Animal health and crop protection services improved	27.0
3.7 Management and utilization of land and water services improved	28.9
4. Strengthening marketing efficiency for inputs and outputs	42.5
4.3 Increasing access to inputs in rural areas	25.0
5. Mainstreaming planning for agricultural development in other areas	8.3
<b>Total</b>	<b>255.3</b>

### 9.2 The Phasing of Implementation

As indicated earlier, the ASDS will be implemented over the next five years through the ASDP, which will be a three-year rolling programme. Four major factors will influence the phasing of implementation over this period. These are the availability of funds, the capacity of Ministries, Programmes and LGAs to disburse and use funds effectively, the priority accorded to different outputs and/or interventions and the need for sequencing of interventions. These are all issues that will need to be considered during the ASDP preparation process.

There are, however, some areas that can be readily identified as possible 'quick wins'. These are interventions or outputs that are easy to implement, that are low cost or have ear marked

funds available and are likely to have a relatively large and immediate impact on the achievement of the strategy's goals and objectives. A preliminary listing of potential 'quick wins' is given in Box 10. Some of these could be implemented almost immediately or included in the first year's ASDP.

**Box 10**

**Potential 'Quick Win' Outputs**

- |     |   |
|-----|---|
| 2.5 | Cross-border trade legalized and promoted                           |
| 2.2 | Agricultural sector legislation reviewed, harmonized and publicized |
| 2.7 | Procedures for legal access to land streamlined                     |
| 3.8 | Agricultural mechanization strengthened                             |
| 4.2 | Agro-processing and rural industrialization promoted                |
| 4.3 | Increasing access to inputs in rural areas                          |

### 9.3 The Poverty Monitoring Framework

It is important to bear in mind that the ASDS is being developed for two main reasons. One of these is to put in place the building blocks for the long-run transformation of the agricultural sector to attain the ASV and the TDV 2025. The second, medium-term, objective is to specify the agricultural sector's strategies to achieve the PRSP objectives.

A comprehensive framework for monitoring and evaluating the PRSP process and poverty reduction has been established under the oversight of the Vice President's Office (VPO) and overseen technically by a National Poverty Monitoring Steering Committee. A poverty monitoring master plan is being developed to foster a coherent approach to the monitoring of poverty in Tanzania. Functionally, the established framework is oriented towards four distinct tasks, namely:

- **Surveys and censuses.** This is coordinated by NBS and its major task is to conduct pertinent surveys and national censuses.
- **Administrative data.** A group coordinated by PO-RALG is working on the enhancement of administrative data within ministries. It will also collect data at the local government and community levels and is establishing a monitoring and evaluation system for local government service delivery.
- **Research and analysis.** The major task is to strengthen poverty-related research and analysis, with a gender focus. This task is overseen by the PO- P&P and will work in close collaboration with Research into Poverty Alleviation (REPOA) and other quasi-autonomous and private research institutions.
- **Dissemination and sensitization.** The major task is to develop a programme for the dissemination of data and information generated by the poverty monitoring systems and raise awareness on poverty trends. The group responsible for this work is being coordinated by the VPO.

## 9.4 Monitoring and Evaluating the ASDS

As mentioned in Section 3.8, *the ICC will be responsible for monitoring the implementation of the ASDS at national level to ensure that the goals of the ASDS are being achieved. Similarly, the TIC will monitor the implementation of the ASDS by the LGAs. At the district level, the relevant Standing Committee will be responsible for monitoring the implementation of DADPs and Regional Secretariats will monitor implementation of DADPs in their respective regions.* These monitoring activities will be greatly assisted by the data generated by the various components of the poverty monitoring master plan, as it includes a wide range of information pertaining to the performance of the agricultural sector at national and local levels. Much of this data will have been collected by the sector Ministries (See Section 6.9).

The ASDS itself operates as a sectoral component of the RDS, which has its own monitoring and evaluation framework. *The work of the ICC and TIC will therefore have to be coordinated with that of the RDS.*

In common with the RDS, the monitoring of the ASDS will be guided by five fundamental criteria:

- **Implementation schedule.** Adherence to the implementation schedule that will be set out in the ASDP in respect of time frame, financial requirements, attainment of objectives, etc.
- **Standards.** Observation and fulfilment of set national standards where these are applicable.
- **Consistency with national development goals.** Adherence to the national policies as stipulated either in the constitution or relevant pieces of legislation.
- **Cohesiveness.** Attention to linkages between the priority areas in the strategy and specific actions within each area to ensure there is consistency.
- **Stakeholder performance.** Performance of the various actors at the district and sub-district levels in relation to fulfilling their mandate, executing their roles and responsibilities and the effectiveness of their plans and activities, i.e. delivering services and attaining the stated goals and objectives.

*The ICC will use these criteria to monitor the progress made in implementing the ASDS as a whole, while the TIC will use the same criteria for monitoring and evaluating the annual ASDPs. The logframes attached to these will contain specific performance criteria that will be used for monitoring purposes.*

*There will also be annual reviews of DADPs as part of the on-going process of monitoring and implementing the ASDS at local level. Again, the logframe of each DADP will contain specific performance criteria that will be used as a basis for monitoring and evaluation.*

# **ANNEX 1: PARTICIPATORY PROCESS FOR THE PREPARATION OF THE AGRICULTURAL SECTOR DEVELOPMENT STRATEGY**

## ***Policy and Technical Coordination of the ASDS Preparation***

In 2000, a Task Force was appointed by the Permanent Secretary Ministry of Agriculture and Cooperatives to steer the preparation of the ASDS. It was formed from the Ministry of Agriculture and Cooperatives (MAC), PC, MF, PMO, PO-RALG and a selected representation of the donor community (JICA; Danish Embassy; DFID; Irish Aid; Japanese Embassy, WB and EU).

## ***The Preparatory Phase***

This strategy report is the conclusion of a long participatory consultative process amongst a wide range of stakeholders in the sector. It began in 1995 with the preparation of a new Agricultural and Livestock Policy and the Co-operative Development Policy, and their finalization in 1997. Between 1998 and 2000, the Government conducted various studies and participatory consultations at grassroots level. Various consultations were also made in connection with specific projects such as the Agricultural Sector Management Project and the National Agricultural Extension Project.

In response to the modest performance of the agricultural sector, in September 1999 the Prime Minister appointed a Special Advisory Committee on Agriculture. Its mandate was to consult throughout the country and advise the Government on priority issues and recommendations for developing the agricultural sector.

Concurrent with the preparation of the ASDS, the President of the United Republic of Tanzania appointed a Task Force on Cooperatives in April 2000. After wide consultations with stakeholders in the cooperative movement, the Task Force made specific recommendations for strengthening the cooperative movement in the country. These have proved valuable in developing this document. Strategy development has also benefited from two reports that were prepared by MWLD on the basis of special consultations with stakeholders in the livestock sub-sector undertaken in the first quarter of 2001.

In addition to the above consultative processes and studies, the preparation of the strategy proposals has been enriched by three important studies: -

- *Tanzania Agriculture: Performance and Strategies for Sustainable Growth*, of February 2000, that was jointly prepared by MAC and the WB.
- URT (1999) *Report of the Special Advisory Committee on Agricultural Development in Tanzania, Issues and Recommendations*.
- World Bank (2000) *Agriculture in Tanzania since 1986: Follower or Leader of Growth*. World Bank/IFPRI.

## ***Stakeholders' Workshops***

In April 2000 initial proposals were made of strategies for developing the agricultural sector. These, together with the views collected in the previous consultations and studies, formed the basis for two rounds of stakeholder workshops held in Bagamoyo. The first was from May 29 to June 1 2000 and the second on September 11 and 12 2000. In the first workshop a total of

50 stakeholders participated in the preparation of the strategy document, while during the second workshop, 59 participants reviewed the strategy. The stakeholders were drawn from different Government Ministries, public agencies, educational institutions, donor agencies and international organizations.

The workshops identified the main obstacles to the attainment of the sector vision as:

- Weak and inappropriate institutions.
- Weak capital base and lack of financial services.
- Inadequate supporting services.
- Agricultural sector not accorded the priority it deserves in overall planning and resource allocation.
- Poor rural infrastructure.

After the workshop, a team of consultants went through all the workshop reports, the available Ministry documents and other sources of information, which were helpful in formulating the draft strategy document.

#### *Need for Further Consultations with Grassroots Stakeholders*

The draft ASDS was submitted in September 2000 and after consultations with Government, it was concluded that there was a need to enrich the ASDS document through further consultations especially with grassroots stakeholders in the rural areas. This led to four zonal workshops:

- Mwanza Centre (27-29 March 2001) 53 participants from Kagera, Mara, Shinyanga and Mwanza regions. Kigoma region did not send participants.
- Njombe Centre (27-29 March 2001) 55 participants from Iringa, Mbeya, Morogoro, Rukwa and Ruvuma regions.
- Bagamoyo Centre (3-5 April 2001) 50 participants from Dar es Salaam, Mtwara, Pwani, Tanga regions; Lindi region did not send participants.
- Dodoma Centre (3-5 April 2001) 37 participants from Arusha, Dodoma, Kilimanjaro, Singida, Tabora.

The participants, of whom 40 per cent were women and 53 per cent were farmers and farmer representatives can be classified into six major categories

Category	Per cent
Smallholder farmers and livestock keepers	35
Medium- and large-scale farmers	5
Representatives of farmer organizations	13
Local Government officers from village to district level	17
Local Government Councillors, NGOs and service providers at grass roots level	13
Central Government Officers from PO-RALG, MAFS, MWLD, and	17

From the deliberations made in the workshops, the issues raised in the draft ASDS, and the consultation with the MAFS, MWLD and MCM, the Consultants identified the following issues as the most important for the development of the sector and the revision of the ASDS:

- Undertaking institutional and legal reforms
- Investment and finance

- Support services
- Marketing of inputs and outputs
- Administrative and legal environment
- Macroeconomic stability
- Natural environment and resource management
- Human resource capacity improvement and empowerment
- Improvement of rural infrastructure

***Final Consultations with National Stakeholders***

After reviewing the draft ASDS, a revised document was submitted to another round of stakeholder's workshop held on 7 and 8 June 2001. This was followed by a process of fine tuning and finalizing this document, which was presented to a workshop of Inter-ministerial and development partner representatives on 27 September 2001..

## **ANNEX 2: AGRICULTURAL LEGISLATION IN TANZANIA**

### **a. Legislation governing crops directly falls under MAFS:**

- The Plant Protection Act No, 13 of 1997
- The Tropical Pesticides Research Institute Act No, 18 of 1979
- The Tea Authority Act No.3 of 1997
- The Coffee Board Act No.18 of 1984
- The Tanzania Tobacco Board Act No.20 of 1984
- The Cashewnuts Board Act No.24 of 1984
- The Pyrethrum Act No.1 of 1997
- The Cotton Industry Act No. 2 of 2001

### **b. Legislation governing the livestock sub-sector is under MWLD:**

- The Animal Disease Ordinance (Cap. 156 of 1940)
- The Cattle Grazing Ordinance (Cap.155 of 1944)
- The Tsetse Fly Control Ordinance (Cap. 100 of 1943)
- The Range Development and Management Act (1964)
- The Animal Protection Ordinance (Cap. 153 of 1930)
- The Animal Pound Ordinance (Cap. 154 of 1930)
- The Veterinary Surgeons Ordinance (Cap.153 of 1926)
- The Fertilizer and Animal Foodstuff Ordinance (Cap. 467 of 1962)
- The Hides and Skins Trade Ordinance (Cap. 544 of 1963)
- The Dairy Industry Ordinance (Cap. 590 of 1965)

### **c. Legislation under MCM**

- The Co-operative Act No, 15 of 1991.

### **d. Legislation under MH**

- The Pharmaceuticals and Poisons Act No. 9 of 1978
- The Food (Control of Quality) Act No.10 of 1978
- The Community Health Fund Act, No. 1 of 2001

### **e Legislation under MIT includes**

- The Tanzania Bureau of Standard Act No.1 of 1977

### **f. Legislation under MLHS includes**

- The Land Act No.4 of 1999
- The Village Land Act No.5 of 1999

## ANNEX 3: LOGFRAME

AGRICULTURAL SECTOR DEVELOPMENT STRATEGY (ASDS) DURATION: 2002 - 2007			
SUMMARY OF PURPOSE, OBJECTIVES, OUTPUTS AND INTERVENTIONS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<b>OVERALL GOAL</b> • Contribute to overall GDP growth, national and household incomes and growth in export earnings.	• Real agricultural GDP growth from 3.6 per cent p.a. to 5.0 per cent p.a. by 2005/07.	• Annual Economic Review Reports • National Bureau of Statistics	• Political will and economic stability.
<b>PURPOSE</b> • To stimulate and facilitate agricultural sector growth and reduce rural poverty	• Population below poverty line from 46 percent to 24 percent by year 2010. • Rural population below basic poverty reduced from 67 percent to 29 percent by year 2010. • Reducing proportion of food poor from 27 percent to 14 percent by year 2010.	• Quarterly and Annual Survey Reports • Poverty monitoring master plan	• Stable macro-economic policy and implementation of sector reforms
<b>STRATEGIC OBJECTIVES</b> • To create an enabling and favourable environment for improving productivity and profitability of the agricultural sector. • To increase farm incomes in order to reduce rural poverty and ensure households food security.			
<b>OUTPUTS AND INTERVENTIONS</b>			
<b>STRATEGIC AREA 1.0 Strengthening the Institutional Framework</b>			
<b>Output 1.1: ASDS Coordination Framework Established</b>			
<b>INTERVENTIONS</b> 1.1.1 Mainstream on-going programmes in line with ASDS. 1.1.2 Establish an Inter-ministerial Coordination Committee (ICC). 1.1.3 Form Technical Inter-ministerial Committee (TIC). 1.1.4 Prepare guidelines for LGAs to prepare DADPs. 1.1.5 Form District Agricultural Development Committees (DADCs) where appropriate 1.1.6 Educate actors on their roles and responsibilities. 1.1.7 Formulate a rolling ASDP in conjunction with DADPs 1.1.8 Formalize the Annual Conference of Stakeholders in the sector. 1.1.9 Regional Secretariats monitor DADPs. 1.1.10 TIC monitors implementation of ASDS	• Ongoing programmes mainstreamed basing on ASDS. • ICC implementation established. • TIC established. • Guidelines for preparing DADPs in place. • ASDP prepared and operational • DADPs prepared and being implemented. • Annual Conferences of Stakeholders held. • Special education programmes on roles and responsibilities of actors implemented. • Institutional framework defining functional responsibilities and mandates of key actors formulated and used in education programmes.	• LGA Reports • MAFS; MWLD, PORALG/MCM Reports	• Adequate resources are allocated
<b>Output 1.2: Capacity of Lead Ministries Strengthened</b>			
<b>INTERVENTIONS</b> 1.2.1 Train lead ministry staff in policy formulation and analysis, strategic planning and management. 1.2.2 Review employment conditions, promotion prospects and salary scales with the aim of recruiting and retaining high calibre staff 1.2.3 Deploy additional field staff for supervision and monitoring for the enforcement of standards and regulations. 1.2.4 Provide the necessary facilities and equipment for proper monitoring of standards and regulations.	• Number of staff trained. • Rate of turnover for professional staff and number of unfilled vacancies  • Adherence to standards of quality, grading, measures and labelling for inputs and outputs	• Lead Ministry Reports. • LGA Reports. • NBS Surveys.	• Increase in resource allocation.



<b>Output 1.3: Capacity of Regional Secretariats Strengthened</b>			
<p><b>INTERVENTIONS</b></p> <p>1.3.1 Deploy additional technical staff and provide necessary logistical support.</p> <p>1.3.2 Review employment conditions, promotion prospects and salary scales with the aim of recruiting and retaining high calibre staff</p>	<ul style="list-style-type: none"> <li>• Additional technical staff deployed.</li> <li>• Logistical support increased.</li> <li>• Rate of turnover for professional staff and number of unfilled vacancies</li> </ul>	<ul style="list-style-type: none"> <li>• PORALG Reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Additional resource allocation.</li> <li>• Manning levels will match workloads.</li> </ul>
<b>Output 1.4: LGAs' Capacity Strengthened</b>			
<p><b>INTERVENTIONS</b></p> <p>1.4.1 Strengthen strategic financial planning and management</p> <p>1.4.2 Strengthen participatory planning.</p> <p>1.4.3 Strengthen contract formulation and management</p> <p>1.4.4 Strengthen multi-sectoral planning and coordination.</p> <p>1.4.5 Build capacity of LGAs to undertake land-use and resource management planning.</p> <p>1.4.6 Recruit and retrain field extension cadre.</p> <p>1.4.7 Provide legal empowerment to LGAs to enforce regulations and standards.</p>	<ul style="list-style-type: none"> <li>• Number of field staff retrained in technical, managerial, entrepreneurial and regulation skills.</li> <li>• Legal empowerment for LGAs to enforce regulation and standards in place.</li> <li>• Participatory planning sessions at village, ward, district level.</li> <li>• Village Land Use Plans prepared.</li> <li>• DADPs prepared and operational.</li> </ul>	<ul style="list-style-type: none"> <li>• LGA Reports.</li> <li>• PRA Reports.</li> <li>• Village Registers.</li> </ul>	<ul style="list-style-type: none"> <li>• Additional resource allocation</li> </ul>
<b>Output 1.5: Farmer Organizations Promoted</b>			
<p><b>INTERVENTIONS</b></p> <p>1.5.1 Develop guidelines for the formulation and registration of farmers, and other stakeholders' associations, and streamline registration procedures.</p> <p>1.5.2 Promote establishment of farmers-owned cooperatives and other organizations.</p> <p>1.5.3 Support registration of eligible farmers' organizations.</p> <p>1.5.4 Provide cooperative education to members and management of the organizations.</p> <p>1.5.5 Training on agribusiness management and marketing skills, contract management, lobbying and advocacy.</p> <p>1.5.6 Participation in processes of policy formulation, programme planning and implementation.</p> <p>1.5.7 Introduce cost sharing mechanisms as basis for sustainable management and empowerment of farmer owned organizations.</p>	<ul style="list-style-type: none"> <li>• Number of registered members in grassroots farmer organisations.</li> <li>• Capital contribution by members.</li> <li>• Financial performance of farmer organisations.</li> <li>• Number of organizations with audited accounts.</li> </ul>	<ul style="list-style-type: none"> <li>• LGA Reports.</li> <li>• MCM administrative reports.</li> <li>• M&amp;E reports by LGAs</li> <li>• Audited Accounts of farmer organisations</li> </ul>	<ul style="list-style-type: none"> <li>• Farmer willingness to form own organisations.</li> <li>• Political support in strengthening grassroots farmer organizations.</li> <li>• Good governance in place</li> </ul>
<b>Output 1.6: Capacity of the Private Sector Improved</b>			
<p><b>INTERVENTIONS</b></p> <p>1.5.1 Provide favourable legal and administrative framework.</p> <p>1.5.2 Support training in financial management, and entrepreneurial skills, as well as in contract management.</p> <p>1.5.3 Involve agribusiness in dialogue with Government on policy formulation, taxation and programming for the sector.</p>	<ul style="list-style-type: none"> <li>• Number of public/private sector meetings and planning sessions for the sector.</li> <li>• Private sector investment in agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• MAFS/MCM/MF/MWLD/PC Reports.</li> <li>• TCA/TCCIA Reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Political will to facilitate private sector growth and public/private sector partnership.</li> <li>• Good governance in place.</li> </ul>

<p>• <b>Output 1.7: Capacity of Civil Society Organizations Improved</b></p>			
<p><b>INTERVENTIONS</b></p> <p>1.7.1 Support training in financial management, and entrepreneurial skills, as well as in contract management.</p> <p>1.7.2 Involve CSOs in dialogue with Government on policy formulation, partnerships and programming for the sector.</p> <p>1.7.3 Promote/strengthen CSO umbrella organizations</p>	<ul style="list-style-type: none"> <li>• Number of meetings and planning sessions held between CSOs and public sector for the sector.</li> <li>• Number of partnership arrangements between CSOs and LGAs for the delivery of support services to the agricultural sector.</li> </ul>	<ul style="list-style-type: none"> <li>• MAFS/MCM/MF/MWLD/PC Reports.</li> <li>• M&amp;E of DADP Reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Political will to facilitate public/CSO partnerships.</li> <li>• Good governance in place..</li> </ul>
<p>• <b>Output 1.8: Improved Media Coverage of Agricultural Sector Affairs</b></p>			
<p><b>INTERVENTIONS</b></p> <p>1.8.1 Sectoral ministries, LGAs, agricultural trade associations and NGOs and CBOs encouraged to delegate the task of maintaining liaison with the media to a relevant staff member</p>	<ul style="list-style-type: none"> <li>• Number of articles on agricultural sector and rural development issues appearing in media</li> </ul>	<ul style="list-style-type: none"> <li>• Press cutting services</li> </ul>	
<p>• <b>Output 1.9: Effective Land Survey Service in Place</b></p>			
<p><b>INTERVENTIONS</b></p> <p>1.9.1 Conduct study of manpower needs for agricultural land survey services</p> <p>1.9.2 Study of ways to make survey services more affordable to smallholder farmers.</p> <p>1.9.3 Determine relative roles of different sectoral ministries and private sector in provision of land survey services.</p>	<ul style="list-style-type: none"> <li>• Reports of studies completed</li> <li>• Government agricultural land survey services reorganized/rationalized</li> <li>• Uptake of land survey services by smallholder farmers</li> </ul>	<ul style="list-style-type: none"> <li>• MPLS reports</li> <li>• DADP M&amp;E</li> </ul>	
<p>• <b>STRATEGIC AREA 2.0 Creating a Favourable Environment for Commercial Activities</b></p>			
<p>• <b>Output 2.1: Sustaining Macroeconomic Stability</b></p>			
<p><b>INTERVENTIONS</b></p> <p>2.1.1 BOT monitor agricultural lending rates</p> <p>2.1.2 Harmonize and rationalize taxes, levies and fees as an incentive to farmers and investors in agriculture and livestock production.</p> <p>2.1.3 Devise mechanism to reduce and rationalize energy and transport tariffs in production and processing of agricultural products.</p>	<ul style="list-style-type: none"> <li>• Trend in lending interest rates for agricultural investment.</li> <li>• Inflation rate.</li> <li>• Exchange rate</li> <li>• Tax regime</li> <li>• Energy tariffs</li> </ul>	<ul style="list-style-type: none"> <li>• BOT Reports</li> <li>• NBS Surveys</li> <li>• National Economic Surveys Reports</li> <li>• Annual Budgets Report</li> </ul>	<ul style="list-style-type: none"> <li>• Support from international development agencies.</li> <li>• Continued political stability</li> </ul>
<p>• <b>Output 2.2: Agricultural Sector Legislation Reviewed, Harmonized and Publicized</b></p>			
<p><b>INTERVENTIONS</b></p> <p>2.2.1 Review and harmonize agricultural sector legislation and the Cooperative Act of 1991.</p> <p>2.2.2 Review and harmonize legislation in livestock development.</p> <p>2.2.3 Implement the Plant Protection Act 1997 and harmonize the TPRI Act (1979) with the Plant Protection Act</p> <p>2.2.4 Update and enforce legislation regarding input and output marketing.</p>	<ul style="list-style-type: none"> <li>• Number of Acts reviewed and enacted by Parliament to improve legal framework.</li> <li>• Public compliance to legislation as manifested by quality of inputs and outputs, disease incidences, labelling, ethical marketing and health standard.</li> </ul>	<ul style="list-style-type: none"> <li>• Bills, Acts by Parliament.</li> <li>• Publications on legislations issued to farmers.</li> <li>• Radio programmes on legislation.</li> <li>• LGA reports</li> </ul>	<ul style="list-style-type: none"> <li>• Good governance in place.</li> </ul>

<b>Output 2.3: Legislations of Collaborating Sectors Reviewed, Harmonized and Publicized</b>			
<p><b>INTERVENTIONS</b></p> <p>2.3.1 Review, harmonize and publicize legislations that have a bearing in the implementation of the ASDS eg:</p> <ul style="list-style-type: none"> <li>• The Food (Control of Quality), Act No. 9 of 1976, and the Pharmaceuticals and Poisons Act No. 10 of 1978,</li> <li>• The Tanzania Bureau of Standards Act No. 1 of 1977; the Finance Banking Act of 1994</li> </ul>	<ul style="list-style-type: none"> <li>• Number of Acts reviewed and enacted in Parliament.</li> </ul>	<ul style="list-style-type: none"> <li>• Bills, Acts by Parliament.</li> <li>• Publications on the reviewed legislations to farmers.</li> <li>• Radio programs on reviewed legislation.</li> <li>• LGAs reports.</li> </ul>	
<b>Output 2.4: Legal Empowerment of Stakeholders to be Involved in the Management Commodity Boards Provided</b>			
<p><b>INTERVENTIONS</b></p> <p>2.4.1 Restructure the Commodity Boards to function as self-regulatory bodies managed by stakeholders.</p>	<ul style="list-style-type: none"> <li>• Number of restructured Commodity Boards with full autonomy and managed by stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>• MAFS administrative reports</li> </ul>	<ul style="list-style-type: none"> <li>• Political willingness to support self-regulated Commodity Boards</li> </ul>
<b>Output 2.5: Cross-border Trade Legalized and Promoted</b>			
<p><b>INTERVENTIONS</b></p> <p>2.5.1 Remove all barriers to cross-border trade in food crops.</p> <p>2.5.2 Promote exports, especially of food commodities to neighbouring countries.</p>	<ul style="list-style-type: none"> <li>• Barriers to cross-border trade removed.</li> <li>• Cross-border trade increased.</li> </ul>	<ul style="list-style-type: none"> <li>• Government statement to remove barriers to cross border trade.</li> <li>• TFA reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Policy on market liberalization will be sustained.</li> <li>• Political will to remove barriers to food commodity marketing.</li> </ul>
<b>Output 2.6: Food Security Policy Formulated and Implemented</b>			
<p><b>INTERVENTIONS</b></p> <p>2.6.1 Formulate food security policy.</p> <p>2.6.2 Issue guidelines to administrators on provisions of the food security policy.</p>	<ul style="list-style-type: none"> <li>• Food security policy in place.</li> <li>• Guidelines on food security issues provided</li> </ul>	<ul style="list-style-type: none"> <li>• MAFS/MWLD reports</li> </ul>	<ul style="list-style-type: none"> <li>• Policy on market liberalization is sustained.</li> <li>• Political will to remove barriers to food-crop marketing</li> </ul>
<b>Output 2.7: Procedures for Legal Access to Land Streamlined</b>			
<p><b>INTERVENTIONS</b></p> <p>2.7.1 Sensitize the public to the New Land Acts.</p> <p>2.7.2 Streamline the procedures for legal and physical access to land.</p> <p>2.7.3 Monitor the implementation of the Land Acts.</p>	<ul style="list-style-type: none"> <li>• Trends in land disputes.</li> <li>• Time taken to acquire legal access to land.</li> </ul>	<ul style="list-style-type: none"> <li>• Court reports.</li> <li>• MLHS reports.</li> <li>• PFA reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural change regarding land ownership.</li> <li>• Clear demarcation of village and public land.</li> <li>• Good governance in place.</li> </ul>
<b>Output 2.8: Land Survey and Demarcation for Agricultural Investment Zones Undertaken</b>			
<p><b>INTERVENTIONS</b></p> <p>2.8.1 Undertake land demarcation and surveys for potential investment zones and grazing land for pastoralists and agro-pastoralists</p> <p>2.8.2 Develop plans for settling pastoralists and establishing DFZs.</p>	<ul style="list-style-type: none"> <li>• Number of Land Master Plans developed and in place for investors and pastoralists.</li> </ul>	<ul style="list-style-type: none"> <li>• LGAs reports.</li> <li>• MLHS reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Clear demarcation of village and public lands to be established.</li> <li>• Cultural change and attitude in favour of live Land Master Plans</li> </ul>

**STRATEGIC AREA 3.0: Public and Private Roles in Improving Supporting Services**

**Output 3.1: Client-oriented and Collaborative Agricultural Research Institutionalized**

<p><b>INTERVENTIONS</b></p> <p>3.1.1 Complete the ongoing privatization of research for export crops.</p> <p>3.1.2 Strengthen the Committee on Agriculture and Livestock Research under COSTECH.</p> <p>3.1.3 Devise a mechanism for collaborative research and cost sharing between Central Government, LGAs, commodity boards and private sector.</p> <p>3.1.4 Strengthen the Committee on Agriculture and Livestock Research under COSTECH to coordinate research nationwide and sets research policy and agenda.</p>	<ul style="list-style-type: none"> <li>• Number of private institutions funding commodity research</li> <li>• Annual increase in budgetary allocations for collaborative research</li> <li>• Modalities /guidelines for cost-sharing in place</li> <li>• Framework in place for stakeholders' cost-sharing arrangement</li> <li>• Research coordinated nationwide.</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E administrative reports from LGAs, Zonal Research Centres and COSTECH</li> </ul>	<ul style="list-style-type: none"> <li>• Political will to support and promote research policy reforms</li> <li>• Political will to give priority to client-oriented research</li> <li>• Willingness of the private sector to fund research</li> <li>• Streamlined and effective coordination of actors in place.</li> </ul>
--	---	--	--

**Output 3.2 Demand-driven Agricultural Extension in Place**

<p><b>INTERVENTIONS</b></p> <p>3.2.1 Devise and implement a mechanism to contract out extension services to private enterprises, NGOs and other institutions.</p> <p>3.2.2 Establish National Extension Fund to be administered by MAFS and MWLD.</p> <p>3.2.3 Establish cost sharing modalities through outgrower and contract schemes.</p> <p>3.2.4 Review the existing participatory extension methodologies and upscale the use of the more effective ones.</p> <p>3.2.5 Develop performance standards and framework for monitoring and evaluation of extension services.</p>	<ul style="list-style-type: none"> <li>• Adoption rate of technology packages.</li> <li>• Number of extension providers accessing the National Extension Fund.</li> <li>• Number of farmer organizations with formal outgrower /contract farming schemes.</li> <li>• Mechanisms for contracting out extension in place.</li> <li>• Operational National Extension Fund.</li> <li>• Framework for monitoring and evaluating the number, performance and effectiveness of extension providers in place.</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E Reports for DADPs</li> <li>• Administrative Reports</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of private sector to invest in extension services.</li> <li>• Viable farmer organizations in place.</li> </ul>
---	--	---	---

**Output 3.3 Demand Driven Agricultural Training Strengthened**

<p><b>INTERVENTIONS</b></p> <p>3.3.1 Review and update all curricula for agricultural training to be responsive to client needs (including topics on agribusiness management, participatory approaches, HIV/AIDS, human nutrition, gender and the environment).</p> <p>3.3.2 Develop and introduce modules for demand driven courses for farmers and other stakeholders.</p> <p>3.3.3 Update the knowledge and skills of trainers at training institutes through short and long term courses to match the needs of clients to be trained.</p> <p>3.3.4 Rehabilitate and equip training institutions to facilitate training for agricultural development</p>	<ul style="list-style-type: none"> <li>• Number of curricula reviewed</li> <li>• Capacity utilization of agricultural training institutions</li> <li>• Number of applicants for agricultural training programs</li> </ul>	<ul style="list-style-type: none"> <li>• MATI and LITI reports</li> <li>• M&amp;E reports</li> </ul>	
---	---	--	--

<b>Output 3.4 Regulatory Services Strengthened.</b>			
<p><b>INTERVENTIONS</b></p> <p>3.4.1 Upgrade field staff in regulatory services on quality performance through technical training at all levels.</p> <p>3.4.2 Devise a mechanism for strengthening regulatory services for crops and livestock to enhance the control of diseases and pests.</p> <p>3.4.3 Support stakeholders Associations to prepare their own regulatory skills upgrading programs.</p> <p>3.4.4 Establish a mechanism for coordinating the implementation of regulatory services.</p> <p>3.4.5 Review and update all regulations that are relevant for regulation of pests and diseases to promote agricultural productivity.</p> <p>3.4.6 Provide members' education to raise their awareness so as to promote financial transparency of stakeholders' associations.</p>	<ul style="list-style-type: none"> <li>• Number of Regulatory Services trained staff placed at district, ward and village levels.</li> <li>• Disease and pests incidences.</li> <li>• Adherence to standards of quality of inputs and outputs grading, measures and labelling.</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative Reports by MAFS, MCM, and MWLD.</li> <li>• M&amp;E Reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Political will to educate public on regulatory services.</li> <li>• Resources available.</li> </ul>
<b>Output 3.5 Animal Health and Crop Protection Services Improved</b>			
<p><b>INTERVENTIONS</b></p> <p>3.5.1 Review and implement the laws on delivery of animal health services.</p> <p>3.5.2 Establish Disease Free Zones (DFZs) in strategic areas for export purposes.</p> <p>3.5.3 Develop and execute disease control programmes for scheduled diseases and zoonoses.</p> <p>3.5.4 Strengthen the phytosanitary and zoonosanitary capacity of MAFS, MWLD and LGAs through training and equipping.</p> <p>3.5.5 Ensure that infrastructure for the control of crops and livestock diseases are developed and maintained up to required standards</p> <p>3.5.6 Develop and Institutionalize (at all levels) monitoring and early warning system and related disaster preparedness plans for crops and livestock pests and disease outbreak.</p>	<ul style="list-style-type: none"> <li>• Disease incidences</li> <li>• Losses of crops and livestock products due to pests and diseases</li> <li>• DFZ programme/budget in place.</li> </ul>	<ul style="list-style-type: none"> <li>• LGA reports.</li> <li>• MWLD reports</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of private sector to invest in livestock production and animal health services.</li> </ul>
<b>Output 3.6 The Management of Rangelands Improved</b>			
<p><b>INTERVENTIONS</b></p> <p>3.6.1 Develop and implement sensitisation and educational programmes on the Land Act No. 4 of 1998 and the Village Land Act No. 5 of 1998</p> <p>3.6.2 Demarcate and allocate land for permanent grazing land for pastoralists and agro-pastoralists.</p> <p>3.6.3 Develop and institutionalize a system for early warning of drought, floods and impending fodder shortages for livestock, and mainstream it into the national system for monitoring and managing disasters</p>	<ul style="list-style-type: none"> <li>• No. of LGAs with educational programmes</li> <li>• Extent of demarcation and allocation of permanent grazing land</li> <li>• Productivity performance including: calving, mortality and growth rates.</li> </ul>	<ul style="list-style-type: none"> <li>• LGA reports</li> <li>• NBS surveys</li> <li>• MWLD reports</li> </ul>	

<b>Output 3.7 The Management and Utilization of Land and Water Resources Improved</b>			
<p><b>INTERVENTIONS</b></p> <p>3.7.1 Prepare comprehensive district land use maps.</p> <p>3.7.2 Develop programmes that improve and maintain soil fertility.</p> <p>3.7.3 Develop a comprehensive programme for integrated soil and water conservation and management, including a National Irrigation Master Plan.</p> <p>3.7.4 Develop educational and training programmes for farmers' capacity building on integrated soil and water management.</p> <p>3.7.5 Adopt holistic approaches when designing community water supply schemes, to take account of different needs for domestic, irrigation and livestock use.</p>	<ul style="list-style-type: none"> <li>• District land use maps available.</li> <li>• National Irrigation Master-Plan prepared.</li> <li>• Adoption rate of integrated soil and water management practices</li> <li>• Small-scale community-based irrigation schemes established.</li> </ul>	<ul style="list-style-type: none"> <li>• LGA reports</li> <li>• MWLD reports</li> <li>• MAFS reports.</li> <li>• NGO reports</li> </ul>	<ul style="list-style-type: none"> <li>• Political will on the ongoing land reforms under Land Acts.</li> <li>• Development partners support forthcoming.</li> </ul>
<b>• Output 3.8 Agricultural Mechanization Strengthened</b>			
<p><b>INTERVENTIONS</b></p> <p>3.8.1 Promote utilization of labour-saving technologies at household level.</p> <p>3.8.2 Promote conservation tillage in drought prone areas.</p> <p>3.8.3 Promote oxenization of cultivation where appropriate</p> <p>3.8.4 Promote the establishment of machinery hire services.</p> <p>3.8.5 Develop and disseminate appropriate technologies that use locally available renewable energy sources.</p> <p>3.8.6 Support research at public and private institutions to accelerate agro-mechanization and agro-processing</p> <p>3.8.7 Support training and demonstrations on new agricultural mechanization and agro-processing technologies.</p>	<ul style="list-style-type: none"> <li>• Number of households adopting labour-saving technologies.</li> <li>• Variety of labour-saving technologies available.</li> <li>• Number of operational machinery hire centres.</li> <li>• Number of technologies for agro-mechanization and agro-processing developed and adopted by users.</li> </ul>	<ul style="list-style-type: none"> <li>• NBS surveys</li> <li>• LGA reports</li> <li>• PRA reports</li> </ul>	<ul style="list-style-type: none"> <li>• Government support and incentive to local innovators manufacturers and distributors of improved technologies</li> </ul>
<b>Output 3.9. Comprehensive Agricultural Information System in Place</b>			
<p><b>INTERVENTIONS</b></p> <p>3.9.1 Establish data base units at MAF, MWLD and MCM to collect, process and disseminate agricultural data for crops and livestock production and marketing.</p> <p>3.9.2 Develop mechanism for networking ministerial databases, for collating and disseminating information to LGAs</p> <p>3.9.3 Promote establishment of databases at LGAs to facilitate preparation and monitoring of DADPs.</p> <p>3.9.4 Develop LGAs' capacity for collecting, processing and disseminating agricultural information to various stakeholders.</p> <p>3.9.5 Prepare user guidelines for data collection, processing, storage, retrieval and dissemination.</p>	<ul style="list-style-type: none"> <li>• Agriculture Information System in place at central and district levels.</li> <li>• Access and use of available information.</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E reports</li> <li>• LGAs</li> <li>• NBS surveys</li> <li>• PRA reports</li> <li>• Village registers</li> </ul>	<ul style="list-style-type: none"> <li>• Priority accorded to agricultural information network as a policy instrument to the sector by the public sector.</li> <li>• Willingness of the actors at all levels to share agricultural information.</li> </ul>

<b>Output 3.10: Micro-finance Institutions at Grassroots Promoted and Strengthened.</b>			
<p><b>INTERVENTIONS</b></p> <p>3.10.1 Promote and support establishment of demand driven-grassroots micro-finance institutions e.g. SACCOS, SACAS or special groups.</p> <p>3.10.2 Promote and support establishment of Community Banks.</p> <p>3.10.3 Establish formal linkage between MFIs and the formal financial institutions through promoting linkage banking.</p> <p>3.10.4 Support MFIs to act as conduits for provision of other services such as savings mobilization, input supply and market information.</p>	<ul style="list-style-type: none"> <li>• Number of operating grassroots MFIs.</li> <li>• Membership in grassroots MFIs.</li> <li>• Level of savings made in the MFIs.</li> <li>• Loan portfolio obtained through MFIs and Community Banks.</li> <li>• Numbers of MFIs with formal links to the Formal Financial Institutions.</li> </ul>	<ul style="list-style-type: none"> <li>• Reports from BOT.</li> <li>• Administrative Reports by LGAs, MFIs and Community Banks.</li> <li>• Financial Statements of MFIs.</li> </ul>	<ul style="list-style-type: none"> <li>• Political will and priority accorded to rural agricultural financing.</li> </ul>
<b>Output 3.11: Institutional Arrangement for Investment Finance Established.</b>			
<p><b>INTERVENTIONS</b></p> <p>3.11.1 Establish a mechanism for obtaining seed capital for either creating an investment banking department within existing commercial banks or establishing a new Investment Bank.</p> <p>3.11.2 Explore possibility of using non-bank financial institutions' resources for financing agriculture.</p>	<ul style="list-style-type: none"> <li>• Agri-Investment Institutions operational.</li> </ul>	<ul style="list-style-type: none"> <li>• BOT Reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural sector will be profitable enough to attract investments.</li> </ul>
<b>STRATEGIC AREA 4.0: Strengthening Marketing Efficiency for Inputs and Outputs.</b>			
<b>Output 4.1: Private Agribusiness Sector Support (PASS) Unit</b>			
<p><b>INTERVENTIONS</b></p> <p>4.1.1 Establish organizational structures, operating policies and procedures for PASS.</p>	<ul style="list-style-type: none"> <li>• Modalities/Guidelines for PASS operations established.</li> </ul>	<ul style="list-style-type: none"> <li>• PASS Annual Reports and publicity</li> <li>• MCA/MAFS Reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Policy on market liberalisation will be sustained.</li> </ul>
<b>Output 4.2: Agro-processing and Rural Industrialisation Promoted.</b>			
<p><b>INTERVENTIONS</b></p> <p>4.2.1 Review impediments to rural industrialisation.</p> <p>4.2.2 Formulate special incentive mechanisms to promote rural industrialisation.</p>	<ul style="list-style-type: none"> <li>• Incentive mechanisms for rural industrialisation established.</li> <li>• Increase in agro-processing activities.</li> <li>• Increase in processed products for internal and external markets</li> </ul>	<ul style="list-style-type: none"> <li>• MIT/LGA reports.</li> <li>• TRAVBS reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Energy tariffs for rural areas are rationalized.</li> <li>• Rural infrastructure is improved.</li> <li>• Private sector willingness to engage in rural agro-processing</li> </ul>
<b>Output 4.3 Increasing Access to Inputs in Rural Areas</b>			
<p><b>INTERVENTIONS</b></p> <p>4.3.1 Examine input stockist schemes in neighbouring countries</p> <p>4.3.2 Develop pilot schemes to test suitability in Tanzanian conditions</p> <p>4.3.3 Encourage development partners, NGOs, private sector to finance their adoption</p>	<ul style="list-style-type: none"> <li>• Tour of relevant schemes made</li> <li>• Pilot schemes in place</li> <li>• Increased number of rural stockists</li> <li>• Average distance to input stockists</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E of DADPs</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of partners to share risk in initial stages</li> </ul>

<b>Output 4.4: Market Information Collection and Dissemination Strengthened</b>			
<b>INTERVENTIONS</b> 4.4.1 Establish and facilitate a market research and promotion unit in MCM. 4.4.2 Establish a database on internal and external markets within MCM and LGAs. 4.4.3 Collate and disseminate information from databases.	<ul style="list-style-type: none"> <li>Market research and promotion unit in MCM established and operational.</li> <li>System for marketing information collection and dissemination in place.</li> <li>Databases of MCM and LGAs established.</li> <li>Information on internal and external markets regularly disseminated to stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>MCM/LGA reports</li> <li>Commodity Boards reports.</li> <li>Farmer organizations' reports.</li> </ul>	<ul style="list-style-type: none"> <li>Increased financial resources</li> </ul>
<b>Output 4.5: Rural Infrastructure for Marketing of Agricultural Inputs and Outputs Improved.</b>			
<b>INTERVENTIONS</b> 4.5.1 Rehabilitate holding grounds, watering points, stock-roules and livestock markets. 4.5.2 Rehabilitate and establish milk collection centres. 4.5.3 Rehabilitate and improve crop markets and storage facilities. 4.5.4 Rehabilitate and improve slaughter slabs, abattoirs and milk processing centres.	<ul style="list-style-type: none"> <li>Infrastructures improved/rehabilitated.</li> <li>Volume/quantity of inputs/outputs handled/processed</li> </ul>	<ul style="list-style-type: none"> <li>LGA Reports</li> </ul>	<ul style="list-style-type: none"> <li>Private sector willingness to acquire and operate some of the infrastructures and participate in their improvement/ rehabilitation</li> </ul>
<b>Output 4.6: Partnerships between Smallholder Farmers and Agribusiness Promoted</b>			
<b>INTERVENTIONS</b> 4.6.1 Promote and support private sector initiatives in establishing outgrower and contract farming schemes among crop and livestock farmers/agribusiness. 4.6.2 Promote and support established farmer organizations to become intermediate organs for establishing the partnerships.	<ul style="list-style-type: none"> <li>Number of operating formalized outgrower/contract schemes in place.</li> </ul>	<ul style="list-style-type: none"> <li>LGAs reports.</li> <li>PRA reports.</li> <li>NBS surveys.</li> </ul>	<ul style="list-style-type: none"> <li>Farmer organization and agribusiness willing to form partnerships</li> </ul>
<b>Output 4.7: Incentive Mechanisms for Agricultural Investment in Place.</b>			
<b>INTERVENTIONS</b> 4.7.1 Devise and implement specific investment incentive packages for promoting outgrower/contract-farming schemes. 4.7.2 Develop an incentive mechanism for promotion of small-scale investments in agro-processing industries in rural areas. 4.7.3 Review and amend incentive packages for preferential tax regimes, cost sharing, and tariffs on investments in rural infrastructure	<ul style="list-style-type: none"> <li>Growth in private agricultural investments.</li> <li>Growth in private agro-processing investments.</li> </ul>	<ul style="list-style-type: none"> <li>LGAs reports.</li> <li>NBS surveys.</li> <li>PRA reports.</li> </ul>	<ul style="list-style-type: none"> <li>The administration of the Incentive package will attract private investors in agriculture.</li> </ul>
<b>STRATEGIC AREA 5.0: Mainstreaming Planning for Agricultural Development in Other Sectors</b>			
<b>Output 5.1: Rural Infrastructure Improved (Under RDS)</b>			
<b>INTERVENTIONS</b> 5.1.1 Support a study to establish rural transport needs for agricultural development. 5.1.2 Develop a mechanism for incorporating demand-driven rural infrastructure component in DDPs 5.1.3 Develop Incentive mechanisms to attract private investments in rural infrastructure.	<ul style="list-style-type: none"> <li>Length of rural roads improved/maintained with community participation.</li> <li>Number of community-based small scale contractors.</li> <li>Number and types of rural Infrastructures (other than roads) developed through LGAs with community participation.</li> <li>Study reports on rural transport needs; mechanism for guiding LGAs in developing demand-driven infrastructure; and for incentive mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>LGAs reports</li> <li>MWLD, MAFS administrative reports</li> <li>M&amp;E reports</li> <li>Village Registers and Reports</li> </ul>	<ul style="list-style-type: none"> <li>Willingness of local communities to participate.</li> <li>Development partner support available.</li> <li>Private sector willing to invest in infrastructure development.</li> </ul>



<b>Output 5.2: Rural Electrification and Communication Improved</b>			
<b>INTERVENTIONS</b>			
5.2.1 Develop a guide to facilitate the process of incorporating agricultural requirements in electrification and communication development plans in respective ministries and institutions.	<ul style="list-style-type: none"> <li>• Guide manual in place.</li> <li>• Number of households/rural enterprises using electric power and modern communications means.</li> <li>• Number of units of alternative energy sources.</li> </ul>	<ul style="list-style-type: none"> <li>• LGAs Reports</li> <li>• Ministry of Energy and Minerals (MEM) Reports</li> <li>• Ministry of Communications and Trade Administrative Reports.</li> <li>• NGOs reports and Newsletters</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of institutions and private involvement</li> </ul>
5.2.2 Develop and implement a programme for promoting the use of alternative sources of energy such as solar, wind, biogas and hydropower.			
<b>Output 5.3: Spread and Impact of HIV/AIDS and Malaria Minimized</b>			
<b>INTERVENTIONS</b>			
5.3.1 Conduct a study to identify most HIV/AIDS vulnerable farming communities.	<ul style="list-style-type: none"> <li>• Study Reports in place for vulnerable communities and for support mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>• LGAs reports.</li> <li>• NBS surveys.</li> <li>• MFI reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Political will to implement the new and ongoing HIV/AIDS control programmes in place.</li> </ul>
5.3.2 Devise and implement a mechanism for supporting training communities most affected by HIV/AIDS.	<ul style="list-style-type: none"> <li>• Reduction in incidences of HIV/AIDS and Malaria.</li> </ul>		
5.3.3 Intensify public health education on HIV/AIDS to increase public awareness on its effect on the community, and mainstream this in agricultural training institutes' curricula and extension messages.			
<b>Output 5.4: Gender Issues Mainstreamed in Agricultural Development Plans</b>			
<b>INTERVENTIONS</b>			
5.4.1 Operationalize the use of the Gender Management System in guiding the incorporation of gender issues in agricultural development interventions.	<ul style="list-style-type: none"> <li>• Number of women and youth involved in income generating activities.</li> <li>• Report on operationalization of gender management system in LGAs agricultural interventions.</li> <li>• Trend on household division of labour.</li> </ul>	<ul style="list-style-type: none"> <li>• LGAs Reports</li> <li>• MAEC Reports</li> <li>• PRA Reports</li> <li>• MCDWVC Administrative Reports</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of local communities to change negative cultural beliefs.</li> </ul>
5.4.2 Develop special programmes with DADs for gender empowerment and access to credit, land, technology, markets and information.			
<b>Output 5.5: Youth Empowered</b>			
<b>INTERVENTIONS</b>			
5.5.1 Develop appropriate mechanisms to reduce youth migration and increase their deployment in agriculture.	<ul style="list-style-type: none"> <li>• Trends in youth migration from rural to urban areas.</li> <li>• Number and type of alternative employment opportunities generated in the rural areas.</li> <li>• Primary and secondary school curricula incorporate agricultural topics.</li> </ul>	<ul style="list-style-type: none"> <li>• NBS surveys</li> <li>• LGAs reports</li> <li>• PRA reports</li> <li>• Village registers and reports</li> <li>• Ministry of Education and Culture (M/EC) Administrative Reports</li> <li>• M &amp; E reports</li> </ul>	<ul style="list-style-type: none"> <li>• Political willingness to support youth empowerment</li> </ul>
5.5.2 Promote and support private sector to develop rural agro-industries and other enterprises for alternative employment to the youth.			
<b>Output 5.6 Environmental Management Strengthened</b>			
<b>INTERVENTIONS</b>			
5.6.1 Support the development of mechanisms to be incorporated within the early warning system for environmental rapid assessment and monitoring of degradation and for early warning on drought and flood disasters.	<ul style="list-style-type: none"> <li>• Early warning and rapid mechanisms for environmental degradation in place.</li> <li>• Environmental degradation trends.</li> <li>• MAATs and LITs curricula reviewed.</li> </ul>	<ul style="list-style-type: none"> <li>• MAFS, MOCA, MWLD, VPO, Administrative Reports.</li> <li>• PRA reports.</li> <li>• M &amp; E reports</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of communities to participate in environmental protection programs</li> </ul>
5.6.2 Promote the use of catchment and basin approaches in planning and implementation of agricultural water management programmes. Intensify public awareness of environmental protection and mainstream this in agricultural training institute curricula and extension messages.			