

THE UNITED REPUBLIC OF TANZANIA



NATIONAL AGRICULTURE POLICY

**MINISTRY OF AGRICULTURE FOOD SECURITY
AND COOPERATIVES**

DAR ES SALAAM, OCTOBER 2013

ABBREVIATIONS AND ACRONYMS

ASLMs	Agricultural Sector Lead Ministries
ASDP	Agricultural Sector Development Program
ASDS	Agricultural Sector Development Strategy
ASPs	Agricultural Service Providers
ASR/PER	Agricultural Sector Review/Public Expenditure Review
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
CAADP	Comprehensive African Agricultural Development Program
CBOs	Community-based organizations
CORDEMA	Client Oriented Research and Development Management Approach
CSOs	Civil Society Organizations
EAC	East African Community
EU	European Union
FSR	Farming Systems Research
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
HIV/AIDS	Human immunodeficiency virus/Acquired immunodeficiency syndrome
ICT	Information and Communication Technology
IPM	Integrated Pest Management
LGAs	Local Government Authorities
MAFC	Ministry of Agriculture Food Security & Cooperatives
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
MT	Metric Tonnes
NALP	National Agricultural and Livestock Policy
NAP	National Agriculture Policy
NARS	National Agricultural Research Systems
NGOs	Non Governmental Organizations
NEMC	Environment Management Council
NEPAD	New Partnership for Agricultural Development
NIMP	National Irrigation Master Plan
NSGRP	National Strategy for Growth and Reduction of Poverty
PFM	Participatory Forest Management
PMO-RALG	Prime Minister's Office-Regional Administration and Local Government
PO's	Producer Organizations
PRSP	Poverty Reduction Strategy Paper
QDS	Quality Declared Seed
SACCOS	Savings and Credit Cooperative Societies
SACAS	Savings and Credit Associations
SACCAR	Southern African Centre for Cooperation in Agricultural and Natural Resources Research
SADC	Southern Africa Development Community
SAGCOT	Southern Agriculture Growth Corridor of Tanzania
SMEs	Small and Medium Enterprises
SPS	Sanitary and Phyto-sanitary

SUA	Sokoine University of Agriculture
TACRI	Tanzania Coffee Research Institute
TAFSIP	Tanzania Food Security Investment Plan
TDV	Tanzania Development Vision
TFDA	Tanzania Food and Drug Authority
TFRA	Tanzania Fertilizer Regulatory Authority
TORITA	Tobacco Research Institute of Tanzania
TOSCI	Tanzania Official Seed Certification Institute
TPRI	Tropical Pesticide Research Institute
TRIT	Tea Research Institute of Tanzania
ZARDIs	Zonal Agricultural Research and Development Institutes

Table of Contents

ABBREVIATIONS AND ACRONYMS	ii
FOREWORD	v
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Performance of the Agricultural Sector	2
1.3 Agricultural Development Constraints and Challenges	3
1.4 Opportunities	6
2.0 IMPORTANCE OF THE NATIONAL AGRICULTURE POLICY	8
2.1 Rationale and Justification	8
2.2 Vision, Mission and Objectives of the National Agricultural Policy	9
2.2.1 Vision	9
2.2.2 Mission	9
2.2.3 General Objective	9
2.2.4 Specific objectives	10
CHAPTER THREE	11
3.0 POLICY ISSUES, OBJECTIVES AND POLICY STATEMENTS	11
KEY POLICY AREAS	11
3.1 Research and Development	11
3.1.1 Issues	11
3.1.2 Objective	11
3.1.3 Policy Statements	11
3.2 Plant Breeders Rights	12
3.2.1 Issues	12
3.2.2 Objectives	12
3.2.3 Policy Statements	12
3.3 Biotechnology and Bio-safety	12
3.3.1 Issues	12
3.3.2 Objective	12
3.3.3 Policy Statements	13
3.4 Human Resource Development	13
3.4.1 Issues	13
3.4.2 Objective	13
3.4.3 Policy Statements	13
3.5 Agricultural Extension Services	14
3.5.1 Issues	14
3.5.2 Objective	14
3.5.3 Policy Statements	14
3.6 Irrigation Development	14
3.6.1 Issues	14
3.6.2 Objective	15
3.6.3 Policy Statements	15
3.7 Agricultural Mechanization	15
3.7.1 Issues	15
3.7.2 Objective	16
3.7.3 Policy Statements	16
3.8 Agricultural Lands	16
3.8.1 Issues	16
3.8.2 Objective	16
3.8.3 Policy Statements	16
3.9 Agricultural Inputs	17
3.9.1 Issues	17

3.9.2	Objective.....	17
3.9.3	Policy Statements	17
3.10	Crop Pests and Diseases.....	17
3.10.1	Issues	17
3.10.2	Objective.....	18
3.10.3	Policy Statements	18
3.11	Development of Agricultural Commodities.....	18
3.11.1	Issues	18
3.11.2	Objective.....	19
3.11.3	Policy Statements	19
3.12	Food Security and Nutrition.....	19
3.12.1	Issues	19
3.12.2	Objective.....	19
3.12.3	Policy Statements	19
3.13	Agricultural Marketing	20
3.13.1	Issues	20
3.13.2	Objective.....	20
3.13.3	Policy statements	20
3.14	Agro-Processing.....	21
3.14.1	Issues	21
3.14.2	Objective.....	21
3.14.3	Policy Statements	21
3.15	Financing Agriculture	21
3.15.1	Issues	21
3.15.2	Objective.....	22
3.15.3	Policy Statements	22
3.16	Agricultural Information Services	22
3.16.1	Issues	22
3.16.2	Objective.....	22
3.16.3	Policy Statements	22
3.17	Risk Management in Agriculture.....	23
3.17.1	Issues	23
3.17.2	Objectives	23
3.17.3	Policy Statements	23
3.18	Agricultural Insurance	23
3.18.1	Issues	23
3.18.2	Objectives	23
3.18.3	Policy Statements	23
3.19	Youth Involvement in Agriculture.....	24
3.19.1	Issues	24
3.19.2	Objective.....	24
3.19.3	Policy Statements	24
3.20	Farmer Organizations.....	24
3.20.1	Issues	24
3.20.2	Objective.....	25
3.20.3	Policy Statements	25
3.21	Organic Agriculture	25
3.21.1	Issues	25
3.21.2	Objective.....	25
3.21.3	Policy Statements	25
3.22	Urban Agriculture	26
3.22.1	Issues	26
3.22.2	Objectives	26
3.22.3	Policy Statements	26
3.23	Bio-Fuel Crop Production and Utilization.....	26

3.23.1	Issues	26
3.23.2	Objective.....	27
3.23.3	Policy Statements	27
3.24	Policy Formulation and Management	27
3.24.1	Issues	27
3.24.2	Objective.....	27
3.24.3	Policy Statements	27
	CROSS-CUTTING ISSUES.....	29
3.25	Environment.....	29
3.25.1	Issues	29
3.25.2	Objective.....	29
3.25.3	Policy Statements	29
3.26	Gender.....	29
3.26.1	Issues	29
3.26.2	Objectives	30
3.26.3	Policy Statements	30
3.27	HIV/AIDS, Malaria and Water Borne Diseases	30
3.27.1	Issues	30
3.27.2	Objectives	30
3.27.3	Policy Statements	30
3.28	Employment and Decent Work in Agriculture	31
3.28.1	Issues	31
3.28.2	Objectives	31
3.28.3	Policy Statements	31
3.29	Transport and Infrastructure Development	32
3.29.1	Issues	32
3.29.2	Objectives	32
3.29.3	Policy Statements	32
3.30	Information and Communication Technology (ICT) in Agriculture	32
3.30.1	Issues	32
3.30.2	Objectives	33
3.30.3	Policy Statements	33
	CHAPTER FOUR.....	34
4.0	Legal and Regulatory Framework	34
	CHAPTER FIVE	35
5.0	INSTITUTIONAL FRAMEWORK FOR POLICY IMPLEMENTATION	35
5.1	Public Sector Organizations.....	35
5.1.1	Agricultural Sector Lead Ministries	35
5.1.2	Other Ministries.....	36
5.1.3	The Regional Secretariats.....	38
5.1.4	Local Government Authorities	38
5.1.5	Other Public Institutions.....	38
5.1.6	Parastatal Organizations	39
5.1.7	Academic and Research Institutions.....	39
5.1.8	Agricultural Commodity Boards	39
5.2	Private Sector Organizations.....	39
5.2.1	Farmers	39
5.2.2	Farmer Organizations	40
5.2.3	Agribusiness	40
5.2.4	Financial Institutions	40
5.2.5	Civil Society Organizations.....	40
5.2.6	Other Service Providers.....	41
5.3	MONITORING AND EVALUATION	41
5.4	CONDUCTIVE ENVIROMENT FOR POLICY IMPLEMENTATION.....	41

FOREWORD

The importance of agricultural sector in the national economy cannot be overemphasised owing to its relationship between its performance and that of key economic indicators like GDP and employment. Since this relationship is there to stay for some time to come, it justifies the argument that any attempts to improve living standards of the people must give particular attention to increased production and productivity in the agricultural sector. The National Agriculture Policy 2013 (NAP 2013) revolves around the goals of developing an efficient, competitive and profitable agricultural industry that contributes to the improvement of the livelihoods of Tanzanians and attainment of broad based economic growth and poverty alleviation. The Government is committed to bring about a *green revolution* that entails transformation of agriculture from subsistence farming towards commercialization and modernization through crop intensification, diversification, technological advancement and infrastructural development.

In this endeavour, the government recognizes the paramount importance of the private sector as the engine of growth and thus the business environment shall be improved in order to catalyse the participation of private sector in agricultural development. Further reforms are also required in order to spearhead the already existing policy reforms in the agricultural sector that envisage greater involvement of private sector in agricultural production, processing, marketing and the provision of support services.

In view of recent developments such as the promotion of bio-fuel and the global food crisis, that have resulted into escalating food prices, these have posed a new challenge and an opportunity for farmers to increase production and productivity. Given the country's favourable climate, suitable land resources and availability of labour, there is no doubt that bio-fuel production has the potential to provide the much needed energy for use in Tanzania and any possible surplus for sale in regional and international markets. However, despite the potential benefits of bio-fuel, there are concerns that bio-fuel development if not properly managed could bring about several challenges including converting the land currently used for food crop production into bio-fuel production thus posing a new threat to national food security. Since bio-fuel crops often require large parcels of land to be cleared for bio-fuel production, such conversion could result into the destruction of biodiversity and the environment at large, unless the habitat is managed in a sustainable manner alongside the bio-fuel crop production. In light of this critical concern, actions shall be taken to address trade-offs and opportunities for the development of bio-fuel production in the country.

The NAP 2013 therefore, aims at addressing challenges that continue to hinder the development of the agricultural sector; these include low productivity; over dependence on rain-fed agriculture; inadequate agriculture support services; poor infrastructure; weak agro-industries; low quality of agricultural produce; inadequate participation of the country's private sector in agriculture; environmental degradation and crop pests and diseases. A more conducive policy environment than the current one is required for effective participation of all actors in the sector in order to tap existing capabilities and potentialities so as to revitalise the development of the sector. There shall, therefore, be a policy shift towards increased investment in agriculture and greater involvement of the private sector in the production and provision of support services to the farming community.

A participatory approach was adopted in the policy formulation process involving the government, the private sector, development partners and other key stakeholders; and therefore the policy is a product of inputs from stakeholder consultations. I would like to take this opportunity to emphasize government's commitment towards continued cooperation with the major actors in the development of the agricultural sector.

The NAP 2013 is indeed a tool for facilitating the attainment of the National Strategy for Growth and Reduction of Poverty (NSGRP)'s objectives, the Tanzania Development Vision 2025 that envisages raising the general standards of living of Tanzanians to the level of a typical medium-income developing country by 2025, and meeting the Millennium Development Goals.

**Hon. Eng. Christopher Kajoro Chiza (MP),
Minister for Agriculture Food Security
and Cooperatives**

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

The evolution of the agricultural policy in Tanzania has been strongly influenced by macroeconomic changes. The post-independence period (1961-1967) was marked by an emphasis on improved peasant farming through extension services and the provision of credit and marketing structures. At the same time, the Government continued to support large scale farming in selected areas. Following the Arusha Declaration, the Government became the manager entrepreneur and investor. These policies had unexpected results of causing stagnation of the agricultural sector causing substantial reduction in productivity and incomes. By the mid 1980s, as a result of continued recurrent balance of payment and fiscal constraints, Tanzania was unable to continue with its controlled economic system. In response to the crisis, the Government adopted a Statement of Development Policy for Agriculture in 1983.

During that time, the Tanzanian economy had undergone fundamental transformation that redefined the roles of public and private sectors with regard to agricultural development. During the mid to late 1980's and early 1990's, there were series of policy modifications and adjustments which included the devaluation of the exchange rate; a cut in parastatal subsidies; liberalization of imports; establishment of the Open General Licensing facility; raising bank interest rates; removal of price controls; raising producer prices for export crops in real terms; continued liberalization of food markets and establishment of targets for fiscal deficit and monetary expansion.

Complementary measures to the changes in macro-economic management were formulated and implemented at the sector level and they include liberalization of marketing of food grains and price structures for major export crops; removal of the monopoly export powers of crop boards; and restructuring agricultural parastatals. In the post 1990s Tanzania managed to reverse the low, and in some years, negative growth rate of the economy experienced in the 1980's. The sector continued its evolution towards market orientation with reduced intervention by the state. The Government measures included increased investment in infrastructure; improved Government ability to design and implement market based incentives; improved functioning of markets for all factors of production; induced technological changes by improving efficiency of input supply markets and increasing the effectiveness of agricultural extension and research services.

During the same period the agricultural sector was brought into the tax base followed by the introduction of a wide range of taxes and charges levied by central government, local and regional authorities. Taxes were introduced on produce exports and there was a proliferation of taxes on marketed produce. At the same time the Government adopted the policy of providing tax based incentives to investors in a wide range of agricultural and agribusiness activities.

The Agricultural and Livestock Policy of 1997 (NALP 1997) represents a Comprehensive Policy Statement by the Government to address challenges facing the agricultural sector. The salient features of the policy include liberalization of all agricultural markets and removal of state monopolies in export and import of agricultural goods and produce; withdrawal of Government from agricultural production; focusing on food security at national and household levels; reliance on private sector as an engine of growth in crop production, processing and marketing;

decentralization of the public agricultural extension services and transfer of administrative responsibility to LGA's; integration of agricultural research with extension at the LGA level; improvement of security of tenure and allocation of land and continued regulatory functions of crop boards. Under this environment the government retained regulatory and public support services.

Various sector performance reviews have revealed that some policy statements in the NALP 1997 have been successfully implemented while some are yet to be implemented in full and further actions are required in order to realise their intended impact to the economy and poverty reduction to the majority of Tanzanian farmers.

A review of the NALP 1997 has taken cognizance of different policy changes taking place at the global, regional and national levels that have impact on the development of the agricultural sector. In formulating the National Agriculture Policy of 2013, all related policies in the development of agriculture have been linked.

1.2 Performance of the Agricultural Sector

Agriculture is the mainstay of the Tanzanian economy contributing to about 24.1 percent of GDP, 30 per cent of export earnings and employs about 75 percent of the total labour force. The rate of growth in agriculture is higher than the average annual population growth rate of 2.6 percent implying growth in incomes. However, the average agricultural growth rate of 4.4 percent is insufficient to lead to significant wealth creation and alleviation of poverty, given the low level of agricultural development. Attaining poverty alleviation requires annual agricultural growth rate of from 6 to 8 percent.

By definition the agricultural sector is comprised of the crops, livestock, fisheries, forestry and hunting sub sectors. However, agriculture in this policy refers to crop production taking into account the synergies with other closely related policies like livestock, cooperatives, marketing and irrigation. On average, crop production contributed to about 17.6 per cent of GDP in 2012 and grew by 4.7 percent while livestock production contributed to about 4.6 per cent of the GDP and grew by 3.1 per cent. Forestry and hunting contributed to about 2.5 per cent and grew by 2.4 per cent¹.

Generally, food crops account for about 65 percent of agricultural GDP while cash crops account for about 10 percent. Maize is the most important crop accounting for over 20 per cent of agricultural GDP. Agricultural export crops have been growing at about 6 percent while food crops have been growing at 4 percent. Food and cash crops account for about 70 percent of rural incomes. During the formulation of the NAP 2013, a holistic approach has been adopted in order to move away from the concept of food and cash crops towards agricultural commodities encompassing the two concepts as some food crops are also used for cash earning hence there is no demarcation on whether such crops are cash and/or food crops.

The National Agriculture Policy 2013 also takes into account the existence of huge potential and opportunities for development of the agricultural sector. Whereas 44 million hectares of land are suitable for agricultural production, only 10.8 million hectares (24 percent) are cultivated mostly under subsistence agriculture. The latter consists of smallholder farmers

¹ Economic Survey 2012

cultivating between 0.2 and 2.0 hectares, a production scale that is too low to generate significant income streams to farmers for effective poverty reduction and agricultural development. The potential exists for expansion of agricultural area under cultivation for small, medium and large-scale farming in areas with available land for expansion while intensive farming shall be applied in densely populated areas with the aim of commercializing agriculture in Tanzania.

1.3 Agricultural Development Constraints and Challenges

The constraints to agricultural growth are largely related to low productivity of land, labour and production inputs, underdeveloped irrigation potential, limited capital and access to financial services, inadequate agricultural technical support services, poor rural infrastructure; infestations and outbreaks of crop pests and diseases; erosion of natural resource base and environmental degradation. Others include gender relations; weak producer organizations, depressed prices for primary commodities in global markets and insecurity with respect to property rights to land and its use as collateral for credit; inadequate participation of youth in agriculture and limited involvement of private sector in agricultural development.

(i) Low productivity of land, labour and production inputs

One of the critical weaknesses in agriculture is low productivity of land, labour and other production inputs. This is caused mainly by inadequate finance to obtain productivity-enhancing inputs or capital, limited availability of support services (research and extension, agricultural information and plant protection) and appropriate technologies forcing the majority to produce for subsistence. Available data from Agricultural Sector Review/Public Expenditure Review (ASR/PER 2010/2011) show that, the existing land productivity of maize is about 3.9 MT per hectare while the productivity potential is 6-7.5 tons per hectare. On the other hand, the productivity potential for paddy is as high as 6-8 tons per hectare while the average actual productivity is only 2.0-3.8 tons per hectare. The productivity of cotton is as little as 0.4 tons per hectare while there the potential is about 2 tons per hectare. The ASR of 2008/2009 revealed that, over the last 12 years, the comparison of demand and supply of fertilizers shows there was a gap of about 33 per cent. In Tanzania, only 10kg of fertilizer is used per hectare as compared to as high as 50kg per hectare in South Africa, while the SADC average is 16kg/hectare and Vietnam is 365kg/hectare. The same study revealed that the estimated annual requirement for improved seeds of cereals, legumes and oil seeds in the country is 120,000 tons. However, only 12,800 tons (10 per cent) of improved seed was used in crop production, which means there is considerable room for increasing productivity in future.

Low productivity in the sector calls for enhanced research and extension services, as well as more access to and appropriate use of seeds, fertilizers, chemicals and pesticides. Likewise, the use of farm implements plays a critical role in reducing drudgery in the sector which results in rural-urban youth migration.

(ii) Over dependency on rain-fed agriculture and low and underdeveloped irrigation potential

Out of 10.8 million hectares under cultivation only about 450,392 hectares are currently under irrigation. Potential land for irrigation is 29.4 million hectares out of which 2.3 million hectares are high potential, 4.8 million hectares medium and the 22.3 million hectares are low potential (NIMP, 2002). There is high variability of rainfall from season to season; this situation significant effects in crop production. It has been demonstrated that yield response to irrigation is 2 to 3 times compared to yields from rain fed agriculture. Irrigation development in Tanzania is constrained by low investment by both the government and the private sector. Furthermore, the technical capacity of most producers for the development and sustainable management of irrigation schemes is still inadequate.

(iii) *Limited capital and access to financial services for the uptake of technologies*

As regards to agricultural financing, most crop producers lack capital assets which is a crucial input for increasing agricultural production and productivity. Institutional finance for agriculture credit is disbursed mainly by commercial banks and community banks. The contribution of commercial banks in total institutional credit is over 90 per cent while that of community banks (including cooperatives) is normally less than 10 per cent. Short-term credit facilities account for more than 70 per cent of the total institutional lending to the agriculture sector, which means less access to credit for long-term investment projects. There is clear indication that commercial banks consider agriculture sector projects as of high risks with low returns (ASR 2008/2009). Therefore, most households can neither save nor access loans from commercial banks and financial institutions.

(iv) *Inadequate support services - agricultural training, research and extension services*

There is an inadequate public and private investment in agriculture training, research and extension. The government has agreed to allocate 1 percent of National budget for R&D but currently only 0.3 of the sector's budget) is allocated to R&D); as a result, agriculture in Tanzania is characterised by limited technology demand and delivery channels. The ASR of 2010/2011 revealed that investments in R&D have huge impact on the sector's growth such that, for every one million Shillings' spent on R&D, the household income is increased by Shillings million 12.5 and lifts 40 people out of poverty.

Many technological innovations such as improved seeds, use of fertilisers, appropriate implements, and rainwater harvesting and post harvest technologies are not yet to be adopted by majority of smallholder farmers. This is because they are unknown to smallholder farmers or there are inadequate effective delivery systems in place. The ASR 2008/2009 shows that 60-70 percent of households have no contact with research and extension services. Research and extension programs have not been able to fully include farmers' needs in their priorities and linkages have been weak. There is little participation of farmers in the development of technological innovation due to low farmer empowerment and partnerships. Effectiveness in technology dissemination, leading to greater use and adaptation of market-oriented technologies is also weak.

(v) *Poor rural infrastructure and low agro-processing*

Poor infrastructure in the country has also contributed to increased costs on agricultural production process in terms of high costs of transportation, increased costs of farm inputs and maintenance of agricultural inputs and equipment. The road networks especially in rural areas are in bad condition and in most of rainy seasons village roads are impassable. The

Government efforts in constructing and maintaining the roads network is still hampered by meagre budgetary allocations to LGAs and also to TANROADS.

Generally, access to factor markets is a function of improved infrastructure particularly roads which is a precondition to a successful extension of the market economy. Rural infrastructure such as rural roads, markets, communication facilities, water supply, storage, transportation, processing facilities and electrification in the country is inadequate and its coverage is generally limited. The agro-processing industries in the rural areas have not been able to add value to crop produce and provide employment opportunities, which could reduce the rate at which the youth migrate to the urban areas to look for jobs. The low capacity in agro-processing is one of the main reasons for high post harvest losses. It is currently estimated that post harvest losses due to inadequate agro-processing facilities are 30 percent and 70 percent for cereals, and fruits and vegetables, respectively (ASR, 2010/2011). Agro-processing activities can generate additional income and employment in rural areas; they also have strong forward linkages. Agro-processing will also add value to the export of agricultural products, thus enabling the country to earn more foreign exchange.

(vi) *Crop pests and diseases*

Crop production is affected by pest infestations and disease infections often at epidemic proportions. Major crop pests include locusts, *Quelea quelea*, armyworms, rodents, and various fungi, bacterial and viral diseases. Prevalence of crop pests and diseases is creating a great economic risk to crop development. On average, about 30-40 per cent of overall total crop production is lost annually due to pre- and post-harvest losses. The losses are even higher in case of outbreaks of pests that can inflict up to 100 per cent crop losses if not timely controlled.

(vii) *Erosion of natural resource base and environmental degradation*

The maintenance of the natural resource base is critical for sustainable agricultural development. Unsustainable utilization of production resources may result into many environmental problems including land degradation, desertification, widespread pollution from improper handling and inappropriate use of agrochemicals, and fertilizers. The environment is further degraded through poor cultivation practices, bush fires, overexploitation of forests, invasion by exotic organisms and climate change. This has affected agro-biodiversity leading to declined land productivity.

(viii) *Weak producers' organizations*

Producers' organizations exist in many different forms and purposes in Tanzania. The most important ones include cooperative societies, saving and credit organizations, and producer associations. In general, most of them are weak managerially and financially and have limited capacity to attract professional staff, credit and related financial services. In view of this, most of them are unable to live up to their objectives such as provision of financial, advisory and marketing services and a common voice on issues of common interest to their members. With the collapse of the cooperative system, most farmers do not have access to financial services, especially in rural areas. The main sources of financing are inputs provided by agribusinesses and a limited, but growing, number of producers' organizations. Despite this development, it should be noted that the proportion of members of Producers' Organization (POs) to the total population is very small, which implies that the role of POs in contributing

to mobilizing resources and eradicating poverty especially in rural areas is an uphill task for many years to come (ASR 2008/2009).

(ix) Depressed prices for primary commodities in global markets

Depressed prices for primary commodities in global markets and constraints to access traditional markets constitute a continuing challenge to the agricultural sector in Tanzania. The share of traditional exports in global markets has been shrinking, largely due to increased competition from other suppliers, subsidized exports and non-tariff barriers on traditional exports. For example, *Good Agricultural Practices (GAP)* demands high quality standards and safe labour conditions. Even within the SADC Region, quality and standard conditions for fresh produce from SADC member countries have limited intra-SADC agricultural trade in horticultural produce.

(x) Prevalence of diseases such as malaria, HIV and AIDS

The prevalence of malaria, HIV/AIDS and other communicable diseases is high and is affecting economic activities in the agricultural sector by eroding the active segment of the society which results in aging population and increasing cost of care for the infected population.

Despite all these constraints/challenges, the economy can rely on smallholder farmers to respond to food shortages and to foreign exchange earning opportunities, as long as the financial returns to these endeavours are attractive. Successful farmers have to overcome the problems of long distances from markets for products and inputs, diseases and pests, and the normal variations in rainfall and climate. A transformation approach towards the creation of farming systems based on more intensive and permanent use of crop-land areas, by efficiently run and planned farms of economic size, is crucial in order to improve productivity. The transformation in production technology and productivity necessary to achieve high rural incomes and growth will take place in the smallholder sector given time and the correct incentives. These entail a focus on increased concentration on areas and crops with greatest increases of marketed production; improvement of planning techniques to ensure that public efforts are deployed in the most efficient manner; re-organization of extension work and its linkage with research and the adoption of community development approaches; and re-organization of the administration of credit and measures to improve market outlets.

The review of the policy is therefore designed to try and tackle some of the constraints through different policy instruments showing the commitment of the government and key stakeholders in making the sector a productive and profitable entity.

1.4 Opportunities

Despite the existing challenges, the agricultural sector has a number of opportunities that if utilized effectively will lead to increased production and productivity and thus act as a basis for poverty alleviation in rural areas. The main opportunities include:

- i) Abundant natural resources (land, water) and different agro-ecological zones;
- ii) Comparative advantage in the production of various crops including non-traditional crops;

- iii) Expanding domestic, regional and international market opportunities for various agricultural commodities. Tanzania can take advantage of global food crisis to expand production of major food crops for the export market;
- iv) Growth of agribusinesses and medium to large-scale farms provide opportunities for creating partnerships with small farmers as well as creating a more dynamic rural jobs market;
- v) Considerable number of existing agricultural research institutions for development of agricultural experts and technologies;
- vi) Existence of favourable policies for agricultural development; also, availability of human resource capacity to implement such policies; and
- vii) Existence of institutional reforms for improving efficiency and effectiveness in the provision of public services.

These constraints and opportunities also form the basis for the formulation of the National Agriculture Policy.

CHAPTER TWO

2.0 IMPORTANCE OF THE NATIONAL AGRICULTURE POLICY

2.1 Rationale and Justification

The National Agriculture Policy is a result of macro, regional and global economic changes that have bearing on the development of the agricultural sector. At the national level there have been major changes in the National Policy Framework resulting from the implementation of the Tanzania Development Vision (TDV – 2025), the Poverty Reduction Strategy Paper (PRSP), National Strategy for Growth and Reduction of Poverty (NSGRP I & NSGRP II), Long-term Perspective Plan and Five Year Development Plan.

The macro policy framework focuses on developing an efficient, modern, commercial, competitive and profitable agricultural industry that contributes to the improvement of the livelihoods of Tanzanians and attainment of broad based economic growth and poverty alleviation. This is based on the fact that, Tanzania's agriculture is the driving force of the country's economy and therefore its development is of paramount importance. In order to achieve that, the sector has to grow at, at least 6 per cent. However, the rate of growth has over the past decade averaged about 4.4 percent indicating a stagnant growth.

In order to address the stagnating growth, a number of reforms such as KILIMO KWANZA Resolve, the Tanzania Food Security Investment Plan (TAFSIP), Southern Agriculture Growth Corridor of Tanzania (SAGCOT), Feed the Future Programme and Bread Basket Initiative, have been initiated to complement speedy implementation of ASDP. The initiatives are linked to the Comprehensive African Agriculture Development Programme (CAADP) the African Union initiative for revamping agricultural development in Africa through the New Partnership for Africa's Development (NEPAD). The reforms aim at creating an enabling environment for ensuring household food security, improving agricultural productivity, profitability, farm incomes and alleviating rural poverty. These initiatives will lead to the re-orientation of approaches for public-private partnership in the development of the sector focusing on scaling up investment as a move towards modernizing small, medium and large-scale farming for increased productivity and profitability, promotion of off-farm activities such as small and medium size enterprises with particular emphasis on agro processing.

While focusing on increased production and productivity is important based on the fact that Tanzania is part of the global economy, there is a need for re-orientation of policies to take advantage of existing and future domestic, regional and international market opportunities. Nationally, Tanzania has a population of about 45 million people which is a market opportunity for agricultural produce if effectively utilized. At regional level there are emerging trade opportunities brought about by trade integration among Partner States of the East African Community (EAC) and the Southern Africa Development Community (SADC). However, it is necessary to eliminate intra-regional trade barriers as well as to strive for intra-regional cooperation in standardization, quality management, metrology and testing of agricultural products. As part of the agreements, there is a need for harmonization of standards and mutually recognized certification marks or other means of quality conformity assessment that facilitate intra-regional trade.

Both the EAC and SADC trade protocols call for members to harmonize their SPS measures with international standards and to seek synergies in building up regional capacities in SPS management. The processes of regional harmonization of standards and collaborative

capacity building offer considerable opportunities for Tanzania in its efforts to build a modern and sustainable system of standards, which can facilitate economic growth, industry competitiveness and expanded trade in agricultural products.

Moreover, misalignment or over-zealous enforcement of quality, food safety and agricultural health standards could inhibit Tanzania's intra-regional trade. There are also possibilities that under-enforced standards might permit some trade, which may even result in cross border transmission of plant pests and diseases. The transformation of agriculture to modern and commercial sector is a pre-requisite for increasing Tanzania's trade in agro-products within the region

Tanzania also participate in international trade with European Union (EU) as the main trade partner. For trade with Europe, producers and exporters face an increasingly stringent set of official and private standards combining good hygienic practices, safe use and storage of pesticides, other environmental management requirements, worker safety and other social standards for example EURO-GAP to which suppliers are being required to comply with and gain audited certification. Depending on pre-existing circumstances, obtaining and maintaining such certified compliance may require growers and/or exporters to modify their facilities, alter their technologies; upgrade their management systems, undertake additional testing and increase record keeping. *Obtaining and maintaining compliance with private standard protocols require considerable investment that is considered worthwhile as it opens new market opportunities and thereby yielding efficiencies.*

Furthermore, recent developments in the production of bio-fuel; contract farming; climate change; organic farming; decent work; biotechnology and bio-safety; risk mitigation and youth involvement in agriculture. and related issues necessitates the deployment of mechanisms for regulating the sector in order not to jeopardize production. These issues are important in spearheading the process of agricultural transformation and modernization. It is on the basis of global, regional and national policy reforms that the National Agriculture Policy has been formulated to take on board these developments.

2.2 Vision, Mission and Objectives of the National Agricultural Policy

2.2.1 Vision

An agricultural sector that is modernized, commercial, highly productive and profitable; that utilizes natural resources in an overall sustainable manner in Eastern and Central Africa that acts as an effective basis for inter-sectoral linkages by the year 2025.

2.2.2 Mission

To facilitate the transformation of the agricultural sector into modern, commercial and competitive sector in order to ensure food security and poverty alleviation through increased volumes of competitive crop products.

2.2.3 General Objective

To develop an efficient, competitive and profitable agricultural industry that contributes to the improvement of the livelihoods of Tanzanians and attainment of broad based economic growth and poverty alleviation.

2.2.4 Specific objectives

The specific objectives are to:

- i) Strengthen agricultural support and technical services (research, mechanization, irrigation, extension and training);
- ii) Increase production, productivity and profitability from utilization of the factors of production (land, labour and capital);
- iii) Enhance national food and nutrition security and production of surplus for export;
- iv) Improve agricultural processing with a view to add value to agricultural produce and create jobs;
- v) Enhance production of quality products in order to improve competitiveness of agricultural products in the domestic, regional and international markets;
- vi) Increase foreign exchange earnings from exportation of agricultural products;
- vii) Provide enabling environment to attract private sector investment to take advantage of existing comparative and competitive advantages;
- viii) Strengthen inter-sectoral coordination and linkages to increase efficiency and effectiveness;
- ix) Protect and promote integrated and sustainable utilization of agricultural lands; and
- x) Promote implementation of cross cutting issues in agricultural undertakings.

CHAPTER THREE

3.0 POLICY ISSUES, OBJECTIVES AND POLICY STATEMENTS

KEY POLICY AREAS

3.1 Research and Development

3.1.1 Issues

Agricultural research system has continuously been re-oriented to focus on client-oriented research by exploring practical and affordable options for engaging a broad range of individuals and institutions capable of contributing to sustainable livelihoods for the majority of Tanzanians. However, agricultural research is faced with numerous challenges including low integration of research; weak coordination of research activities; poor research linkages with key stakeholders both local and international; inadequate involvement of private sector; insufficient management of research; and inadequate financing for agricultural research.

The major challenge is on how to work with a diverse spectrum of smallholder producers and entrepreneurs to develop farming systems that perform reliably and consistently in improving yield stability and safeguarding the productivity of land, labour and capital.

3.1.2 Objective

Agricultural research services strengthened to enhance production, productivity, competitiveness and profitability of the agricultural sector.

3.1.3 Policy Statements

- i) The agricultural research system shall be reformed to enhance the participation of a wide spectrum of stakeholders in identifying and setting research priorities;
- ii) A semi autonomous institution shall be established to regulate and coordinate agricultural research agenda;
- iii) Initiatives aimed at arresting agro-biodiversity deterioration shall be supported;
- iv) The Government in collaboration with other stakeholders shall participate in funding and managing agricultural research;
- v) National research agenda on agriculture shall be regulated and coordinated;
- vi) Indigenous knowledge shall be integrated into scientific research;
- vii) Public Private Partnership in research activities shall be facilitated;
- viii) In collaboration with R & D institutions, research on irrigation and development of appropriate smallholder agricultural mechanization and agro-processing technologies shall be promoted;
- ix) A Research outreach arm for providing technology to farmers shall be developed and integrated into the established semi autonomous research institution.

3.2 Plant Breeders Rights

3.2.1 Issues

Plant variety protection involves the protection of new plant varieties that are yet to be commercialized, distinct from existing varieties, uniform in their main characteristics and stable over years for those characteristics. The introduction and operationalization of plant variety protection system in the country aims at creating conducive environment for seed production and trade through promotion of plant breeding activities, Intellectual Property Rights (IPR) and introduction of improved plant varieties for agricultural development.

Plant breeding is faced with challenges related to inadequate knowledge on intellectual property rights; and low participation of local and foreign bodies in seed production and breeding.

3.2.2 Objectives

Plant breeding, variety protection and availability of improved plant varieties for agricultural development in the country promoted.

3.2.3 Policy Statements

- i) Public awareness on Plant Breeder's and other Intellectual Property Rights shall be promoted;
- ii) Intellectual Property Rights and research initiatives shall be facilitated and protected; and
- iii) Local and international bodies shall be facilitated to participate in breeding and seed production.

3.3 Biotechnology and Bio-safety

3.3.1 Issues

Biotechnology has been used for a long time in areas such as tissue culture applications, characterization of germplasm using molecular marker techniques and in disease diagnosis. In view of the fact that people are averse by use of biotechnology since it may also come with risks, this technology needs bio-safety measures to minimize perceived risks.

Biotechnology development in the country is hindered by limited public awareness on this modern technology and bio-safety issues; bio-safety regulations that do not facilitate genetic engineering; limited physical infrastructure; and inadequate trained human resources and facilities for management of biotechnology.

3.3.2 Objective

Production, productivity and profitability from utilization of agricultural biotechnology techniques increased.

3.3.3 Policy Statements

- i) Development and application of agricultural biotechnologies that address national priorities shall be promoted in line with the National Biotechnology Policy and Bio-safety Framework;
- ii) New and emerging research areas that promise to mitigate low production and productivity in agriculture shall be promoted; these include the development of Genetically Modified Organisms;
- iii) Public awareness on biotechnology applications, benefits, risks and environmental implications shall be enhanced; and
- iv) The Government shall protect in a sustainable way the productivity potential of crop germ-plasm and related biodiversity in the existing agro-ecosystem such that it is not endangered by the introduction of genetically engineered plants.

3.4 Human Resource Development

3.4.1 Issues

Agricultural transformation requires an effective and productive human resource in the agricultural sector for generation and diffusion of technology. There is need for a major shift towards introduction of new generation of farmers who shall be equipped with the necessary skills to revamp agriculture. While professionalism and expertise will be taken seriously, agricultural skills and knowledge will be imparted at various levels in the education system.

There exists bottlenecks that need to be addressed; these include inadequate institutional capacity and insufficient manning levels; weak research-training-extension-farmer linkages; inadequate participation of private sector in training; weak linkages between ASLMs and key educational sectors; and insufficient government financing.

3.4.2 Objective

Human resources in agriculture strengthened to respond to agricultural development needs.

3.4.3 Policy Statements

- i) The Government in collaboration with the private and education sectors shall strengthen human capacity development in agricultural related activities;
- ii) The Government in collaboration with other stakeholders shall strengthen research-training-extension-farmer linkages;
- iii) Farmers shall be empowered through training on new techniques as well as on new approaches focusing on individual women and men to enable them to reach levels of adequate productivity and self-sustainability;
- iv) Graduates in agricultural related fields shall be motivated to become professional farmers; and
- v) The Government in collaboration with Academic and Research Institutions shall create linkages with farmers to enhance the adoption of new agricultural technologies.

3.5 Agricultural Extension Services

3.5.1 Issues

Extension services are crucial in supporting poverty reduction in rural areas and market competitiveness for commercial agriculture in the domestic and global markets. It enables producers to realise increased production and productivity through accessibility to marketing information and other support services essential for agricultural development. The transformation of agricultural extension services is important in order to impart the right tools, knowledge and skills as well as ensuring farmers adhere to Good Agricultural Practices.

However, the provision of agricultural extension services in the country is hindered by lack of strong research-extension-farmers linkage; weak supervision and insufficient manning levels; low participation of private sector in extension services delivery; lack of service delivery performance standards and regulations; poor living and working conditions of extension officers; insufficient knowledge regarding technological advancements and weak coordination of agricultural extension services.

3.5.2 Objective

Agricultural extension services strengthened to increase production, productivity and profitability.

3.5.3 Policy Statements

- i) Extension services shall be transformed to ensure provision of quality services with increased private sector participation;
- ii) Farmers' education and publicity services shall be strengthened for effective linkage and dissemination of technologies and information;
- iii) A strong technology transfer and partnership entity shall be established in tandem with a semi-autonomous research institution to strengthen research-extension-farmer-training linkages;
- iv) Participatory approaches and gender aspects shall be promoted in the provision of extension services;
- v) Specific commodity extension services shall be promoted and strengthened; and
- vi) The Government shall ensure adherence to performance standards, regulations, supervision and accountability.

3.6 Irrigation Development

3.6.1 Issues

Irrigation is essential for increased productivity and production as it mitigates vagaries of weather, which are becoming more frequent and intensive because of global climate change. The area under irrigation in Tanzania is about 450,392 hectares, which is about 6.3 percent of the high-to-medium irrigation potential of 7.1 million hectares. For high potential alone, the irrigated area is 19 per cent, and about 1.5 per cent of the total potential. The farming households that use irrigation are less than 5 per cent. The main challenge is on how to

exploit the existing high-medium potential area of 7.1 million hectares as well as creating an enabling environment for the private sector to develop mechanized medium and large-scale irrigated farms.

Efforts to develop an effective irrigation system in the country are constrained by inadequate private sector capacity and funding for irrigation development; inadequate sector co-ordination and lack of holistic integrated planning in water resource utilization; weak irrigators' organizations to undertake overall irrigation water management and infrastructure maintenance; and low production and productivity in constructed irrigation schemes.

3.6.2 Objective

Crop productivity and profitability enhanced in irrigated agriculture in a sustainable manner in order to ensure food security and poverty reduction.

3.6.3 Policy Statements

- i) Public and Private Sector participation in irrigation development in the country shall be promoted;
- ii) Irrigation development shall be regulated to ensure high productivity and sustainability;
- iii) The development of water harvesting techniques in an economically efficient, socially acceptable and environmentally responsive manner shall be enhanced;
- iv) An effective cost sharing and cost recovery mechanism for the development of irrigation in the country shall be established;
- v) Irrigation schemes with special focus on high value crops (vegetables, fruits and flowers) along with such traditional crops as paddy shall be promoted;
- vi) Irrigator's organization shall be strengthened to ensure effective management of irrigation schemes and full participation in Integrated Water Resources Management; and
- vii) Water use efficiency and drainage shall be promoted to enhance water productivity and minimize salinity in irrigation schemes.

3.7 Agricultural Mechanization

3.7.1 Issues

Farm machinery, implements and equipment are important tools for increasing area under production. Despite its importance, the utilization of farm machinery and implements in the country is very low with about 64 percent of farmers using the hand hoe, 24 percent draught animal power and 12 percent tractors.

However, the use of modern farm machinery is hindered by high costs of agricultural machinery and implements and low purchasing power of most farmers; insufficient comprehensive agro-mechanization packages and non-compatibility of mechanical technologies to local conditions; inadequate quality control mechanism for agricultural machinery and implements; and inadequate trained operators, mechanics and insufficient after-sale services to agricultural machinery and implements.

3.7.2 Objective

Efficient utilization of farm machinery, implements, equipment and agro-processing machines promoted.

3.7.3 Policy Statements

- i) Conducive environment for private sector participation in agricultural mechanization shall be improved;
- ii) Efficient utilization of agricultural machinery, implements, equipment and tools shall be promoted, particularly among women and men farmers;
- iii) Utilization of agro-mechanization packages and mechanical technologies to local conditions shall be promoted;
- iv) Quality of agricultural machinery, implements, equipment and tools shall be regulated and quality standards enforced;
- v) In collaboration with private sector, provision of training programmes for different levels on farm machinery, processing machines facilities and after-sale services shall be strengthened .

3.8 Agricultural Lands

3.8.1 Issues

Tanzania is endowed with about 44 million hectares of arable land out of which 10.8 million hectares, equivalent to 24 percent, is under crop production. The transformation of agriculture can only take place where land tenure system is favourable for all categories of users including investors. Furthermore, the protection of premium lands for agricultural development is crucial for increased long-term benefits.

However, the existing land tenure system is not conducive for long-term investment. Insecurity of land tenure has led to decline in the productive capacity of agricultural land because of non-sustainable land use practices. Such practices have led to land degradation, notably soil erosion causing adverse changes in hydrological, biological, chemical and physical properties of soils. Inappropriate land husbandry practices are among the main causes of low soil productivity in the country. This is aggravated by inadequate enforcement of land laws, regulations and by-laws; land conflicts and inadequate titling of land for agricultural investment; delays in issuance of title deeds; absence of detailed land use plans at district and village levels; and insecurity of agricultural land especially in premium areas.

3.8.2 Objective

Integrated and sustainable utilization of agricultural lands promoted and protected.

3.8.3 Policy Statements

- i) Public awareness on existing policies, laws and legislation on land shall be promoted;
- ii) The Government shall enforce laws and legislation to enhance land resource management;

- iii) The government shall enhance mechanisms for conflict resolution particularly in areas facing chronic land conflicts;
- iv) The government shall promote gender-equitable land tenure governance and seek to eliminate those that are discriminatory or exclusionary;
- v) The Government shall ensure agricultural lands are protected against encroachment as well as promote sustainable agricultural land use plans; and
- vi) The Government shall ensure availability of land for agricultural investment.

3.9 Agricultural Inputs

3.9.1 Issues

Tanzania acknowledges that increased use of modern inputs (fertilizers, agrochemicals, seeds, farm machinery) is a pre-requisite for achieving sufficient agricultural production and growth to meet economic development, poverty reduction and food security and nutrition goals.

Despite their importance, the availability of agricultural inputs is constrained by weak quality control mechanism for inputs; weak input procurement and distribution system; limited involvement of private sector in multiplication of breeders and foundation seed to enable more supply of improved seeds; low utilization of modern inputs in agricultural production; and underdeveloped input manufacturing industry.

3.9.2 Objective

Utilization of productivity enhancing inputs increased in a cost-effective, financially sustainable and environmentally sound manner.

3.9.3 Policy Statements

- i) The Government shall enforce laws and legislation to safeguard farmers from the supply of substandard inputs;
- ii) Input production, procurement and distribution shall be strengthened;
- iii) Private sector participation in multiplication of pre-basic and basic seed shall be promoted;
- iv) Domestic production, multiplication and distribution of agricultural inputs shall be promoted to involve both public and private sectors;
- v) Farmers shall be supported to access modern inputs; and
- vi) Agro-chemical and fertilizer manufacturing industry shall be developed.

3.10 Crop Pests and Diseases

3.10.1 Issues

Prevalence of crop pests and diseases is creating a great economic risk to crop development in Tanzania. On average, about 30 to 40 per cent of overall total crop production is lost annually due to pre- and post-harvest losses. The losses are even higher in case of pest outbreaks that can inflict up to 100 per cent crop losses if not controlled. Market needs call for appropriate local pest management options compliant with Good Agricultural Practices

(GAP) to ensure export standards, environmental protection and bio-safety, which are critical requirements in international trade.

There are a number of constraints that are affecting effective control of pests and diseases in the country that include inadequate capacity for pest surveillance; inadequate pest risk analysis and bio-security measures; weak pest monitoring and control mechanisms; limited management options for pests and diseases; and weak sanitary and phytosanitary services.

3.10.2 Objective

Production of quality products in order to improve competitiveness of agricultural products in the markets enhanced.

3.10.3 Policy Statements

- i) Pest and disease surveillance, system and control mechanisms shall be strengthened;
- ii) The Government shall collaborate with neighbouring countries, international organizations and other institutions dealing with plant health services in combating pests and diseases outbreaks;
- iii) Pest free areas shall be protected from introduction of pests of quarantine importance; and
- iv) The Government shall strengthen sanitary and phytosanitary, quarantine and plant inspectorate services.

3.11 Development of Agricultural Commodities

3.11.1 Issues

Agricultural commodity production in Tanzania has traditionally been dominated by few commodities which were mainly for export, namely, coffee, cotton, cashew nuts, tobacco, tea, sisal, sugarcane and pyrethrum. Other crops have become equally important in local and export markets in their ability to generate national income and farmers' earnings. A number of these crops have found market outlets in regional and international markets. These crops include but are not limited to spices, fruits, oil seeds, pulses, vegetables, flowers, medicinal plants of commercial value and bio-fuel crops. Additionally and lately, food crops, particularly cereals have become as important as traditional commodities owing to food shortage in regional and international markets and therefore offer additional opportunities for our economy. There is a need to focus on the development of agricultural commodities that have comparative and competitive advantage locally, regionally and internationally as there are unfolding opportunities, which compel us to take strategic measures in order to take advantage of those opportunities.

However, the development of crop commodities is hindered by low product quality caused by weak regulatory framework and enforcement of standards for agricultural products; insufficient forward and backward linkages in production, processing and marketing activities; high transaction costs; over reliance on peasant agriculture and low private sector investment; inadequate support for new/speciality products; and low returns on agricultural investments.

3.11.2 Objective

Enabling environment to attract private sector investment to take advantage of existing comparative and competitive advantages created.

3.11.3 Policy Statements

- i) Commodity standards to meet national and international market requirements shall be promoted and regulated;
- ii) The Government shall promote commodity supply chains and regulate contract farming while ensuring that the rights of farmers, particularly women and men, are duly respected;
- iii) Transformation of small scale production to modern and commercial farming shall be enhanced;
- iv) Market penetration and expansion in domestic, regional and international markets including niche markets for speciality products shall be promoted;
- v) Private sector investment in medium and large scale production, processing and marketing shall be facilitated; and
- vi) Mechanisms for reducing transaction costs in production of crops shall be developed.

3.12 Food Security and Nutrition

3.12.1 Issues

Food security and nutrition is one of the overriding agenda in the country with emphasis on meeting NSGRP, EAC Food Security Action Plan and MDGs targets. Overall, the country is self-sufficient in most years with food self-sufficiency ratios of about 95 per cent.

There exist some constraints to food security, safety and nutrition which include frequent food shortages due to unfavourable weather conditions; low incomes; substandard food imports; low production to meet domestic demand and surplus for exports; inadequate knowledge on good nutrition; inappropriate food management and inequitable intra-household food distribution and social discrimination among family members; and inadequate mechanisms for targeting food assistance for vulnerable groups.

3.12.2 Objective

National food security, safety and nutrition enhanced through production, accessibility and utilization of sufficient quantity and quality of food.

3.12.3 Policy Statements

- i) Production of food crops according to agro-ecological zones shall be promoted;
- ii) Production of food crops to meet domestic demand and surplus for export shall be promoted;
- iii) Food imports that are consistent with internationally acceptable safety and quality standards shall be regulated;

- iv) Production and utilization of crops with high nutrient content in areas experiencing nutritional problems shall be promoted;
- v) Knowledge on good nutrition shall be promoted;
- vi) The Government shall strengthen and expand food storage structures to enhance food stability; and
- vii) Mechanisms for continuous monitoring and assessment of food security, safety and nutrition at all levels shall be strengthened.

3.13 Agricultural Marketing

3.13.1 Issues

Agricultural product markets are crucial for the development of agricultural commodities and stimulating agricultural production. Furthermore, the whole set of supportive infrastructure from production, transportation, storage and processing is vital in enhancing agricultural marketing.

Nevertheless agricultural products are constrained by inadequate quality standards; weak inspectorate mechanisms at various levels; weak enforcement of agricultural marketing regulations; inadequate agricultural marketing infrastructure; inadequate agricultural marketing risk management; inadequately organized primary, secondary and tertiary markets; and inadequate agricultural market information systems.

3.13.2 Objective

Agricultural product market, infrastructure, information and quality standards improved.

3.13.3 Policy statements

- i) Capacities of agricultural marketing actors shall be enhanced in meeting quality, grades and standards for the domestic, regional and international markets;
- ii) The Government in collaboration with other stakeholders shall promote the establishment of Price Stabilization Funds;
- iii) The Government, in collaboration with farmers, farmer groups, associations and cooperative societies, shall enforce regulations governing utilization of designated buying posts and centers for agro-products;
- iv) The Government in collaboration with other stakeholders shall strengthen and upscale Warehouse Receipt System as a basis for the establishment of Commodity Exchange; and
- v) Collection, analysis, storage and dissemination of agricultural marketing data shall be strengthened at all levels.

3.14 Agro-Processing

3.14.1 Issues

The majority of crops in the country are marketed in raw form with little or no value addition. Agro-processing provides an opportunity for increasing incomes and creating jobs along the value chain through expansion of forward and backward linkages in the economy. In light of this, development of agro-enterprises has the potential for providing employment through such activities as handling, packaging, processing, transportation and marketing of food and agricultural produce. Additionally, rural economic growth through agro-processing and growth of commercial agro-industries has an added advantage of stemming the acceleration of rural-urban migration.

However, agro-processing in this country is constrained by limited supply of rural energy; inadequate raw materials; inappropriate machinery and technology; and limited skills.

3.14.2 Objective

Agricultural processing with a view to add value to agricultural products and create employment improved.

3.14.3 Policy Statements

- i) Rural agro-processing shall be promoted in collaboration with the ministry responsible for industries and trade;
- ii) The Government shall enhance supply of alternative sources of rural energy;
- iii) Mechanisms for handling and transporting perishables shall be developed;
- iv) Production of sufficient quantities of agricultural produce to meet processing requirements shall be promoted;
- v) The Government shall ensure quality control, enforce standards in processing, packaging and transportation of agricultural produce; and
- vi) The Government shall facilitate importation and production of machinery for agro-processing that meet required standards.

3.15 Financing Agriculture

3.15.1 Issues

Agricultural financing is an important element in the modernization and development of the sector, however, public and private sector agricultural financing in Tanzania is inadequate. Unavailability of long-term financing has limitations in terms of investment for medium and large-scale farming. As a result, Tanzanian agriculture is characterised by smallholder producers who are unable to borrow from financial institutions due to lack of collateral. Viability and increased efficiency of agricultural undertakings depend among other things on the scale of operations. This calls for concerted efforts to ameliorate this situation and make agriculture more attractive for investment by all farmers based on their scale of production.

Despite the importance of long-term financing for agriculture, farmers in Tanzania are faced with difficulties in obtaining loans to finance long term investments in agriculture; high

interest rates, low return from agriculture relative to other sectors and long payback period; and inadequate awareness on loans and repayment terms this is further aggravated by high costs for management of loans by financing institutions.

3.15.2 Objective

Inter-sectoral coordination and linkages strengthened in order to increase efficiency and effectiveness to ensure short to long-term financing for agriculture.

3.15.3 Policy Statements

- i) The Government shall strengthen Financial Institutions and Financial Intermediaries (rural/community banks, SACCOS) to make them responsive to agricultural development financial needs;
- ii) The Government in collaboration with other actors shall facilitate accessibility of finance to farmers and other actors in the agricultural sector focusing on the financial needs of women and youths to foster social equity; and
- iii) Mechanisms for creating awareness on loans and loans repayment terms shall be strengthened.

3.16 Agricultural Information Services

3.16.1 Issues

Agricultural information is a vital tool in agricultural development, however, the collection and dissemination of information to various actors in the sector is inefficient. This calls for a well coordinated system in order to have an efficient mechanism for sharing information related to agriculture on a timely basis.

Nevertheless, agricultural information is largely unavailable and unreliable where available at all levels. In addition there is limited participation of private sector in the collection, processing and dissemination; and conflicting and inconsistent information from various sources.

3.16.2 Objective

Agricultural information coordination and linkages strengthened to increase effectiveness of agricultural information services.

3.16.3 Policy Statements

- i) Mechanisms for collection, analysis and dissemination of agricultural information and data shall be strengthened;
- ii) The Government in collaboration with the private sector shall enhance the participation of a wide spectrum of actors in the collection, analysis and dissemination of agricultural information and data; and
- iii) The Government in collaboration with other stakeholders shall coordinate data collection, analysis and dissemination.

3.17 Risk Management in Agriculture

3.17.1 Issues

The agricultural sector has multiple risks which are threatening farmers' livelihoods and incomes and thus undermining the viability of the agricultural sector and its potential to reduce poverty. The major issues that need to be addressed include but not limited to crop losses resulting from weather changes; financial risks related to production cycles that stretch over long periods; market risks resulting from wide input and output price volatility; and unexpected policy and regulatory changes that impact farmer decisions.

3.17.2 Objectives

Crop production, productivity and profitability increased through risk mitigation mechanisms.

3.17.3 Policy Statements

- i) Early Warning Systems for provision of timely warning signals on climatic variability and change shall be strengthened;
- ii) Alternative risk management mechanisms and risk mitigation in agriculture shall be promoted and regulated;
- iii) The Government in collaboration with the private sector shall support efforts to improve market intelligence to keep pace with changing market conditions and requirements; and

3.18 Agricultural Insurance

3.18.1 Issues

Agricultural insurance is important in providing hedge against a variety of risks that farmers face through claim payments in worst years and thus reduce vulnerability of farmers to such risks. It thus acts as a foundation for improved productivity – boosting investments in agricultural production that help to lift hundreds of millions out of poverty. Agricultural insurance is fundamental to the national economy as adverse weather events like drought, floods and storms that cause heavy losses to farmers pose a major threat to production and farmer's incomes. The challenge is on how to create a conducive environment for public and private sector actors to provide insurance services to farmers and ensuring all potential agricultural actors benefit from this insurance equitably.

3.18.2 Objectives

Agricultural Insurance for mitigating farmer's risks promoted.

3.18.3 Policy Statements

- i) Public and private sector delivery of agricultural insurance shall be promoted;

- ii) Legal framework for enhancing the provision of insurance services shall be created; and
- iii) Public awareness on the importance of insurance services for safe-guarding farmers against losses shall be created.

3.19 Youth Involvement in Agriculture

3.19.1 Issues

Youths in Tanzania provide an opportunity for increased economic development through their involvement in agriculture, the main economic activity in rural areas. According to the Integrated Labour Force Survey (2006), youths in Tanzania constitute about 65 percent of the total labour force. Youths provide a tremendous opportunity for developing agricultural based rural economy if properly harnessed.

However, Tanzanian youths are faced with limited access to productive resources; inadequate entrepreneurial skills.; limitation on equity of resource allocation and capital accessibility; inadequate social services in rural areas leading to increased rural-urban migration; and drudgery of agriculture due to limited access to labour saving technologies (mechanized agriculture).

3.19.2 Objective

Enabling environment to attract youths in agricultural production created.

3.19.3 Policy Statements

- i) Access to productive resources including labour saving technologies (mechanisation equipments), surveyed land, irrigation infrastructure shall be facilitated;
- ii) The Government in collaboration with the private sector shall create conducive environment for youths to settle in rural areas through promotion of rural development;
- iii) In collaboration with the Ministry responsible for Education and Vocation Training the incorporation of agriculture in the education and VETA curricula shall be promoted; and
- iv) The Government in collaboration with the private sector, civil societies, youth organizations and business community shall promote the culture of entrepreneurship among youths.

3.20 Farmer Organizations

3.20.1 Issues

Farmers' organizations in the form of associations, cooperatives and groups are important vehicles for farmers to lobby for policy changes that may help to improve their bargaining power in the input and output markets. Farmer groups also provide an avenue for cost reduction of various services such as cost effective delivery of loans, inputs, extension

services and market information. However, these institutions are weak in managerial skills and are not member based.

Other constraints include lack of strong farmer organizations; limited knowledge and skills in organisation and business management; poor leadership in farmer's organisations; and few members in farmer organisations.

3.20.2 Objective

Viable and sustainable farmer organisations in rural areas promoted.

3.20.3 Policy Statements

- i) Formation of viable and sustainable farmer organisations to strengthen their bargaining power and competitiveness shall be facilitated;
- ii) The Government in collaboration with other stakeholders shall ensure farmer organisation are equipped with organisational, leadership, entrepreneurship knowledge and skills;
- iii) Group cooperation and rural entrepreneurial skills development particularly to women and youths shall be supported;
- iv) Mechanisms for ensuring good organisational leadership shall be strengthened; and
- v) Farmer organizations shall be regulated and supervised.

3.21 Organic Agriculture

3.21.1 Issues

Organic foods are products derived from certifiable farm management systems using land husbandry techniques and biological/manual methods instead of synthetic inputs. The commercial value of organic products depends upon a clearly established marketing channel and reliable certification mechanism for organic production systems. Since Tanzania has different agro-ecological zones and abundant land suitable for production of various crops, organic farming is another window of opportunity that can be exploited towards enhancing national and farm incomes. However, production and productivity of organic farming is usually low.

Nevertheless, organic farming is faced with numerous challenges including inadequate coordination among stakeholders; high certification costs; weak regulation and certification of organic products; and inadequate and inaccessible organic inputs such as pesticides and fertilizers

3.21.2 Objective

Foreign earnings and household incomes increased from production and exportation of high value organic crops and increased supply of safe and quality organic produce to consumers.

3.21.3 Policy Statements

- i) Registration and availability of organic inputs to farmers shall be facilitated;
- ii) The Government shall facilitate accreditation of organic products in order to reduce certification costs;
- iii) Initiatives for regulation and certification of organic products shall be promoted; and
- iv) In collaboration with the private sector, effective coordination among stakeholders shall be enhanced.

3.22 Urban Agriculture

3.22.1 Issues

Urban and peri-urban agriculture is a vital aspect of food security and employment creation, broadening tax base, beautification of cities and serves as supplementary source of income of the urban dwellers. Urban agriculture can be practised in areas inside the cities (intra-urban) or in areas outside the city (the peri-urban) areas. This type of agriculture can be practised in different forms such as home gardening, open space production or container gardening depending on available land and purpose. Due to limited and unsecured land for urban agriculture, most of the urban dwellers tend to carry out short-term crop production dominated by vegetable crops whereby over 90 per cent of the leafy vegetables are produced within and around cities in the country.

Urban agricultural is, however, faced with challenges related to inadequate supportive mechanisms for urban and peri-urban agricultural practices; and weak regulatory framework for urban and peri-urban agriculture.

3.22.2 Objectives

Production, productivity and profitability of urban agriculture increased in accordance with acceptable standards for both environmental protection and public health assurance.

3.22.3 Policy Statements

- i) Supportive mechanisms for undertaking urban and peri-urban agriculture shall be developed;
- ii) Regulatory framework for urban and peri-urban agriculture shall be developed; and
- iii) Good Agricultural Practices for urban and peri-urban agriculture shall be promoted.

3.23 Bio-Fuel Crop Production and Utilization

3.23.1 Issues

Of recent, there has been renewed interest in bio-fuel crop production particularly liquid bio-fuels, in Eastern Africa and the rest of Africa. Over the last five (5) years or so, this has mainly been in response to significant rise and volatility of oil prices as well as the campaign for increased production and use of renewable energy to meet the concerns on climate

change. In Tanzania, there is a big rush for bio-fuel production and that various investors are applying for investment in bio-fuel production and processing. They intend to use the vast amount of arable land for the production of bio-fuel crops including jatropha, oil palm, castor bean for bio-diesel and sugarcane for bio-ethanol and power co-generation systems.

Bio-fuel production has a number of challenges that need to be addressed. These include competition for land and labour resources being diverted from food crops into bio-fuel crop production; loss of bio-diversity resulting from conversion of large parcels of natural habitats into monoculture bio-fuels production areas; lack of designated areas for bio-fuels production; lack of designated agricultural produce for bio-fuels production; and inadequate awareness on potential impact of bio-fuel production in the environment and national food security.

3.23.2 Objective

Sustainable utilization of agricultural resources in particular land, water and bio-diversity ensured in the production and use of bio-fuels while guaranteeing food security to the nation.

3.23.3 Policy Statements

- i) In collaboration with the Ministry responsible for Energy, ensure that the production of bio-fuel crops where they compete directly with the national food security interests shall not be allowed;
- ii) Production of bio-fuel crops shall be allowed only where there are minimum negative impact on the environment; and
- iii) Cereals and edible oil seeds shall only be used in the production of bio-fuel at times when there is surplus production.

3.24 Policy Formulation and Management

3.24.1 Issues

Policy formulation and management is the obligation of the government. This core function involves participation of stakeholders in the formulation and implementation of the policy. The capacity for policy analysis is a prerequisite for carrying out this important function.

However, there exist challenges related to inadequate capacity for sector policy analysis, monitoring and evaluation; ineffective analytical capability; and limited financial and material resources.

3.24.2 Objective

Effective policy formulation and management systems enhanced.

3.24.3 Policy Statements

- i) Analytical capability for policy analysis and review shall be strengthened;
- ii) The Government shall utilize the information obtained through monitoring and evaluation and policy analysis for policy development and review; and

- iii) The Government shall promote policy dialogues for articulation of sector priorities within the Macro-Policy Framework and decisions into sector specific actions and monitor the impact of sector policy reforms on rural development.

CROSS-CUTTING ISSUES

3.25 Environment

3.25.1 Issues

Agricultural development is strongly dependent on environmental resources such as land, forest, air and water. Sustainable utilization of these resources in agriculture is vital to safeguard the environment. Although the intensification of agriculture exerts pressure on natural resources it also contributes to natural carbon pool hence increasing agriculture's contribution to climate change mitigation should entail efficient crop production systems. There is a scientific consensus that concentration of greenhouse gases, human-driven emissions of carbon dioxide and land-use changes are the processes primarily responsible for climate change in our region. Climate change is also an attribute of unsustainable farming methods and systems including deforestation, land clearing and/or bush fires.

In the same way, Tanzanian agriculture is constrained by unsustainable farming methods and systems; unavailability of reliable methodologies for measuring and monitoring carbon sequestration in agriculture sector; and weak enforcement of laws and regulations.

3.25.2 Objective

Agricultural practices that sustain the environment promoted.

3.25.3 Policy Statements

- i) In collaboration with relevant ministries, coordination of sustainable environmental early warning and monitoring systems shall be strengthened;
- ii) The Government in collaboration with other stakeholders shall strive to improve adaptation measures to climate change effects and deal with all the risks involved;
- iii) Public awareness on sustainable environmental conservation and environmental friendly crop husbandry practices (sustainable agriculture) shall be promoted;
- iv) The Government shall enforce environmental laws and regulations that minimize environmental degradation as of result of agricultural activities;
- v) Activities that enhance the carbon storage capacity such as conservation agriculture and agro-forestry shall be up-scaled;
- vi) Public awareness on the opportunities of agriculture as potential carbon sink and mechanism to benefit from carbon market shall be established according to international protocols; and
- vii) Efficient use of renewable natural resources shall be strengthened.

3.26 Gender

3.26.1 Issues

The majority of Tanzanian farmers are women who constitute the majority of agricultural labour force. Over 90.4 per cent of active women in Tanzania are engaged in agricultural activities, producing about 70 per cent of the country's food requirements. They are also

actively involved in the production of cash crops and in household activities. Most of these jobs involve strenuous, manual and highly time consuming undertakings.

However, there are inadequate skills and knowledge among women; inequitable access to productive resources; inappropriate technologies; and inappropriate social-cultural practices and beliefs.

3.26.2 Objectives

Equitable participation of men and women in the production of goods and services in agriculture promoted while ensuring that benefits are equitably shared.

3.26.3 Policy Statements

- i) The Government shall facilitate equal access to land to both men and women;
- ii) Development and utilization of appropriate labour saving technologies to relieve men and women from laborious and time consuming tasks shall be promoted;
- iii) Participation of men and women in decision making processes to improve their access to productive resources shall be enhanced; and
- iv) Awareness creation and sensitization of communities on negative cultural attitudes and practices shall be promoted in collaboration with the ministry responsible for gender

3.27 HIV/AIDS, Malaria and Water Borne Diseases

3.27.1 Issues

High prevalence of HIV/AIDS, malaria and water borne diseases has a devastating impact on agriculture since they target the most economically active layers of the society. Caring for the sick consumes not only household savings, but also the time farmers need for agricultural activities. This has resulted into increased costs for medical treatment; decline in household asset base; and loss of labour through illness and caring for the sick.

However, there is inadequate awareness on the impact of these diseases among farmers;

3.27.2 Objectives

Awareness on HIV/AIDS, malaria and water borne diseases in agricultural areas created to lessen adverse effects of the diseases on the development of the sector.

3.27.3 Policy Statements

- i) The Government shall ensure integration of HIV/AIDS in training curricula in all agricultural institutes;
- ii) The Government in collaboration with non-state actors and the ministry responsible for Health shall create awareness to agricultural communities on the impact of HIV/AIDS, malaria and water borne diseases;
- iii) Extension packages given to farmers shall contain messages on HIV/AIDS, water borne diseases and malaria;

- iv) Production and utilization of labour saving technologies in agricultural undertakings shall be promoted; and
- v) Utilization of nutritious foods to HIV/AIDS affected populations shall be promoted.

3.28 Employment and Decent Work in Agriculture

3.28.1 Issues

The Government recognizes the importance of decent employment in agriculture and its central role in the achievement of sustainable agricultural growth and rural development. Economic growth will have a fast and long-term impact on poverty alleviation if the created employment potential will enable poor people to raise their income, either through reduced unemployment or underemployment or higher returns to labour. As poor people mainly rely on labour to earn their livelihoods, the creation of more and better employment opportunities in agriculture for both women and men is essential for the reduction of poverty.

However, decent work in agriculture is constrained by inadequate employment opportunities in agriculture (which are driving people away especially youths); poor working conditions (e.g. low pay, informality, low job security and inadequate social protection); poor occupational health and safety; high incidences of child labour in the agricultural sector; low labour productivity particularly of women and youth; limited access to information, markets and adequate infrastructure; weak enforcement of labour related legislation in rural areas; and weak inter-institutional collaboration.

3.28.2 Objectives

Opportunities for men and women to obtain decent and productive work in agriculture promoted.

3.28.3 Policy Statements

- i) Up-to-date age and sex-disaggregated information on employment and labour productivity related issues in rural areas shall be promoted;
- ii) On-farm and non-farm rural activities shall be promoted as engines of growth and innovation in terms of attractive jobs for both women and men, in line with decent work concepts;
- iii) Junior Farmer Field and Life Schools (JFFLS) and Young Farmers' Associations (YFAs) shall be promoted;
- iv) Awareness on the benefits of productive youth employment and child labour prevention in agriculture shall be created;
- v) Business models that provide opportunities for small-scale producers towards aggregation of produce and developing backward and forward linkages shall be promoted, targeting in particular rural women and youth;
- vi) A labour and legal enforcement framework for protection of workers and employers in the agricultural sector and the informal rural economy shall be enhanced; and
- vii) Employment and decent work in agriculture shall be mainstreamed and integrated into agriculture sector development strategies and programmes.

3.29 Transport and Infrastructure Development

3.29.1 Issues

Agricultural development depends heavily on good infrastructure, such as roads, communication, energy, marketing facilities and efficient transport services. Good infrastructure and transport systems are essential elements for movement of agricultural produce, goods and services to and from rural areas that are vital stimulants to the development of the rural economy. Infrastructure developments particularly in rural areas are vital determinants of transaction costs in agriculture and hence the absence of good infrastructure in turn affects the sector's competitiveness. Passable roads, adequate energy, efficient communication and marketing infrastructure are important in stimulating agricultural growth and development in rural areas.

Nevertheless, inaccessibility of rural areas due to poor rural roads; poor communication facilities; inadequate rural electrification; high transport costs; and inadequate market infrastructure affect profitability of agriculture.

3.29.2 Objectives

Rural infrastructure and transport systems improved to reduce transaction costs that affect agricultural growth and competitiveness.

3.29.3 Policy Statements

- i) Rural road connectivity for improved agricultural development shall be facilitated in collaboration with the ministry responsible for infrastructure and the Prime Minister's Office-Regional Administration and Local Government (PMO-RALG);
- ii) Conducive environment for Public Private Partnerships in infrastructure development particularly in rural areas shall be created; and
- iii) Availability and accessibility to rural electrification, water, communication, transport services and market infrastructure shall be facilitated.

3.30 Information and Communication Technology (ICT) in Agriculture

3.30.1 Issues

The application of Information and Communication Technologies (ICTs) in agriculture is increasingly becoming important. E-Agriculture is an emerging field focusing on the use of ICTs for improving efficiency in agricultural development processes and services. It involves the conceptualization, design, development, evaluation and application of innovative ways of using ICTs in the agricultural value chains.

The application of ICTs in Tanzania is constrained by high cost of investing in telecommunications infrastructure; inadequate agricultural information systems; inadequate participation of private sector in the applications of ICTs in rural areas; and inadequate coordination of e-services.

3.30.2 Objectives

A nation-wide ICT system to support agricultural development enhanced.

3.30.3 Policy Statements

- i) Effective partnerships by both public and private actors for improved ICT access and innovation for agriculture shall be enhanced.
- ii) Utilization and applications of ICTs for increased efficiency in information sharing in the agricultural value chains shall be promoted; and
- iii) Optimal use of existing and expansion of ICT capacity including its infrastructure in order to reduce ICT access gap between rural and urban areas shall be ensured.

CHAPTER FOUR

4.0 Legal and Regulatory Framework

Implementation of the agriculture policy will be undertaken by relevant ministries, Local Government Authorities, Non State Actors, Non Governmental Organizations, Development Partners and the private sector. Under this policy, several laws and regulations fall under different ministries and have a bearing in agriculture development. The laws and regulations are related to trade, environment, mining, lands, investment, livestock, forests, hunting and water resources.

Within the agricultural sector several issues remain unresolved and some of them have direct effect on the sector including land conflicts between farmers and pastoralists; poor relationship between farmers and investors; existence of substandard inputs (fertilizer, seeds, agro-chemicals and agricultural machinery) in the market; weak agricultural financing mechanisms exacerbated by weak cooperative movement; and weak research-extension-farmer linkage.

The legal framework is essential for enforcing standards, rules and regulations and hence is a pre-requisite for development of a competitive sector. The existing legal and regulatory framework does not provide the necessary provisions to ensure the development of a modern, efficient and competitive sector.

Implementation of NAP 2013 entails review, harmonization and formulation of different agricultural related laws, legislations and regulations. The following areas are earmarked as entry points for the improvement of the existing legal framework in the agricultural sector: formulation of legal framework for protecting agricultural lands; formulation of contract farming Act; review of the agricultural inputs legislations (fertilizers, agro-chemicals and seeds) and formulation of agricultural machinery Act. Other areas include formulation of legal framework for research, irrigation and review of the cooperatives Act; and review of agricultural product standards and business procedures to encourage private sector participation in agriculture.

CHAPTER FIVE

5.0 INSTITUTIONAL FRAMEWORK FOR POLICY IMPLEMENTATION

A wide spectrum of actors shall be responsible for the implementation of the National Agriculture Policy. The various actors in the sector include public, private and civil society institutions. The functions of each group are as follows:

5.1 Public Sector Organizations

5.1.1 Agricultural Sector Lead Ministries

The Agricultural Sector Lead Ministries (ASLMs) which constitute the ministry responsible for Agriculture Food Security and Cooperatives (MAFC); the ministry responsible for Livestock and Fisheries Development; the ministry responsible for Industries, Trade and Marketing; and the Prime Minister's Office-Regional Administration and Local Government (PMO-RALG), shall oversee the implementation of the National Agricultural Policy at various levels of Government. The emphasis of the Agricultural Sector Lead Ministries shall be to provide the facilitative environment for the growth of private sector activities.

Their roles shall include:

- i) Providing and supervising the implementation of regulatory services for sector development;
- ii) Monitoring the performance of private and public agricultural sector support services with the aim of improving their quality to ensure competitive markets;
- iii) Formulating and reviewing sectoral policies and monitoring the overall performance of agricultural sector;
- iv) Contributing to the development and promotion of improved agricultural practices;
- v) Promoting private sector's role in primary production, processing, marketing and the provision of support services; and
- vi) Promoting farmer organizations for empowering farmers, developing their advocacy and lobbying capacity and participating in service delivery and resource mobilization.

Nevertheless, the Agricultural Sector Lead Ministries are constrained by several factors that need to be addressed amongst which include the following;

- i) Inadequate manpower and skills for policy formulation, analysis, monitoring, evaluation, enforcement of policies, standards, laws and regulations;
- ii) Inadequate performance standards and a framework for assessing performance of service providers;
- iii) Lack of facilities for enforcing standards and regulations;
- iv) Erosion of institutional culture for good governance;

- v) Inadequate mechanisms for institutional coordination among various ministries, and between central ministries and Local Government Authorities (LGAs); and
- vi) Shortage of financial, human and technical capacity to generate, manage and disseminate accurate information on agriculture.

5.1.2 Other Ministries

Other ministries are crucial in linking the agricultural sector with the economy.

The Vice President's Office (VPO) shall be responsible for overseeing government's response to environmental issues that are relevant to the implementation of the policy by ensuring sustainable environmental conservation and equitable use of natural resources for meeting basic needs for present and future generations.

The Prime Minister's Office (PMO) shall be responsible for the coordination of government business including policies and the issues that cut across ministries and institutions. The PMO through Tanzania Investment Centre in collaboration with ASLMs shall prepare incentive packages for agricultural sector investments and advocate for a more favourable environment for investment.

The Planning Commission shall coordinate and monitor the implementation of the National Strategy for Growth and Reduction of Poverty and accelerate privatization of agricultural parastatals in order to increase productivity within the sector due to the involvement of the private sector in agriculture.

The ministry responsible for Finance shall be responsible for mobilizing resources for funding the agricultural sector from national sources as well as through both bilateral and multilateral support for the sector. Through fiscal policy, the ministry will rationalize, harmonise and monitor taxes in the agricultural sector, a critical factor in ensuring incentives for increased production and processing. The ministry shall also coordinate and monitor the implementation of the National Strategy for Growth and Reduction of Poverty (NSGRP) as well as hasten the privatization of agricultural parastatals for increased private sector productivity. The Ministry, in collaboration with ASLMs through the Tanzania Investment Centre – TIC shall prepare investment incentives in the agricultural sector and encourage a favourable investment environment for the sector in the country.

The ministry responsible for infrastructure development shall oversee improvements of the infrastructure like roads, which are critical enablers of the sector's development as they enable the smooth flow of goods and services. These Ministries shall also provide the necessary backstopping to LGAs for building and maintaining district and feeder roads. The ministries shall also be directly responsible for the construction and maintenance of regional and trunk roads to facilitate crop input and output marketing.

The ministry responsible for Transport shall ensure an efficient transportation system to facilitate input and output markets and to provide effective early warning information for weather forecast for farmers and other actors in the agricultural sector. The Ministry in collaboration with its stakeholders shall facilitate the availability of strategic storage facilities to enable proper storage and freight of perishable agricultural produce to domestic and export market.

The ministry responsible for Communication, Science and Technology shall oversee the development and availability of appropriate ICT infrastructure for the last mile connectivity in rural areas.

The ministry responsible for Lands shall ensure equitable distribution and access to land for all citizens; facilitate land accessibility for agricultural investment; and provide land adjudication, registration services and issuance of title deeds for commercial agriculture.

The ministry responsible for Community Development and Gender shall promote aspects of community empowerment and gender mainstreaming. These are two crosscutting issues which shall have great significance in the implementation of the National Agriculture Policy. The ministry is also responsible for coordinating activities of NGOs, some of which are active in the development of the agricultural sector.

The ministry responsible for Education and Vocation Training shall facilitate the incorporation of agriculture and entrepreneurship skills into the curricula of all levels of academic and vocational education.

The ministry responsible for Health and Social Welfare shall provide measures that ensure a healthy and productive agricultural workforce – including farmers and all others working in the sector -- through the provision of preventive and clinical services. In particular, the Ministry shall sensitize rural communities on good nutrition; control of diseases such as HIV/AIDS, malaria and waterborne diseases; and on such problems as alcoholism and drug abuse, which have a significant impact on agricultural production.

The ministry responsible for Labour and Employment shall sensitize, attract and empower youths to undertake rural jobs, establish rural-based agribusiness so that they become farming entrepreneurs. Through this, the prevailing rural-urban migration shall be minimized and at the same time nurturing rural based commercial agricultural entrepreneurs.

The ministry responsible for Natural Resources shall support sustainable management of forest resources especially through Participatory Forest Management (PFM). The Ministry is also responsible for catchment management, beekeeping, biodiversity, wetland, germ-plasm conservation and wildlife management. These are natural resources that interact directly with many different aspects of agriculture.

The ministry responsible for Home Affairs shall support the enforcement of agricultural sector legislation.

The ministry responsible for Constitutional Affairs and Justice shall dispense justice as the need arises to protect both life and property and as an arbitrator in disputes and conflicts. Respect for law and order is a fundamental condition for agricultural development.

The President's Office - Public Service Management shall hasten transformation of Public Service to a more performing, dynamic and meritocratic system.

The ministry responsible for foreign affairs shall be responsible for ensuring economic diplomacy with particular reference to attracting investors and bring about new technologies in the development of agriculture.

The ministry responsible for water shall be responsible for sustainable development and management of Nation's water resources and the provision of water rights to facilitate irrigated agriculture.

5.1.3 The Regional Secretariats

The Regional Secretariats are undergoing a rationalization process to create conducive environment for LGA's to operate efficiently, assist LGAs in capacity building, provide technical backstopping and monitor the performance of LGAs. The Regional Secretariats shall facilitate technical coordination between the ASLMs and the LGAs.

5.1.4 Local Government Authorities

The LGAs have direct interaction with several actors at community levels and thus responsible for the improvement of rural livelihoods. Role of LGAs in agricultural sector development include:

- i) Promoting social and economic development;
- ii) Designing and implementing sector plans;
- iii) Supervising the implementation of laws, statutes and regulations relevant to the sector;
- iv) Supervising and coordinating the delivery of extension services;
- v) Mobilizing resources (financial, human and facilities/equipment) for local development programmes;
- vi) Administration of villages for the purpose of stimulating sustained development; and
- vii) Land administration, land use planning and management for effective and sustainable land utilization.

5.1.5 Other Public Institutions

Other public institutions shall play important roles in research and training, regulatory functions and enforcing standards for quality control. Their mandates fall into the following categories:

- i) 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 shall in future be demand-driven;
- ii) Conducting research as guided by the National Agricultural Research Agenda, and implementing outreach programmes as one way of disseminating research results;
- iii) Providing advisory services to the Government and the private sector through consultancy and other means;
- iv) Setting, monitoring and enforcing standards for the quality of agricultural inputs, machinery and products to ensure safety of humans and environment; and
- v) Setting academic standards in agricultural training institutes through their

registration, accreditation and curricula.

5.1.6 Parastatal Organizations

Parastatals such as the National Environment Management Council (**NEMC**), Tanzania Bureau of Standards (**TBS**), Centre for Agricultural Mechanization and Rural Technology (**CAMARTEC**), Tanzania Official Seed Certification Institute (**TOSCI**), Tanzania Food and Drug Authority (**TFDA**), Tropical Pesticides Research Institute (**TPRI**) and Tanzania Fertilizer Regulatory Authority (**TFRA**) shall continue to play critical public roles.

5.1.7 Academic and Research Institutions

Several academic and research institutions play important research and training roles in the agricultural sector. They are mandated to conduct long and short-term training to meet professional needs in the sector, including specific tailor-made training programmes, conduct research as guided by the National Agricultural Research Agenda and implement outreach programmes, among various ways of disseminating research results; and provide advisory services to the Government and the private sector through consultancies and other means.

5.1.8 Agricultural Commodity Boards

Agricultural commodity boards for coffee, cashew-nut, cotton, sisal, tea, sugarcane and pyrethrum were established by Acts of Parliament for the purpose of performing regulatory functions for specific crops on behalf of the Government. During the implementation of the National Agriculture Policy, these commodity boards shall perform the following roles:

- i) Formulate and implement development strategies for their respective industries;
- ii) Provide regulatory services to promote good quality products;
- iii) Finance research and extension services for the respective industry;
- iv) Disseminate relevant information to stakeholders in the industry; and
- v) Promote production, value addition and marketing of their respective crops.

5.2 Private Sector Organizations

The private sector that include farmers, exporters, processors, importers, distributors and related organizations is directly involved in productive activities; these entities contribute towards raising incomes and improving livelihoods.

Since the private sector is the main engine of agricultural and economic growth as a whole, it is the objective of this policy to provide favourable environment for effective participation of private sector organizations in the development of agriculture.

5.2.1 Farmers

Farmers are a very broad category of actors ranging from small-scale subsistence crop producers comprising of more than 90 per cent of farming population to medium and large-scale farmers.

This policy is ultimately aimed at creating conducive environment for farmers to transform the sector from subsistence to modern commercial agriculture while maintaining their ability to ensure that they are not only food secure but also make a surplus for their development. It also aims to empower farmers to articulate their needs.

5.2.2 Farmer Organizations

Farmers' organizations in the form of cooperatives, associations or groups are important means through which farmers are empowered. The Agricultural Council of Tanzania (ACT) and Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) as well as *Mtandao wa Vikundi vya Wakulima Tanzania* (MVIWATA) are some of the organizations that represent farmers' interests. The most important roles for farmer organizations that the National Agriculture Policy will encourage include:

- i) Providing services such as information, inputs, credit and procurement of produce;
- ii) Collecting and disseminating marketing information to members;
- iii) Conducting membership education;
- iv) Providing training on technical and organizational issues;
- v) Lobbying and advocacy on behalf of their members; and
- vi) Participating in the processes of policy formulation, programme planning and implementation.

5.2.3 Agribusiness

Agribusiness group is comprised of small, medium- and large-scale actors who play critical roles in the sector and they include importers, wholesale distributors and retail suppliers of crop inputs, farm produce buyers, transporters, processors and exporters of crop produce.

The success of the sector shall depend on active participation of this group in facilitating commercial activities through timely provision of services especially after the withdrawal of Government from these activities. The Government shall therefore continue to provide favourable environment for effective contribution of agribusiness in the advancement of the agricultural sector.

5.2.4 Financial Institutions

Financial institutions are very important for the development of the agricultural sector as they provide financial services to farmers and other key agribusiness actors for increased investment into the sector. Amongst such institutions are Commercial Banks, Microfinance Institutions (MFIs) and non-bank financial institutions such as National Social Security Fund (NSSF). The Government shall create an enabling environment to attract financial institutions to provide financial support to the agricultural sector.

5.2.5 Civil Society Organizations

Civil Society Organizations (CSOs) are a diverse group of actors comprising both local and international organizations. 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:

- i) Providing extension and credit services to smallholder farmers;
- ii) Lobbying and advocacy for policy changes and development;
- iii) Funding community-based interventions; and
- iv) Providing public services on a contract basis.

The Government shall provide favourable environment for effective participation of CSOs and CBOs in the development of agriculture.

5.2.6 Other Service Providers

Other actors fall under both public and private sector institutions that provide specific services that are critical to the sector. These are:

- i) The media, which is crucial for information dissemination and public education;
- ii) Public and private land surveyors, who survey and demarcate lands and thereby facilitate the process of providing legal titles of land ownership, These services are essential for the implementation of the Land Acts; and
- iii) Legal service providers who play an important role in litigation including drawing up and overseeing the enforcement of contracts. As commercial agriculture develops, the demand for such services shall grow and it will be important to expand their provision to the rural areas.

5.3 MONITORING AND EVALUATION

Monitoring and Evaluation (M&E) is essential for improving the implementation of the National Agriculture Policy. Constant M & E shall provide an assessment of the effect and impact of the policy on implementation. The overall responsibility for monitoring the sector policy lies within the Ministry responsible for crop development. However, the Ministry shall work in close collaboration with ASLMs, key ministries with synergies with the agricultural sector, public and private sector institutions and the private sector.

Presidents' Office, the Vice President's, the Prime Minister's Office and ministry responsible for Finance shall play a vital role in the assessment of the policy performance. A more focused systematic and well-defined reporting system that delineates functions of different actors in the course of policy implementation and strategic intervention for evaluation shall be developed.

5.4 CONDUCTIVE ENVIROMENT FOR POLICY IMPLEMENTATION

Conducive macroeconomic stability is a pre-requisite for successful implementation of the National Agriculture Policy and a powerful tool for agricultural growth and profitability. While agricultural undertakings are usually prone to risks, efforts for reducing and mitigating risks and challenges facing the sector are a necessity. The major challenge faced is on how to reduce inefficiencies in banking systems that might raise lending interest rates to levels that are un-attractive to investors. The government shall ensure there is efficient banking systems with lending rates that reflect the real opportunity cost of capital.

Despite the reforms in the agricultural sector tax regime, there are still taxes, levies, fees and high energy tariffs that are applied both at macro and micro-economic levels that have a negative effect in the sector's profitability. Fair returns to producers and traders in the sector shall require continuous review and reforms of taxation and non-taxation system in order to increase profitability and investment in the sector.