THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF LIVESTOCK DEVELOPMENT

NATIONAL LIVESTOCK POLICY

December 2006

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FOREWORD

The Livestock Industry has an important role to play in building a strong national economy and in the process, reducing inequalities among Tanzanians by increasing their incomes and employment opportunities, while nurturing the natural resources. This policy explains the intentions of the government and other stakeholders to meet the challenges in the livestock industry.

The task ahead is to establish an environment where opportunities for higher incomes and employment are created for resource-poor livestock farmers including the commercial farming sector. To achieve this, three major goals for policy reform shall be implemented:

- To encourage the development of commercially oriented, efficient and internationally competitive livestock industry;
- To support the emergence of a more diverse structure of production with a large increase in the numbers of successful smallholder livestock producer enterprises and;
- To conserve livestock resources and put in place policies and institutions for sustainable resource development and use.

The changes foreseen in the livestock industry are part of broader processes of rural development, which include Local Government reforms; land ownership, investment in infrastructure, and improved social service delivery. These reforms are intended to contribute towards the Tanzania Development Vision 2025 and the National Strategy for Growth and Reduction of Poverty. A prosperous livestock industry, based on cooperation and collaboration between public and private sectors will play a greater part in poverty reduction.

In the livestock industry, there are already some positive changes in terms of production and export performance as well as the delivery of support services and other inputs to livestock farmers. Focus of future Government funding for services in livestock farming will be on public goods that are needed for efficient growth of the industry such as rural infrastructure, research, extension, epidemic diseases and vector control. The Government will encourage cost sharing for the provision of services such as dam and dip construction.

Large-scale livestock farms have the potential for increasing levels of production, export, employment and improving the welfare of farm workers. The strategy has been adopted by subdividing the large ranches under National Ranching Company (NARCO) and Dairy Farming Company (DAFCO) into medium size commercial units. This has expanded the scope of farms' ownership and has also empowered Tanzanians to join the commercial livestock industry. The remaining portions of NARCO ranches will continue being used as model farms and disease free areas for the export market.

In the foreseeable future, a large number of Tanzanians will continue to remain in rural areas. The poor rural households will be encouraged to participate in livestock industry through the adoption of micro-livestock production such as rabbit, guinea pigs, camels, and guinea fowls for poverty reduction, self-employment and food security.

The main challenge in the industry is to meet the sanitary conditions for the regional and international livestock trade. Thus, the industry will intensively be engaged in international trade, accelerating exports and competing effectively with imports, where the only protection for the local industry will be provided by justifiable tariffs and necessary sanitary. Policy adjustments to align the livestock industry with the new world trading order have been completed and Tanzania will be active in pursuing further international trade reforms.

Within East African and Southern African regions, progress towards implementing the East African Community (EAC) and Southern African Development Community (SADC) free trade protocols in the hope that greater trade and integration in livestock products will contribute to growth and development.

The past few years have witnessed rapid change in the livestock industry. It is very encouraging to see the dynamism and adaptability shown by many stakeholders in the industry such as; new livestock producers, processors and traders, livestock stockists and other service providers. However, there are some remote areas, which are still under serviced. Modalities will be worked out in collaboration with Local Government Authorities to improve livestock services in these areas of the country.

The vision of the livestock industry as stated by the livestock stakeholders in April 2001 is ***"By year 2025, there should be a livestock sector, which to a large extent shall be commercially run, modern and sustainable, using improved and highly productive livestock to ensure food security, improved income for the household and the nation while conserving the environment."*** All participants in the industry have shared tasks, and success will be to the great benefit of all citizens. This policy document provides a framework of credible and consistent policies, which allows all stakeholders to move together towards the future with confidence.

The policy will be used as an instrument towards achieving the above-mentioned vision of the livestock industry. The long term objectives are towards attaining food security, poverty reduction, increased national income and hence increase its contribution to national GDP from the livestock industry. In order for the objectives of this policy to be realised, the Ministry will develop strategies and implementation plans.

This policy is the outcome of a collective responsibility and cooperation of many parties involved in its preparation. I would like to thank all stakeholders who in one way or another played a role in the preparation of this policy

To all, I say thank you for a job well done.

Anthony Mwandu Diallo (MP),
Minister for Livestock Development,
DAR ES SALAAM.

December, 2006

GLOSSARY

These definitions are provided for the purpose of this National Livestock Policy document only. The definitions are designed to minimize misinterpretation and increase clarity in the meaning of different terms used in the document.

Agriculture	is defined as that area of human activity involving all aspects of crops, livestock, fisheries and forestry
Agro-pastoralism	is a production system in which livestock owners depend on both livestock and crop farming for their sustenance and income generation.
Animal	means any vertebrates or invertebrate other than a human being.
Artificial Insemination	is the technique of collecting semen from male animals, processing it and inserting it via a pipette into the female reproductive tract.
Biodiversity	is the variety and variability of animals, plants and micro-organisms used directly or indirectly for food and Livestock production including crops, livestock, forestry and fisheries. It also includes the diversity of non-harvested species that support production (e.g. soil micro-organisms, predators, pollinators and so on) and those in the wider environment they support agro-ecosystems (livestock, pastoral, forest and aquatic), as well as the diversity of the agro-ecosystems.
Bio-security	means protection of the health of livestock and human beings from disease.
Biotechnology	is the use of biological system to produce a product, the use of biological system as a product **OR** the use of the techniques of biotechnology to indirectly provide a product, process or service.
Crop residues	are the remains of a crop on a field after harvesting that have a feeding value to livestock.
Crossbreeding	means mating animals of two or more different breeds, strains or lines.
Dairy	means any premises used for the production, processing or manufacturing of milk into milk products for sale.
Embryo transfer	is the technique of removing an embryo from one female (donor) and inserting it into the reproductive tract of another female (recipient).
Exotic Breed	means "foreign" livestock species that originate from foreign countries being introduced in the country.
Extension Service	is defined as the transfer of technology from experts to livestock farmers. The word "experts" include farmers who are capable of supplying such services to others.
Gene	means the basic unit of inheritance. Genes determine how an animal appears, develops and performs.
Gene Bank	means a physical repository, in one or more locations, where the samples of animal or plant genetic resource populations which are being preserved or kept. These may include animals, plant, embryos, oocytes, sperms, ova and DNA material.
Government	means the Government of the United Republic of Tanzania.
Inbreeding	means the practice of mating related animals.
Livestock	means any domesticated animals.

Livestock farmer	means any person who engages in livestock farming for the production purposes.
Livestock Industry	is the term used to depict activities involving all aspects of livestock development.
Livestock Support Services	are activities that support livestock industry. These include training, research, extension, animal health, farm power, credit, storage, transport, processing, input delivery system, etc.
Livestock Unit	means a standardized animal unit to which different ages, types or species of livestock can be related for purposes of matching forage availability to animal needs, or comparing different livestock enterprises or different livestock types.
Local breed	means a breed that is adapted to a specific habitat and that has been shaped, often over centuries, by the cultural preferences of a particular community or ethnic group.
Milk product	means any product prepared from milk by any approved process including heating, separation, fermentation, evaporation, drying and includes cultured sour milk, yoghurt, butter, ghee, cream, dairy ice cream and any other product manufactured wholly or mainly from milk.
Milk vendor	means a person who carries on the business of selling milk/milk products by delivering it to the places of residence or premises of a purchaser.
Minister	means the person duly appointed to be responsible for livestock development.
Ministry	means the ministry responsible for livestock development.
Multiple Ovulation and Embryo Transfer	means a series of reproductive techniques including super – ovulation of a donor female, mating, recovery of the resulting embryos, and transfer of fresh or frozen embryos to recipient females.
Veterinary medicines	Veterinary medicines include pharmaceuticals, chemicals and biologicals used for treating, preventing and diagnosing diseases of animals for promoting productivity.
Pastoralism	is a production system in which livestock owners depend solely on livestock and livestock products for sustenance and income. It entails seasonal movement in search of water and pasture.
Pet animal	means any animal kept or intended to be kept in a household for companionship.
Policy	is defined as a set of instruments aimed at reaching specified objectives.
Policy instruments	are unit actions taken to implement a policy e.g. specific tax, law or regulation etc.
Range development	consists of pasture improvement, water development and conservation; and rangelands utilization and conservation.
Range management services	Means manipulative practices including grazing management plans, livestock marketing and handling facilities, water development and range improvement aimed at increasing range and livestock productivity on a sustainable level.
Rangeland	is an extensive area that is not cultivated, and contains forages, which can sustain animals.
Semen	means the male sperm and fluids produced in the testicles and other glands of the male reproductive system.

Stakeholder	means individual, organization or institution, private or public, that in one way or another has interest in and is concerned with the carrying out of activities relating directly or indirectly to the livestock industry in the country.
Strategy	is the path taken to achieve a particular set of objectives.
Tanzania	means the mainland part of the United Republic of Tanzania.
Zoonosis	means disease that can be transmitted from animals to humans and vice versa.

ABBREVIATIONS AND ACRONYMS

AGREST	Agricultural Economics Society of Tanzania
ASDP	Agricultural Sector Development Programme
ASDS	Agricultural Sector Development Strategy
ASF	African Swine Fever
ASLMs	Agricultural Sector Lead Ministries
AU/IBAR	African Union Inter African Bureau for Animal Resources
BSE	Bovine Spongio-form Ecephalopathy
CBPP	Contagious Bovine Pleuropneumonia
CCPP	Contagious Caprine Pleuropneumonia
COASCO	Cooperative Audit and Supervision Corporation
COSTECH	Commission of Science and Technology
CTI	Confederation of Tanzania Industries
CVL	Central Veterinary Laboratory
DAFCO	Dairy Farming Company
DNA	Deoxyribo Nucleic Acid
EAC	East African Community
ECF	East Coast Fever
FAO	Food and Agriculture Organization
FMD	Foot and Mouth Disease
GDP	Gross Domestic Product
IAEA	International Atomic Energy Agency
ITK	Indigenous Technical Knowledge
LEWS	Livestock Early Warning System
LFFS	Livestock Farmers Field School
LGAs	Local Government Authorities
LITIs	Livestock Training Institutes
LMU	Livestock Multiplication Unit
LSD	Lumpy Skins Disease
LU	Livestock Unit
M&E	Monitoring and Evaluation
MAFC	Ministry of Agriculture, Food Security and Cooperatives
MDGs	Millennium Development Goals
MNRT	Ministry of Natural Resource and Tourism
MOET	Multiple Ovulation and Embryo Transfer
MLD	Ministry of Livestock Development
MWLD	Ministry of Water and Livestock Development
NARCO	National Ranching Company
ND	Newcastle Disease
NEMC	National Environment Management Council
NEPAD	New Partnership for African Development
NGO	Non-Governmental Organization
NIMR	National Institute for Medical Research
NSGRP	National Strategy for Growth and Reduction of Poverty
OIE	Office Internationale des Epizooties
PMO-RALG	Prime Minister's Office - Regional Administration and Local Government
RDS	Rural Development Strategy
SACAs	Savings and Credit Associations
SACCOs	Savings and Credit Cooperative Societies

SADC	Southern African Development Community
SEGODEN	Southern Eastern Zone Goat Development Network
SPS	Sanitary and Phytosanitary
TADs	Trans-boundary Animal Diseases
TAFMA	Tanzania Feed Manufacturers Association
TAFORI	Tanzania Forest Research Institute
TAGONET	Tanzania Goat Network
TAMPA	Tanzania Milk Processors Association
TAMPRODA	Tanzania Milk Producers Association
TAWIRI	Tanzania Wildlife Research Institute
TAWLAE	Tanzania Women Leaders in Agriculture and Environment
TBDs	Tick-Borne Diseases
TCAL	Tanzania Chamber of Agriculture and Livestock
TCCIA	Tanzania Chamber of Commerce, Industry and Agriculture
TDB	Tanzania Dairy Board
TDV	Tanzania Development Vision 2025
TFDA	Tanzania Food and Drugs Authority
TPRI	Tropical Pesticide Research Institute
TSAP	Tanzania Society of Animal Production
TSPCA	Tanzania Society for Prevention of Cruelty to Animals
TSZ	Tanzania Shorthorn Zebu
TVA	Tanzania Veterinary Association.
VCT	Veterinary Council of Tanzania
VIC	Veterinary Investigation Centre
VPH	Veterinary Public Health
WHO	World Health Organization
WTO	World Trade Organization

CHAPTER ONE

1.0 INTRODUCTION

1.1 Overview

Tanzania is endowed with abundant natural resources, which include land, forage and a large livestock resource base. Out of the total 94 million hectares of land resource, 60 million hectares are rangelands utilised for grazing 18.5 million cattle; 13.1 million goats and 3.6 million sheep. Other livestock kept in the country include 1.2 million pigs, 30 million indigenous poultry and other species (MWLD, Statistical Year Book, 2005). The country has the third largest cattle population in Africa after Ethiopia and Sudan. Over 90% of the livestock population is of indigenous types, which are known for their low genetic potential. These animals are however, well adapted to harsh environmental conditions and have high resistance to diseases.

The livestock industry can be categorized into two major production systems namely extensive and intensive. The intensive system, though limited in size, has been receiving more emphasis in investment and improvement because of its contribution to the market oriented economy. On the other hand, the extensive system, which is mostly agro-pastoralism and pastoralism, is a production system based on seasonal availability of forage and water thus resulting into uncontrolled mobility. This system is mostly constrained by poor animal husbandry practices, lack of modernization, accumulation of stock beyond the carrying capacity and lack of market orientation. Despite of the constraints this system has sustained the livelihood of the pastoral communities for many decades. In order to develop and achieve its goals, the industry requires a comprehensive livestock policy to guide all stakeholders.

Since mid 1980's, Tanzanian economy has been undergoing gradual and fundamental transformations towards a market-based economy. The macro-economic policy reforms have made necessary for a redefinition of the roles of the public and private sectors in livestock development. These changes have paved the way for the withdrawal of the Government involvement in direct production, processing and marketing activities, which could be better performed by the private sector.

This is the third policy document of the livestock industry. The first policy was launched in 1983 with the aim of stimulating livestock development in the centralised economy. Emphasis was on large-scale parastatal institutions for production, processing and marketing.

The Agricultural and Livestock Policy of 1997, which was the second policy to be formulated was in line with the ongoing reforms and redefined roles of public and private sectors. However, during implementation of this Policy other reforms emerged thus demanding for a review and formulation of a new policy. The new policy seeks to address specific key issues including animal identification, registration and traceability, animal welfare, indigenous technical knowledge, biotechnology and bio-safety, organic livestock farming, food safety, emerging diseases, livestock products regulatory institutions, professional regulatory institutions, animal genetic resource conservation, livestock stocking, veterinary laboratory system, livestock related disasters and pet animals.

The Policy aims at stimulating development in the livestock industry in order to increase rural and national income, improve food security and environmental conservation. More specifically, this policy endeavours to increase national well-being of all stakeholders involved in the livestock industry.

The formulation of this policy has taken into consideration of the following:-

(i) The Tanzania Development Vision (TDV) 2025;
(ii) National Strategy for Growth and Reduction of Poverty (NSGRP) of 2004;
(iii) Millennium Development Goals (MDGs);
(iv) The Rural Development Strategy (RDS) of 2001;
(v) Rural Development Policy of 2003;
(vi) National Trade Policy of 2003;
(vii) Livestock Stakeholders Resolutions of 2001;
(viii) The Agricultural Sector Development Strategy (ASDS) of 2001;
(ix) The Agricultural Sector Development Programme (ASDP) of 2003;
(x) Presidential Circular No. 1 of 2002;
(xi) The National Empowerment Policy of 2004;
(xii) The Investment Policy
(xiii) The National Land Policy of 1995;
(xiv) The Environment Management Policy of 1997;
(xv) The Agriculture and Livestock Policy of 1997;
(xvi) International and Regional integration initiatives
- World Trade Organization's Agreement on SPS
- WHO/FAO's Codex Alimentarius
- NEPAD's Comprehensive Agricultural Development Programme
- SADC's Regional Indicative Strategic Development Plan (RISDP)
- East African Community (EAC) – Agricultural and Rural Development Policy

1.2 Performance of the Livestock Industry

The livestock industry has maintained a steady annual growth rate of over 2.7 percent during the last decade. This is lower than the rate of human population growth of 2.9 percent. According to NSGRP the livestock industry is expected to grow at 9% by year 2010.

In 2005, the Agricultural Sector contribution to the national Gross Domestic Product (GDP) was 45.6% (Economic Survey, 2005), out of this Crop contributed 34.0%, Livestock 5.9%; Fisheries 3.0% and forestry and hunting 2.7%. About 40% of the livestock GDP originates from beef production, 30% from dairy products and about 30% from poultry and small stock production. The agricultural sector grew by 5.2% where by crop and livestock sub sectors grew by 5.2 and 4.2% respectively while fishing, and forestry and hunting sub sectors grew by 7.3% and 4.5% respectively. In addition, livestock play an import substitution role in the consumption of livestock products in the country. The contribution of the livestock industry to the economy is not limited to its share in the total GDP but also plays other roles that include the following: -

(i) Livestock supply food products, thus contribute to food security;
(ii) Livestock convert forages and crop residues into edible products;

(iii) Livestock act as an inflation free, store of value and investment channel;
(iv) Source of income and employment mostly in the rural economy;
(v) Provides hides and skins and other by-products;
(vi) Provides manure and draught power for sustainable agriculture;
(vii) Fulfils cultural roles in the communities.

About 40% of the 3.9 million agricultural households in Tanzania are involved in crops and livestock production. The potential to increase both livestock production and productivity and its contribution to GDP exist, as the land carrying capacity of up to 20 million Livestock Units has not been fully utilized.

Annual meat production during the last 10 years (1995 – 2005) has increased from 244,000 tones to 378,500 tones (55% increase), mostly from the traditional sector. Similarly, milk production increased from 555 million to 1.38 billion litres, of which the traditional sector contributed about 70 percent. Egg production increased from 380 million to 1.8 billion. During the same period per capita consumption of meat increased from 5 to 11 kg, milk from 20 to 39 litres and eggs from 14 to 53. Furthermore, collection of hides and skins increased from about 1.3 million to 4.0 million pieces and out of which 86 percent were exported.

Regardless of the above increase in production trends, the performance of the livestock industry is still low. This is mainly due to low growth rates, high mortality rates, low reproductive rates and poor quality of the product. Modest improvement of these production coefficients coupled with adding value through processing could significantly increase output and income from the livestock industry.

1.3 Constraints to Livestock Development in Tanzania

The livestock industry stakeholders' meeting held in Arusha in 2001 identified six major constraint areas leading to poor performance of the industry despite its high potential. These are:-

(i) Land, Water and Pastures

The main cause of the problem of land tenure system, water and pasture resources is lack of proper arrangement to allocate land and give ownership of grazing areas according to traditional or legal procedures. Other causes are frequent changes of livestock grazing areas into crop cultivation, game reserves and the migration of livestock farmers that limit them to develop their areas.

(ii) Types of Livestock and Production Systems

Low genetic potential of the indigenous livestock coupled with limited supply of improved livestock has led to poor production and productivity of the livestock industry. This has also been exacerbated by the existing production systems practiced by the livestock farmers. However, indigenous livestock are well adapted to marginal areas.

(iii) Livestock diseases

Livestock diseases are among constraints limiting the development of the livestock industry. There is a high prevalence of livestock diseases in the country such as trans-boundary, vector borne, zoonoses and emerging diseases that present a big challenge to the development of the livestock industry.

(iv) Livestock products processing and marketing

There is inadequate infrastructure for processing and marketing of livestock and livestock products. Also, there are highly subsidised livestock products from outside the country that discourage investments and create unfair competition of locally produced products in the livestock industry.

(v) Livestock farmers' knowledge and skills

Inadequate livestock farmers' knowledge and skills is one of the limiting factors to the development of the industry. Knowledge and skills is important for quick adoption of appropriate technology, which has been developed and disseminated to livestock farmers.

(vi) Investment and credit

Unavailability of credit facilities to large, medium and small-scale livestock entrepreneurs and low capital investment limits the expansion and commercialisation of the industry.

1.4 Opportunities for Livestock Development

There are great opportunities to increase the contribution of livestock to the national economy and household food security if properly exploited will improve livestock industry and these include:-

(i) A large herd and diverse livestock resources;
(ii) Land resource base estimated at 94 million hectares;
(iii) Diverse and favourable climate and agro-ecological zones;
(iv) Potential domestic and export markets;
(v) Availability of trainable manpower and relatively low cost labour;
(vi) Wide range of Indigenous Technical Knowledge (ITK) in livestock; and
(vii) Favourable macro economic policies.

1.5 Rationale for the National Livestock Policy

The rationale behind the National Livestock Policy is to commercialise the industry and stimulate its development while conserving the environment. The aim is to support the livelihoods of livestock farmers through increased incomes and self-sufficiency in food of animal origin and thus addressing the goals set in the National Strategy for Growth and Reduction of Poverty (NSGRP) of 2004.

The Policy has taken into account the comparative advantage the country has as regards to the large livestock population compared to most African countries. It has also considered current developments in trade liberalization, globalization, privatization and divestiture of

state enterprises, enhancement public-private partnership, advances in science and technology, which have direct impact on the development of the livestock industry. The Policy further emphasizes on the importance of value addition in order to access competitive markets and to prolong shelf-life of livestock products. Tanzanian population is expected to increase to 55.2 million by the year 2025 thereby significantly increasing demands for livestock and livestock products; therefore a need for special emphasis on improvement of livestock productivity.

Some of the aforementioned issues were partially addressed by the Agricultural and Livestock Policy of 1997. During implementation of this Policy a number of macro policies and sectoral reforms, and other demands emerged that called for a review and subsequently the formulation of a new policy. The policy intends to specifically streamline livestock areas, which were originally combined with crop related services such as regulatory, technical and cross-sectoral services.

Furthermore, the policy seeks to focus on specific key issues of the livestock industry that were not covered in the previous policy. These include animal identification, registration and traceability; animal welfare, indigenous technical knowledge, biotechnology and bio-safety, organic livestock farming, food safety, emerging diseases, livestock products regulatory institutions, professional regulatory institutions, animal genetic resource conservation, livestock stocking, veterinary laboratory system, livestock related disasters and pet animals.

Broadly the Agricultural Sector includes; crops, livestock, forestry and fisheries. Forestry and fisheries sub-sectors have separate policies; thus a need for crops and livestock policies.

1.6 Organization of the Policy Document

The Policy document has five chapters: Chapter One presents introduction; Chapter Two presents the vision, mission and the overall objective of the policy; Chapter Three provides detailed issues, specific Objectives and statements; Chapter Four highlights on institutional arrangements; and Chapter Five dwells on monitoring and evaluation of the policy.

CHAPTER TWO

2.0 VISION, MISSION AND OBJECTIVES

2.1 Vision

The livestock industry has a clear development vision, based on the Tanzania Development Vision 2025 which states that:-

"By year 2025, there should be a livestock sector, which to a large extent shall be commercially run, modern and sustainable, using improved and highly productive livestock to ensure food security, improved income for the household and the nation while conserving the environment."

2.2 Mission

The mission of the livestock industry is:-

*"**To ensure that livestock resource is developed and managed sustainably for economic growth and improved human livelihoods".***

2.3 Objectives

The overall objective of the National Livestock Policy is to develop a competitive and more efficient livestock industry that contributes to the improvement of the well being of the people whose principal occupation and livelihood is based on livestock.

The specific objectives of the National Livestock Policy are to:-

(i) Contribute towards national food security through increased production, processing and marketing of livestock products to meet national nutritional requirements.
(ii) Improve standards of living of people engaged in the livestock industry through increased income generation from livestock.
(iii) Increase the quantity and quality of livestock and livestock products as raw materials for local industry and export.
(iv) Promote integrated and sustainable use and management of natural resources related to livestock production in order to achieve environmental sustainability.
(v) Strengthen technical support services, develop and disseminate new technologies.
(vi) Develop human resources including livestock farmers.
(vii) Promote production of safe and quality foods of animal origin in order to safeguard consumers.
(viii) Promote the use of draught animal power and biogas utilization.
(ix) Mainstream cross-cutting and cross-sectoral issues such as gender, HIV/AIDS, land and environment.

CHAPTER THREE

3.0 ISSUES, OBJECTIVES AND STATEMENTS

Livestock are a source of many valuable products and by products (meat, milk, eggs, leather etc). This chapter highlights the policy issues, policy objectives as well as policy statements thereof in respect of each of the following: -

3.1 Meat

Common sources of meat in this country include beef cattle, sheep and goats, poultry, pigs, fish, game and non-conventional animals. Meat produced from beef cattle is mainly for domestic market although part of the annual off-take is exported as live animals to neighbouring countries. Cattle produce most of the red meat contributing 53% of total meat production.

3.1.1 Beef Cattle

The traditional herd dominated by the Tanzania Short horn Zebu (TSZ) and Ankole breeds is the main source of beef in the country. Within the TSZ there exist a number of sub types such as Iringa Red, Tarime, Maasai, Sukuma, Singida White and Fipa. About 80% of these animals are kept in the agro-pastoral system while 14% are in the pastoral system. The remaining 6% comes from commercial ranches and dairy herd. The main beef breeds and their crosses include *Mpwapwa, Boran, Charolais, Chianina, Simmental, Hereford, Brahman, Santa Getrudes* and *Aberdeen Angus.*

Issues

Currently, beef industry is constrained by low genetic potential of existing stock, inadequate infrastructure, inadequate marketing system, prevalence of animal diseases, inadequate feed resources, weak livestock farmers' organizations and inadequate technical support services.

Objective

To increase commercially oriented production of quality beef to meet standards for the domestic and external markets, raise income of livestock farmers and improve their living standards.

Policy Statements

(i) Efforts will be undertaken to promote commercial production of high quality beef in intensive and extensive (ranching, pastoral and agro-pastoral) systems.
(ii) The Government will promote inventorisation, characterisation, evaluation and selection of indigenous beef breeds.
(iii) The Government in collaboration with other stakeholders will promote improvement of genetic potential in the traditional herds in order to increase livestock productivity.
(iv) The Government will support and strengthen technical support services in beef cattle development.

(v) The Government will sensitise, encourage and promote the formation of beef producers and traders associations.
(vi) The Government in collaboration with stakeholders will establish livestock identification, recording and traceability system for safe and quality meat production through good agricultural practices.

3.1.2 Sheep and Goats

Sheep and goats farming is an important economic activity being practiced by about 30% of the agricultural households in Tanzania, and contribute about 22% to the national meat supplies. The national sheep and goat flock is mainly composed of local breed sub types such as Red Maasai, and Gogo in case of sheep; and Ujiji, Newala, Sukuma and Dodoma in the case of goats. Black Head Persian is the main exotic sheep breed and for goats is the Boer.

Issues
Sheep and goats are widely distributed and adapted to many agro-ecological zones. Their ability to multiply and grow faster than cattle, at a relatively low cost makes shoats more attractive to small-scale farmers. Despite these attributes, their production is constrained by poor nutrition, diseases, low genetic potential and poor marketing infrastructure.

Objective

To promote commercial and sustainable production of sheep and goats to meet domestic demand and export market; enhance food security and incomes.

Policy Statements

(i) The Government will support and strengthen technical support services in sheep and goats production.
(ii) The Government will promote inventorisation, characterisation, evaluation and selection of the indigenous meat breeds of shoats.
(iii) The Government in collaboration with other stakeholders will promote improvement of genetic potential in the traditional flock in order to increase livestock productivity.
(iv) Efforts will be undertaken to promote Public-Private Partnership to improve livestock management and marketing systems.
(vii) The Government will sensitise, encourage and promote establishment of sheep and goats farmers' organizations.

3.1.3 Poultry

The poultry industry in Tanzania is divided into traditional and commercial production systems. The traditional system is the largest contributing over 70% of the flock, supplying most of the poultry meat and eggs consumed in rural and about 20% in urban areas. The main indigenous breed sub-types include *Kuchi, Kishingo, Sukuma, Kinyafuzi,* and *Kiduchu*.

Commercial poultry production is mostly practiced in urban and peri-urban areas. The common commercial breeds and their crosses include *White Leghorns, Rhode Island Red, Light Sussex* and *Plymouth Rock* and some hybrids such as *Hi sex, Hybro, Shavers* and *Arbo Acres*

Issues
Both commercial and traditional systems are constrained by diseases, poor quality feeds, inadequate technical support services, low genetic potential of the local breed and weak farmer organizations. In addition, there is inadequate regulatory framework in hatcheries and breeding farms.

Objective
To increase quantity and improve quality of poultry and its products to satisfy domestic demand, increase export and promote sustainable poultry production.

Policy Statements

(i) The Government will support and strengthen technical support services and use of appropriate technologies in poultry production.
(ii) The Government will promote inventorisation, characterisation, evaluation and selection of the indigenous poultry breeds.
(iii) In collaboration with other stakeholders the Government will promote improvement of genetic potential in the traditional flock in order to increase livestock productivity.
(iv) Efforts will be undertaken to promote investment in poultry production, processing and marketing.
(v) The Government will encourage establishment of quality breeding farms and hatchery facilities.
(vi) The Government will sensitise, encourage and promote establishment of poultry producers and traders associations.

3.1.4 Pigs

Pig production is becoming popular in many parts of the country and provides significant contribution to meat supply. Pigs are characterised by their high prolificacy, rapid growth rate, high feed conversion rate, short generation interval and relatively small space requirement. In addition to their meat production, pigs also provide a valuable source of lard for cooking and manure for increased soil fertility.

Small-scale subsistence farmers keep the majority of pigs as a backyard activity in mixed farming systems mainly depending on forages and supplements. The performance of pigs in this system is generally low as a result of poor husbandry leading to small litter size, low birth weights, high mortality rates and slow growth rates.

Issues
Commercial pig production is limited to few farmers with a regular income, mainly to meet the high cost of concentrate feeds among other requirements. Inbreeding and lack of proper recording has caused problems within the existing pig population. Inadequate support services, poor slaughter and marketing infrastructure, diseases, cultural and religious taboo also affect the development of pig industry.

Objective

To promote pig production in order to contribute towards food security, improved nutritional requirements, increased incomes while conserving the environment.

Policy Statements

(i) The Government will support and strengthen technical support services and use of appropriate technologies in pig production.
(ii) The Government will promote production of quality animal feeds and encourage utilization of locally available raw materials and feed additives.
(iii) The Government will promote inventorisation, characterisation, evaluation and selection of pig breeds for increased productivity.
(iv) The Government will encourage and promote establishment of standard slaughtering facilities and marketing infrastructure in major pig production and consuming areas.
(v) The Government will sensitise and encourage the formation of pig producers and traders associations.

3.1.5 Non Conventional Meat Sources

Tanzania is endowed with abundant animal diversity among which non-conventional meat originates from various animal species such as rabbits, turkeys and some insects. This situation opens up numerous opportunities to produce various and unique non-conventional meat sources for consumption and other uses both for the domestic and export market.

Issues

The majority of non-conventional animals are in the rural areas. However, there is generally low production and consumption due to socio-cultural norms and lack of knowledge on how to develop and sustain the resource. Other constraints include inadequate research, extension and information dissemination on non-conventional meat sources.

Objective

To promote production and consumption of non-conventional meat for increased household food security, income and improved nutritional status of the people.

Policy Statements

(i) The Government will promote inventorisation, characterisation, evaluation and selection of non-conventional breeds for increased productivity.
(ii) The Government will support and strengthen technical support services for production of non-conventional meat sources.
(iii) In collaboration with other stakeholders, the Government will encourage and support utilization and improvement on production, processing and marketing of non-conventional meat.
(iv) In collaboration with other stakeholders, the Government will develop and promote sustainable non-conventional livestock production systems.

3.1.6 Meat Processing, Marketing and Consumption

There are over 300 primary, 13 secondary and 6 border livestock markets in the country. While primary markets are run by respective district councils, border and secondary markets are under the Ministry. Only few primary markets are functioning while most of them are in poor condition. On the other hand, there are 6 meat processing plants and 7 modern abattoirs

in the country. The current per capita consumption of meat is 11 kg per year, which is very low, compared to FAO recommendation of 50 kg.

Issues

Processing, marketing and consumption of quality meat and meat products is limited by inconsistent supply of quality animals and inadequate market information, inadequate research and training in meat technology, low awareness of consumers on quality meat and lack of capital for investment in meat processing plants. Due to these deficiencies, some commercial companies import meat and meat products into the country.

Objective

To collaborate with other stakeholders in promoting processing, marketing and consumption of quality meat and meat products in order to meet nutritional requirements and increase exports.

Policy Statements

(i) In collaboration with other stakeholders, the Government will support and promote processing, marketing and consumption of safe and quality meat and meat products.
(ii) The Government shall regulate importation and exportation of meat and meat products.
(iii) The Government will promote collection and dissemination of market information on meat and meat products.
(iv) In collaboration with other stakeholders, the Government will support and promote research on meat technology to cope with emerging needs.
(v) In collaboration with other stakeholders, the Government will sensitise consumption of quality meat and meat products.
(vi) The Government will encourage and promote the establishment of meat processors and consumers associations; and a body to regulate the meat industry.

3.2 Milk

Dairying is one of the fast growing enterprises in the livestock industry. Common dairy species in the country include cattle, dairy goats, water buffaloes and camels. Milk marketed comes mainly from small-scale livestock farmers who supply on average about 70% and large-scale farmers supply about 30%.

3.2.1 Dairy Cattle

Dairy cattle and their crosses have increased from 212,000 in 1995 to about 500,000 in 2005. Common dairy cattle breeds in Tanzania include *Friesian, Jersey, Ayrshire, Sahiwal, Mpwapwa* and their crosses. Sources of heifers for dairying include Livestock Multiplication Units (LMUs), public institutions, small and large-scale private farms.

Total milk production is estimated at 1.38 billion litres (2005) of which traditional herd produce about 70%. Average milk production per lactation from traditional herd is estimated at 500 litres compared to 2,000 litres from an improved dairy animal. Smallholder dairying is concentrated in urban, peri-urban and rural areas of Arusha, Kilimanjaro, Tanga, Iringa, Kagera, Dar es Salaam and Mbeya. The National per capita milk consumption is about 39 litres (2005) compared to the FAO recommendation of 200 litres.

Issues
The development of the dairy industry is limited by poor nutrition, support services and insufficient supply of dairy stocks. Other constraints include inadequate financial and credit facilities, poorly organized milk collection and distribution, processing facilities, low consumption of milk and livestock diseases.

Objective

To utilize available resources for commercialisation and market oriented dairying in order to raise income of dairy stakeholders and improve their standard of living.

Policy Statements

(i) The Government will promote inventorisation, characterisation, evaluation and selection of dairy breeds for increased productivity.
(ii) In collaboration with other stakeholders the Government will promote improvement of genetic potential in dairy animals in order to increase productivity.
(iii) The Government will support and strengthen technical support services for dairy production.
(iv) The Government will promote use of appropriate technologies for milk production that will increase the productivity of labour and land.
(v) Efforts will be undertaken to promote investment in dairy production, processing and marketing.
(vi) The Government will encourage and promote the establishment of dairy organizations and strengthen the Tanzania Dairy Board (TDB).

3.2.2 Dairy Goats

Introduction of dairy goats in the country has provided an alternative source of milk to households that cannot afford keeping large dairy animals. Goat milk has become popular in meeting nutritional requirements of resource poor farmers.

The number of dairy goats is increasing mainly through the goat-in-trust schemes. The dairy goat enterprise is often associated with small-scale farmers especially women and children. The common dairy goat breeds include *Toggenburg, Saanen, Anglo-Nubian, Alpine and Norwegian.*

Issues
Dairy goat production is constrained by poor husbandry practices, diseases, inadequate breeding stock, research and extension services.

Objective

To increase production of dairy goats and milk in order to meet nutritional requirements and household income.

Policy Statements

(i) The Government will promote inventorisation, characterisation, evaluation and selection of dairy goat breeds for increased productivity.
(ii) The Government will support and strengthen technical support services for dairy goat production.
(iii) In collaboration with other stakeholders, the Government will encourage and support genetic improvement of local goats and their multiplication for milk production.
(iv) In collaboration with other stakeholders, the Government will sensitize and promote consumption of safe and quality goat milk and its products.
(v) Efforts will be undertaken to promote and support Public-Private Partnership for goat-in-trust schemes, networking and associations.

3.2.3 Water Buffaloes and Camels

Water buffaloes and camels are among dairy animals, which produce milk although they are few in the country. There are about 188 water buffaloes and 93 camels. These animals would complement milk supply in the areas where the environment does not favour improved dairy cattle production.

Issues

Water buffaloes and camels farming is constrained by inadequate knowledge and skills among farmers and inbreeding due to low population.

Objective

To increase production of milk from water buffaloes and camels in order to raise household incomes and improve nutritional status.

Policy Statements

(i) The Government will promote and support Genetic improvement and multiplication of water buffaloes and camels.
(ii) The Government will support and strengthen technical support services on water buffaloes and camels farming.
(iii) In collaboration with other stakeholders, the Government will sensitize and promote consumption of safe and quality milk from water buffaloes and camels.

3.2.4 Milk Processing, Marketing and Consumption

Urban and trading centres have remained the major dependable markets for milk produced in rural areas. There are 22 privately owned small and medium scale milk processing plants. Dairy processing plants capacity is estimated at 500,000 litres per day, but the plants are processing only 150,000 litres per day part of which is reconstituted with imported milk powder.

Issues

Milk processing, marketing and consumption is constrained by high processing and packaging costs, poor storage and marketing infrastructure, inadequate supply of milk especially during dry seasons, lack of milk drinking culture and weak dairy organizations.

Objective

To collaborate with other stakeholders in promoting processing, packaging, marketing and consumption of quality milk and dairy products to meet domestic demand and increase exports.

Policy Statements

(i) Efforts will be undertaken to promote collection and processing of locally produced fresh milk.
(ii) Conducive environment will be set for development and strengthening of milk marketing infrastructure.
(iii) The Government will support and strengthen dairy regulatory institutions.
(iv) The Government in collaboration with other stakeholders will strengthen marketing information and support services.
(v) In collaboration with other stakeholders, the Government will sensitise and promote consumption of locally produced milk and dairy products.

3.3 Hides and Skins

Hides and skins are important by-products of livestock that form an important input to the industrial sector and contribute significantly to foreign exchange earning. Most of the hides and skins are produced from indigenous stock. The potential annual output of raw hides and skins is about 2.6 and 2.5 million, respectively of which about 75% is collected. About 95% of the hides and skins are exported in raw forms mainly as air-dried and wet salted.

Issues

The importance of hides and skins as commercial products is not well appreciated by most livestock farmers, and thus the poor development of the hides and skins industry. Quality of hides and skins for both domestic and export markets is limited by poor animal husbandry practices such as improper branding, inadequate control of external parasites and improper flaying, preservation and processing.

Objective

To improve quality production, collection and processing of hides and skins for both domestic and export markets in order to increase income from the industry.

Policy Statements

(i) Efforts will be made to promote proper branding, slaughtering, flaying, preservation and storage of hides and skins.

(ii) The Government will promote trading of hides and skins according to grades.
(iii) The Government in collaboration with other stakeholders will strengthen marketing information and support services.
(iv) The Government will institute and strengthen quality control of hides and skins.
(v) Efforts will be undertaken to promote investment in processing facilities of hides and skin.

3.4 Other Livestock By-products

Other livestock by-products of economic importance include wool, blood, bones, horns, hooves, bristles, feathers, hair and fur. These livestock by-products are used for different purposes such as manufacture of animal feeds, medicines and garments.

Issues

Promotion of sustainable production and use of these by-products is limited by inadequate knowledge, lack of code of practice and procedures on production, handling, processing and inappropriate technology.

Objective

To promote production and utilization of other livestock by-products for the provision of industrial inputs and income generation to livestock producers and traders.

Policy Statements

(i) Efforts will be undertaken to promote production and utilization of other livestock by-products.
(ii) The Government will encourage and promote establishment of processing and handling facilities for other livestock by-products.
(iii) The Government will promote and support research on better use of other livestock by-products.
(iv) The Government in collaboration with other stakeholders will strengthen marketing information and support services.
(v) The Government will institute and strengthen quality control of other livestock by-products.

3.5 Rangeland Resource Management in Pastoral and Agro-Pastoral Areas

Rangeland resource is estimated at 60 million hectares that comprise 40 million hectares devoted to grazing and 20 million hectares of fallow and forestland. This resource supports about 17 million Livestock Units (LU). Proper range management and tsetse control would open up more grazing land and could support over 20 million LU. Range resource management includes rangeland utilization, pasture and pasture seeds production; and provision of water for livestock.

3.5.1 Range Utilization

Utilization of range resources in planned open and sparse areas is common in places where land is abundant. In some instances these areas are owned and managed communally and sometimes privately. Communal grazing encourages free and uncontrolled movements of

livestock from one area to other in search of pastures and water. Such movements may lead to spread of animal diseases, social conflicts between livestock farmers and other land users, social delineation, environmental degradation and pollution.

Issues

Utilization of rangelands for sustainable livestock production is hampered by seasonal variations of quality and quantity of forage, uncontrolled burning, overstocking and overgrazing, incomplete designation of grazing lands, tsetse and tick infestation. Weak pastoral and agro-pastoral organisations, inadequate livestock support services, credit facilities, socio-economic services and weak infrastructure also limit utilization of rangelands.

Objective

To improve range management and utilization in order to support sustainable productivity of livestock and improvement of pastoral and agro-pastoral livelihood.

Policy Statements

(i) The Government will promote inventorisation, identification, protection, management and use of rangeland resources.
(ii) The Government in collaboration with other stakeholders will support and strengthen technical support services on rangeland management.
(iii) Efforts will be made to establish and promote livestock infrastructure in rangeland areas.
(iv) Appropriate forage conservation practices for dry season feeding will be promoted.
(v) The Government will strengthen Livestock Early Warning System (LEWS) for disaster management and impending forage shortage.
(vi) Efforts will be undertaken to promote and support pastoral and agro-pastoral organizations.

3.5.2 Established Pastures and Pasture Seed Production

An established pasture is another form of feed resource for livestock production. There are two public and eight private established pasture farms, which are also source of pasture seeds. These seeds can be used to improve natural pastures in the rangelands. The quantity and quality of established pastures fluctuate with seasons whereby there is a decrease in dry season and increase in wet season.

Issues

Pasture and pasture seed production is mainly constrained by insufficient supply of pasture seeds, unreliable rainfall and water sources, low viability of seeds, limited knowledge of farmers and relatively high prices of farm machinery and equipment.

Objective

To increase and improve production of pasture and pasture seeds for sustainable livestock production and productivity.

Policy Statements

(i) The Government will promote utilization of improved pasture and pasture seeds.
(ii) Efforts will be made to establish, promote and strengthen pasture seed farms including irrigated pasture and pasture seed production.
(iii) The Government will strengthen technical support services on pasture and pasture seed production.
(iv) Efforts will be undertaken to promote and support stakeholders' organizations on pasture seed production.

3.5.3 Crop Residues

Tanzania has a wide range of agro-ecological zones, which favour production of a number of cereals and leguminous crops. These crops are a potential source of crop residues for feeding animals especially during the dry season. They include maize and millet stovers, cereal straws, chaff, sugarcane tops, baggase and bean pods.

Issues
Utilization of crop residues is constrained by inadequate knowledge in utilization of crop residues, limited conservation technologies, low nutritive values, post harvest losses and bulkiness for easy transportation.

Objective

To promote efficient conservation and utilization of crop residues for increased production and productivity of livestock.

Policy Statements

(i) Efforts will be undertaken to encourage and promote the use of quality crop residues.
(ii) The Government will strengthen technical support services on utilization of crop residues.

3.5.4 Forage Conservation

Yield of tropical pastures vary enormously both in quantity and quality depending on type, stage of maturity, weather, soil fertility and husbandry aspects. Harvested pastures and herbaceous plants, commonly known as forages are usually conserved for use during unfavourable conditions or scarcity.

Issues
Hay production is the common and simplest forage conservation method used in the country. Silage making is another method but is not commonly practiced due to inadequate farm machinery, infrastructure and technical skills. Forage conservation is hampered by changes in weather conditions, low pasture and forage yields, inadequate knowledge on the conservation methods.

Objective

To promote forage conservations to ensure feed availability during unfavourable conditions and scarcity in order to increase livestock productivity.

Policy Statements

(i) The Government will promote inventorisation of feedstuffs for conservation purposes.
(ii) The Government in collaboration with other stakeholders will promote the use of appropriate technologies for forage conservation.
(iii) The Government will promote and strengthen technical support services for forage conservation.
(iv) The Government will strengthen LEWS for disaster management and impending forage shortage.

3.5.5 Water for Livestock

Water supply in pastoral and agro-pastoral areas may be classified as ground and surface water. Ground water includes springs, shallow wells and bore-holes, whereas surface water refers to streams and rivers, earth dams and catchments of rain water harvest.

Over 70 percent of livestock population are kept in semi-arid areas in northern, central and western parts of Tanzania. These areas experience severe water shortage during the dry season, forcing livestock farmers and their livestock to migrate to other areas. This movement often results into overgrazing, degradation of the environment particularly destruction and pollution of water sources due to limited watering points.

Issues
Water for livestock in the pastoral and agro-pastoral areas is constrained by inadequate water harvesting expertise, high cost of earth moving and dam construction equipment, uneven distribution of water sources and weak water users' associations.

Objectives

To develop, utilise and maintain reliable water sources for livestock production.

Policy Statements

(i) The Government in collaboration with other stakeholders will protect water catchments areas for livestock.
(ii) The Government in collaboration with other stakeholders will support and promote the construction and maintenance of water sources for livestock.
(iii) Efforts will be undertaken to support and strengthen formation of water users' committees and associations.
(iv) Efforts will be undertaken to promote the use appropriate water harvesting technologies.

3.6 Industrial Feedstuffs

3.6.1 Compounded Feedstuffs

Compounded feedstuffs composed of protein, energy, mineral and vitamin concentrates are important especially for poultry, dairy and pig production. These feedstuffs account for about 60% of production costs of farm animals. Optimum productivity of animals largely depends upon the adequacy of all essential nutrients in rations. Compounded feedstuffs production is estimated at 500,000 tons per annum while the potential demand stands at 2.5 million tons.

Issues
Production of compounded feedstuffs is constrained by low quality of feedstuffs, seasonal availability of raw material, inadequate credit facilities, inadequate raw materials, inadequate knowledge on feed formulation, high cost of production and weak associations.

Objectives

To promote production of compounded feedstuffs for increased production and productivity of livestock.

Policy Statements

(i) Efforts will be undertaken to promote farming of various crops for use as raw materials for compounding feedstuffs.
(ii) The Government will promote establishment of feed mills for manufacture of feedstuffs.
(iii) The Government will assure quality of locally produced and imported animal feeds.
(iv) Efforts will be made to promote and support the establishment of animal feedstuffs associations.

3.6.2 Feed Additives

The use of feed additives, which are included in animal rations, is growing especially in intensive livestock production i.e. dairying, poultry and pig production. Feed additives are used to improve milk yield, growth rate, feed utilization efficiency and disease control. These include enzymes, growth promoters, antibiotics and pro-biotics. Feed additives are mainly imported.

Issues
The use of feed additives is constrained by inadequate knowledge on the part of livestock farmers and their high costs.

Objective
To promote rational use of feed additives for increased livestock production and productivity.

Policy Statements

(i) The Government will strengthen technical support services for feed additives.
(ii) Effort will be made to promote investment in local production of feed additives.

3.7 Livestock Stocking

One of the principles of sustainable livestock farming is the keeping of livestock relative to the carrying capacity of the land. However, social and cultural perception of some livestock farmers is accumulation of large numbers of livestock for prestige and security leading to overstocking.

The second main reason for overstocking is free and uncontrolled movements of pastoralists from one area to another due to recurrent droughts. Other reasons include extensive crop cultivation, tsetse infestations and invasion of grazing areas by wildlife.

Issues

Proper livestock stocking is constrained by low adoption of good husbandry practices, low productivity of natural pastures, lack of entrepreneurship, lack of livestock early warning system, inadequate watering points, low productivity of the traditional stock, lack of alternative investment opportunities in rural areas and inadequate marketing infrastructure.

Objective

To promote livestock stocking according to carrying capacity of available land for sustainable production.

Policy Statements

(i) In collaboration with other stakeholders, the Government will promote livestock stocking according to land carrying capacity.
(ii) Efforts will be undertaken to promote rangeland improvement practices.
(iii) The Government will strengthen technical support services on livestock stocking.
(iv) The Government in collaboration with other stakeholders will promote development of water sources for livestock.
(v) The Government will promote improvement of genetic potential of traditional stock.
(vi) The Government will strengthen monitoring and control of livestock movements.

3.8 Animal Power

The large national cattle herd offers great potential for draught animal power in the development of crop farming and transport purposes. Other draught animals include donkeys, camels, mules, horses and water buffaloes.

3.8.1 Draught Animal Power

Animal traction is an appropriate, affordable and sustainable technology that can contribute towards agricultural production. Utilization of animal power reduces the workload on ploughing, planting and weeding by 75%. There are about 1.0 million draught animals in the country (2005).

Issues
Use of draught animal power is constrained by inadequate knowledge and skills of farmers on their use, inadequate animal husbandry practices, and insufficient supply and high cost of appropriate farm implements.

Objective

To promote the production and use of draught animals in communities for draught purposes.

Policy Statements

(i) Efforts will be undertaken to promote production and use of draught animals.
(ii) In collaboration with other stakeholders the Government will promote and support breeding and selection of animals for draught power.
(iii) The Government will strengthen technical support services for the development of draught animal power.

3.8.2 Livestock Farm Machinery and Equipment

The livestock industry needs specialized types of machinery, implements and equipment for various operations such as earth moving and dam construction; feed processing, meat processing, dairying, feeding, harnessing gear, hides and skins processing and waste disposal.

Issues
The use of livestock farm machinery and equipment is constrained by inadequate supply, high cost of purchase, subsistence mode of livestock production and inadequate knowledge and skills of farmers on their use and maintenance.

Objective

To promote the use of livestock farm machinery in order to increase efficiency and productivity in livestock production systems.

Policy Statements

(i) In collaboration with others stakeholders the Government will promote the use of livestock farm machinery and equipment.
(ii) The Government will promote investments in livestock farm machinery and equipment.
(iii) The Government will strengthen technical support services on the use of livestock farm machinery and equipment.

3.8.3 Manure and Bio-gas

Livestock produce dung and urine as end-products of feed utilization. Other wastes originate from slaughter facilities. Manure is formed when animal dung is decomposed while when treated, produces bio-gas as a renewable source of energy. Manure is used as a fertilizer in crop and pasture production. Bio-gas utilization is environmental friendly as it reduces use of fuel wood thus minimizing deforestation, and fosters organic farming.
Issues

The use of manure is constrained by its bulkiness during transportation, low awareness on its use and storage; and extensiveness of livestock production systems. On the orher hand, bio-gas utilization is limited by low awareness on its use, high initial investment costs of the technology, difficulty storage, inadequate skilled personnel for construction and installation of biogas plants.

Objective

To promote the production and utilization of manure and bio-gas in order to improve the livelihood of livestock farmers while conserving the environment.

Policy Statements

(i) Efforts will be undertaken to promote the use of manure in crop and pasture farms.
(ii) Efforts will be undertaken to promote management of manure and slurry.
(iii) The Government will strengthen technical support services on manure and bio-gas production and utilization.
(iv) In collaboration with other stakeholders the Government will promote investments in production of biogas equipment.

3.9 Animal Breeding

Good quality breed is an important input for increased livestock productivity. Most of the national herd is characterised by animals of low genetic potential resulting into low production and productivity. However, few animals possess desirable characteristics such as good mothering ability, high prolificacy and growth rates. Genetic improvement of these animals can result into increased productivity. The development of Mpwapwa breed and Blended goat are examples of these efforts.

Issues
Animal breeding is constrained by inadequate expertise and infrastructure, insufficient improved genetic resources, lack of livestock breeders associations and societies.

Objective

To enhance genetic improvement of livestock in order to increase production and productivity.

Policy Statements

(i) The Government will promote livestock breeds inventory, characterisation, evaluation and genetic potential improvement.
(ii) The Government will strengthen technical support services in animal breeding.
(iii) Efforts will be undertaken to promote Breeders Association, Clubs and Breed Societies for sustainable conservation and breeding.

3.10 Livestock Identification, Registration and Traceability

Livestock identification, registration and traceability are on-farm management tools that are used to increase productivity and profitability of livestock and their products for local and export markets. It involves collecting data for each animal throughout its entire life cycle such that individual characteristics and the history of the animal can be traced back. This data includes date and place of birth, ancestry, sex, geographic movement, health and other production records for purposes of tracing the animal and its products. Currently, there is no identification, registration and traceability system that is centrally controlled.

Issues

Livestock identification, registration and traceability system is constrained by lack of infrastructure and facilities, insufficient expertise, and low awareness amongst stakeholders.

Objective

To have in place a livestock identification, registration and traceability system for increased productivity and trade.

Policy Statements

(i) The Government in collaboration with stakeholders will establish a system for livestock identification, registration and traceability.
(ii) The Government will strengthen and support technical services for livestock identification, registration and traceability.
(iii) Efforts will be undertaken to promote and create awareness on identification, registration and traceability for livestock and livestock products.

3.11 Veterinary Services

The provision of veterinary services must comply with the World Organization for Animal Health (*Office Internationale des Epizooties*-OIE) standards, recommendations on animal health and guidelines for international animal disease control and trade. Livestock and livestock products trade is guided by World Trade Organization (WTO) Sanitary and Phytosanitary (SPS) Agreements.

Veterinary services encompass delivery of animal health services, control and eradication of trans-boundary animal diseases; vector and vector borne diseases; other disease of economic importance; zoosanitary inspectorate services; veterinary public health and food safety services.

3.11.1 Animal Health Services Delivery

The main aim of animal health services is to control, eradicate and prevent the introduction of animal diseases. Control of Trans-boundary Animal Diseases (TADs) and diseases of economic importance is the responsibility of the Government. Control of non-TADs is the responsibility of the private sector and other stakeholders. The private sector is also responsible for the supply of veterinary medicines and other inputs.

Issues
Animal health service delivery is constrained by weak private sector, inadequate infrastructure, high cost of veterinary inputs, inadequate technical support services and low adoption by livestock farmers.

Objective

To improve animal health services delivery in order to control and eradicate diseases, minimise losses and improve livestock productivity.

Policy Statements

(i) Efforts will be undertaken to promote private veterinary services delivery and private-public partnership in service delivery.
(ii) The Government will strengthen technical animal health support services.
(iii) The Government in collaboration with other stakeholders will encourage and promote investment in production of veterinary medicines and other livestock inputs.

3.11.2 Trans-boundary Animal Diseases

Trans-boundary Animal Diseases (TADs) are notifiable requiring urgent actions. National, regional and international cooperation is necessary in the control of TADs through an enhanced system of early warning, early detection, coordination and harmonization of control strategies.

Common TADs in the country include Contagious Bovine Pleuropneumonia (CBPP), Rabies, Foot and Mouth Disease (FMD) and Contagious Caprine Pleuropneumonia (CCPP). Others include Newcastle Disease (ND), Lumpy Skins Disease (LSD), and African Swine Fever (ASF). Some TADs such as Rinderpest, *Peste des Petits Ruminants* (PPR) and Avian Influenza are exotic and they pose threat to the country.

Issues
The control of TADs is constrained by inadequate animal health support services and infrastructure; weak private sector, high cost of vaccines and inadequate knowledge on TADs among stakeholders.

Objective

To control and eradicate Trans-boundary Animal Diseases in order to sustain the livestock industry and access markets.

Policy Statements

(i) The Government will strengthen technical support services on TADs control and eradication.
(ii) The Government in collaboration with other stakeholders will encourage and promote investment in production of veterinary vaccines and other livestock inputs.
(iii) The Government will strengthen infrastructure for the control of TADs.

(iv) Efforts will be made to harmonize national and regional policies on TADs control and eradication.

3.11.3 Vector and Vector borne Diseases

(a) Tick and Tick borne Diseases

Ticks and tick-borne diseases (TBDs) are among the most important constraints limiting livestock production in the country. It is estimated that 72% of cattle mortalities is due to TBDs namely East Coast Fever (ECF), Anaplasmosis, Cowdriosis (Heart water) and Babesiosis (Redwater).

Issues
The major constraints in the control of TBDs include high costs of medicines and acaricides, inadequate technical support services, resistance of ticks to acaricides and uncontrolled movement of livestock.

Objective

To control ticks and eradicate tick-borne diseases in order to increase livestock production and productivity.

Policy Statements

(i) The Government will strengthen technical support services on tick and tick-borne disease control.
(ii) In collaboration with other stakeholders the Government will strengthen infrastructure for control of tick and tick-borne diseases.
(iii) The Government in collaboration with other stakeholders will encourage and promote investment in production of acaricides, anti-protozoan drugs and other livestock inputs.

(b) Tsetse and Trypanosomoses

Tsetse flies are wide spread in the country, hence limiting utilization of grazing land for livestock production. It is estimated that out of 60 million hectares of land that is suitable for grazing, 40% is infested by tsetse flies. Tsetse flies transmit trypanosomoses, which are important animal diseases limiting the expansion of livestock production.

Issues
Control of tsetse flies and trypanosomoses is constrained by uncontrolled livestock movements, vicinity of wildlife to grazing areas, high cost of control, development of resistance to insecticides and inadequate expertise.

Objective

To control and eradicate tsetse and trypanosomoses for increased livestock production and productivity.

Policy Statements

(i) The Government will strengthen technical support services on tsetse flies and trypanosomoses control.
(ii) In collaboration with other stakeholders the Government will strengthen infrastructure for the control of tsetse flies and trypanosomoses.
(iii) The Government in collaboration with other stakeholders will encourage and promote investment in production of insecticides and other livestock inputs.
(iv) Efforts will be made to harmonize national and regional policies on tsetse control and eradication.

3.11.4 Other Economically Important Livestock Diseases

There are other diseases of economic importance affecting the livestock industry, which include *Mastitis, Black Quarter, Haemorrhagic Septicaemia, Nairobi Sheep Disease, Blue Tongue, Malignant Catarrhal Fever, Mange, Helminthosis,* nutritional disorders, reproductive and fish diseases.

Tanzania stands the risk of introduction of exotic and emerging diseases that are of serious economic importance and may also affect human health. Currently, in large animals these diseases include *Rift Valley Fever (RVF), Bovine Spongiform Encephalopathy (BSE), Caprine Arthritis Encephalitis (CAE), Pig Influenza and Hog Cholera.*

In poultry, common diseases and conditions include; *Marek's disease,* S*almonelloses, Mycoplasma, Fowlpox, Infectious Bursitis (Gumboro), Collibacilosis, Coccidiosis, Infectious Coryza, Cholera,* helminthosis and ectoparasites. This group of diseases also contributes to low livestock productivity.

Issues
The control of diseases of economic importance is constrained by inadequate animal health support services, inadequate infrastructure, weak private sector, high cost of medicines, vaccines and other inputs, inadequate knowledge on diseases of economic importance among stakeholders.

Objective

To control and eradicate diseases of economic importance for increased livestock production and productivity.

Policy Statements

(i) The Government will strengthen technical support services on the control of other diseases of economic importance.
(ii) In collaboration with other stakeholders the Government will strengthen infrastructure for control of diseases of economic importance.
(iii) The Government in collaboration with other stakeholders will encourage and promote investment in production of medicines, vaccines and other livestock inputs.
(iv) Efforts will be made to harmonize national and regional policies on other diseases of economic importance.

3.11.5 Zoosanitary Inspection

Zoosanitary inspectorate services are necessary in preventing the introduction and spread of diseases through movement of animals and animal products. Zoosanitary certification is a pre-requisite for international trade. These services are provided at entry and exit ports, slaughter facilities, checkpoints, holding grounds, hatcheries and livestock markets.

Issues

Zoosanitary inspectorate services are constrained by inadequate infrastructure, technical expertise and inadequate awareness of stakeholders.

Objective

To institute zoosanitary inspectorate services to prevent introduction and spread of animal diseases.

Policy Statements

(i) The Government will strengthen zoosanitary infrastructure and inspectorate services.
(ii) In collaboration with other stakeholders the Government will strengthen the control of livestock and livestock products movement.
(iii) Efforts will be made to harmonize national and regional policies on zoosanitary inspectorate services.

3.11.6 Veterinary Laboratory System

The veterinary laboratory system comprises national laboratory and zonal laboratories that are strategically located. Currently, these include the Animal Diseases Research Institute (ADRI-Temeke) functioning as a Central Veterinary Laboratory (CVL), Veterinary Investigation Centres (VICs) Mpwapwa, Iringa, Arusha, Mwanza, Mtwara, Temeke and Tabora. They provide technical support for disease surveillance, diagnosis, quality control and supervision of field vaccination campaigns. In addition, there are other laboratories at Sokoine University of Agriculture (SUA), TAWIRI and private laboratories, which form part of veterinary laboratory system.

Issues

The veterinary laboratory system is constrained by inadequate facilities, infrastructure, technical expertise, low awareness of stakeholders and weak institutional set-up.

Objective

To have in place an efficient veterinary laboratory system in order to provide adequate laboratory services for effective control of animal diseases and quality of products.

Policy Statements

(i) In collaboration with other stakeholders the Government will strengthen infrastructure and facilities for the veterinary laboratory system.

(ii) The Government will strengthen technical support services for veterinary laboratory system.
(iii) In collaboration with other stakeholders the Government will promote the provision of veterinary laboratory services.

3.11.7 Veterinary Public Health and Food Safety

Veterinary public health and food safety (VPHFS) deals with monitoring and control of zoonotic diseases and quality of animal products with a view to safeguard human health. Common zoonoses are Rabies, Brucellosis, Tuberculosis, Anthrax, Trypanosomoses, Cysticercoses and Salmoneloses.

Issues

Constraints affecting veterinary public health and food safety include inadequate knowledge, infrastructure and facilities; weak technical support services and collaboration; and low awareness of stakeholders.

Objective

To provide veterinary public health and food safety services that will ensure safe and quality foods of animal origin.

Policy Statements

(i) The Government in collaboration with other stakeholders will strengthen infrastructure and facilities for veterinary public health and food safety services.
(ii) The Government will strengthen technical support services for veterinary public health and food safety.
(iii) In collaboration with other stakeholders the Government will promote the provision of veterinary public health and food safety services.

3.12 Livestock Research

Livestock research deals with development of technologies that address the problems affecting the livestock industry in order to increase livestock productivity. Currently the main focus of research is on dairy cattle, beef cattle, small ruminants, animal feed resources, non-ruminants, farm animal genetic resources and animal diseases.

Livestock research is conducted in the following centres, Livestock Production Research Institute – Mpwapwa, Livestock Research Centres – Tanga and West Kilimanjaro, Animal Diseases Research Institute – Temeke, Tsetse and Trypanosomiasis Research Institute – Tanga and Pasture Research Centre – Kongwa. In addition, livestock research is conducted at Uyole, Tumbi, Selian, Naliendele and Ukiriguru centres. Other main research collaborators are Sokoine University of Agriculture (SUA), Tropical Pesticide Research Institute (TPRI), Tanzania Wildlife Research Institute (TAWIRI) and Tanzania Forest Research Institute (TAFORI).

Issues
Livestock research is constrained by high investment costs, inadequate facilities and infrastructure, insufficient expertise, weak coordination among research collaborators with other stakeholders and low private sector participation.

Objective

To develop appropriate technologies for the livestock industry in order to increase production and productivity.

Policy statements

(i) The Government in collaboration with other stakeholders will encourage, promote and support investment in livestock research.
(ii) In collaboration with other stakeholders the Government will strengthen infrastructure and facilities for livestock research.
(iii) The Government will strengthen technical support services for livestock research.
(iv) Efforts will be made to strengthen research-extension-farmer linkages.
(v) Efforts will be made to strengthen coordination and collaboration among stakeholders in livestock research.

3.13 Biotechnology and Bio-safety

Biotechnology provides a powerful tool for sustainable development of livestock industry. When integrated with other technologies of livestock production, it can be of significant assistance in meeting the needs of the expanding human population.

Currently, biotechnology in Tanzania is used for germplasm conservation, reproductive techniques such as artificial insemination, disease diagnosis and vaccine production. However, in future biotechnology can be used in various applications such as Multiple Ovulation Embryo Transfer (MOET), genetic transformation and cloning techniques, feed additives and vaccine production.

Issues
Despite the usefulness of biotechnology there are potential risks posed by certain aspects of it. These risks fall into two basic categories; the effect on human and animal health and the environmental consequences.

The use of biotechnology is constrained by limited public awareness, inadequate expertise, infrastructure and facilities.

Objective

To promote use of biotechnology and bio-safety measures in order to improve livestock production and productivity.

Policy Statements

(i) In collaboration with other stakeholders the Government will create awareness on biotechnology and bio-safety.
(ii) Efforts will be undertaken to strengthen Research and Development (R&D) in biotechnology and bio-safety.
(iii) In collaboration with other stakeholders the Government will strengthen infrastructure and facilities for the use of biotechnology and bio-safety in livestock industry.
(iv) The Government in collaboration with other stakeholders will encourage and promote investment in biotechnology and bio-safety.
(v) The Government will strengthen technical support services for biotechnology and bio-safety.

3.14 Organic Livestock Farming

Organic livestock farming is an emerging concept of agricultural production advocating minimal or non-use of industrial chemicals such as fertilizers, pesticides and drugs. The concept has come out following the increasing use and sometimes misuse of such chemicals resulting into human health hazards. Recently, there has been an increased worldwide demand for organically produced foodstuff.

Issues

This type of farming could provide source of livelihood to livestock farming communities if promoted and supported by the government and private sector. However, due to its infancy it will require investment, expertise and promotion of its awareness in order for its adoption to take off smoothly.

Objective

To promote organically produced livestock products in order to exploit special market demands.

Policy Statements

(i) In collaboration with other stakeholders the Government will promote and create awareness on organic livestock farming.
(ii) The Government in collaboration with other stakeholders will encourage and promote investment in organic livestock farming.
(iii) The Government will strengthen technical support services in organic farming practices.

3.15 Livestock Extension Services

Livestock extension services deal with the transfer of knowledge and skills from experts to livestock farmers and the sharing of information and experiences amongst stakeholders in order to increase production and productivity. Several approaches have been used in delivering livestock extension services including training and visit, livestock farmer field schools and livestock product promotion. Other approaches include study tours, farmer field days, mass media, agricultural shows, residential training, and demonstration units/plots.

Until mid 1990s delivery of livestock extension services used to be the responsibility of the Central Government. Currently, the Central Government remains responsible for livestock policy formulation, guidelines and technical backstopping. Major actors in the delivery of extension services to the farmers are Local Government Authorities (LGAs) and the private sector.

Issues

Livestock extension service is constrained by weak collaboration amongst stakeholders, insufficient expertise, weak research-training-extension-farmer linkage and inadequate infrastructure and facilities.

Objective

To provide quality extension services that meets the needs of livestock farmers and other stakeholders.

Policy Statements

(i) The Government will strengthen coordination of livestock extension service providers at all levels.
(ii) Efforts will be undertaken to coordinate and strengthen research–training-extension–livestock farmers' linkage.
(iii) In collaboration with other stakeholders the Government will strengthen infrastructure and facilities for livestock extension services.
(iv) The Government will promote and strengthen participatory livestock extension services.
(v) The Government will strengthen technical support services for livestock extension services.

3.16 Livestock Training

The role of training is to develop, implement, coordinate, monitor and review training programme in order to produce well trained livestock personnel and other stakeholders for development of the livestock industry.

Currently, there are six Livestock Training Institutes (LITIs) with the capacity of 970 students. These are LITI -Tengeru, Mpwapwa, Morogoro, Madaba, Buhuri and Temeke. Five of the LITIs offer long courses at certificate and diploma levels in addition to farmers training while LITI Buhuri is specifically for short course on dairy cattle husbandry. Other collaborators in livestock training include SUA, Ministry of Agriculture Training Institutes (MATIs), Open University of Tanzania (OUT), University of Dar es Salaam (UDSM), Vocational Education Training Authority (VETA) and NGOs.

Issues

Livestock training is constrained by inadequate infrastructure and training facilities, insufficient expertise, low participation of other stakeholders and weak research-training-extension-livestock farmers' linkage.

Objective

To avail competent technical personnel, professionals and trained livestock farmers to cater for the livestock industry.

Policy Statements

(i) The Government in collaboration with other stakeholders will improve and maintain infrastructure and training facilities.
(ii) The Government will promote LITIs to attain maximum level of autonomy and higher educational status.
(iii) Efforts will be undertaken to promote private sector participation in livestock training.
(iv) In collaboration with other stakeholders, the Government will strengthen linkages of research, extension and livestock farmers.

3.17 Livestock Information Services

Livestock Information Services deal with collection, retrieval, processing, storage and dissemination of livestock data and information for the purpose of facilitating planning, control, coordination and decision-making. Data and information is an effective management tool and therefore should be comprehensive, accurate, consistent, accessible, timely and usable.

Issues

Data and information on livestock in the country have been scattered amongst different sources and there is no **one-stop-centre** where harmonized livestock data and information is accessible and retrievable by users. Consequently, there is lack of designated official data on livestock industry.

Livestock information services are constrained by inadequate infrastructure and facilities, high cost in data collection, insufficient expertise and absence of centralized database management system.

Objective

To avail credible data and information to stakeholders about livestock industry for informed decision-making.

Policy Statements

(i) The Government will strengthen infrastructure and facilities for livestock data and information services.
(ii) Efforts will be undertaken to harmonize and coordinate livestock data.
(iii) The Government will strengthen technical support for livestock information services.
(iv) In collaboration with other stakeholders, the Government will establish comprehensive management information system for the livestock industry.
(v) The Government will ensure and support regular livestock census in the country.

3.18 Livestock Inputs

Livestock inputs include veterinary medicines, vaccines, feed resources, germplasm materials, farm machinery and equipment used in the livestock industry.

(a) Veterinary Medicines

Veterinary medicines include pharmaceuticals, chemicals and biologicals used for treating, preventing, diagnosing diseases of animals and promoting productivity. The medicines used to be supplied by the government until after the liberalization of trade when their supply was privatized while the Government remained with regulatory and monitoring functions in collaboration with Tanzania Food and Drug Authority (TFDA).

Issues

Constraints facing the use of veterinary medicines include their availability, high costs, poor quality, low awareness of stakeholders, poor distribution network and infrastructure.

Objective

To ensure adequate supply, accessibility and affordability of safe, quality and efficacious veterinary medicines.

Policy Statements

(i) The Government will encourage and support manufacturing, importation and distribution of quality veterinary medicines.
(ii) The Government will strengthen technical support services in veterinary medicine.

(b) Other Livestock Inputs

These inputs include feed resources, germ-plasm materials, farm machinery, equipment used for veterinary practice and livestock production. Most of these inputs are currently being supplied by the private sector.

Issues

Other livestock inputs use is constrained by their availability, high costs, poor quality, low investment, and awareness of stakeholders, poor distribution network and infrastructure.

Objective

To ensure supply of quality livestock inputs for increased livestock production and productivity.

Policy Statements

(i) In collaboration with other stakeholders the Government will promote investment in production and distribution of livestock inputs.
(ii) The Government will strengthen technical support services on livestock inputs.

(iii) In collaboration with other stakeholders, the Government will encourage and promote establishment of livestock inputs' associations.

3.19 Animal Welfare

Animal welfare deals with humane handling, transportation and keeping of animals for various uses and deliberate termination of animal's life. Such uses include slaughter, laboratory testing, draught power, companion, sports and recreation. There is a global concern in standards and principles governing the handling of the different animal species involved. Currently, Tanzania Society for the Prevention of Cruelty to Animals (TSPCA) is mandated by Animal Protection Ordinance to deal with animal welfare issues. However, there are other NGOs, which are actively involved with animal welfare.

Issues

Animal welfare in Tanzania is constrained by inadequate awareness among stakeholders, socio-cultural limitations, lack of coordination and poor handling facilities.

Objective

To ensure that animal welfare is observed by stakeholders to the required standards.

Policy Statements

(i) Efforts will be undertaken to create awareness on animal welfare.
(ii) The Government will strengthen technical support services for animal welfare.
(iii) The Government will strengthen coordination among stakeholders involved in animal welfare.

3.20 Regulation of Veterinary Practices

The regulation of veterinary practices entails regulating conduct of service providers in the practice of veterinary medicine. Veterinary profession must comply with guidelines governing the regulation of veterinary services set by OIE. Furthermore, regulation of veterinary profession calls for well regulated veterinary service providers who are required to observe ethics as stipulated in the codes of conduct. The profession code of conduct and ethics are enforced through the Veterinary Act No. 16, 2003.

Currently, the privatisation of delivery of veterinary services is still in transition whereby the private sector works alongside the public veterinary service providers.

Issues

Regulation of veterinary profession is constrained by inadequate capacity to monitor and advise insufficient expertise, inadequate infrastructure and facilities, low awareness of stakeholders and poor coordination of different stakeholders engaged in delivery of veterinary services.

Objective

To regulate the veterinary profession for provision of quality veterinary services.

Policy Statements

(i) The Government will strengthen technical support services for the regulation of veterinary profession.
(ii) The Government will strengthen enforcement on compliancy to standards and ethics governing the practice of veterinary medicine.
(iii) The Government will promote educational advancement and communication with regard to veterinary profession.

3.21 Indigenous Technical Knowledge

Indigenous Technical Knowledge (ITK) is the collection of knowledge and skills, which people in a particular geographical area posses and is being passed from one generation to another. In livestock production, ITK involves traditional skills on Ethno-veterinary medicine, animal husbandry practices, management of rangelands and environmental aspects.

Most of the livestock farmers in the rural areas depend mainly on ITK to control animal diseases and improve productivity. This is because ITK is cheap, convenient, readily available and environment friendly. ADRI, Temeke LPRI, Mpwapwa and SUA are focal centers for validation of ethno-veterinary medicines.

Issues
Indigenous Technical Knowledge is constrained by lack of documentation, recognition of source communities and dissemination, low awareness amongst stakeholders, insufficient expertise, lack of standardization of ITK medicines, inadequate infrastructure and facilities.

Objective

To promote the use of ITK for improvement of livestock production and productivity.

Policy Statements

(i) The Government will strengthen technical support services on ITK.
(ii) Efforts will be undertaken to create awareness among stakeholders on ITK.
(iii) In collaboration with stakeholders the Government will strengthen infrastructure and facilities for ITK development.
(iv) The Government will promote collaboration among public, private sector and respective communities on ITK.

3.22 Pet Animals

Pet animals, are animals with special relationship with human beings, contributing to the quality of life and hence valuable to the society. Common pet animals include dogs, cats, birds and tamed animals. The demand for quality pets for specified uses is currently on the increase in the country.

Issues
Keeping of pet animals is constrained by unavailability of quality pets, poor management, abuse, inadequate expertise and awareness. .

Objective

To promote proper keeping of pet animals by the society.

Policy Statements

(i) Efforts will be undertaken to promote the use of proper facilities for keeping pet animals.
(ii) The Government will strengthen technical support services for pet animals.
(iii) Efforts will be undertaken to increase knowledge and create awareness on pet animals among stakeholders.

3.23 Cross Cutting and Cross - Sectoral Policies

Livestock development is influenced by a number of issues that are outside the mandate of the Ministry. These include land tenure, environment, gender, HIV/AIDS, infrastructure, finance and credits. To foster livestock development, the government in close consultation with private sector and other stakeholders will institute mechanism for coordinating and mainstreaming these issues.

3.23.1 Land tenure for Livestock Farming

Land tenure is a form of right, which enables utility of land parcels under prescribed conditions. These are conditions under which land is acquired, retained, used, disposed of, transmitted or indeed forfeited. Land for livestock use in this country is mainly communal and it is being utilised without guaranteed security of tenure. This has resulted into social conflicts between livestock farmers and other land users, land degradation and spread of animal diseases.

Issues
Land tenure is constrained by low awareness amongst stakeholders on the importance of legal ownership of land and procedures for its acquisition, inadequate technical expertise and low priority accorded to allocation of land for livestock use.

Objective

To ensure proper land utilization for sustainable livestock production and productivity.

Policy Statements

(i) The Government in collaboration with other stakeholders will promote technical support services on utilization of land for livestock production.
(ii) The Government will institute legal and regulatory framework on land ownership for livestock production.
(iii) In collaboration with other stakeholders, the Government will promote and support formation of pastoral and agro-pastoral associations.

3.23.2 Peri-Urban Livestock Farming

This type of farming refers to keeping livestock in peripheries of urban centres. Currently, peri - urban livestock farming is being practiced in all towns and cities in Tanzania. Types of livestock kept under this system include dairy and beef cattle, poultry, pigs and pets. This type of production system if promoted has the potential to provide employment, income and supplementary source of livestock products to town dwellers.

Issues

Peri-urban livestock farming is constrained by inadequate land, insufficient supply of quality stocks and inputs, conflicts among communities, inadequate expertise, pollution and unorganised markets.

Objective

To promote peri-urban livestock farming in order to provide employment, improve household income and food security.

Policy Statements

(i) The Government will strengthen technical support services and promote peri-urban livestock farming.
(ii) The Government will encourage and support peri-urban livestock farming that is environmentally friendly.

3.23.3 Environmental conservations

Environment includes air, land and water; plant, animal and human life; the social, economic, recreational and cultural factors that influence the lives of human beings and their surroundings. Sustainable livestock farming and its related activities require proper utilisation and management of the environment.

Issues

Increased livestock populations and human activities related to livestock production in some areas of the country have resulted in over exploitation of natural resources. This has led to over grazing, soil erosion, deforestation, destruction of water sources and environmental pollution.

Constraints to environmental conservation in livestock production include low awareness among stakeholders, low priority accorded to allocation of land for livestock use, inadequate expertise and inter-sectoral coordination.

Objective

To ensure the environment is conserved for sustainable livestock production.

Policy Statements

(i) The Government will strengthen technical support services on environmental issues.

(ii) Efforts will be undertaken to promote proper land use planning for livestock production.
(iii) Efforts will be undertaken to strengthen inter-sectoral coordination on environmental issues.

3.23.4 Gender Mainstreaming in the Livestock Industry

Gender mainstreaming is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of livestock policies and programmes so that both benefit equally and inequality is not perpetuated. Gender mainstreaming in livestock industry is relatively a new concept and is gradually being accepted.

Issues
Gender mainstreaming is constrained by low awareness among stakeholders, inadequate expertise, cultural practices and traditions.

Objective

To ensure gender is mainstreamed in the livestock industry in order to achieve gender equality.

Policy statements

(i) The Government will promote technical support services on gender mainstreaming in the livestock industry.
(ii) The Government will strengthen gender mainstreaming in the livestock industry in collaboration with other institutions.

3.23.5 HIV/AIDS, Malaria and Tuberculosis

HIV/AIDS is a national and global disaster and is creating a crisis in all walks of life affecting particularly young men and women. Apart from HIV/AIDS, Malaria and Tuberculosis are also important diseases. According to the National Policy on HIV/AIDS (2001), Tanzania is among the most affected countries in the Sub-Saharan Africa.

Issues
HIV/AIDS, Malaria and Tuberculosis are causing shortages for skilled and unskilled labour as well as livestock farmers thus affecting the livestock industry. In addition, HIV/AIDS depletes financial resources in the form of diagnosis and treatments costs of associated diseases. Concerted efforts are being directed towards creating awareness among the stakeholders on the importance of controlling the rate of new HIV/AIDS infections in accordance with the national policy on HIV/AIDS.

Efforts to combat HIV/AIDS in the livestock industry are constrained by socio-economic and cultural factors, low awareness amongst stakeholders, inadequate health infrastructure and facilities especially in the pastoral communities.

Objective

To contribute to HIV/AIDS, TB and Malaria prevention amongst stakeholders in order to increase productivity in the livestock industry.

Policy Statements

(i) Efforts will be undertaken to create and promote awareness on HIV/AIDS, TB and Malaria amongst livestock stakeholders.
(ii) The Government will strengthen collaboration with other stakeholders in the control of HIV/AIDS, TB and Malaria among livestock stakeholders.

3.23.6 Infrastructure

Essential infrastructure and facilities for livestock development include transport (railways and roads), communication, electricity, storage facilities, dips, markets, water supply, holding grounds, quarantine stations, stock routes and abattoirs. Currently, the infrastructure available is owned and operated by various stakeholders.

Issues
Constraints facing livestock infrastructure include high investment costs, inadequate and poor condition infrastructure, coordination and low private sector participation.

Objective

To have in place necessary infrastructure for development of the livestock industry.

Policy Statements

(i) The Government in collaboration with other stakeholders will encourage and support investment and rehabilitation of livestock infrastructure and facilities.
(ii) The Government will strengthen coordination of stakeholders involved in livestock infrastructure development.

3.23.7 Finance and Credits

Livestock industry requires high capital investment, which is not readily available to most livestock entrepreneurs. However, most credits available are on short-term basis with high interest rates thus making it unattractive to investors in livestock industry. Financial institutions supporting investment in the livestock development include commercial banks, micro-finance institutions (MFIs) such as Savings and Credit Associations (SACAs) and Savings and Credit Cooperative Societies (SACCOs). Others are informal financial institutions, livestock in-trust schemes and rural savings and credit societies.

Issues
Finance and credits in livestock industry is constrained by high interest rate, high investment costs and returns to investment take long, high risks associated with livestock enterprises, lack of livestock insurance schemes, lack of collaterals and low awareness amongst stakeholders.

Objective

To increase accessibility to financial resources for investments in the livestock industry.

Policy Statements

(i) Efforts will be undertaken to encourage designated financial institutions to provide credit facilities to the livestock industry.
(ii) Efforts will be undertaken to encourage insurance covers in the livestock industry.
(iii) The Government will promote investment in the livestock industry.
(iv) Efforts will be made to promote and support establishment of livestock stakeholders' associations.

CHAPTER FOUR

4.0 LEGAL AND INSTITUTIONAL ARRANGEMENTS

4.1 Legal Framework

The legal framework is key to the development of livestock industry through provision of operating framework. The enforcement of established standards, rules and regulation is dependent on the laws and regulations. There are several laws and by-laws applicable in the livestock industry. Some of these laws are outdated and sometimes overlap, resulting in costly institutional and management arrangements.

4.2 Institutional Arrangement

The objectives of the National Livestock Policy will be achieved through the active participation of various stakeholders including the government, the private sector, the academia, and the civil society organizations. This policy recognizes different sectoral policies, as they are important in achieving objectives. During implementation of this policy a mechanism will be instituted to facilitate linkages and complementarities between different sector policies and coordinate the work of different stakeholders interested in the development of the livestock industry.

Development of this policy provides an opportunity to strengthen recent changes in the roles and responsibilities of the Central Government, which is policy, regulatory, monitoring, and evaluation. The Local Government Authorities (LGAs) has been given greater responsibility and authority to develop and implement their plans in livestock production, facilitation and maintenance of law and order, while the private sector is tasked to respond to a new set of opportunities and challenges.

In accordance with local government reform, LGAs will play an increasingly important role in the implementation of the National Livestock Policy, strategies and programmes. Following the changed roles of the central government institutions, livestock extension staffs have been transferred to LGAs in order to increase their efficiency, effectiveness and accountability. LGAs will guide and implement the development initiatives needed to support livestock production.

4.3 Role of Stakeholders

4.3.1 Agricultural Sector Lead Ministries

The Agricultural Sector Lead Ministries (ASLMs) consists of the Ministry of Livestock Development (MLD), Ministry of Agricultural, Food Security and Cooperatives (MAFC), Ministry of Industries, Trade and Marketing (MITM) and Prime Ministers' Office Regional Administration and Local Government (PMO-RALG). Currently, these ministries are responsible for implementing the ASDS and ASDP, which is the main tool of central government for coordinating and monitoring agricultural development, and incorporating national wide reforms. PMO-RALG is responsible for coordinating the implementation of National Livestock Policy at the district level, while MLD will oversee the implementation at national level.

4.3.2 Public Sector

The Government is responsible for the implementation of the National Livestock Policy. The Government will accelerate the reform process and continue maintaining favorable macro-economic policy environment conducive for private sector participation in economic development and growth. Also, the Government will provide support services required for increasing and sustaining livestock productivity, growth of real farm incomes and food security.

Government development efforts will therefore be limited to the provision of core public services such as extension, information, research, training, and livestock infrastructure, formulating policies, regulatory framework and protection of the environment. In addition, the government will ensure that livestock policy goals and objectives are effectively integrated within an overall macro economy policy framework.

(a) Public Agencies and Institutions

There are a number of public agencies and institutions, which play a critical role in supporting livestock development often of a regulatory nature. These include the Tanzania Food and Drugs Authority (TFDA), the Tropical Pesticides Research Institute (TPRI), the National Environmental Management Council (NEMC), the Tanzania Bureau of Standards (TBS) and the Cooperative Audit and Supervision Corporation (COASCO). Other crucial institutions include the Tanzania Dairy Board (TDB), which regulates and promotes the development of the dairy industry in Tanzania, and the Veterinary Council of Tanzania (VCT) which oversees and regulates ethics and conduct of the veterinary profession and practice in relation to animal health services.

(b) Academic and Research Institutions

There are several academic and research institutions in the country such as SUA, UDSM, Mzumbe University, NIMR, TPRI, TAWIRI and COSTECH that carry out research to develop appropriate technologies which can be used by livestock farmers to develop the industry. They also provide tailored training as a major pillar for development of the livestock industry. Collaboration with these institutions will be strengthened.

4.3.3 Private Sector

The government recognizes the essential role of the private sector comprising of financial institutions, livestock farmers, pastoralists, agro–pastoralists, traders, processors and other individuals and organizations that are motivated by profit to undertake investment in the livestock industry. The private sector will be responsible for undertaking commercial activities such as production, processing and marketing in order to develop the livestock industry. Effective private sector participation and performance requires conducive environment, which is being created by the government. In the long run the private sector is expected to take up provision of some of the public services such as extension, research and training and provide opportunities for employment.

(a) Livestock Farmers Organizations

These are emerging grass-root organizations, which are important for development of the livestock industry. There are already established commercial producers' associations such as the Tanzania Milk Processors Association (TAMPA), Tanzania Feed Manufacturing Association (TAFMA), Tanzania Goat Network (TAGONET), Southern Eastern Zone Goat Development Network (SEGODEN), Tanzania Leather Association (TLA), Livestock Traders Association (LTA) and Tanzania Milk Producers Development Association (TAMPRODA).

These organizations provide several services such as credit, extension, input supplies and marketing channels for livestock production. They will be encouraged to support increased production and productivity, processing, marketing and credit mobilization. The involvement of communities and their organizations is essential to ensure success in the implementation of the policy. However, adequate support to farmers' organization is crucial in order to ensure adoption of new technologies.

(b) Non-Governmental Organizations and Community Based Organizations

Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) play an important role in livestock development, particularly in the provision of knowledge, information, capacity building and mobilization of resources at the grass-root level. The Government will provide an enabling environment for NGOs/CBOs to provide the necessary interventions. A strong partnership and coordination of NGOs/CBOs in fostering rural development in the country will be encouraged.

(c) Professional Associations

Professional associations/organizations at local and national levels also play a particularly important role in livestock development in the country. They provide the independent structure for supporting private sector development and in establishing a dialogue between livestock farmers and the Government. Three main associations representing medium – and large - scale livestock farmers and agribusiness include; the Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA), Tanzania Chamber of Agricultural Council and Livestock (TCAL) and the Confederation of Tanzania Industries (CTI).

There are professional associations such as the Tanzania Veterinary Association (TVA), Tanzania Society of Animal Production (TSAP), Agricultural Economics Society of Tanzania (AGREST), Tanzania Women Leaders in Agriculture and Environment (TAWLAE) and Tanzania Agricultural Society (TASO), which support livestock development. The Government will provide support for technical training and facilitate information sharing and networking amongst concerned associations.

(d) Other Institutions and Groups

Other non-public institutions such as consulting companies and other service providers also play important role in livestock development. The government will mobilize their skills and capacity to contribute to the development of the industry. Private sector service providers in addition to NGOs and CBOs, are currently not well established, especially in the districts.

The Government will encourage and support the development of these institutions and groups.

4.3.4 Development Partners

Development partners have been providing resources towards the development of the livestock industry. They have been playing a crucial role by supporting different efforts to contain the existing livestock development constraints. They have been providing assistance in terms of funding and technical assistance in different interventions implemented in programmes to achieve the set objectives and propel the economy of the country into sustainable growth. It is therefore expected that development partners will continue to support development of the livestock industry.

4.4 Coordinating Mechanism

Successful implementation of the National Livestock Policy and improved performance of the livestock industry will depend on both vertical and horizontal coordination. This includes the coordination with other agricultural sector related ministries, institutions, development partners, agencies and other stakeholders such as livestock farmers and their associations. To make this vertical and horizontal coordination effective and efficient, the government will focus in preparing and reviewing appropriate instruments for the livestock industry and monitor their uses while leaving the actual coordination to stakeholders themselves. Some of the instruments, which will be used to ensure participation of all stakeholders, are laws and regulations, stakeholder fora, research findings, available technical support services, early warning system, different professional fora and livestock marketing system.

Alliance will also be explored through sub-regional and regional organisation within the framework of EAC, SADC and AU. At international level collaboration will be strengthened with organisations such as FAO, OIE, WHO and IAEA.

CHAPTER FIVE

5.0 POLICY MONITORING AND EVALUATION

This National Livestock Policy will be used as a guide towards achieving the Vision and Mission of the livestock industry. The long-term objective is towards attaining food security, poverty reduction and increase in national income from the livestock sector. In order for the objectives of this policy to be realised, the Ministry will develop strategies and implementation plan.

Systematic monitoring and evaluation is essential for policy implementation and performance assessment. The overall responsibility of monitoring and evaluation is vested to the ministry responsible for livestock development. However, effective monitoring will depend on coordinated efforts and close cooperation between public institutions, including ministries responsible for Finance, Planning, Agriculture, Trade, Marketing, Lands and Local Governments. Effective monitoring will also depend on coordinated efforts and close cooperation between these public institutions and private sector in enduring smart partnership as well as civil societies and development partners.