



REPUBLIC OF KENYA

# MINISTRY OF AGRICULTURE, LIVESTOCK AND FISHERIES

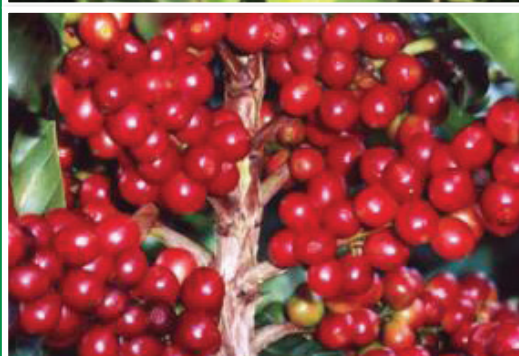
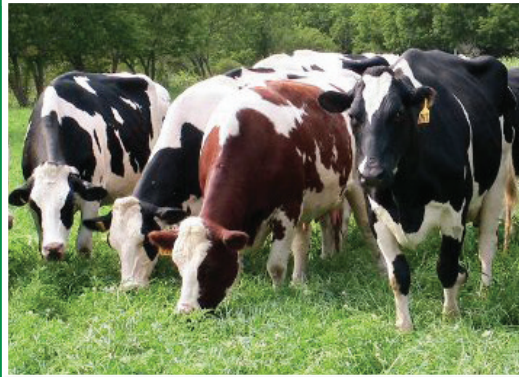
**KENYA**  
VISION **2030**

TOWARDS AN INNOVATIVE,  
COMMERCIALY ORIENTED  
AND MODERN AGRICULTURE

# Strategic Plan

[2013 – 2017]

(Revised 2015)







REPUBLIC OF KENYA

# MINISTRY OF AGRICULTURE, LIVESTOCK AND FISHERIES



# Strategic Plan

[2013 – 2017]

(Revised 2015)



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## LIST OF ACRONYMS

<b>ADC</b>	Agricultural Development Corporation
<b>AFFA</b>	Agriculture, Fisheries and Food Authority
<b>ATDCs</b>	Agricultural Technology Development Centres
<b>CBOs</b>	Community Based Organizations
<b>CE</b>	Commodity Exchange
<b>COMESA</b>	Common Market for Eastern and Southern Africa
<b>DFZ</b>	Disease Free Zone
<b>EAC</b>	East African Community
<b>EPA</b>	Economic Partnership Agreements
<b>ERS</b>	Economic Recovery Strategy
<b>FAO</b>	Food and Agriculture Organization
<b>GDP</b>	Gross Domestic Product
<b>HCDA</b>	Horticultural Crops Development Authority
<b>IDF</b>	Irrigation Development Fund
<b>IDMIS</b>	Irrigation and Drainage Management Information System
<b>JKIA</b>	Jomo Kenyatta International Airport
<b>KALRO</b>	Kenya Agricultural and Livestock Research Organization
<b>KePHIS</b>	Kenya Plant Health Inspectorate Services
<b>KEVEVAPI</b>	Kenya Veterinary Vaccine Production Institute
<b>LAPSSET</b>	Lamu Port South Sudan, Ethiopia Transport
<b>MDGs</b>	Millennium Development Goals
<b>MT</b>	Metric tonne
<b>MTP</b>	Medium Term Plan
<b>NAAIAP</b>	National Accelerated Agricultural Inputs Access Programme
<b>NEMA</b>	National Environmental Management Authority
<b>NIMES</b>	National Integrated Monitoring and Evaluation System
<b>PCPB</b>	Pest Control Products Board
<b>PESTEL</b>	Political, Economic, Social, Technological, Environmental and Legal analysis
<b>PPP</b>	Public Private Partnership
<b>PWDs</b>	People Living With Disabilities
<b>SADC</b>	Southern African Development Community
<b>SAGAs</b>	Semi Autonomous Government Agencies
<b>SAPs</b>	Structural Adjustment Programmes
<b>SDGs</b>	Sustainable Development Goals
<b>SRA</b>	Strategy for Revitalizing Agriculture
<b>SWOT</b>	Strength, Weakness, Opportunities and Threats analysis
<b>WRS</b>	Warehouse Receipting System



## FOREWORD



The development of the Ministry's Strategic Plan 2013-2017 is an important milestone in the agriculture sector. The Plan articulates the strategies that the Ministry will employ to address the agriculture sector development priorities over the five-year period as set out in the Kenya Vision 2030 and its Second Medium Term Plan (2013-2017). The Plan also takes cognizance of the changing circumstances arising from the provisions of the Constitution.

The strategies embraced under the First Medium Term Plan (2008 - 2012) of Kenya Vision 2030, impacted positively on the growth of the agriculture sector resulting in an average annual growth of 4.3 percent over the five-year period. These efforts notwithstanding, the agriculture sector continues to face various challenges that negatively affect productivity and growth. Collective and concerted efforts by stakeholders in the sector are, therefore, needed to turn around the sector fortunes so that it can play its pivotal role envisaged in the economic pillar of Kenya Vision 2030. The private sector is expected to act as a catalyst for renewed growth in the agricultural sector while the Government will continue to provide the requisite enabling environment. For the desired economic benefits to be achieved, the sector will embrace modern climate-smart agriculture. In addition, the Ministry will promote development of underutilized resources such as Kenya's Exclusive Economic Zone of the Indian Ocean.

The estimated cost of implementing this Strategic Plan is significant. I am confident that its successful implementation will go a long way in addressing poverty, unemployment and food insecurity in the country. I take this opportunity to call upon the youth not to shy away from the agriculture, but instead embrace modern agricultural enterprises and agri-business.

A handwritten signature in black ink, consisting of a stylized 'A' followed by a series of loops and a long horizontal stroke.

**Adan A. Mohamed, EBS**  
**Ag. Cabinet Secretary**  
**Ministry of Agriculture, Livestock and Fisheries**





## PREFACE



**Sicily K. Kariuki (Mrs.), MBS  
Principal Secretary  
State Department of Agriculture**

This Strategic Plan has been developed to facilitate implementation of the Second Medium Term Plan (MTP II), 2013-17 of the Kenya Vision 2030. It borrows heavily from MTP II, the Agricultural Sector Development Strategy (2010 - 2020) and the Jubilee Manifesto. Collective synergies of the Ministry and its stakeholders will ensure effective and efficient implementation of the Strategic Plan.

The implementation of the Plan will result in the realization of an innovative, commercially oriented and modern agriculture sector. To realize the desired transformation, this Strategic Plan has set clear and achievable strategies on how to utilize the Ministry's strengths, seize existing and emerging opportunities and address the various challenges. As anticipated in the Kenya Vision 2030, it is expected that the sector will achieve accelerated growth of about 10 percent in the medium term and sustain it over time. This will be achieved through focusing on strategic growth result areas that include creation of an enabling environment; increased agricultural productivity and outputs; improved market access and trade for agricultural products; enhanced food and nutrition security; strengthening of institutional capacity and enhancing the role of the youth in agriculture.



**Prof. Fred H. K. Segor  
Principal Secretary  
State Department of Livestock**

The Strategic Plan focuses on agriculture sector core functions and key activities and suggests those that can be supported through deepened Public Private Partnerships (PPPs). Deliberate efforts will be made to ensure greater private sector participation with the Government largely playing regulatory and enabler roles. This engagement will be a joint effort driven by the PPPs framework and is expected to yield strong and accountable commitments by Government and private sector to work for a common goal of employment creation, income generation and poverty reduction for Kenyans.



**Prof. Micheni J. Ntiba, CBS  
Principal Secretary  
State Department of Fisheries**

This Strategic Plan will be the basis for formulation of Ministry's work plans, resource bidding and performance contracts. We therefore, call upon all the Ministry personnel and all other stakeholders to pool their energies and work together for realization of the sector strategic objectives.

**Sicily K. Kariuki (Mrs.), MBS  
Principal Secretary  
State Department of Agriculture**

**Prof. Fred H. K. Segor  
Principal Secretary  
State Department of Livestock**

**Prof. Micheni J. Ntiba, CBS  
Principal Secretary  
State Department of Fisheries**





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The Ministry is also indebted to the Strategic Plan preparation team led by Mr. Joseph Katumo, Chief Economist assisted by Mr. Moses Mburu and Mr. Samuel K. Gicheru both Deputy Chief Economists for their hard work and commitment. Special thanks goes to the Strategic Plan secretariat that included; Simon Wekesa, Alex Wambua, Maurice Mungai, Faith Kiprono and Florence Ndai all Economists in the Ministry and Joseph Komu, Principal Agriculture Officer. Finally, the Ministry appreciates the inputs and feedback provided by Heads of Departments, other staff in the Ministry and stakeholders that made the production of this document a success.





# EXECUTIVE SUMMARY

This Strategic plan provides an overview of the Ministry's mandate, functions, objectives and strategies to be pursued during the five-year period. It sets out the framework within which the Ministry will discharge its functions in line with its vision and mission. It further, identifies challenges encountered in the implementation of the previous Strategic Plans (2008- 2012) of the former Ministries of Agriculture, Livestock Development and Fisheries Development and builds on the achievements realized during their implementation.

The preparation of the Strategic Plan 2013 - 2017, was guided by the Kenya vision 2030 and its Second Medium Term Plan (MTP II) 2013 - 2017; the Constitution; the Jubilee Coalition Manifesto; the Agriculture Sector Development Strategy (ASDS) and other sector policy priorities. The plan has taken cognizance of the international, regional and national challenges that are facing the sector.

The Strategic Plan is structured into eight chapters; Chapter one gives the background information on the performance of the agricultural sector, sector's past reforms, functions, vision, mission, and core values. Chapter two presents Kenya's development challenges at the global, regional and national levels. Chapter three provides the situation analysis in the context of crops, livestock and fisheries sub – sectors; policies and legislations; the sector achievements during the first Medium Term Plan (2008-2012); Strengths, Weaknesses, opportunities and Threats (SWOT); and Political, Economic, Social, Technological, Environmental and Legal (PESTEL) analysis. Chapter four provides Kenya's agriculture development agenda in the context of Vision 2030, the Second Medium Term Plan (MTP II) 2013-2017 and implementation of other programmes. Chapter five presents a summary of lessons learned in the implementation of previous Strategic Plans (2008 - 2012) and the challenges facing the sector while Chapter six gives the Ministry's strategic issues, strategic objectives and the strategic interventions. Chapter seven documents the coordination framework, capacity of the Ministry in terms of staff, resource requirements to implement the Plan and resource mobilization strategies. Chapter eight provides the monitoring and evaluation framework and key national and ministerial performance indicators that would be monitored during the plan period.

In order to efficiently deliver on its mandate, the Ministry identified six strategic objectives, namely to:- create an enabling environment for agriculture development; increase productivity and outputs in the sector; enhance national food and nutrition security; improve market access and trade; strengthen institutional capacity; and enhance the role of youth in agriculture. Clear strategies and activities have been identified for implementation under each Strategic objective.

Towards creation of an enabling environment in the sector, the Ministry will continue to develop and review policies, legislations and regulations to facilitate the relevant stakeholders to play their role and attract investments. To address the issue of low productivity associated with low use and adoption of modern technology, the Ministry will strengthen research, technology development and transfer. This will be through increasing budgetary support to the research institutions under the Ministry and creation of a framework to facilitate demand driven research and technology transfer to enhance productivity in the sector. Further, the Ministry will promote access of agricultural inputs and financial services. This will include:- enhanced access to affordable and quality inputs; and access to affordable credit facilities and insurance services. Other strategies that will be pursued include: disease and pest control; reduction of post- harvest losses; enhancement of animal genetics and livestock vaccine production; sustainable utilization of capture fisheries; and development and adoption of climate resilient agriculture technologies, programmes and projects.

In an effort to enhance national food and nutrition security, the Ministry will diversify and expand the strategic food reserves and establish agriculture insurance schemes. These will cushion farmers, pastoralists and fisher folk against vagaries of weather resulting mainly from climate change among other factors.

Market access and trade for the agriculture sector products and produce is key for the growth of the sector. Towards this, the Ministry will focus on four strategies namely: promotion of agriculture products and produce in the local and international markets; establishment of export zones with a focus to promote the country's export of livestock and livestock products; capacity enhancement for compliance with domestic and export trade measures; and value addition enhancement for agriculture products along the value chain.

To strengthen the Ministry's capacity, institutional reforms will be undertaken. These will involve restructuring of Kenya Plant Health Inspectorate Services (KePHIS); Pest Control Products Board (PCPB); Agricultural Development Corporation (ADC); Dairy Training institute (DTI); the Kenya Meat Commission (KMC); and the Kenya Dairy Board (KDB). Other strategies will be on strengthening information and communication in the sector; monitoring and evaluation system; human capacity development; and development of products information and distribution mechanisms.

To address the challenge of low youth involvement in agriculture, the Ministry, will continue to encourage youth to take up agriculture like any other business and as a form of gainful employment. Specific measures will be taken to empower youth through: capacity-building under technical and vocational training in farming; introduction of new farming technologies (green houses, drip kits, fish ponds and water harvesting facilities) that reduce drudgery, increase productivity and returns to labour; and facilitating access of modern technology information through demonstration sites, print media, periodicals and electronic media targeting the youth.

The successful implementation of the plan will depend on three key factors namely; sound coordination framework, Ministry's human and financial resources capacities. The estimated cost of implementation of the identified activities during the five years is Kshs 289 billion as contained in appendix 1.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

The Ministry of Agriculture, Livestock and Fisheries was formed through the Executive Order No. 2/2013 of 20<sup>th</sup> May 2013. It comprises of three State Departments namely: Agriculture; Livestock and Fisheries. In 2015, the department of irrigation technology and infrastructure under State Department of Agriculture was transferred to the newly established Ministry of Water and Irrigation.

### 1.2 Mandate

The Mandate of the Ministry is to create an enabling environment for sustainable development and management of crops, livestock and fisheries resources to ensure the country's food and nutrition security.

### 1.3 Role of the Ministry

#### 1.3.1 Core functions

The Ministry's core functions are:

- i). Formulation, implementation and monitoring of agricultural legislations, regulations and policies;
- ii). Supporting agricultural research and promoting technology delivery;
- iii). Facilitation and representation of agricultural state corporations in the government;
- iv). Development, implementation and co-ordination of programmes in the agricultural sector;
- v). Regulation and quality control of inputs, produce and products in the agricultural sector;
- vi). Management and control of trans-boundary pests, diseases and invasive species;
- vii). Collection, maintenance and management of information on agriculture sector; and
- viii). Promotion of sustainable resource management and utilization.

#### 1.3.2 Vision and Mission

##### Vision

A food secure and wealthy nation anchored on an innovative, commercially oriented and competitive agriculture sector.

##### Mission

To improve the livelihood of Kenyans and ensure food and nutrition security through creation of an enabling environment and ensuring sustainable natural resource management.

#### 1.3.3 Strategic Objectives

The strategic objectives for the Ministry are to:

- i. Create an enabling environment for Agricultural development;
- ii. Increase productivity and outputs in agriculture sector;
- iii. Enhance national food and nutrition security;
- iv. Improve market access and trade;
- v. Strengthen institutional capacity; and
- vi. Enhance the role of youth in agriculture.

### **1.3.4 Core values**

In implementation of this Strategic Plan, the Ministry will be guided by the following principles:

- i. Professionalism
- ii. Integrity
- iii. Efficiency and responsiveness
- iv. Partnerships
- v. Gender Equity

### **1.3.5 Agriculture and the Economy**

Agriculture sector is key to the overall economic growth and development in Kenya. The sector contributes about 25 percent of the Gross Domestic Product (GDP) and 75 percent of industrial raw materials. It further accounts for 65 percent of Kenya's total exports, 18 percent and 60 percent of the formal and total employment respectively. In the national development agenda, agriculture is expected to lead the growth and transformation of the economy and maximize the benefits of accelerated growth.

Kenya Vision 2030 has identified agriculture as one of the six key economic sectors expected to drive the economy to a projected 10 percent economic growth annually over the next two decades. The sector is therefore central to the achievement of Vision 2030 goal of "a globally competitive and prosperous nation with a high quality of life by 2030".

During the implementation of the First MTP (2008 – 2012) of Kenya Vision 2030, the sector recorded an average annual growth of 4.3 percent. This growth rate was realised through implementation of five key strategic thrusts namely:- institutional reforms; increased productivity; efficient land use practices; arid and semi-arid areas development; and increased market access.

The Ministry made strides in implementation of key flagship projects identified for implementation in the first Medium Term Plan 2008- 2012 and will continue to build and sustain the gains made during the second MTP. During the plan period, the Ministry will focus on six key strategic areas. These are: creating an enabling environment for agricultural development; increasing productivity and outputs in the agriculture sector; enhancing national food and nutrition security; improving market access and trade for agricultural products; strengthening institutional capacity and increasing youth involvement in agriculture.

The sector is also expected to deliver in Kenya's global commitments specifically on the first Millennium Development Goal (MDG) on poverty and hunger where Kenya targets to reduce by half, the population faced by hunger and absolute poverty by 2015. The proportion of people living below the absolute poverty reduced from 52 percent in 2000 to 45.9 per cent in 2006 when the last Kenya Household and Budget Survey was conducted (MDGs status report for Kenya 2011). Majority of Kenya's population live in rural areas and depend on agriculture as their main source of livelihood. Increasing agricultural productivity would thus be an effective way to raise incomes and make lasting impacts in poverty reduction.

### **1.3.6 Past Reforms in Agriculture**

Since the 1920s, Kenya's agriculture system has evolved through socio-political dynamics and reforms. However, not all reforms had positive impacts. For example, the introduction of the Structural Adjustment Programmes (SAPs) in the 1980s had negative effects on the sector. Upon economic liberalization, input and output markets were opened to forces of demand and supply, thus affecting prices of most agriculture commodities and quality of agricultural inputs and services.

In 2002, the Government developed Economic Recovery Strategy for Wealth and Employment Creation (ERS) and was successfully implemented in the period 2003-2007. At the same time, the Strategy for Revitalizing Agriculture (SRA) 2004-2014, was developed and implemented as the sector vision meant to respond to the decline witnessed in the agriculture sector. During the implementation of the ERS, the economy recovered

from a low growth of 0.5 percent in 2002 to 7 percent in 2007. The agriculture sector grew at an average rate of 3.9 percent with a high growth rate of 7 percent in 2005 during the same period.

### **1.3.7 Basis of this Strategic Plan**

The current Strategic Plan (2013 -2017) has been developed based on the Kenya Vision 2030 and its Second MTP, Jubilee Manifesto, the Constitution and agriculture sector policies. It also builds on the successes and lessons learnt during the implementation of the first MTP and previous Strategic Plans (2008 -2012) of the former Ministries of Agriculture, Livestock and Fisheries Development. It takes into account the two levels of government (The National and County Governments).



# CHAPTER TWO

## DEVELOPMENT CHALLENGES: GLOBAL, REGIONAL AND NATIONAL

### 2.1 Introduction

The agriculture sector continues to be a fundamental pillar for sustainable development and poverty reduction in the country. However, it continues to face challenges and emerging constraints at the global, regional and national levels that require to be addressed.

### 2.2 Global Constraints

Globally, the characteristics of agriculture sector vary widely, from predominantly small scale with low external inputs to highly mechanized large-scale farming with very high levels of external inputs. For developing countries like Kenya, agricultural strategies focus on moving from subsistence to commercially oriented and competitive agriculture. There are several global constraints that hinder agricultural development in Kenya. These include:-

- i. **Unfavourable international terms of trade:** Kenya's exports have been constrained by unfavorable international terms of trade. Developed countries in particular, continue to impose prohibitive tariff and non-tariff barriers. These include; biased trade agreements, use of agricultural subsidies in support of farmers in developed economies and protectionist policies, which result in unfavorable market access and declining commodity prices. International trade negotiations such as those under World Trade Organization and the Economic Partnership Agreements (EPAs) have been slow and have achieved little progress in the last decade.
- ii. **Rising costs of inputs:** The sector has faced rising costs of production as a result of high cost of crude oil, fertilizers, agro-chemicals, agricultural machinery and equipment, animal health and other production inputs. The high oil prices have a strong bearing on the cost of inputs as a raw material for manufacture of fertilizer and a factor in international freighting and distribution.
- iii. **Climate change:** The effects of climate change are adversely affecting food production and the livelihoods of people and have devastating consequences on the environment, society and wider economy. It is increasingly clear that developing countries including Kenya are most adversely affected by persistent droughts and floods due to their fragile environment. This is compounded by their inadequate disaster preparedness and inadequate capacities on adaptation and mitigation measures on climate change impacts.
- iv. **Global economic recession:** In the recent past, the world economy has been faced with an economic slow-down with signs of possible recession. Many countries have registered economic downturn characterized by high inflation and unemployment. The recent meltdown in banking and the flow of money in the United State of America (USA), Europe and Asia has also presented new and worrying dimensions to global finance. The slow-down is likely to reduce the demand for agricultural commodities and reduced flow of capital into the developing countries. Overseas development assistance is likely to be reduced hence less capital for projects in developing countries. Countries like Kenya should therefore prepare for less contribution from development partners for programmes and projects.



## 2.3 Regional Constraints

- i) **Regional Cooperation:** The East Africa region is relatively small and contributes less than 10 percent of international trade and remains a net importer of not only industrial goods but also agriculture commodities. Although intra regional trade has been strengthened through regional integration arrangements such as Southern African Development Community (SADC), Common Market for Eastern and Southern Africa (COMESA) and East African Community (EAC), there are various constraints to regional integration that include lack of convergence of national economic and political interests. Furthermore, some of the countries share lakes and rivers yet they have different policies on utilization of these resources to the extent that some are detrimental to the development of other countries.
- ii) **Pests and Diseases:** The Sub-Saharan African countries have similar agro-ecological characteristics, hence face similar crop and animal pests and diseases. Crop pests such as desert and red locusts, quelea birds, grain and stem borers cut across national borders and are endemic in the region. All crop diseases of economic importance are also found in all the countries. Livestock diseases such as foot and mouth disease, contagious Bovine pleuropneumonia, rinderpest, east coast fever, etc are found in most countries in sub-Saharan Africa. While there are regional bodies addressing these diseases, there are inadequate regional policies and programmes to address cross border pests and diseases menace. There is also the challenge of pest resistance to pesticides and new host targets by non-traditional pests and diseases.
- iii) **Civil Strife and Armed Conflicts:** These continue to affect several parts of Africa as they disrupt productive activities, destroy infrastructure and livelihoods, seriously undermining food security and overall development efforts. In Eastern Africa, ongoing and past conflicts continue to cause food insecurity for large population groups. This has resulted to high influx of refugees into neighbouring countries thus aggravating the food security situation. Similarly, it has resulted into the proliferation of small arms into the country leading to high insecurity levels, as evidenced by the recent spates of terrorism related attacks in parts of the country, which is a disincentive to investment.

## 2.4 National Constraints

Constraints that affect agriculture development at national level have been well analyzed in the Agricultural Sector Development Strategy (ASDS: 2010 -2020), Kenya Vision 2030 and its second Medium Term Plan (2013-2017). The following are some of the key constraints:

- i. **Inadequate legal and policy frameworks:** The sector has made strides in consolidating agriculture legislation. However, many policies and legislations remain out-dated and inconsistent with the constitution.
- ii. **Low application of modern technology:** Use of modern science and technology in production is still limited. Although Kenya has a well-developed agricultural research infrastructure, inadequate research-extension-farmer linkages and inadequate demand-driven research has led to low agricultural productivity. In addition, the rate of adoption and utilization of agricultural mechanization in Kenya has remained slow and therefore, there is need to develop a national agricultural mechanization policy within this Strategic Plan period.
- iii. **Low and declining soil fertility:** The rising population density has contributed to the subdivision of land to uneconomically small units. In addition, the reduction of fallow periods and continuous cultivation has led to rapid depletion of soil nutrients, declining yields and environmental degradation.
- iv. **Poor governance in agricultural institutions:** Agricultural processing, cooperatives and farmers' organizations are vital for good performance of the agriculture sector. Poor governance and corruption have led most of such institutions being inefficient. Moreover, an absence of private sector capacity to



take over some services has led to a vacuum and lack of these services altogether.

- v. ***Inadequate quality control systems:*** The export of agricultural products has faced restrictions due to poor packaging, damage during transportation, poor handling and contamination.
- vi. ***Multiplicity of taxes:*** Producers have been subjected to multiple taxes and levies. This has contributed to a reduction of the net farm incomes and created distortions in marketing structures.
- vii. ***Weak surveillance on offshore fishing:*** There is weak capacity to effectively monitor and enforce compliance and regulations governing the exploitation of offshore territorial waters. This has limited Kenya's ability to fully exploit the offshore fishing potential.
- viii. ***Limited capital and access to affordable credit:*** Farming is considered highly risky by the formal banking sector, thus it gives farming little attention. Without credit, farmers are hard pressed to finance inputs and capital investment. A number of microfinance institutions are operating but they tend to increase the cost of credit, reaching only a small proportion of smallholder farmers, and provide only short-term credit.
- ix. ***Inadequate market access and marketing infrastructure:*** Agriculture marketing information and infrastructure are poorly organized. The domestic market lacks an effective marketing information system and infrastructure. The lack of structured markets for various commodities is a major drawback to market access within the country. In addition, the dependence on a few external market outlets makes agriculture exports very vulnerable to changes in the demand of agriculture products and unexpected non-trade barriers by foreign markets.
- x. ***Inadequate storage and processing facilities:*** Inadequate storage facilities constrain marketability of perishable goods such as fish, dairy products, beef, fruits and vegetables as well as marketability of durable produce. Inadequate fish-processing facilities have limited the extent of exploiting fish resources. A mechanism is needed to ensure completion of incomplete facilities, utilization of idle facilities such as National Cereals and Produce Board (NCPB) stores and appropriate location of future facilities.
- xi. ***High cost, adulteration, low and inappropriate application of key inputs:*** The cost of key inputs such as seeds, dam liners, semen, fishing gear, fertilizers, agro-chemicals, feeds and other animal health inputs has continued to increase making them unaffordable by many producers and increasing the cost of production. In addition, cases of adulteration of products have been reported. This has resulted to low application of quality inputs leading to reduced productivity.
- xii. ***Pests and diseases:*** Prevalence of diseases and pests continue to be high.
- xiii. ***Frequent droughts and floods:*** Over the last three decades, the frequency of droughts and floods has increased, resulting in crop failures, emerging livestock diseases as well as loss of livestock and fisheries.
- xiv. ***Poor infrastructure:*** Underdeveloped rural roads and other key physical infrastructure have led to high transport costs for agricultural products to the markets as well as farm inputs.
- xv. ***Gender inequalities:*** This continues to impact negatively on household food security, sector performance and overall economic growth. These inequalities exist at household level in terms of access to and control over productive resources; and in agriculture value chains (participation at processing, marketing, trade) and in agricultural service delivery.



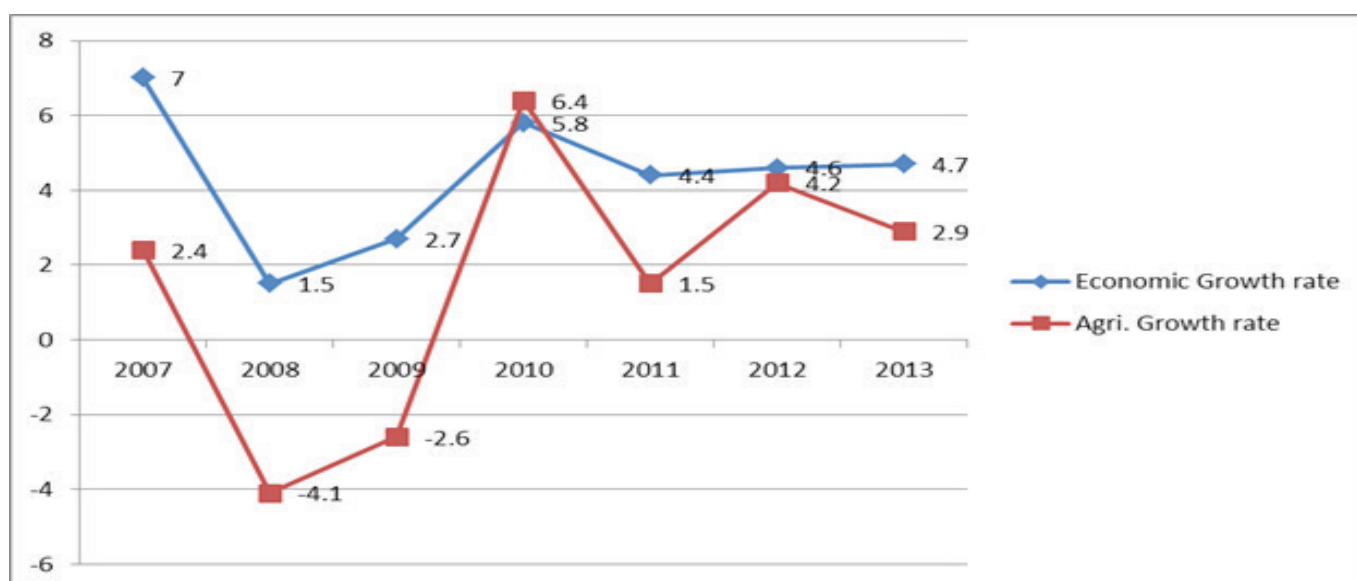
# CHAPTER THREE

## SITUATION ANALYSIS

### 3.1 Agriculture Growth

The agriculture sector is made up of crops, livestock and fisheries sub-sectors. During the first two decades after independence, Kenya's economy grew at an average rate of about 6 percent per year substantially driven by a robust agriculture sector. However, a combination of factors has led to slower economic growth in the later years. There exists a high and positive correlation between agriculture performance and the general economic performance as depicted in Figure 1.

**Figure 1: Overall GDP against the agriculture GDP growth rates (2007 -2013)**



### 3.2 Crop Production

The crops sub sector is key to agriculture development and industrialization for the nation. The sub sector contributes substantially to the agricultural GDP. It is broadly categorized into industrial, food and horticultural crops. Crops production contributes an average of 18 percent of the total GDP. Key among these include tea, coffee, sugarcane, cotton, barley, tobacco, cereals, pulses, vegetables, fruits and flowers, all of which contribute to about 55 percent of all agricultural exports. Tea is the leading foreign exchange earner and fetched Kshs.114 billion while horticulture earned Kshs. 94 billion in 2013.

Food crops make a significant contribution to Kenya's GDP (32 percent of agricultural GDP) and are important for food security. Horticulture is a critical sub sector that has recorded a remarkable export driven growth in the past decade. It is now the largest sub sector contributing about 33 percent of the agricultural GDP and 30 percent of export earnings.

### 3.3 Livestock production

Animal production is a major economic and social activity for the communities living in both high rainfall and arid and semi-arid lands (ASALs). Within the ASALs, it accounts for nearly 90 percent of the employment opportunities and nearly 95 percent of family incomes. Animal production contributes about 5.5 percent of the GDP and accounts for about 22 percent of the agricultural GDP and over 40 percent of farm gate value of agricultural commodities (Economic Survey 2015).

The value of livestock and livestock products increased from Kshs.38,895.9 million in 2008 to Kshs. 88,305.3 million in 2012 (Economic Survey, 2013). The livestock sub sector has the potential to provide adequate supply of all animal products and by-products to meet domestic needs and generate surplus for export. Thus, the sub sector will play a significant role in reversing poverty levels and contribute to economic growth and therefore enabling the country to attain its objectives of Kenya Vision 2030.

According to Kenya Housing and Population Census 2009, the livestock population in the country was 17,467,774 cattle, 17,129,606 sheep, 27,740,153 goats, 2,971,111 camels, 1,832,519 donkeys, 334,689 pigs, 25,756,487 poultry and 6,071,042 rabbits. Further, there were 1,843,496 Beehives producing about 25, 000 Metric Tonnes (MT) of honey annually. In addition, there are a variety of emerging livestock such as ostrich and crocodiles which present a potential for future livestock development.

### **3.4 Fisheries Production**

The fisheries sector supports about 150,000 people directly and about 800,000 indirectly. On average, a total of 150,000 MT of fish valued at approximately Kshs 10 billion is landed in the country annually. Exports of fish and fish products earn the country approximately Kshs 5 billion in foreign exchange annually. The sub-sector contributed about 0.7% to national GDP in 2012 valued at Kshs.28.9 billion (Economic Survey 2015).

### **3.5 Policies and Legislations**

The crops sub-sector is guided by several national policies and legislations including the National Food and Nutrition Security Policy, 2012; National Agriculture Sector Extension Policy, 2012; National Agri-Business Strategy,2012; National Horticulture Policy, 2012; National Root and Tuber Crops Policy, 2011; Kenya Seed Policy, 2010; Crops Act No. 16 of 2013; Agriculture, Fisheries and Food Act (AFFA) No. 13 of 2013; and the Sugar Act 2001.

The livestock sub-sector is mainly guided by the National Livestock Policy and Acts of Parliament including Animal Diseases Act, Cap 364; Veterinary Surgeons and Veterinary Para Professionals Act, No 29, 2011; Meat Control Act, Cap 356; Hides, Skins and Leather Trade Act, Cap 359 and Dairy Industry Act, Cap 336; National Dairy Development Policy; National Poultry Policy; National Rabbit Development Strategy; and National Beekeeping policy.

The fisheries sub –sector is guided mainly by the Fisheries Act CAP 378 (1991), National Oceans and Fisheries Policy (2008), and Aquaculture Policy (2011).

The overall objective of these policies and legislations is to promote food security and incomes; advance agro-based industries, employment creation and agricultural exports; and enhance sustainable use of land resources as a basis for agriculture enterprises. The policies within the sub-sector have embraced issues addressing interests of youth, women and persons with disabilities among other vulnerable groups. However, there exist some policy gaps and thus, other policies will be developed during the 2013 - 2017 plan period, in addition to harmonizing others where need arises.

### **3.6 Achievements under the First Medium Term Plan 2008-2012**

The agriculture sector committed itself to achieving specific growth targets through implementation of a number of programmes and projects under the First Medium Term Plan and the respective sub sectors Strategic Plans (2008-2012). Overall, the sector achieved most of the planned activities, particularly the targets under the flagship projects.

During implementation of the 2008-2012 Strategic Plans, the sector recorded an average annual growth rate of 4.3 percent against the Kenya Vision 2030 target of 7 percent. This was mainly caused by adverse weather conditions in some years, post election violence and increasing costs of major inputs such as seeds, fertilizer and fuel. The value of agriculture output increased by Kshs. 70,550 million per annum between 2008 and

2011 against the target of Kshs.80, 000 million per year as set out in Kenya Vision 2030 and Agriculture Sector Development Strategy (ASDS). Several flagship projects were implemented as follows:-

### 3.6.1 Enactment of the Consolidated Agricultural Reform Bill

Out of the five (5) Bills set for enactment, three (3) Acts were enacted and assented to namely: Agriculture, Fisheries and Food (AFFA) Act, 2013, Crops Act, 2013 and National Agricultural and Livestock Research Act, 2013.

### 3.6.2 Fertilizer Cost Reduction Project

A total of 274,000 MT of fertilizer was procured as a price stabilization mechanism. As a result, fertilizer prices reduced and stabilized during the period under review (Di-Ammonium Phosphate (DAP) prices dropped from Kshs. 3,800 to Kshs. 2,000; Calcium Ammonium Nitrate (CAN) from Kshs.2600 to Kshs.1,500 and N:P:K from Kshs. 3,000 to Kshs.2,000). A feasibility study for establishing viability of a fertilizer processing plant was completed and the process of identifying a strategic partner initiated.

### 3.6.3 Establishment of Disease Free Zones (DFZ)

A road map for implementation of Kenya DFZ was developed focusing on the Coastal disease free zones.

## 3.7 Strengths, Weaknesses, Opportunities and Threats Analysis

Table 1 presents an analysis of the Ministry's strengths, weaknesses, opportunities and threats (SWOT).

**Table 1: SWOT Analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>i. Skilled human resources</li> <li>ii. Good rapport with stakeholders</li> <li>iii. Availability of basic infrastructure</li> <li>iv. Enabling policy and legal frame work</li> </ul>	<ul style="list-style-type: none"> <li>i. Inadequate funding</li> <li>ii. Inadequate staff</li> <li>iii. Ageing technical staff and poor succession management</li> <li>iv. Weak information and data management</li> <li>v. Poor infrastructure to facilitate markets</li> <li>vi. Weak Monitoring and Evaluation system</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>i. Political good will</li> <li>ii. Existence of collaborating institutions</li> <li>iii. Existence of new technologies</li> <li>iv. Ready market for agricultural produce</li> <li>v. Supportive development partners</li> <li>vi. Availability of natural resources for expansion of agriculture e.g. land, water</li> </ul>	<ul style="list-style-type: none"> <li>i. Climate change</li> <li>ii. Encroachment of government land</li> <li>iii. Environmental degradation</li> <li>iv. High poverty levels</li> <li>v. Insecurity</li> <li>vi. High prevalence of Pests and diseases</li> </ul>

## 3.8 Political, Economic, Social, Technological and Legal (PESTEL) Analysis

In preparation of this Strategic Plan, the Ministry focused on understanding the environment under which it operates with a view to appreciating the factors that would support or impede its implementation. The PESTEL analysis for the Ministry is presented in Table 2.

**Table 2: PESTEL Analysis**

Factors of Change	Type of Change	Impact on agricultural development	Mitigation Measures
Political	Creation of Counties	Devolved functions	Capacity building of County governments through devolving staff; Develop working relations with county governments
Economic	Stringent requirements for international trade	Limited trade opportunities	Development of standards and diversify markets
Social	Increased urbanization and rise in human population	Encroachment into agricultural land for development of housing	Promote urban and peri-urban agriculture
Technological	Increased technological development	Ease of diagnosis, communication and dissemination of information	Capacity building and promotion of adoption of new technologies
Environmental	Climate change	Loss of crops and livestock due to drought, diseases, floods and other climate change related incidences	Development of contingency plans, insurance schemes, diversification of livelihoods and capacity building
Legal	Constitutional change	Inconsistencies in policy and institutional arrangements	Development, review and harmonization of policy and legal frameworks

### 3.9 Stakeholder Analysis

There are many stakeholders in agricultural development who will have an influence in the implementation of this Strategic Plan. Table 3 identifies some of the stakeholders.

**Table 3: Stakeholder Analysis**

Stakeholder	Function/role/responsibility	Competitive advantage	Target	Assistance in agricultural Development
Research Institutions	Crop, livestock and Fisheries research	Advanced research facilities and skills	Contribute knowledge to Improve disease pests management and production systems	Development of scientific research output
Institutions of higher learning	Staff training and induction	Training facilities and skilled personnel	Develop skilled man power	Supply of skilled personnel
Farmers/CBOs	Community development and empowerment	Platform for engagement	Sustainable land use	Adoption of new technologies and agricultural production
Non Governmental Organizations (NGOs)	Policy Advocacy	Grass root net work and resource mobilization	Localized community support	Complement government effort in policy advocacy and dissemination
Print and electronic media	Dissemination of information	Wide coverage	Inform the public.	Publicity and awareness creation

Stakeholder	Function/role/responsibility	Competitive advantage	Target	Assistance in agricultural Development
Development partners	Support development projects	Financial resources	Provision of complementary resources	Funding agricultural programmes and Capacity building
County Governments	Implement National policies and strategies	Constitutional mandate, resources, and proximity to farmers	Service delivery	Allocation of resources for agricultural development
Pest Control Products Board	Regulation and advisory	Legal mandate	Maintain standards	Quality assurance of pesticides and chemicals
Kenya Plant Health Inspectorate Service (KePHIS)	Regulatory	Legal mandate	Seed quality control	Quality assurance of seeds
National Environmental Management Authority (NEMA)	Safeguard environment	Legal mandate	Safe environment	Impact assessment of agricultural programmes
Kenya Wildlife Service (KWS)	Protection of wildlife	Legal mandate	Wildlife conservation	Reduce human, livestock and wildlife conflict
Financial institutions	Provision of financial facilities, saving and credits	Advisory, socio corporate responsibilities	Resources, investment and capacity building	Provision of financial facilities
Private Sector	Resource mobilization	Entrepreneurship, investment facilities, finances, corporate responsibilities, own resources	Investments, compliance with regulations and standards	Resources, current technology, awareness creation, capacity building
Parliament	Legislation	Constitutional mandate	Enactment of agricultural bills and policies	Approval of budgets, policies and legislations





# CHAPTER FOUR

## KENYA'S AGRICULTURE DEVELOPMENT AGENDA

### 4.1 Introduction

Kenya's Development agenda is clearly outlined in the Kenya Vision 2030. The Vision identifies the agricultural sector, as one of the key sectors to deliver the envisaged national economic growth rate of 10 percent annually. Agricultural sector is expected to play a crucial role in the economic pillar of Kenya Vision 2030.

Kenya aims to promote an innovative, commercially oriented, and modern agricultural sector. This is to be accomplished through: transforming key institutions in the sector to promote agricultural growth; increasing productivity of crops, livestock and fisheries; reviewing land use policies for better utilization of high and medium potential lands; Expanding irrigation in arid and semi-arid lands; and improving market access for small holders through value chain management.

Kenya Vision 2030 identified a number of flagship projects for sector to be implemented over the vision period to facilitate the desired growth and development.

### 4.2 Agriculture Flagship Projects

- i. Implementation of the Consolidated Agricultural Reform Legislations:* This includes preparation of necessary regulations to actualize implementation of the Acts and setting up institutions such as the Agriculture, Fisheries and Food Authority (AFFA); and the Kenya Agricultural and Livestock Research Organization (KALRO) proposed in the new Acts. Additionally, efforts will be made to fast track passing of the Livestock and Fisheries Bills in Parliament.
- ii. Fertilizer Cost Reduction Strategy:* This will address issues of access and affordability of fertilizer. Having identified and short-listed potential investors, the process of establishing a local fertilizer plant will be hastened. Similarly, the identification of a private investor for blending will also be undertaken.
- iii. Establishment of Disease Free Zones (DFZ):* Four DFZ will be established to facilitate access of Kenyan meat, leather and leather products to local, regional and international markets. One zone will be established by the national government at the Coast, covering the counties of Kwale, Mombasa, Kilifi, Tana River, Lamu and parts of Taita-Taveta outside the Tsavo National Park. The ministry will also develop guidelines and standards to enable county governments to develop the other three zones in the Laikipia-Isiolo complex, Uasin Gishu and Garissa Counties.
- iv. Fisheries Development and Management:* This will be achieved through expanding the area of fish farming from the current high potential areas to Arid and Semi Arid Lands (ASALs) and developing fisheries related infrastructure and strengthening of monitoring, control and surveillance systems. In addition, the Ministry will promote development of underutilized resources such as Kenya's Exclusive Economic Zone (EEZ).

### 4.3 Other Programmes

- i. Agricultural Development along LAPSSET corridor:* This will involve feasibility studies, documenting investment opportunities in the corridor and providing investment incentives to those interested in agricultural enterprises along the corridor.
- ii. Agri-Business Development Programme:* This programme is geared towards improving access to markets by all agricultural value chain players as well as improving and modernizing market

facilities. It will further transform agricultural marketing functions through value chain development and strengthening producer and marketing systems. Under this programme, agricultural product development will be done through value addition programmes. The programme will ensure creation of local, regional and international marketing opportunities for agricultural commodities.

- iii. ***National Accelerated Agricultural Inputs Access Programme (NAAIAP)***: This programme aims at improving access of agricultural inputs such as fertilizer, agrochemicals, certified seeds, fish fingerlings and feeds. The Ministry will further promote access to improved livestock genetic materials.
- iv. ***Agricultural Credit and Financial Services Access Programme***: This programme aims at improving access of agricultural credit and establishment of National Livestock and Crops Insurance Schemes.
- v. ***Agricultural Mechanization Programmes***: These programmes aim at increasing access to and application of agricultural mechanization to enhance agricultural productivity

To realize an innovative, commercially oriented and modern agricultural sector, Kenya will adopt climate-smart agriculture. Efforts will be put in place for increased involvement of the youth in income generating ventures in the crops, livestock and fisheries sub sectors.

# CHAPTER FIVE

## LESSONS LEARNED

Implementation of the Ministry's Strategic Plan 2008-2012 has provided critical lessons for improvement in the implementation of the Strategic Plan 2013-2017.

### 5.1 Investment in Agriculture

Most expenses on agriculture are private expenditures that households invest in their farms. There is need to determine where and how off-budget funds are utilized and the extent to which these funds get absorbed into the system and are in line with sector priorities. There are weak linkages among various actors in the agricultural sector. There is need to have better coordination of the various actors to improve efficiency and effectiveness in implementation of sector policies and programmes.

The agriculture sector is inadequately funded and there is a need to ensure adequate resources in line with the Maputo declaration that advocated for 10 percent of the national budget to be allocated to agriculture. The number of staff in the sector, particularly for technical support offices was below recommended levels and there is need to improve staff capacity for effective and efficient service delivery.

### 5.2 Monitoring and Evaluation

Generally, the performance of agriculture sector has been difficult to assess given the diverse external factors at play, especially variability in weather conditions. During 2008-2012, there were various information systems run by former sector Ministries (now state departments) that were not linked. There is therefore need to consolidate and integrate them into a common agriculture information management system that strengthens monitoring and evaluation.

Although the Government has continued to provide essential services to its clients, the data available is not sufficiently accurate to guide planning and policy formulation. The Ministry is therefore planning to conduct farmers' census to get accurate data. Gender disaggregated data will be part of the statistics that will be collected during the Kenya census of agriculture.

There is shortage of monitoring and evaluation specialists with relevant training background in the Ministry. Most of the officers handling M&E have not had an opportunity to undertake short monitoring and evaluation courses. It is, therefore, necessary to organize monitoring and evaluation sensitization seminars for the M&E officers. This would deepen officers' understanding on the National Integrated Monitoring and Evaluation System (NIMES) and the linkages between M&E and Kenya Vision 2030 and its MTPs, strategic plans, performance contracts and budgeting among others. Further, a sectoral monitoring and evaluation framework should be developed, including a review of performance indicators.

### 5.3 Other lessons

- i. There is need for institutional reforms and creation of enabling environment to facilitate the ease of doing business in the sector. There is also the need to fast track harmonization of various laws governing various sectors.
- ii. Programmes that target vulnerable male and female farmers have a direct impact on their food security, as exemplified by the Njaa Marufuku and NAAIAP programmes. There is therefore need to increase this targeting in order to enhance food security and sector growth.

- iii. Due to changing weather patterns, there is a need to increase investment in irrigation projects and reduce over-dependence on rain-fed agriculture. Close collaboration with Ministry of Water and Irrigation will therefore be necessary.
- iv. A clean, secure and healthy environment is a prerequisite for sustainable development. The Government needs to integrate the principles of sustainable development into the country's policies and programmes in order to reverse the loss of environmental resources.
- v. The initiative to support farmers/stakeholders with subsidized inputs has the potential to increase agricultural production and subsequently achieving food security.
- vi. Dependence on development partners affects the pace of project implementation, especially when their funding priorities change.

## 5.4 Challenges

In an effort to achieve the previous strategic plans objectives, a number of challenges were faced some of which include:-

- i. Inadequate policy and legal framework
- ii. Inadequate funding
- iii. Impacts of climate change
- iv. Low adoption of technology and un-coordinated Research and Development (R&D)
- v. Insecurity/resource-based conflicts
- vi. High population and cultural practices
- vii. Regional and international barriers to trade
- viii. Global economic recession
- ix. Conversion of agricultural land to other competing land uses
- x. High cost of energy
- xi. Low involvement of youth in agriculture and ageing farmers

# CHAPTER SIX

## STRATEGIC ISSUES, OBJECTIVES AND STRATEGIES

### 6.1 Introduction

The strategic issues and objectives have been derived from the situational analysis and the review of the previous Strategic Plans for the period 2008 – 2012 discussed in chapter five. This is in addition to priorities contained in the MTP II (2013-2017), the Jubilee Manifesto and Millennium Development Goals. Agriculture development priority areas in MTP II include: irrigated agriculture; access to agricultural inputs and credit; value addition and market development; establishment of livestock disease free zones (DFZ); establishment of livestock and crops Insurance Schemes; institutional reforms and fisheries development and management.

The strategic objectives for the Ministry are to:

- i. Create an enabling environment for agricultural development;
- ii. Increase productivity and outputs in agriculture sector;
- iii. Enhance national food and nutrition security;
- iv. Improve market access and trade;
- v. Strengthen institutional capacity; and
- vi. Enhance the role of youth in agriculture.

### 6.2 Strategic Issues, Objectives and Interventions

#### 6.2.1 Strategic Issue 1: Inadequate Policy and Legal Framework

The desire for an innovative, commercially oriented and modern agriculture as outlined in Kenya Vision 2030, MTP II and ASDS has continued to be undermined by weak policy and legal framework. Policy priorities of the Ministry will continue to seek promotion of a competitive agricultural sector and the development of diversified products and market outlets. It is expected that enactment of appropriate policies and legislations will promote the role of government as a facilitator and regulator of agriculture industry for the private sector and other stake holders to play their roles. There is need to ensure that all agricultural policies and strategies mainstream cross cutting issues such as gender, environment, HIV/AIDS and drug and substance abuse.

#### 6.2.2 Strategic Objective 1: To Create an Enabling Environment for Agricultural Development

The main function of the Ministry is to develop policies and legislations for agricultural development. The Ministry will develop policies and legislations that attract investments in the sector. It will also undertake the Vision 2030 flagship programme on the implementation of the Consolidated Agricultural Reform Bill. This includes preparation of necessary regulations to actualize setting up new institutions such as the Agriculture, Fisheries and Food Authority (AFFA); and the Kenya Agricultural and Livestock Research Organization (KALRO). The Ministry will use the following strategic interventions to achieve this objective.

##### 6.2.2.1 Develop/ Review the relevant agricultural policies

The Ministry will develop 15 new policies that include Agriculture Policy; Veterinary Policy; Sugar Industry Policy; Urban and Peri-urban Agriculture Policy; National Agro-Chemical policy; National Organic Agricultural Policy; Oil and Nut Crops Policy; National Camel Policy; National Tea Industry Development Policy, Cereals Policy, Agricultural Mechanization Policy, National Soil and Water Conservation Policy, National Agricultural Produce Storage Policy, and Livestock and Crops Insurance Policy.

The Ministry will review existing policies such as the National Livestock Policy, 2008; Horticulture Policy, 2012; National Food and Nutrition Security Policy, 2012; National Oceans and Fisheries Policy, 2008;

National Aquaculture Policy, 2011; and finalize draft policies including the Animal Feeds Policy, and the Animal Breeding Policy.

### **6.2.2.2 Develop/Review Strategies/legal and regulatory framework**

The performance of the sector is hampered by low implementation of policies due to weak of legal and regulatory frameworks. To facilitate policy implementation, the Ministry will develop/ review legal frameworks/ guidelines. This will include: AFFA and KALRO rules and regulations; farm forestry implementation framework; fisheries management and development bill, livestock bill and animal feedstuff bill; animal breeding bill; agricultural professionals, registration and licensing bill, soil fertility and conditioners bill; seed industry regulations among others. In addition, the ministry will review the national soil and water management manual, the horticulture crops development regulations and Warehouse Receipt System (WRS) Regulations.

During the implementation period, the Ministry will develop agricultural strategy for food security and job creation; national emerging livestock strategy, marine fisheries strategy, dairy master plan, agricultural products and by products strategies, and agricultural land use master plan among others.

### **6.2.3 Strategic Issue 2: Low productivity in the Agricultural Sector**

Use of modern science and technology especially among small scale farmers in production is still limited. Although Kenya has a well-developed agricultural research infrastructure, inadequate research-extension and farmer linkages, inadequate demand-driven research and limited access to affordable credit have hampered the adoption of technology.

The rising population density has contributed to subdivision of land to uneconomically small units. It has also led to reduction of fallow periods and continuous cultivation, leading to rapid depletion of soil nutrients, declining yields and environmental degradation.

The cost of inputs such as fertilizers, agricultural machinery and equipment, farm implements, pond liners, animal feeds and seeds has remained high leading to their limited use. In addition, rising poverty levels have contributed to decline in input use. Farmers, fishers and pastoralists point out inadequate credit to finance inputs and capital investment as causing low productivity. A number of micro-finance institutions are operating but reach only a small proportion of farmers/ producers. They provide very short-term credit at high interest rates. The formal banking system is just beginning to develop credit facilities particularly suited to small-scale farming.

There have been high levels of waste due to pre-harvest and post-harvest losses occasioned by pests, diseases, and inadequate handling and storage facilities. Smallholder farmers are unable to cope with pests and diseases mainly due to high cost of control measures. Crop damage by wildlife has also been common and compensation is usually not adequate.

Gender concerns are one of the major factors holding back agricultural productivity and perpetuating poverty and hunger, with ownership to productive resources, and participation along agriculture value chains being skewed against women and the youth. If women farmers used the same level of resources as men on the land they farm, they would increase their yields by 20-30%. Closing the gap in agriculture would put more resources in the hands of women and strengthen their voice within the households, a proven strategy for enhancing food security, nutrition, education and health of children. There have been inadequate gender responsive technology developments and research, credit inaccessibility to women, youth, people with disabilities (PWDs) and other vulnerable groups.



## **6.2.4 Strategic Objective 2: To Increase Productivity and Outputs in the Agricultural Sector**

Increased production per unit and general output is critical in ensuring food security, income generation and employment in the agriculture sector. This objective will be achieved through the following strategies:

### **6.2.4.1 Strengthen research, technology development and transfer**

The Ministry will strive to triple the budgetary allocation to scientific research and information and create a framework for technology transfer to enhance agricultural productivity. This will support activities in collaborative research, advisory services, and technology transfer and agriculture mechanization.

#### ***a) Facilitate collaborative research***

Science and technology is the basis of economic and social development. The Ministry will therefore reform and enhance support to agriculture research institutions so that they can provide new technologies of improved varieties, agronomic packages, and sustainable land use systems. The Ministry will support frontiers of science such as biotechnology, genomic, modeling and ICT as tools for greater agriculture development and food security.

#### ***b) Enhance advisory services and technology transfer***

The Ministry will continue to provide capacity building and strengthening of institutional linkages and greater collaboration between them to promote technology transfer. Agriculture research institutions will be strengthened through improvement of human and financial capacities. The private sector is expected to continue investing in agriculture systems at all levels, from farming, research and extension, technology development, processing and marketing.

#### ***c) Increase mechanization***

The Ministry will develop an agriculture mechanization policy and promote farm mechanization through strengthening of Agriculture Technology Development Centers (ATDCs). The policy will aim at wide application of appropriate technology and mechanization to achieve the highest level of production. ATDCs will be turned into centers of excellence for irrigation and mechanization. Appropriate technologies will therefore be developed and availed to farmers in collaboration with County Governments. The Ministry will develop patenting procedures for engineering technologies. It will also institutionalize testing and standards for agriculture machinery, equipment and implements.

### **6.2.4.2 Promote access to agricultural inputs and financial services**

#### ***a) Enhance access to affordable and quality inputs***

The Ministry will ensure availability and accessibility of high quality inputs such as fertilizer, seed, feed, veterinary vaccines, drugs, livestock genetic resources, pond liners, agricultural machinery and equipment, farm implements, agro-chemicals among other essential inputs for increasing productivity. The Ministry will undertake input subsidy programme on fertilizer, seeds, feeds and traditional high value crops to ensure that these inputs are accessible and affordable to small-scale farmers. The Ministry will address the high cost of agricultural inputs by promoting rationalized inputs distribution system; competition within the supply chain; and providing information on the availability and cost of inputs.

A framework for fertilizer and seeds subsidy digitization, including introduction of e-voucher system will be developed and deployed to electronically register and effectively target deserving farmers nationally so as to ensure transparent reporting and accountability. As outlined in the Vision 2030, the Ministry has undertaken to pursue a fertilizer cost reduction investment programme with the aim of ensuring access of affordable and quality fertilizer.

### ***b) Promote access to affordable credit***

Access to affordable financial services has been very low due to the perceived risk in agriculture investment. The ministry will implement the Agricultural Credit and Financial Services Access Programme to improve access of agriculture credit and insurance to agriculture value chain players. The Ministry will aim at reducing cost of credit by at least 50% of the commercial rate (to crop, fish and livestock farmers) and improve access through consolidating, rationalizing and capitalizing agriculture sector financial institutions.

#### **6.2.4.3 Disease and pest control**

The Ministry will develop contingency plans for control and management of trans boundary diseases, pests and invasive species and continue to enhance surveillance and control of strategic pests (such as birds, worms, locusts, greater grain borer) and toxins (aflatoxin) in prone areas. It will also develop strategies for surveillance and monitoring of animal diseases, antimicrobials and pesticides resistance development. A study of social economic impact of external parasite and vector borne diseases in ASALs sub counties will be conducted. Other interventions will include:-

- a) Carrying out disease outbreak investigations;
- b) Surveillance for sentile herds for Rift Valley Fever (RVF);
- c) Generation of data for vector and pest management;
- d) Development of vector and zological services infrastructures; and
- e) Establishment of food safety laboratory in Kabete.

#### **6.2.4.4 Reduce post-harvest losses**

To reduce pre and post-harvest losses, the Ministry will intensify training and dissemination of appropriate pre and post-harvest technologies to reduce both quantitative and qualitative losses. This will include establishing of processing, warehousing and cold storage facilities. Food safety and quality regulations will be emphasized for market compliance.

#### **6.2.4.5 Enhance animal genetics**

The objective of this programme is to strengthen production capacity for the Kenya Animal Genetic Resource Centre (KAGRC) and the National Aquaculture Hatcheries (NAH). This will be achieved through undertaking the following activities:-

- a) Procure and install liquid nitrogen plants in Kabete, Sotik, Kirinyaga and Voi;
- b) Rehabilitation of road network and construction of modern bull pens;
- c) Recruitment of breeding bulls and genomic selection;
- d) This is expected to increase semen production from 900,000 to 1,600,000 doses annually and generate 1,000,000 litres of liquid Nitrogen; and
- e) Upgrading National Aquaculture Hatcheries to boost fingerling production capacity for different fish species.

#### **6.2.4.6 Enhance livestock vaccine production at the Kenya Veterinary Vaccine Production Institute (KEVEVAPI)**

The programme targets to increase the capacity for KEVEVAPI to produce adequate and improved vaccines. This will involve infrastructural improvement and capacity building of staff for current Good Manufacturing Practices (GMP). The expanded facility will produce vaccines for a wider range of diseases and sufficient quantities for local, regional and international markets. It will also lead to availability of affordable vaccines and increased national vaccination coverage from 10 to 80 percent.

#### **6.2.4.7 Sustainable utilization of capture fisheries**

The Ministry will ensure sustainable utilization of fisheries resources in natural water bodies and tap the underutilized resources by undertaking the following activities:-

- a) Establish and equip Fisheries Monitoring and Surveillance Units (FMSUs);
- b) Undertake monitoring, control and surveillance patrols in natural water bodies;



- c) Establish fish port facilities at Lamu;
- d) Develop domestic capacity for deep sea fishing;
- e) Implement Port State Measures Agreement (PSMA);
- f) Promote joint venture between foreign and local investors in the EEZ;
- g) Conduct fish stock assessment in the EEZ and inland natural water bodies;
- h) Protect critical fish habitats in water bodies; and
- i) Stock and restock of natural water bodies with appropriate water fish fingerlings.

#### **6.2.4.8 Address effects of climate change**

The Ministry will continue to promote priority adaptation and mitigation actions in an effort to enhance resilience to climate change and contribute to low carbon emissions in the country. The specific actions include:-

- a) Mainstreaming climate change adaptation and mitigation strategies into agricultural extension;
- b) Establishment and maintenance of climate change information for agriculture;
- c) Up-scaling climate-smart agriculture technologies such as conservation agriculture and agro-forestry farming systems; and
- d) Development and application of Performance Benefit Measurement Methodology for adaptation, mitigation and development.

#### **6.2.4.9 Develop and adopt climate resilient agricultural technologies**

The ecosystem that supports agricultural production is threatened by land degradation and changing land use developments. Towards this end, the Ministry will:-

- a) Provide technical advice to National Environmental Management Authority (NEMA) through review of Environment Impact Assessments (EIA) and Environmental Audits (EA) on national and regional development projects that are likely to have impact on agricultural production; and
- b) Promote soil and water conservation measures.

The Ministry will develop institutions that promote and enhance land, soil and water conservation for improved soil productivity. Programs for conservation of land, soil and water will be supported to promote farm forestry, protect river banks, catchments and wet lands. In addition, the Ministry will develop more effective partnerships between farmers, researchers, training institutions and extension service providers.

### **6.2.5 Strategic Issue 3: Food Insecurity**

It is estimated that about 47% of the country's population is food insecure. About 2 million Kenyans are constantly on food relief with the figure rising to almost 4 million during periods of shock such as drought and floods. According to the latest Integrated Household Budget Survey conducted in 2005/2006, 17.5% of the population is estimated to suffer from chronic food insecurity and poor nutrition. The country's strategic food reserve is narrowly defined to include maize. The strategic grain reserve has been inadequate to meet the Country's strategic food requirements.

Farmers and pastoralists are faced with a number of challenges that limit their capacity to fully exploit their land and animal resources for sustainable economic and social development. The challenges include plant and livestock diseases, drought, floods and degradation of rangelands that result in crop failure and death of livestock. The losses affect communities' food security and undermine their social and economic status. Investment in agriculture being a risky venture has also been constrained by limited access to insurance services.

### **6.2.6 Strategic Objective 3: To enhance national food and nutrition security**

The Ministry will use the following Strategies:

#### **6.2.6.1 Diversification and expansion of strategic food reserves**

The activities to be undertaken under this strategy will include:

- a) Increasing the quantity/cash equivalent of stocks in strategic food reserve from 2 million to 8 million bags of maize;
- b) Establishment of the Strategic Food Reserve Trust Fund.
- c) Diversifying the strategic food reserves to include beans, rice, powdered milk, canned beef and tinned fish;
- d) Establishing fodder banks along stock routes and construct hay storage facilities in strategic areas.
- e) Building self-reliance to reduce chronic food insecurity.

#### **6.2.6.2 Establishment of agriculture and livestock insurance**

The Ministry will initiate and implement a public-private partnership insurance scheme to cushion livestock, fish and crop farmers from risks, including disasters and effects of climate change. The livestock and crops insurance schemes will therefore increase the resilience of pastoralists and rural communities for sustainable livelihoods.

The activities to be undertaken will include:

- a) Development of a framework for risk mitigation; and
- b) Establishing insurance scheme for farmers and pastoralists

### **6.2.7 Strategic Issue 4: Inadequate Market Access and Unfavorable Trade Environment**

Kenyan farmers export semi processed, low-value produce, which accounts for 91 percent of total agriculture related exports. The limited ability to add value to agricultural produce, coupled with high production costs makes Kenyan agricultural exports less competitive in global markets.

There is need for proactive efforts to maintain existing markets and create new ones and to increase Kenya's bargaining power in regional and global agriculture markets.

### **6.2.8 Strategic Objective 4: To Improve Market Access and Trade for Agricultural Products**

To achieve this objective, the following strategies will be implemented.

#### **6.2.8.1 Promote local and export markets**

The following activities will be undertaken:

- a) Develop safety and quality assurance procedures for agriculture products and by-products. This will be achieved by developing commodity specific strategies,
- b) Develop incentives and standards for marketing infrastructure. The Ministry will develop standards for market infrastructure for various commodities and provide incentives for the private sector to participate,
- c) Modernize and restructure existing processing plants. This will include establishment of buffer stock and working capital for Kenya Meat Commission (KMC),
- d) Establish aquaculture market outlets to promote entrepreneurship and branding, as well as put up new storage and drying facilities to support irrigation schemes,
- e) Develop Structured Markets for specific categories of agriculture, livestock and fish products. This will include operationalization of Warehouse Receipt Systems (WRS), National Commodity Exchange (COMEX), Commodity Futures, and expanding market auctions beyond the few traditional commodities,

- f) Enhance market information collection and dissemination system. This will be accomplished through development of a central repository system, web content and media bulletins, online certification of documents and conducting catch assessment surveys in waters,
- g) Promote market and product development through economic partnership and trade agreements;
- h) Promote per capita fish consumption in the country,
- i) Promote new products to targeted market segments for meat and dairy products,
- j) Promote sale on forward contracting arrangements,
- k) Develop standards (in collaboration with relevant authorities) for agriculture produce traded locally,
- l) Analyze and advise on taxation regime on agriculture commodities and its impact on market access both locally and internationally.

#### **6.2.8.2 Establish export zones**

The following activities will be undertaken:

- a) Establishing livestock disease free zones (DFZ) to facilitate access of Kenyan meat, leather and leather products to local, regional and international markets. One zone will be established by the national government at the Coast, covering the counties of Kwale, Mombasa, Kilifi, Tana River, Lamu and parts of Taita-Taveta outside the Tsavo National Park. The ministry will also develop guidelines and standards to enable county governments to develop the other three zones in the Laikipia-Isiolo complex, Uasin Gishu and Garissa counties;
- b) Establishing export abattoirs and slaughter houses; and
- c) Promoting pack houses for export products. These will be developed in production areas and will be equipped with preservation, cold transit and storage, grading and sorting facilities.

#### **6.2.8.3 Enhance capacity for compliance with domestic and export trade measures**

The activities under this strategy will include:

- a) Development of a comprehensive national residue-monitoring programme for all agriculture products. This will involve carrying out identification and traceability of agriculture products along value chains;
- b) Strengthening Border Inspection Posts (BIPs). This will include strengthening the existing seven BPI posts and establishing new ones;
- c) Development of standards and strengthen certification for agriculture products and by-products. This will be done through sensitizing counties and actors in the value chain on developed standards for improved certification of products;
- d) Carrying out identification and traceability of agricultural products along the value chains. Guidelines and implementation frameworks to be developed and the Counties sensitized;
- e) Conducting spot checks and national inspections at fish farms and processing facilities. This will be done through conducting 50 national audit inspections of fish farms, fish processing establishments, and factory and freezer vessels. The sampling plan for residues in farmed fish will also be reviewed;
- f) Undertaking annual inspection and licensing of 8 export slaughter houses. This will be conducted to ensure the export markets standards are met;
- g) Undertaking inspection and approval of milk processing plants. This will involve inspection of 5 export processing plants; and
- h) Development of a fumigation facility for fresh produce at the Jomo Kenyatta International Airport (JKIA).

#### **6.2.8.4 Enhance value addition for agricultural products**

Value addition in agriculture will be promoted in order to increase competitiveness of Kenya's produce in world markets. The activities to be undertaken are as outlined below.

- a) Enhance capacity of county institutions on value addition. The Ministry will promote value addition both at household and community level. This will be implemented through providing appropriate trainings and adoption of new production technologies;
- b) Promote agriculture processing industries in the rural areas by building capacity of staff and establishing/sensitising counties to start business incubation centres;
- c) Build gender sensitive markets and promote markets linkages for women; and
- d) Update the data base of agricultural products processors. This will be achieved through surveys to update the data base of food products processors.

#### **6.2.9 Strategic Issue 5: Weak Institutional Capacity**

A number of government agencies in the agriculture sector are faced with serious challenges that affect their performance. The challenges range from inadequate technical capacity, organizational culture and accountability. Some of the regulatory institutions have conflicting mandates and there is a need to further rationalize them to enhance service delivery.

There is therefore need to restructure some institutions in the Ministry to make them more effective on service delivery. New institutions also need to be established to reflect the changing capacity needs in the sector.

#### **6.2.10 Strategic Objective 5: To Strengthen Institutional Capacity**

There are many stakeholders and institutions involved in agricultural sector. The Ministry deals with many stakeholders and has several institutions that assist in service delivery. It is therefore, essential that these stakeholders are well coordinated to avoid duplication of efforts and wastage of resources. The following strategies will be implemented in order to achieve this objective:-

##### **6.2.10.1 Institutional reforms**

The Ministry will undertake reforms and restructure sector institutions and parastatals for improved efficiency. Restructuring will target the Kenya Plant Health Inspectorate Services (KePHIS), Pest Control Products Board (PCPB), Agricultural Development Corporation (ADC), Dairy Training Institute (DTI), the Kenya Meat Commission (KMC) and the Kenya Dairy Board (KDB). In addition, the Ministry will devolve some functions, institutions and human resource to the County Governments in line with schedule 4 of the Constitution.

The Ministry will also establish new institutions namely: Agriculture, Fisheries and Food Authority, (AFFA), Kenya Agricultural and Livestock Research Organization (KALRO), Kenya Fisheries Services and Fish Marketing Authority, Livestock Marketing Board, Livestock Regulatory Authority, National Livestock Promotion and Development Authority, Kenya School of Agriculture, Institute of Leather Studies, Animal Feed Inspectorate Service and Kenya Agribusiness Council.

##### **6.2.10.2 Information and communication management**

The Ministry will strengthen information and communication technology capacity, and establish agriculture information and knowledge management system.

### **6.2.10.3 Strengthen data management system**

Data management is important in supporting a well-functioning feedback system. The Ministry will carry out various programmes aimed at strengthening data management. These include maintaining a web based data system, producing annual Economic Review of Agriculture (ERA) data publication and training staff on data management. The ministry in collaboration with the Kenya National Bureau of Statistics (KNBS) will undertake Kenya Census of Agriculture (KCA).

### **6.2.10.4 Strengthen Monitoring and Evaluation**

A well-functioning Monitoring and Evaluation system is important for successful implementation of the Ministry's projects and programmes as outlined in this Strategic Plan in order to meet the sector's development goals and objectives. The Ministry will develop and implement a monitoring and evaluation framework to ensure delivery of key outputs in an efficient and effective manner.

### **6.2.10.5 Enhance capacity of the Ministry for service delivery**

To improve service delivery, the Ministry will; identify capacity gaps; develop and implement plans for capacity development and mainstream youth, gender, disability, HIV/AIDS and substance abuse management. In addition, the Ministry will undertake capacity building and technical support to the counties. This will involve identification of gaps in areas of national importance such as policy implementation, agriculture water management, livestock breeding; climate change and development; and implementation of capacity building plans.

### **6.2.10.6 Develop information products and distribution mechanisms**

Information generation and dissemination on all aspects of agriculture development is key to the success of the sector. This information should embrace the totality of the value chain from the farm to the market. The Ministry, in consultation with stakeholders, will design appropriate information products and distribution channels. This will involve production and distribution of print and electronic education and extension materials such as leaflets, brochures, pamphlets, booklets, documentaries, and radio programmes among others.

## **6.2.11 Strategic Issue 6: Low Involvement of Youth in Agriculture**

The potential in sustaining food security and raising agricultural productivity has not been fully utilized. Youth involvement in the sector has been negated by lack of production infrastructures and inadequate training on modern agricultural production techniques. Many schools have land that is under-utilized and investment in the land would lead to improved nutrition for students and generate incomes for schools.

## **6.2.12 Strategic Objective 6: To increase youth involvement in agriculture**

To implement this strategy the following activities will be undertaken during the plan period:

- a) Promote new farming technologies (green houses, drip kits, fish ponds and water harvesting facilities);
- b) Support youth to undertake farm tree planting;
- c) Establish irrigation projects, tree planting, fish ponds and water harvesting facilities in secondary and primary schools; and
- d) Technical and vocational training of youth in agriculture.



# CHAPTER SEVEN

## COORDINATION FRAMEWORK, CAPACITY AND RESOURCE MOBILIZATION

### 7.0 Introduction

The successful implementation of this strategic plan depends on three key factors; adequate coordination framework, human resource capacity and financial resources. The coordination framework is based on the organizational structure of the Ministry and defines the reporting and feedback mechanisms that promote efficiency and effectiveness. Commitment by top management, staff and stakeholders will be essential for successful implementation of the Strategic Plan. Mobilization and efficient utilization of resources will be necessary for delivery of the outlined outputs.

### 7.1 Ministry Structure

The Ministry is organized into three state departments and nine technical directorates. The three state departments are Agriculture, Livestock and Fisheries. The State Department of Agriculture is organized into 3 directorates namely Agricultural Policy, Research and Regulations; Crop Resources, Agribusiness and Market Development and Infrastructure Development and Mechanization. The State Department of Livestock is organized into three directorates namely Veterinary Services; Livestock Policy, Research and Regulations; and Livestock Resources and Market Development. The State Department of Fisheries is also organized into three directorates namely Aquaculture Technology Development; Fisheries Policy, Research and Regulations; and Fisheries Resources, Development and Marketing.

The technical directorates are supported by the support and coordination services comprising of the food security section; Project coordination unit; shared functions division; and intergovernmental relations and parliamentary affairs section. Figure 2 provides the Ministry’s organization structure.

The Ministry has a number of Semi-Autonomous Government Agencies (SAGAs) with specific mandates. These include the following:

**Table 4: Semi - Autonomous Government Agencies**

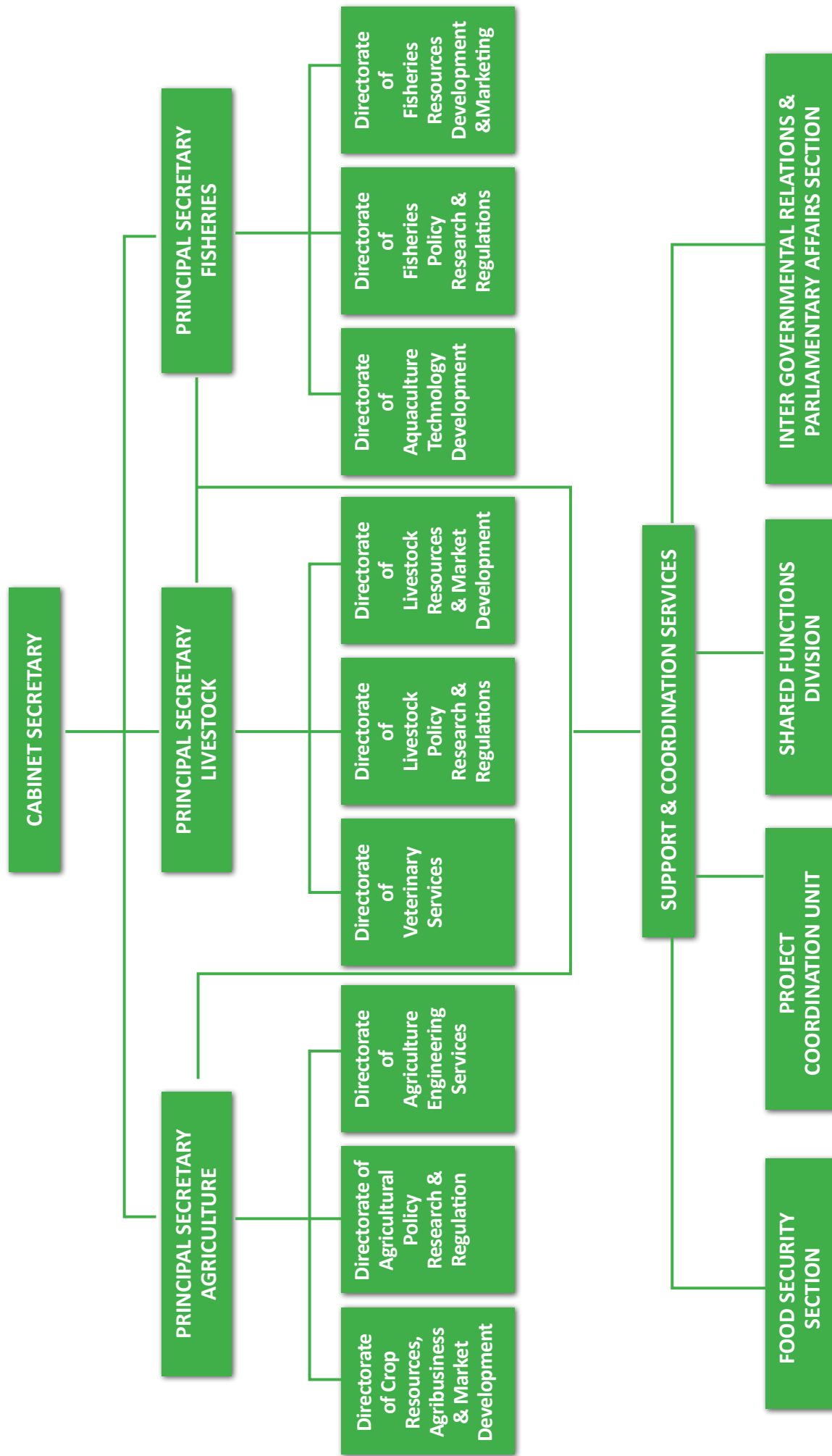
	Category	Institutions
1	Commercial Corporations	Kenya Seed Company
		Nyayo Tea Zones Development Corporation
		Miwani Sugar Company (under receivership)
		Muhoroni Sugar Company (under receivership)
		Nzoia Sugar Company
		Chemelil Sugar Company
		South Nyanza Sugar Company
		Agro Chemical and Food Company
		Agricultural Development Corporation
		Kenya Meat Commission (KMC)
		Kenya Veterinary Vaccines Production Institute (KEVEVAPI)



	Category	Institutions
2	Regulatory	Agriculture, Fisheries and Food Authority (AFFA)
		Kenya Plant Health Inspectorate Service (KePHIS)
		Pest Control Products Board
		Kenya Dairy Board (KDB)
		Kenya Veterinary Board (KVB)
3	Training Institutions	Bukura Agricultural College
		AHITI Kabete
		AHITI Ndomba
		AHITI Nyahururu
		Meat Training School
		Dairy Training Institute
4	Statutory Boards	Agricultural Information Resource Centre
5	Service Institutions	Kenya Tsetse and Trypanosomiasis Eradication Council (KENTTEC)
		Kenya Animal Genetic Resources Centre (KAGRC)
6.	Research	Kenya Agricultural and Livestock Research Organization (KALRO)
		Kenya Marine Fisheries Research Institute (KMFRI)



Figure 2: Organization Structure



## 7.2 Linkage with County Governments

A structured mechanism for linkage with the counties is necessary for successful implementation of the Strategic Plan. The Ministry, in compliance with the Intergovernmental Relations Act No. 2 of 2012, has established an Intergovernmental Relations Unit that will facilitate a smooth working relationship between the National and County Governments. The Unit will provide a platform for dialogue and engagements of critical stakeholders in the sector, and act as the liaison between the National and County Governments, with a view to delivering the outputs that are specified in the strategic plan.

## 7.3 Staff Establishment and Requirements

The Constitution of Kenya 2010 created two levels of government, the National and County Governments with distinct functions that necessitated rationalization of staff. Staff performing devolved functions were redeployed to Counties while others remained at the national level to carry out national functions.

The human resource capacity for the Ministry comprises of 2,789 staff against a requirement of 3,097 resulting in a shortfall of 308. A major strategic focus of this Strategic Plan is to ensure appropriate staff are in place for its implementation. It will further focus on building capacity and providing conducive environment for efficient and effective service delivery. Table 5 presents a summary of the ministry's in-post and optimal staff requirements by State Departments.

**Table 5: Summary of Ministry's in- post and optimal staffing requirements by State Departments**

State Departments	In-Post	Optimal (Proposed)	Variance
Agriculture	1,050	1,162	112
Livestock	1,483	1,559	76
Fisheries	256	376	120
<b>Total</b>	<b>2,789</b>	<b>3,097</b>	<b>308</b>

## 7.4 Resource Requirements and Mobilization Strategies

### 7.4.1 Resource requirements

Implementation of the Strategic Plan will require a total of Kshs.289 billion during the 5-year period. A summary of resource requirements per strategic objective is presented in Table 6.

**Table 6: Summary of Financial Resources Requirements**

Resource Requirements (Kshs. Million)						
Strategic Objectives	Financial Years					
	2013/14	2014/15	2015/16	2016/17	2017/18	Total
Create an enabling Environment for Agriculture Development	105.00	150.00	218.00	244.00	243.00	<b>960.00</b>
Increase Productivity and Output	15,099.50	24,216.60	30,318.60	27,879.60	29,110.00	<b>126,624.30</b>
Enhance National Food Security	3,050.00	3,346.00	8,750.00	10,300.00	13500.00	<b>38,946.00</b>
Improve Market Access and Trade Environment	6,448.85	11,956.75	13,109.70	10031.05	10,025.80	<b>41,546.35</b>
Strengthen Institutional Capacity	1,762.75	2,646.50	3,146.20	2,941.1	2,556.10	<b>13,052.65</b>
Enhance the role of youth in Agriculture	600.00	650.00	21,700.00	22,251.00	22,251.00	<b>67,452.00</b>
<b>Total</b>	<b>27,066.10</b>	<b>42,965.85</b>	<b>77,242.50</b>	<b>73,646.75</b>	<b>67,660.10</b>	<b>288,581.30</b>

#### 7.4.2 Resource Mobilization

The funding to implement the Strategic Plan is expected come from the Government through the Exchequer, development partners and partnerships with the private sector. It is projected that Kshs. 196 billion will be the total financial allocations by the Government for the five years (2013/14 - 2017/18) as captured in Table 7, leaving a gap of Kshs.93 billion. To bridge this gap, efforts will be made to mobilize funding from development partners to support some of the Ministry's programmes and projects. In addition, the Ministry will continue to embrace Public Private Partnership (PPP's) in the sector to ensure the identified priorities are fully implemented. Further, the Ministry will endeavor to ensure prudent utilization of funds during the Plan period.

**Table 7: Expenditure Estimates of the Ministry by the Government**

Expenditure Classification	Financial Years Budget Estimates (Kshs. Million)					5 Years Budget Estimates (Kshs. Millions)
	2013/14	2014/15	2015/16	2016/17	2017/18	
Recurrent	11,614.00	10,750.00	13,189.00	13,785.00	14,442.00	<b>63,780.00</b>
Development	25,770.00	26,241.00	25,540.00	27,092.00	27,210.00	<b>131,853.00</b>
<b>Total</b>	<b>37,384.00</b>	<b>36,992.00</b>	<b>38,729.00</b>	<b>40,877.00</b>	<b>41,653.00</b>	<b>195,635.00</b>



# CHAPTER EIGHT

## MONITORING AND EVALUATION

### 8.1 Introduction

Monitoring and Evaluation (M&E) is a management tool that ensures that policy, programme and project results are achieved by measuring performance against plans and drawing lessons to inform future implementation effectiveness. The Kenya Vision 2030 underscores the importance of monitoring and evaluation as a tool for tracking implementation of development programmes and projects as well as upholding public accountability and transparency.

### 8.2 Monitoring and Evaluation Framework

The Ministry will establish a monitoring and evaluation system linked to the National Integrated Monitoring and Evaluation System (NIMES). It will use the system to ensure that the set targets and outputs are realized as outlined in the strategic plan. The monitoring process will help assess whether the implementation is on course and establish the need for any adjustments in light of the changing socio-economic environment.

Evaluation of the Ministry's programmes / projects will be undertaken in the middle and at the end of the Strategic Plan period. The mid-term evaluation will aim to quantify progress made in implementation and provide information to guide review of activities and strategies where necessary. The end-term evaluation will assess whether set objectives were achieved and document the effectiveness, impact and sustainability of the programmes/projects. This will inform the development of the next strategic plan.

The M&E function will be effective if it has the requisite capacity in terms of resources and equipment. The Ministry will therefore ensure that all programmes and projects have a dedicated budget to facilitate M&E operations and capacity building. In line with the principles of results based management, the Ministry will foster partnerships and collaboration with County Governments, other government ministries, development partners and the Kenyan citizens to ensure delivery of development results. The Ministry will also develop and implement an M&E communication strategy to facilitate feedback and sharing of information on programmes and projects.

### 8.3 Data Collection, Analysis and Reporting

A credible monitoring and evaluation system ought to be supported by accurate and reliable data on the variables that are being measured. Data will therefore be collected using appropriate data collection tools and survey methods. The data collected and reported at each level will be subjected to quality checks and validation to ensure completeness, consistency, accuracy and reliability before releasing it to users. The Ministry will ensure that there is adequate capacity for generating quality data.

Respective programme and project implementers will be expected to systematically collect both qualitative and quantitative data on implementation progress of their projects. The Central Planning and Project Monitoring Unit (CPPMU) will be responsible for the accuracy and reliability of M&E data and will therefore undertake scheduled validation missions to projects/ activity sites to verify the data submitted by implementers. The validation missions will provide a forum for project implementers and the CPPMU to discuss any significant variations in performance and make appropriate recommendations to ensure achievement of targeted results.

### 8.4 Ministerial M&E Committee (MMEC)

A Ministerial Monitoring and Evaluation Committee (MMEC) will be established to spearhead monitoring and evaluation of programmes and projects in the Ministry. The MMEC will be chaired by a Principal Secretary with the Head CPPMU as its Secretary. All heads of departments will be members of the MMEC.

The MMEC shall be responsible for coordinating preparation and submission of reports on the projects and programmes implemented by Ministry at all levels.

## **8.5 Role of the Cabinet Secretary**

The Cabinet Secretary will provide guidance and oversee the implementation of the Strategic Plan. The Cabinet Secretary will also play a leading role in resource mobilization and fostering collaboration with other ministries, development partners and other stakeholders for effective implementation of this Strategic Plan. To enhance the pace of implementation, the Cabinet Secretary will cascade roles to Principal Secretaries in the Ministry through annual performance contracts among other tools.

## **8.6 Role of the Principal Secretaries**

The Principal Secretaries of the three State Departments in the Ministry will be responsible for the overall management and implementation of the Ministry's programmes and projects. They will delegate day to day supervision of programmes and projects activities to the heads of respective directorates/departments through performance contracting and staff performance appraisal system (PAS) and other applicable mechanisms. To ensure effectiveness in delivery of desired outputs, all Heads of directorates, divisions, sections and units will be required to prepare annual work plans containing specific activities, targets and timelines of execution as outlined in the implementation matrix (Appendix 1). The various heads will be required to submit quarterly, semi-annual and annual progress reports for compilation and analysis by the CPPMU. The Ministry will submit annual progress M&E reports to the Ministry of Devolution and Planning for updating the national database under the National Integrated Monitoring and Evaluation System (NIMES).

## **8.7 Key Performance Indicators**

The implementation of the Strategic Plan will be monitored based on the following selected indicators at the National and Ministry level:-

### **8.7.1 National Indicators**

- i. Contribution of agriculture to national GDP;
- ii. Percentage growth of agriculture Gross Domestic Product;
- iii. Number of policies, legal frameworks and standards developed/reviewed; and
- iv. Value of exports of crops and crop products , livestock and livestock products, fish and fishery products.

### **8.7.2 Ministerial Indicators**

- i. Quantity of various types of fertilizer procured and distributed to farmers;
- ii. Average yield per unit of production for key commodities ( 90kg-bags of maize per acre, litres of milk per cow per day, kgs of farmed fish per cubic metre);
- iii. Quantity (or cash equivalent) of strategic food reserves by type of food item;
- iv. Number of hay bales reserved;
- v. Number of farmers, fishers and pastoralists covered by national insurance scheme;
- vi. Number of livestock and fish breeds produced in national farms;
- vii. Number of national audit inspections undertaken on farms, fish processing ;establishments, factories and freezer vessels;
- viii. Number of assorted seeds (and cuttings) for traditional high value and drought tolerant crops procured and distributed;
- ix. Number of border inspection points strengthened; and
- x. Number of agricultural institutions reformed/restructured/ established.

## Appendix 1: Implementation matrix

### Strategic Issue 1: Inadequate policy and legal framework

#### Strategic Objective 1: To create an Enabling environment for Agricultural development

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
Develop and review policy	Develop new policies	15 policies developed	D/Agricultural Policy, Research and Regulation (PRR) D/Livestock PRR D/Fisheries PRR	No. of policies	5 years	15	20	45	35	35
	Review existing policies	Policies reviewed	D/Agricultural PRR D/Livestock PRR D/Fisheries PRR	No. policies	5 years	20	30	55	55	60
Develop and Review Strategies, legal and regulatory frameworks	Develop strategies, bills, guidelines and standards	Strategies, bills, guidelines and standards developed	D/Agricultural PRR D/Livestock PRR D/Fisheries PRR	No. of strategies, bills, guidelines and standards	5 years	70	100	118	154	148
<b>Total</b>						<b>105</b>	<b>150</b>	<b>218</b>	<b>244</b>	<b>243</b>

## Strategic Issue 2: Low Productivity in the Agricultural Sector

### Strategic objective 2: To increase productivity and outputs in agriculture sector

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Time frame	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
<b>Facilitate collaborative research</b>	Operationalize and implement Kenya Agriculture and Livestock Research Organization (KALRO)	High performing and more efficient KALRO	PS SDA	KALRO established	5 years	20	30	30	35	35
	Enhance support to agricultural research institutions (KALRO, Kenya Marine and Fisheries Research)	High performing Agricultural research institutions	PSS SDA and SDF	Support offered	5 years	20	40	50	60	70
<b>Strengthen research, technology development and transfer</b>	Development of appropriate technologies	Technologies developed	Director Infrastructure Development and Mechanization	No. of technologies	5 Years	110	230	240	250	270
	Establish five new Agricultural Technologies Development centres (ATDC)	Five ATDC established	Director Infrastructure Development and Mechanization	No. of ATDC	5 Years	150	150	150	150	150
	Reform the existing ATDC and turn them into centres of excellence for technology development and mechanization	Centres of excellence for technology development and mechanization	Director Crops Management and agrribusiness Development	Number of Centres of excellence	5 Years	2,000	3,000	3,000	2,000	2,000
	Establishment of a National Agricultural Machinery testing centre	One National institution established	Director Crops Management and agrribusiness Development	Functioning machinery testing centre	5	0	0	100	100	100
	Establishment of a National Training centre for Plant Operators	One training centre established	Director Crops Management and agrribusiness Development	Functioning training centre	5	0	0	100	100	100
	Promote soil and water conservation measures	Review soil and water conservation manual	Director Crops Management and agrribusiness Development	Reviewed manual	3	7	6	6	0	0



Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Time frame	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Increase farm machinery accessibility to farmers (ploughs, harrows, planters, sprayers, grass cutters, balers, rippers and other small farm machinery and equipments)	1,600 farm machinery and implements acquired	Director Crops Management and agribusiness Development	No. of farm machinery and accessories	5 Years	3,000	5,500	5,500	5,000	5,000
<b>Promote access to Agriculture inputs and financial services</b>	Enhance access to affordable and quality inputs. (fertilizer), seed and feed fund, vet drugs, immunological and livestock genetic resources, pond liners)	Increase in inputs Accessibility	Dir. Crops and Agribusiness, Dir Veterinary Services, Director of Aquaculture Technology Development (DATD)	No. of farmers accessing quality inputs.	5 Years	4,500	7,500	7,500	7,000	7,000
	Enhance Livestock Enterprises Development Fund	Livestock Enterprises Development Fund	DLP	Number of Pastoralists, farmers	5 Years	200	400	600	800	1,000
	Input Subsidy Programme on fertilizer, seeds, feeds, traditional high value crops	Input subsidy programme	Director – Crop Resources, Agribusiness & Market Development (CRAMD), Dir Veterinary Services, DATD	Amount of subsidized inputs availed	5 Years	3,000	3,000	4,500	5,000	5,000
	Fertilizer Cost Reduction Investment Programme (Fertilizer Processing plant) mainly by private company.	Fertilizer Processing plant	Director – Crop Resources, Agribusiness & Market Development (CRAMD)	Fertilizer Processing plant	5 Years	100	1,000	2,000	0	0
Adopt and upscale electronic fertilizer system	Effective distribution of fertilizer	Director – Crop Resources, Agribusiness & Market Development (CRAMD)	No. of farmer in electronic data base on fertilizer distribution	3 years	0	0	60	60	60	

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Time frame	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Facilitate access to affordable credit services through the Agricultural Finance Corporation & Agricultural Development Corporation.	Low interest rates on farmers loans Affordable credit services accessed	PS, SDA	Reduction on interest rates No. of credit facilities accessed	5 Years	500	500	1,000	1,000	1,000
	Establish Agribusiness fund	Agribusiness fund established Improved access to financial services	Director – Crop Resources, Agribusiness & Market Development (CRAMD)		4 years	0	500	500	500	500
<b>Enhance Animal Genetics</b>	Procure and install liquid nitrogen plants in Kabete, Sotik, Kirinyaga and Voi	Increased semen availability to farmers	Director of Veterinary Services	Nitrogen plant installed	5 Years	50	550	520	500	500
	Rehabilitation of road network and construction of modern bull pens	Modern bull pens	Director of Veterinary Services	Number of bull pens	5 Years	30	40	50	60	60
	Recruitment of breeding bulls and genomic selection	Increase semen production	Director of Veterinary Services	Amount of semen production	5 Years	20	30	30	40	40
<b>Enhance livestock Vaccine Production Increase the</b>	Infrastructural improvement at Kenya Veterinary Vaccine Production Institute (KEVEVAPI) to enable production of adequate and improved vaccines	Expanded facility	Director of Veterinary Services	Expanded facility	5 Years	200	300	500	500	300
	Capacity building of staff in Good Manufacturing Practices (GMP)	Trained staff on Good Manufacturing Practices	Director of Veterinary Services (DVS)	No. of technologies developed						
<b>Control of diseases and pests</b>				No. of staff trained	5 Years	50	50	100	100	50
	Develop contingency plans for management of diseases and pests	Contingency plans for management of diseases and pests developed	DVS, Director Fisheries Resources, Development & Marketing (DFDM), CRAMD	No. of Contingency plans for management of diseases and pests developed	5 Years	25	25	25	25	25

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Time frame	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Develop control strategies for diseases and pests	Control strategies for diseases and pests Developed	Dir of Veterinary Services, Dir Fisheries Resources, Dev. & Marketing, Dir. Crops	No. Control strategies for diseases and pests Developed	5 years	25	25	25	25	25
	Develop strategies for surveillance and monitoring diseases, anti- microbial, and pesticide resistance development	Strategies for surveillance and monitoring animal diseases, anti- microbial, and pesticide resistance development developed	Dir of Veterinary Services, Dir Fisheries Resources, Dev. & Marketing, Dir. Crops	No. of Surveillance Strategies Developed	5 Years	25	25	25	25	25
	Carry out disease outbreak investigations.	Disease outbreaks investigated	Dir. Crops and Agribusiness; Dir of Veterinary Services, Dir Fisheries Resources, Dev. & Marketing	Percentage of outbreaks investigated	5 years	25	25	25	25	25
	Conduct a study on Social Economic Impact of external parasite and vector borne diseases in ASALs sub counties of Kenya	Study of Social Economic Impact of external parasite and vector borne diseases in ASALs sub counties of Kenya conducted	Director of Veterinary Services	study report	1 year	0	10.5	0	0	0
	Surveillance for sentile herds for Rift Valley Fever (RVF)	Sentile herds for Rift Valley Fever (RVF) surveilled	Director of Veterinary Services	No. of Surveillance undertaken	5 Years	2	2	2	2	2
	Generate data for vector and pest management	Data for vector and pest management generated	Director of Veterinary Services	Data base in place	5 Years	0	11.1	11.6	6.6	7
	Develop vector and zological services infrastructures	Vector and zological services infrastructures developed	Director of Veterinary Services	Operational infrastructure	5 Years	5	11	13	15	15

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Time frame	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
<b>Reduce post harvest losses</b>	Establishment of food safety laboratory in Kabete	Food Safety Laboratory established	Director of Veterinary Services	one food safety laboratory in place	5 Years	10	70	70	50	20
	Promote responsive handling and preservation technologies and their adoption to reduce post-harvest losses.	Responsive handling and Preservation Technologies promoted	Dir. Crops, Dir. Infrastructure Development and Mechanization, Dir. Fisheries Resources, Dev & Marketing	No. of responsive handling and preservation Technologies promoted	5 Years	31.5	56	100	100	100
	Establish Post harvesting handling, drying and storage facilities	Drying and storage facilities established	Director Crops and agribusiness management, Dir. Fisheries Resources, Dev & Marketing	Number of drying and storage facilities established	5 Years	100	200	300	300	300
<b>Address effects of climate change</b>	Mainstream climate change adaptation and mitigation strategies into agricultural extension	Technologies and management information disseminated; Capacity development undertaken; Policies and programmes facilitated and implemented	Dir. Infrastructure Development and Mechanization, Dir. Fisheries Resources, Dev & Marketing Dir. Livestock Resources and Market Development	Number of farmers reached	5 Years	25	25	25	25	25
	Establish and maintain climate information for agriculture	Database for climate information in place	Dir. Infrastructure Development and Mechanization, Dir. Fisheries Resources, Dev & Marketing and Dir. Livestock Resources and Market Development	Database for climate information	5 Years	5	5	5	5	5

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Time frame	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Upscale Climate-smart agriculture technologies	Climate-smart agriculture technologies up-scaled	Dir. Infrastructure Development and Mechanization, Dir. Fisheries Resources, Dev & Marketing and Dir. Livestock Resources and Market Development	Number of Climate-smart agriculture technologies	5 Years	10	10	10	10	10
<b>Develop and adopt climate resilient agricultural technologies</b>	Develop and Apply Performance Benefit Measurement Methodologies for Adaptation, Mitigation and Development	Performance Benefit Measurement Methodology in place	Dir. Infrastructure Development and Mechanization, Dir. Fisheries Resources, Dev & Marketing and Dir. Livestock Resources and Market Development	Methodology for Performance Benefit Measurement	5 Years	10	10	10	10	10
	Promote sustainable agricultural Ecosystem management	Reviewed Environmental impact assessment/ Audit reports of proposed projects	Dir. Infrastructure Development and Mechanization, Dir. Fisheries Resources, Dev & Marketing and Dir. Livestock Resources and Market Development	No. reviewed reports	5 Years	1	1	1	1	1
<b>Sustainable utilization of capture fisheries</b>	Establish and equip Fisheries Monitoring and Surveillance Units (FMSUs)	Fisheries Monitoring and Surveillance Units established and equipped	Dir. Fisheries Resources, Dev & Marketing	No. of Fisheries Monitoring and Surveillance Units established and equipped	5 Years	800	800	2,700	2,650	2,600
	Undertake Monitoring, Control and Surveillance (MCS) patrols in natural water bodies	Capture fisheries monitored, controlled and surveilled.	Dir. Fisheries Resources, Dev & Marketing	No. of MCS patrols conducted	5 years	20	20	100	400	600

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Time frame	Estimated Budget (Kshs. million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Develop capacity for deep sea fishing (Facilitate development of domestic fleet in the EEZ, establish "Kenya Fishing Company" and Transform existing Beach Management Units into corporate entities)	Capacity for deep sea fishing developed	Dir. Fisheries Resources, Dev & Marketing	No. of stakeholders capacity developed	3 Years	0	2	10	100	200
	Implement Port State Measures Agreement (PSMA)	PSMA implemented	Dir. Fisheries Resources, Dev & Marketing.	No. of port measures implemented	3 Years	0	0	50	100	200
	Promote joint Venture between Foreign and local investors in the EEZ	Joint ventures between foreign and local investors in the EEZ established	Dir. Fisheries Resources, Dev & Marketing.	No. of joint ventures established	3 Years	0	0	5	10	20
	Fish Stock Assessment	Fish Stocks Assessed	Dir. Fisheries Resources, Dev & Marketing	No. of fish stock assessments undertaken	5 Years	20	50	200	400	600
	Protect critical fish habitats in water bodies	Critical fish habitats protected	Dir. Fisheries Resources, Dev & Marketing	No. of critical fish habitats protected	5 Years	1	2	10	20	30
	Stock and restock of natural water bodies with appropriate fish fingerlings	Natural water bodies stocked/ restocked with appropriate fish fingerlings	Dir. Fisheries Resources, Dev & Marketing	No. of fish fingerlings used in stocking/ restocking natural water bodies	5 Years	2	5	10	20	30
	Establish fish port at Lamu	Fish port established at Lamu	Dir. Fisheries Resources, Dev & Marketing	Level of establishment of fish port at Lamu	3 Years	0	0	50	300	1,000
<b>Sub Total</b>						<b>15,099.5</b>	<b>24,216.6</b>	<b>30,318.6</b>	<b>27,879.6</b>	<b>29,110</b>



## Strategic Issue 3: Food Insecurity

### Strategic Objective 3: To enhance national food security

Strategies	Activities	Expected Output/Target	Responsibility/Actor	Performance Indicator	Time frame	Estimated Budget (Kshs Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
<b>Diversification and expansion of strategic food reserves</b>	Increase the quantity/cash equivalent of stocks in strategic food reserve	Increased strategic food reserve from 2 million to 8 million bags of maize	Director, Crops and Agribusiness	No. of bags of maize	5 years	2,000	2,000	5,000	5,000	6,000
	Diversify the strategic food reserves to include beans, rice, powdered milk, canned beef and tinned fish.	Diversified food reserves	Director, Crops and Agribusiness/ Dir. Livestock Resources and Market Development /Director Fisheries, Resource development and Marketing	Variety of food items in strategic food reserve	5 yrs	1,000	1,000	3,000	4,000	5,000
	Establish fodder banks and hay storage facilities in strategic areas	Increased availability of strategic livestock feed	Dir. Livestock Resources and Market Development	No. of fodder banks and hay storage facilities	5 yrs	50	50	200	300	500
<b>Establishment of agriculture and livestock insurance</b>	Develop a framework for risk mitigation	Risk mitigation framework	Dir. Livestock Resources and Market Development ( Dir. Policy ( SDA,SDL,SDF )	Risk Mitigation Framework	2 yrs	0	1	50	0	0
	Establish insurance scheme for farmers and pastoralists	Insurance scheme in place Insure 2,857,143 livestock units	Dir. Livestock Resources and Market Development	No. of farmers and pastoralists compensated and No. of livestock units covered	4 yrs	0	295	500	1,000	2,000
<b>TOTAL</b>						<b>3,050</b>	<b>3,346</b>	<b>8,750</b>	<b>10,300</b>	<b>13,500</b>

## Strategic Issue 4: Inadequate Market Access and Trade Environment

### Strategic objective 4: To improve market access and trade environment

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
Promote access to local and export markets	Develop safety and quality assurance procedures for agricultural products and by products	Agricultural products and by products strategies developed	D/Crop RMD, Dir. Livestock Resources and Market Development Dir. Fisheries Resources Development and Marketing (D/FRDM)	Number of Strategies developed	5 years	30	30	30	30	30
	Develop incentives and standards for marketing infrastructure	Market infrastructure Standards developed Market infrastructure incentives developed	D/Crop RMD, Dir. Livestock Resources and Market Development Dir. Fisheries Resources Development and Marketing (D/FRDM)	Number of Market infrastructure Standards Number of market infrastructure incentives	5 years	18.5	18.5	18.5	18.5	18.5
	Modernize and restructure livestock marketing infrastructure	marketing infrastructure restructured	Dir. Livestock Resources and Market Development	Number of marketing infrastructure restructured	5 years	0	700	500	0	0
	Establish 50 aquaculture market outlets	10 aquaculture markets per year	Dir. Aquaculture Technology Development (D/ATD)	No. of markets outlets established	5 years	20	20	20	20	20
	Put up 20 new storage and drying facilities to support irrigation schemes	Storage and drying facilities constructed	Dir. Infrastructure Development and Mechanization	No. of storage and drying facilities	3 years	0	0	400	400	400
	Promote structured markets	Staff in 25 medium and high potential counties sensitized	D/Crop RMD,	Number of counties sensitized	5 years	17	70	70	70	70

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Enhance marketing information and dissemination system	Marketing information systems developed	D/Crop RMD, D/Fisheries RDM D/Livestock RMD	Number of marketing information systems developed	5 years	11	123	92	20	20
	Promote market and product development through economic partnership and trade agreements	Markets promoted products developed	D/Crop RMD, D/Fisheries RDM D/Livestock RMD	Number of markets promoted Number of products developed	5 years	11	11	14	14	14
	Promote per capita fish consumption through "Eat More Fish" campaigns	Per capita fish consumption increased from 3.75 Kgs to 5Kgs	D/ATD	Number of campaigns conducted Kilogram of fish consumed per person per year	5 Years	20	25	30	35	40
	Promote new products to targeted market segments for meat and dairy products	New meat and dairy products identified and developed	D/Livestock RMD	Variety of new products identified and developed	5 Years	8	12	14	14	15
	Promote sale on forward contracting arrangements	Farmers future markets	D/Crop RMD,	Number of forward contracts arrangements	5 Years	5	5	6	8	8
	Develop standards (in collaboration with relevant authorities) for agricultural produce traded locally	Safe food	D/Crop RMD,	No. of standards Developed	2 years	0	0	0	20	30
	Analyze and advise on taxation regime for 5 commodities	Comprehensive analysis and implication to market access	D/Crop RMD,	Number of commodities with analyzed taxation regime	3 years	0	0	4	6	6

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
<b>Establish agricultural commodities export zones</b>	Establish livestock Disease Free Zones	1 Disease free zone established 3 guidelines developed for the counties	DVS/Dir, Livestock RMD	Number of disease free zones	5 Years	760	880	812	820	774
	Establish export abattoirs and slaughter houses	Establish export abattoirs and slaughter houses	DVS/ Dir, Livestock RMD	Number of export abattoirs and slaughter houses	5 Years	20	30	100	150	200
	Develop pack houses for export markets	Pack houses for export markets developed	DVS/ Dir, Livestock RMD	Number of pack houses	5 Years	600	3,860	6,480	3,912	3,970
<b>Enhance capacity for compliance with domestic and export trade measures</b>	Develop a comprehensive national residue monitoring programme for all agricultural products	One comprehensive national residue monitoring programme developed	Dir, Agricultural Policy Research and Regulation	Level of development of comprehensive national residue monitoring programme	5 Years	28.5	803	206	145	160
	Strengthen border inspection posts (BIPs).	7 border posts strengthened	DVS, Dir, Agricultural Policy Research and Regulation D/Fisheries Resources, Devt and Marketing	Number of border posts	5 Years	4,595.7	5,014.95	3,824.9	3,850.25	3,815.2
	Establish 3 border inspection posts (BIPs).	3 border inspection posts (BIPs) established.	DVS, Dir, Agricultural Policy Research and Regulation D/Fisheries Resources, Devt and Marketing	Number of border inspection posts	5 Years	10	10	20	20	0
	Develop standards and strengthen certification for agricultural products and by-products	Standards developed Certifications strengthened	DVS, Dir, Agricultural Policy Research and Regulation D/Fisheries Policy Research and Regulation	Number of standards developed Number of certifications developed	5 Years	10.2	10.2	20.4	40.8	81.6

Strategies	Activities	Expected Output/ Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Carry out identification and traceability of agricultural products along the value chains.	Guidelines and implementation frameworks developed Counties sensitized	DVS, Dir, Agricultural Policy Research and Regulation D/Fisheries Policy Research and Regulation	Number of traceable products Number of value chains identified Number of counties sensitized	5 Years	15.15	21.2	21.5	22	22.5
	Conduct spot checks and national inspections at fish farms and processing facilities	50 national audit inspections	D/Fisheries Resources Devpt and Marketing	Number of national inspections	5 Years	8.4	52.5	66	55	70.5
	Undertake annual inspection and licensing of export slaughter houses	8 export slaughter houses	DVS	Number of export slaughter houses	5 Years	0.3	0.3	0.3	0.4	0.4
	Undertake inspection and approval of milk processing plants	5 export milk processing plants	DVS	Number of export milk processing plants	5 Years	0.1	0.1	0.1	0.1	0.1
	Develop fumigation facility at the JKIA for fresh produce	1 fumigation facility	D/Crop RMD,	Number of fumigation facilities in place	1 year	0	0	100	100	0
<b>Enhance value addition in agricultural products</b>	Promote agricultural processing industries in the rural areas	Agricultural processing industries promoted	D/Crop RMD, D/Fisheries RMD D/Livestock RMD	Number of agricultural processing industries promoted	5 Years	230	230	230	230	230
	Update the data base of agricultural products processors.	Agricultural products processors data base updated	D/Crop RMD, D/Fisheries RMD D/Livestock RMD	Number of agricultural products processors data base updated	5 Years	25	25	25	25	25
	Build gender sensitive markets, and promote markets linkages for women	Gender sensitive market infrastructure developed	D/Crop RMD, D/Fisheries RMD D/Livestock RMD	Number of engendered markets	5 Years	5	5	5	5	5
<b>Total</b>						<b>6,448.85</b>	<b>11,956.75</b>	<b>13,109.7</b>	<b>10031.05</b>	<b>10,025.8</b>

## Strategic Issue 5: Weak Institutional Capacity

### Strategic Objective 5: To strengthen Institutional capacity

Strategies	Activities	Expected Output/Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
<b>Institutional Reforms</b>	Reform and restructure institutions in the ministry (KePHIS, ADC, KMC, DTI, DTB etc ) and devolve functions, institutions and human resources	Improved efficiency	PS,SDA and SDL	No. of reformed institutions No of devolved institutions	5 years	496.65	574.8	557.4	599.6	447
	Establish and operationalize new institutions (AFFA, KARLO, Livestock Marketing Board etc)	Improved service delivery	PS,SDA, SDL and SDF	Number of new institutions established	5 years	487.6	1,078.8	1,280.4	1,189.6	965
	Establishment of Kenya Fisheries Service (KFS)and Fish Marketing Authority (FMA) after the Fisheries Management and Development Bill, 2015 is enacted	Improved service delivery	PS/SDF	Existence of established KFS and FMA	3 years	0	0	300	350	400
<b>Information and Communication management</b>	Develop & implement an ICT Strategy	ICT strategy in place	Head ICT	ICT strategy	5 years	11	130	110	100	50
	Establish information and Knowledge Management system	Information and Knowledge Management system	Head ICT	Information and Knowledge system	5 years	105.9	198.9	176.9	107.9	104.9
<b>Strengthen data Management system</b>	Maintain web based data System	Web based data bank	Head, ICT	Updated web based data system	5 years	5	5	5	5	5
	Review data compendium hard book	Data compendium hard book	Head, CPPMU	Reviewed Compendium hard book	5 years	5	5	5	5	5
	Update agricultural Data Modeling (T21)	Effective policy formulation	Head, CPPMU			10	10	10	0	0
	Produce Annual Economic Reviews of Agriculture (ERA)	Data publication annually	Head, CPPMU	ERA publication	5 years	5	5	5	5	5



Strategies	Activities	Expected Output/Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
	Capacity build officers	Train 50 officers	Head, CPPMU	Number of staff trained	5 years	5	5	5	5	5
<b>Strengthen Monitoring and Evaluation</b>	Develop and implement a Monitoring and Evaluation (M&E) framework	M&E framework	Head, CPPMU	M&E framework	2 years	0	5	15	0	0
	Carry out monitoring and Evaluation	20 quarterly ministerial monitoring and evaluation reports  Five annual monitoring and evaluation reports	Head, CPPMU	Number of M&E reports	5 years	50	50	100	100	100
<b>Develop information products &amp; distribution mechanisms</b>	Design appropriate information products & distribution channels	Leaflets, brochures, pamphlets, booklets, documentaries, radio programmes	Dir, Agricultural Information Resource Centre (AIRC)	No. of Information products & channels developed	5 years	20	20	20	20	20

Strategies	Activities	Expected Output/Target	Responsibility /Actor	Performance Indicator	Timeframe	Estimated Budget (Kshs. Million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
<b>Enhance the Capacity of the Ministry for Service Delivery</b>	Staff Capacity Development (identify gaps, develop and implement plan for capacity development)	5 Annual Training needs assessment reports. 5 Annual training plans. All Staff trained in different levels (short courses and long courses).	Director, Human Resource Management and Development (SDA, SDF, SDL)	No. of Training needs assessment reports. No. of training plans No. of staff trained	5 years	531.6	534	531.5	429	424.2
	Mainstream youth, gender, disability, HIV/Aids and substance abuse management	Survey s on substance abuse Social inclusive policies and strategies All staff sensitized/trained	All Directors	Number of surveys conducted No. of policies and strategies No. of staff sensitized/ trained	5 years	30	25	25	25	25
<b>Total</b>						<b>1,762.75</b>	<b>2,646.5</b>	<b>3,146.2</b>	<b>2,941.1</b>	<b>2,556.1</b>

**Strategic Issue 6: Low involvement of youth in agriculture**  
**Strategic Objective 6: To enhance participation of youth in agriculture**

Strategies	Activities	Expected Output/ Target	Responsibility/Actor	Performance Indicator	Time frame	Estimated Budget (Kshs million)				
						2013/14	2014/15	2015/16	2016/17	2017/18
<b>Enhance the role of youth in food security</b>	Promote new farming technologies (green houses, drip kits, fish ponds and water harvesting facilities)	Increased participation of youth in agriculture	Dir. Crops, Aquaculture, Infrastructure and Mechanization	No. of youth supported	5 yrs	500	500	1,000	2,000	3,000
	Support youth to undertake on farm tree planting	Improved environment	Dir. Crops,	No. of trees planted		0	0	500	1	2
	Establish irrigation projects, tree planting, fish ponds and water harvesting facilities in secondary and primary schools	Improved nutrition and incomes for schools	Dir. Crops, Aquaculture, Infrastructure and Mechanization	No. of schools		0	0	20,000	20,000	20,000
	Technical and vocational training of youth in agriculture	Improved farming skills	Director, HRM&D(SDA,SDL,SDF)	No. of trained youth		100	150	200	250	300
<b>TOTAL</b>						<b>600</b>	<b>650</b>	<b>21,700</b>	<b>22,251</b>	<b>23,302</b>







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