

**STRATEGIC RESPONSES BY THE MINISTRY OF
AGRICULTURE, LIVESTOCK AND FISHERIES TO CHALLENGES
OF FOOD SECURITY IN KENYA**

BY

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DECLARATION

This research project is my original work and has not been presented for the award of a degree course in this university or any other institution.

Signed.....Date.....

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This research project has been submitted for examination with my approval as the University Supervisor.

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God bless.

DEDICATION

I give special dedications to my beloved parents Gilbert Kuto and Catherine Kuto who have always been supportive and encouraging.

ABSTRACT

Thompson and Strickland (1998) pointed out that an organization's strategy consists of moves and approaches devised by management to produce successful organizational performance. That strategy is a management's game plan for the business. Without a strategy, there is no established course to follow, no roadmap to manage by, no cohesive action plan to produce the intended results. This study observed the strategic responses by the Ministry of Agriculture, Livestock and Fisheries to challenges of food security. The objectives of the study were to determine challenges of food security in Kenya and establish strategic responses adopted by the Ministry of Agriculture, Livestock and Fisheries to address such challenges. This study was based on the fact that organizations exist in ever changing environments that shape their opportunities and threats and in order to cope with the changes, organizations must adjust accordingly such changes for them to achieve their intended objectives. Both primary and secondary data was collected in order to achieve the objectives of this study. Primary data was collected through conducting personal interviews with the principal secretaries in The Ministry of Agriculture, Livestock and Fisheries. Secondary data was obtained from the records within the Ministry. A case study was used as the preferred research design for this study in order to have an in-depth understanding of strategic responses by the ministry of agriculture, livestock and fisheries to challenges of food security. This design was appropriate since it provided solutions to the research problem through description of challenges of food security and strategic responses adopted by the Ministry. The data collected from the respondents was qualitative in nature and was analysed using content analysis which enabled the researcher to reduce a large mass of data to simpler, more understandable terms hence making it easier to understand the data that was used. The study established that food security challenges in Kenya have adversely affected the livelihoods of most households. These challenges include Climate change, Postharvest losses, Inaccessibility to household productive resources, High prices of food items, Poor distribution and marketing structures, High population growth rate and high cost of farm inputs and Inadequate production and conflicts. According to the study, the ministry has responded to these challenges through implementation of irrigation schemes to boost production, construction of rural roads to ease transportation of food to markets, climate change mitigation and awareness programmes, soil and water conservation projects and construction of storage facilities such as grain stores. The ministry has managed to address challenges of food security through such strategies but not adequately as food insecurity is still a challenge. For this reason the researcher recommended that the ministry should focus on prior planning and development of strategies to avoid reactive actions that are applied when situations have already gone wrong. Long term strategic planning should be put in place to avoid reactive responses like distribution of food aid to already affected people. Early warning systems should be developed in order to avert disasters. The ministry should focus more on research and development in order to be efficient in responding pests and disease outbreaks. Extension services provision to farmers should be intensified to enlighten farmers on modern farming technologies so as to reduce over-reliance on rain-fed agriculture. However, limitations of the study observed by the researcher were due to long time taken to book appointments with the respondents due to their busy schedules and inadequate time offered by some of the respondents for interview which led collection of shallow information.

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CHAPTER ONE:

INTRODUCTION

1.1 Background of the Study

Firms respond to environmental factors and one of the environmental influences to a business arises from competition. They have to respond strategically to environmental factors in order to be sustainable. Increased competition threatens the attractiveness of an industry and reduces the profitability of the players (Hamel and Prahalad, 1993). It exerts pressure on firms to be proactive and to formulate successful strategies that facilitate proactive response to anticipated and actual changes in the environment.

Organizations therefore focus on gaining a competitive advantage to enable them respond to, and compete effectively in the market. By identifying their core strengths, firms are able to concentrate on areas that give them a lead over competitors, and provide a competitive advantage (Hamel and Prahalad, 1993). According to Johnson and Scholes (1997), core strengths are more robust and difficult to imitate because they relate to the management of linkages within the organizations value chain and to linkages into the supply and distribution chains.

The Ministry of Agriculture, Livestock and Fisheries is currently facing various ranges of environmental challenges in its view to achieve its objectives. The amount and type of competition depends on the market the business operates in (Hamel and Prahalad, 1993). A business could react to an increase in competition (for instance, a launch of rival product) by cutting prices (but can reduce profits), improving quality (but increases

costs), spend more on promotion (such as do more advertising, increase brand loyalty; but costs money), and cutting costs (Porter, 1998), for instance use cheaper materials. Some may opt to product improvement, divestiture, diversification, entry into new markets or even merging or buying out competitors (May et al., 2000).

1.1.1 Concept of Strategy

Strategy is the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations (Johnson Scholes & Whittington, 2008). In other words, strategy is concerned about where the business is trying to get to in the long-term i.e. the direction, scope, advantage, resources, environment and stakeholders.

Strategic decisions are about the long-term direction of an organization, the scope, gaining advantage over competitors, addressing changes in the business environment, building on resources and competences (capabilities) and Values and expectations of stakeholders. Therefore they are likely to be complex in nature and are made in situations of uncertainty. They also affect operational decisions, require an integrated approach and involve considerable change. Business strategy focuses on Competition with other business in the market, achievement of competitive advantage and focus on the Strategic Business Unit (SBU). The principal focus for a business strategy is effectiveness. Functional (Operational) strategy focuses on how the various functional areas contribute

to achieving business and corporate strategy. Operational strategy involves organizational processes and its principal focus is efficiency (Miller, 1998).

1.1.2 Strategic Responses

Strategic management literature suggests that a successful firm's strategy must be favorably aligned with the external environment. The relationships between business-level strategy and environment have been widely discussed in the extant literature (Hambrick 1983; Kim and Lim, 1988, Miller, 1998). Organizations face significant constraints and contingencies from their external environment and their competitiveness depends on their ability to monitor the environments and adapt their strategies accordingly (Jennings, 2003). In the field of strategic management, the majority of studies analyze competitive environments from an economic standpoint, based on the implicit notion that business environments are formal and objective. As such, the human element is assumed and the role that managers play in creating and changing competitive environments is neglected. However, given that people take business decisions and drive organizations, to ignore such as important dimension of the competitive landscape is a considerable limitation to developing more holistic understandings about competitive landscapes (Panagiotou, 2006).

Despite the level of knowledge generated regarding the structure and dynamics of organizations, there remains little appreciation about how managers perceive their competitive environment and the impact of managerial cognitions on industry dynamics. Given that managerial cognitions influence decision-making and therefore competitive

strategies, the cognitive aspect of management is integral to understanding how competitive structures develop or respond to the environment. Through their competitive activities, managers create and offer the dynamics of an organization (Bukzar, 1999). In the study context, the Ministry of Agriculture, Livestock and Fisheries has initiated various programmes that are geared towards food production for consumption and commercial purposes.

1.1.3 Food Security Challenges

Continuous increase in the prices of food items poses a serious threat to food security as almost half of Kenya's population is poor. Most households are food insecure as they live below a dollar per day. High costs of fertilizers and planting seeds has discouraged farming activities as farmers are not able to meet production costs. This has been attributed to poor prices of farm produce offered to farmers. Lack of organized market systems for major food commodities has led to long and inefficient value chains, affecting the availability of food at affordable prices.

There exist inefficient mechanisms to distribute food after harvesting to low production regions and urban centers at competitive and affordable prices. The prevailing food shortages in such regions increase demand for food, pushing the prices high. In the circumstance, we have witnessed scenarios where food has been rotting in farms in high production regions in the north and central Rift Valley, while people in low food production regions of North Eastern, Coast and part of Eastern provinces are exposed to famine. It is estimated that over 40% of the food produced is lost across the value chain

of food/agricultural commodities because of poor post-harvest management. Poor storage facilities as well as inadequate value addition equipment and skills create a shortage in the market, thus contributing to rising food prices.

The agricultural sector is the mainstay of the Kenya's economy. The sector directly contributes 24% of the Gross Domestic Product (GDP) and 27% of GDP indirectly through linkages with manufacturing, distribution and other service related sectors. Approximately 45% of Government revenue is derived from agriculture and the sector contributes over 75% of industrial raw materials and more than 50% of the export earnings. The sector is the largest employer in the economy, accounting for 60 per cent of the total employment. Over 80% of the population, especially living in rural areas, derive their livelihoods mainly from agricultural related activities. Due to these reasons the Government of Kenya (GoK) has continued to give agriculture a high priority as an important tool for promoting national development.

In 2008, the Government of Kenya launched Kenya Vision 2030 as the new long-term development blueprint for the country whose focus is to create a "Globally competitive and prosperous country with a high quality of life by 2030". The Vision also aims at transforming Kenya into "a newly industrializing, middle income country providing a high quality of life to all its citizens in a clean and secure environment". The Vision is anchored on the economic, social, and political pillars and will be supported on the foundations of macroeconomic stability; continuity in governance reforms; enhanced equity and wealth creation opportunities for the poor; infrastructure; energy; science,

technology and innovation; land reform; human resources development; security; and public sector reforms. Given the central role the agricultural sector plays in the economy, the Government is in the process of finalizing the development of the Agricultural Sector Development Strategy (ASDS). The overall aim of this strategy is to strategically make the agricultural sector a key driver for achieving the 10 per cent annual economic growth rate expected under the economic pillar of the Vision 2030. Through the ASDS, the Government aims at transforming the agricultural sector into a profitable economic activity capable of attracting private investment and providing gainful employment for the people.

1.1.4 Government set up in Kenya

Kenya's central government is structured through the constitution with administrative and policy making powers being distributed to its three arms namely Executive, Legislature and Judiciary. However, the current structuring is being replaced by a revamped new governance system following the recent adoption of the new constitution. The devolved government, proposed during the making of the new constitution, is primarily geared towards achieving two main objectives of involving the people in governance and allowing better supervision and implementation of policies at the grass-root level. The county Government, which has since replaced the provincial administration, constitutes of a county assembly and county executive. Currently the Kenya devolved government consists of 47 counties representing the initially recognized districts and each one of them forms a county government. Every county government shall further decentralize its

services and coordinate its functions in order to efficiently serve the interests of the people of Kenya at the local level.

The Kenyan Government has developed guidelines to integrate environmental concerns into agriculture development projects in relation to management of rangelands, forests, water quality, wildlife and conservation of genetic resources. The national legislation restricts the transfer of productive arable land to other uses especially human settlement for commercial development, i.e. development of rental houses or commercial houses for industrial purposes.

The Government of Kenya consists of eighteen ministries inclusive of Ministry of Interior and Coordination of National Government; Ministry of Devolution and Planning; Defence; Foreign Affairs; Education; The National Treasury; Health; Transport and Infrastructure; Environment, Water and Natural Resource; Land, Housing and Urban Development; Information, Communication and Technology (ICT); Sports, Culture and Arts; Labour, Social Security and Services; Energy and Petroleum; Agriculture, Livestock and Fisheries; Industrialization and Enterprise Development; Commerce and Tourism and Mining.

The Government has taken certain measures to increase equitable access to Production support services by the rural poor and they include establishment of an early warning system to monitor the weather conditions and advice farmers appropriately, inspection and quality control of farm inputs, improved agricultural technology development and

transfer system through participatory extension and private sector participation and farmer training with increasing focus on women farmers (Policy change in extension policy guidelines will be completed in 1999). Measures Kenyan government has adopted for promoting crop diversification at the farm level such as agriculture land use zoning according to the agro-ecological conditions, removal of agriculture subsidies and Parastatal Reform Programme which entails restructuring of parastatals and rationalization of the public sector to allow for more private sector involvement in agricultural marketing.

1.1.5 The Ministry of Agriculture, Livestock and Fisheries

Ministry of Agriculture Livestock and Fisheries headed by Cabinet Secretary consist of three state departments namely Agriculture, Livestock and Fisheries each headed by a Principal Secretary. Each of these three departments consists of parastatals. Department of Agriculture has two parastatals namely; Kenya Agricultural and Livestock Research Organization (KALRO) and Agriculture, Livestock and Food Authority (ALFA). Department of Livestock consists of four parastatals inclusive of Kenya Dairy Board (KDB), Kenya Meat Commission (KMC), Kenya Veterinary Vaccine Production Institute (KEVEVAPI) and Kenya Animal Genetic Resources (Centre KAGRC) as its parastatal. The Ministry has a mandate to improve the livelihoods of Kenyans by promotion of competitive farming as a business through appropriate policy environment, effective support services and sustainable natural resources management, create a favourable policy and legal framework for the sustainable development of the livestock

industry and facilitate sustainable management and development of fishery resources for accelerated socio- economic development. The vision of the Ministry is to be the leading agent towards the achievement of food security for all, employment creation, income generation and poverty reduction in Kenya.

The ministry intensifies to promote sustainable utilization of natural marine and inland water fisheries resources through intensified patrols to curb illegal fishing and to promote sustainable aquaculture through provision of quality fingerlings supply to fish farmers, train farmers on fish farming husbandry and ensure compliance with fisheries management standards, conservation and restoration of fisheries stock and critical habitat, strengthen co- management governance structures to assure fish safety and quality, reduce post-harvest loses and issue health certification of fish and fishery products.

The ministry also focuses on construction and rehabilitation of irrigation schemes, enhanced Livestock Restocking Development Fund, strategic food reserve for drought mitigation, invest more in Agriculture research and development. The programmes that are being implemented by the ministry of Agriculture, Livestock and Fisheries are as follows: Policy, Strategy and Management of Agriculture, Crop Development and Management, Agribusiness and Information Management, Livestock Resources Management and Development, Administrative support services, Fisheries Development and Irrigation and Drainage Infrastructure

1.2 Research Problem

The experience in recent years of drought from failed rains, of facing its devastating impact on food and water for people and livestock, for agriculture and energy production, has fostered greater political awareness of the environment's central role to our stability, security, and development. Climate change poses additional development challenges, to adapt the economy and people to a future of drought and uncertain seasons. Pro-active actions are needed to develop the capacity and institutions to benefit from adaptation funds, the carbon market to embrace these changes as new positive era in our development.

The challenge, of course, is to translate the awareness into forging difficult political decisions to set strategic priorities where environment is at the very core, effective through all development plans, budgets and sector policy. Kenya's past food policies have had limited success in addressing the country's food and nutrition insecurity due to several reasons. Chief among these are inadequate budgetary allocations, unstable macro-economic conditions, limited involvement of the private sector, inadequate sectorial coordination, lack of monitoring and evaluation systems, limited stakeholder participation, and lack of a clear food and nutrition strategy.

A re-orientation of mindsets and a re-gearing of institutions are required for Kenya to best secure the food, energy and water needed to achieve its long term development plan, Vision 2030. Climate change poses additional development challenges for Kenya, both to adapt its economy and people to a future of drought and uncertain seasonal patterns, and to develop the capacity to benefit from international adaptation funds and to derive income from the carbon market.

Over the years, the demand for convenient, secure and reliable services has increased. The idea that the rigor of competition shapes firm strategy and capabilities is well established within the economics, ecological, and strategy traditions. Business strategies capabilities have an indirect interaction with environmental change through the medium of business age. Strategic responses have been put in place to address the problem of food insecurity but a lasting solution has not yet been achieved.

Crop failure experienced in recent years as a result of prolonged drought has led to serious shortages of food and water for people and livestock, for agriculture and energy production, has forced greater political awareness of the environment's central role in Kenya's immediate stability and future development. Specific issues, most notably concerning management of the Mau Forest, inspire high-level political interest and, indeed, direct action despite difficult political circumstances.

Citizens from arid and semi-arid lands have had children with malnutrition problems and also experience child mortality as a result food shortages. Recent studies carried out in Kenya concentrated on strategic responses by commercial banks and the petroleum industry to environmental challenges. Kiptugen (2003) undertook a study on strategic responses to the changing environment in Kenya Commercial Bank and established that changes in the environment has led to intense competition in the banking industry through availability of substitute products.

Adoyo (2005) focused his study on responses to changes in the external environment at Postbank. He established that the bank has responded adequately to changes in the

environment through re-organizing its organizational structure, improving its service delivery, developing new products and cultural transformation. Mwaura (2004) addressed environment as moderator of the relationship between business strategy and performance a case of Small and Medium Enterprises in Kenya. Ndungu (2002) undertook a study on an investigation of the relationship between human resources systems, business strategy implementation and performance. Most of the studies on strategic responses have been done on profit making organizations whose focus is on competition with other firms in the industry. However, little has been done on non-profit making organizations on strategic responses to environmental challenges in the view to achieve their objectives. It is due to the background of these studies that this study seeks to provide answers to the question; what strategic responses are adopted by the ministry of agriculture, livestock and fisheries to address food insecurity in Kenya?

1.3 Research Objectives

1. To determine the challenges of food security in Kenya
2. To determine strategic responses adopted by the Ministry of agriculture, livestock and fisheries to address food security challenges in Kenya

1.4 Value of the Study

Decision makers at various levels of management in the Ministry will gain value added information on adapting business strategy in response to changing competitive environment. For instance, the managers responsible for strategy may use the findings to

formulate effective monitoring and control systems to mitigate challenges for adopting this business strategy.

Academics and business researchers will be able to borrow from the findings of this research to support literary citations as well as develop themes for further research. Specifically, the study hopes to make theoretical, practical and methodological contributions. The findings will contribute to professional extension of existing knowledge in business strategy management by helping to understand the current challenges for adopting strategy and their effects on environmental response in various organizations in general.

Business persons, for instance entrepreneurs can use the findings from this research to aid them in implementing their organizational strategies. The findings will also enable the business people to understand how strategy- structure relationship contributes to a firm's performance in a changing environment.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section draws on literature in the area of strategic responses adopted by the Ministry of agriculture, livestock and fisheries to address food security challenges. To start with, the study gave an in-depth understanding on the concept of strategy, the environment involved, strategic responses, environmental challenges and the challenges involved in food security.

2.2 Theoretical Review of Strategic Response Practices

The currently dominant view of business strategy resource-based theory or resource-based view (RBV) of firms is based on the concept of economic rent and the view of an organization as a collection of capabilities. This view of strategy has a coherence and integrative role that places it well ahead of other mechanisms of strategic decision making (Kay, 2005). Traditional strategy models such as Michael Porter's five forces model focus on the company's external competitive environment. Most of them do not attempt to look inside the company. In contrast, the resource-based perspective highlights the need for a fit between the external market context in which a company operates and its internal capabilities.

There are two useful theoretical frameworks that serve to complement dynamic capability theory and the resource-based view analysis in assessing a firm's strategic management process. The resource-based view of the firm (RBV) combines two perspectives: the internal analysis of phenomena within an organization and an external analysis of the industry and its competitive environment. Moreover, dynamic capability theory on the other hand extends analysis by combining internal and external perspectives and provides a useful framework for exploring why some firms are more successful than others, Graham (2007).

Specifically, the RBV considers the firm as a bundle of resources: tangible resources, intangible resources, and organizational capabilities. Competitive advantages that are sustainable over time generally arise from the creation of bundles of resources and capabilities. For advantages to be sustainable, four criteria must be satisfied: rareness, valuable, difficulty in imitation, and difficulty in substitution. Such an evaluation requires a sound knowledge of the competitive context in which the firm exists, Fred David, (1997). The above school of thought is supported by Stewart, (2008) who provide an additional insight into agency theory in particular relevance to stakeholders' theory where they distinguish between delegated and intrinsic agency. They say that delegated common agency arises when several parties voluntarily and independently bestow the right to make certain decisions upon a single (common) agent. In addition, intrinsic common agency arises instead when an individual is naturally that is not voluntarily and not independently endowed with the right to make a particular decision affecting other parties who may in turn attempt to influence that decision.

Systems Theory is the trans-disciplinary study of the abstract organization of phenomena, independent of their substance, type or spatial or temporal scale of existence. It investigates both the principles common to all complex entities and the models which can be used to describe them. This theory was proposed in the 1940s by the biologist Ludwig and furthered by Ross Ashby, (2009). They emphasized that real systems are open to, and interact with their environments, and they can acquire qualitatively new properties through emergence, resulting in continual evolution. Rather than reducing an entity the properties of its parts or elements, systems theory focuses on the arrangement of and relations between the parts which connect them into a whole. Systems analysis developed independently of systems theory, applies systems principles to aid a decision-maker with problems of identifying, reconstructing, optimizing, and controlling a system while taking into account multiple objectives, constraints and resources. It aims to specify possible courses of action, together with their risks, costs and benefits.

2.3 The Concept of Strategy

The strategic management literature emphasizes on the important role of business strategy in both large and small firms (David, 1994; Wheelan and Hunger, 1999); and Rue and Holland, 1989). Firms use business strategy to outline the fundamental steps that they plan to follow in order to accomplish their objectives. The literature indicates that organizations can have a single strategy or many strategies, and that these strategies are likely to exist at three levels; corporate level strategies (such as grand or master strategies); business level strategies (competitive strategies); and functional level

strategies. Although the literature suggests that strategies are developed at the three different levels, theoretical and empirical studies of the relationship between strategy and organizational performance have mainly emphasized on business strategy (Lee, 1987).

The role of strategy is to match external environment with the firm's internal capabilities. Organization's exists in the context of complex commercial, economic, technological, cultural and social world. An understanding of the historical and environmental effects as well as opportunities and threats to the organization is very important. Strategy crafting is therefore largely influenced by top manager's perception of their organization's environment. Every organization has a unique environment. Even organizations within the same industry have environments unique to them (Mintzberg and Quinn, 1988). Thompson and Strickland (1998) pointed out that an organization's strategy consists of moves and approaches devised by management to produce successful organizational performance. That strategy is a management's game plan for the business. Without a strategy, there is no established course to follow, no roadmap to manage by, no cohesive action plan to produce the intended results. The 1980s and 1990s will be characterized by discontinuous and unpredictable business environment. An organization must restructure itself to meet the new activities and to respond to external environment.

Competitive strategy, in contrast with generic strategy focuses on the differences among firms rather than their common missions. In most firms comprehensive strategy evaluation is infrequent and, if it occurs is normally triggered by a change in leadership or financial performance. The neither fact that comprehensive strategy evaluation is

neither a regular even nor part of a formal system tends to be deployed by some theorists, but there are several good reasons for this state of affairs (ward and Duray, 2000).

2.4 Strategy and Environment

The objective environment can be further categorized into “task” and “general”. An alternative subdivision of strategy is primary (domain selection) and secondary (competitive approach). The concepts of strategy and environment are integrated in that primary strategy concerns opportunities in the general environment and secondary strategy involves navigating within a task environment (Bourgeois, 1980). Until recently, the field of business strategy has been characterized by two types of literature. Normative works of several writers (Ackoff, 1970; Andrews, 1971; Ansoff, 1965; Katz, 1970) have typically instructed managers on how to formulate strategy by scanning the firm’s environment to seek opportunities that could be matched with the firm’s capabilities. This instruction will be typically followed by a primer on organization design and on the selection of “competitive weapons” and allocation of resources.

According to Johnson, Scholes and Whittington (2008), dealing with the environment is difficult because of three factors. First is the diversity of the different influences that affect a business. Identifying the environmental influences may be possible but it may not be of much use because no overall picture emerges of the really important influences on the organization. The second difficulty is the speed of change. Managers typically feel that the pace of technological change and the speed of global communications mean more

and faster changes than ever before. Third is the problem of complexity. Managers are no different from other individuals in the way they cope with complexities; they try to simplify what is happening by focusing on those few aspects of the environment which have been important historically. It is important to avoid these tendencies whilst achieving an understanding of the environment which is both usable and oriented towards the future.

Ansoff (1980) asserts that when a firm fails to respond to a threat, the losses that results continue to accumulate. The strategic response process is initiated once the rational trigger point is reached. This is the point at which accumulated data shows that there is serious decline in performance which cannot be reversed and that special counter measures are required. Reactive management occurs if the start of the response is delayed past the trigger point. The start of response is delayed past the rational trigger point due to four factors; systems delay, verification delay, political delay and unfamiliarity delay (Ansoff and McDonnell, 1990).

2.5 Strategic Responses

Strategies to achieve food security are both short and long term to enhance productive potential and incomes with programmes and policies that respond to immediate needs of the poor and food insecure. The government through the Ministry of Agriculture, Livestock and Fisheries supports efforts to increase agricultural productivity by enhancing the development and application of improved technologies and reviving extension services. There are various irrigation schemes that have been implemented to

increase food production. Fish Farming Enterprise Productivity Programme entails the production of fish under aquaculture systems for food production and commercial purposes. The aim of the project is to produce food, create employment and generate income, particularly for the unemployed and the associated households, through sustainable aquaculture enterprises.

The achievement of national food security is to be a key objective of the agricultural sector. Food security in this case is defined as “ a situation in which all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” (Kenya Food Security Steering Group, 2008). In the recent years, and especially starting from 2008, the country has been facing severe food insecurity problems. These are depicted by a high proportion of the population having no access to food in the right amounts and quality. Official estimates indicate over 10 million people are food insecure with majority of them living on food relief. Households are also incurring huge food bills due to the high food prices. Maize being staple food due to the food preferences is in short supply and most households have limited choices of other food stuffs.

The current food insecurity problems are attributed to several factors, including the frequent droughts in most parts of the country, high costs of domestic food production due to high costs of inputs especially fertilizer, displacement of a large number of farmers in the high potential agricultural areas following the post-election violence which

occurred in early 2008, high global food prices and low purchasing power for large proportion of the population due to high level of poverty.

Policy responses to the recent food crisis include supply related policies, Price related policies and income related policies.

One of the cornerstones in the strategy for agricultural development is the cooperation between Governments and private sector. The main mechanisms for integration and cooperation with the private sector are the private sector involvement in policy development and decision-making; implementing agents in provision of services to clients; target for capacity building; service providers and partners in investment and in provision of services.

2.6 Environmental Challenges

Environment plays a key role in the performance of any organization and changes in the environment of any organization poses challenges to that organization. Analysis of the external environment by considering political, economic, social-cultural and technological (PESTEL) factors influencing an organization is important. The aim of environmental analysis is to help a company understand its current position in the external environment. PESTEL analysis allows a company to identify and understand the broad general factors impacting upon it, such as legislation and social behaviour of current or potential customers. Analysis of the competitive environment considers the role of regulation and the factors driving competition (Capon, 2008).

The current environment is highly turbulent that it makes it difficult for organizations to achieve their objectives hence the need to be flexible in order to cope with the changes in these environments. Physiological changes in the environment commonly known as climate change has posed a serious challenge to food security. This is as a result of prolonged droughts and erratic rainfalls that cause flush floods in various parts of the country. Prolonged droughts have led to crop failure in many parts of the country. Political instability poor economy is a threat to food security as many households cannot afford high prices of food items. There is also insecurity within the country that has greatly hindered food production in the country as farmers lost their crops, livestock and land as a result of conflicts. The aspect of technology also poses a challenge in that there is resistance to investment in biotechnology. There is a perception that genetically modified crops are unhealthy hence there is resistance in the adoption technology driven agriculture.

The external environment is literally the big wide world in which organization operate. Whatever the nature of their business, organizations do not and cannot exist in splendid isolation from the other organizations or individuals around them, be they customers, employees or suppliers. It is therefore clear that the external environment or any organization is a large and complex place. 'Environment' here is more appropriately interpreted as the external context in which organizations find themselves undertaking their activities. Each organization has a unique external environment which has unique impacts on the organization, due to the fact that organizations are located in different places and are involved in different business activities, with different products, services, customers and so on. In addition to this unique context, individual organization all have

their own distinctive view of the world surrounding them, leading them to interpret what is happening in the external environment correctly or incorrectly, depending on their ability to understand the external forces affecting them (Edward and Peppard, 1994).

2.7 Challenges of Food Security

Continuous increase in the prices of food items poses a serious threat to food security as a result of poverty. Most households are food insecure as they live below a dollar per day. High costs of fertilizers and planting seeds has discouraged farming activities as farmers are not able to meet production costs. This has been attributed to poor prices of farm produce offered to farmers.

Lack of organized market systems for major food commodities has led to long and inefficient value chains, affecting the availability of food at affordable prices. There exist inefficient mechanisms to distribute food after harvesting to low production regions and urban centers at competitive and affordable prices. The prevailing food shortages in such regions increase demand for food, pushing the prices high.

The challenges facing agriculture today are immense. Of immediate concern is the global increase in food prices, starkly brought home by reports of food spoilage and food shortages in many countries around the world. During the first three months of 2008, international nominal prices of all major food commodities reached their highest levels in nearly 50 years while prices in real terms were the highest in nearly 30 years (FAO,

2008). The FAO estimates show that the number of hungry people increased by about 50 million in 2007 as a result of soaring food prices.

Climate change, coincident with increasing demand for food, feed and fuel, has the potential to irreversibly damage the natural resource base on which agriculture depends, with significant consequences for food insecurity (IAASTD, 2008). The relationship between climate change and agriculture is two-way; agriculture contributes to climate change in several major ways and climate change in general adversely affects agriculture. Agriculture is thus at a crossroads. It has to find ways to feed the world while being environmentally, socially and economically sustainable. Yet, it is increasingly clear that the path that agriculture has been on is not sustainable, nor can it feed the world without destroying the planet (IAASTD, 2008). With the spotlight once more on agriculture, and with many critical issues that need resolving, finding the answer to the question of the nature of agricultural development required has never been more pressing.

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

The chapter discusses the research design, the methodology applied, sampling procedure, data collection and data analysis technique used in this study. The discussion in this chapter includes study limitations and other pertinent issues related to the study at hand.

3.2 Research Design

This research was conducted as a case study. A case study was preferred because it would enable the researcher to have an in-depth understanding of strategic responses by the ministry of agriculture, livestock and fisheries to challenges of food security in Kenya. According to Saunders; Lewis and Thornhill (2009) research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

3.3 Data Collection

Data was collected using an interview guide which was administered to three Principal Secretaries in the Ministry of Agriculture, Livestock and Fisheries. The Interview guide was divided into three sections and was administered by conducting an individual interview. This was a one-to-one interview between the researcher (Interviewer) and respondent.

3.4 Data Analysis

The data collected from the respondents was qualitative in nature. The data was analysed using content analysis which enabled the researcher to reduce a large mass of data to simpler, more understandable terms hence making it easier to understand the data that was used (Gay, 1996). The data was analysed using content analysis through describing phenomena, classifying it and seeing how the concepts interconnected as was indicated by the respondents. This approach of analysis was preferred because it gives results that are predictable, directed, or comprehensive.

CHAPTER FOUR:

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter covers the analysis of data collected using an interview guide that was administered to principal secretaries of Agriculture, Livestock and Fisheries using content analysis technique. This chapter also provides the discussion of the results obtained.

4.2 The profile of the respondents

The respondents interviewed were cooperative and offered the required information for this study. Their vast work experience and their positions in the ministry provided adequate information for the study. Being the top level management officials, they are involved in strategic formulations and decision making.

4.3 Challenges of food security

There are various challenges that lead to food insecurity in Kenya and the respondents in the Ministry of Agriculture, Livestock and Fisheries cited the following as the major challenges.

4.3.1 Climate change

The study showed that the effects of climate change that is perpetuated by the actions of mankind like the destruction of forests and water catchment areas, have led to changes in weather pattern. As a result of this, there have been prolonged droughts, frost in some of the productive agricultural areas, hailstorms, extreme flooding, receding lake levels, drying of rivers and other wetlands among others leading to large economic losses and adversely impacting food security. Many of these extreme climate events have led to displacement of communities and migration of pastoralists into and out of the country resulting in conflicts over natural resources. Slow-onset events associated with climate change also lead to competition over scarce resources resulting in human-wildlife conflicts. Other climate change impacts include widespread disease epidemics, sea-level rise, and depletion of glaciers on Mount Kenya. For this reason there is total decline in food production as the arable land has declined. According to the study, the onset of the planting season this year was delayed due to delayed rains that kept farmers waiting for long before planting. This led to the overall poor performance of maize plantations in North Rift since there was uneven germination of seeds which was caused by unsteady rainfall. Temperatures have increased overtime as a result of global warming and for this reason, crops do not perform well in areas where they used to. Climate change has impacted negatively on fish farming as a result of erratic rainfalls that cause siltation in fish ponds and lakes.

Climate change has led to the prevalent outbreak of severe diseases such as malaria, cholera, ebola, lyme disease, plague, tuberculosis, sleeping sickness, yellow fever and

Rift Valley fever that have spread due to rise in temperatures and changes in precipitation patterns. Such diseases are epidemic during floods. According to the study, population displacements and migration from climate disaster-prone areas such as drought prone northern Kenya and sea-level rise in coastal region have increased. Climate change has also led to changes in ocean circulation that have led to loss of fish population.

4.3.2 Inaccessibility to household productive resources

High levels of poverty in rural areas have led to food insecurity and vulnerability problems. These household problems include inadequate incomes, factors such as poor access to productive resources like land (including pasture), seeds, water, technology and affordable credit facilities. There is unequal access to control and management of productive resources across gender. The need to address equity in access to and control over productive resources is therefore imperative. HIV/AIDS pandemic has also impacted negatively on agricultural labour and service delivery, leading to the problem of erosion of productive resources. Other challenges include inadequate knowledge on existing agricultural and livestock support services. Poor organisation of farmers and their institutions have further compromised their ability to advocate and demand for the services. In Kenya, there is poor access to productive resources like land (including pasture), seeds, water, technology and affordable credit facilities. There is unequal access to control and management of productive resources across gender as culture still dictate that men inherit land and not women. Kenyan women only own one per cent of the land they produce the vast majority of the food for their entire families nationwide. They receive less than seven per cent of the farm extension services, less than ten per cent of

the credit given to small-scale farmers, and are generally undernourished, overworked, illiterate, and genuinely lack a voice in Kenyan society.

4.3.3 High prices of food items

The study showed that there is continuous increase in the price of food item in Kenya. In Turkana and Tana River counties for example, maize prices increased in by about 10-20% in January 2014 compared to January 2013. This is a relatively large increase in price and this illustrates the sensitivity of maize prices these two counties and the negative impact this has on the vulnerable households where it is more difficult for them to afford maize, the key staple food in Kenya. This, according to the study has led to inaccessibility of food by the rural poor and currently, crop and livestock enterprises provide the bulk of employment to the rural population. The study also showed that income levels in rural areas are generally low with high unemployment rates and this has increased rural-urban migration putting pressure on the services and resources in urban centres. The high unemployment rates and low incomes have been due to limited access to productive resources, low technology uptake, inadequate marketing infrastructure, low value-addition initiatives and inadequate regulatory frameworks.

4.3.4 Postharvest losses

The postharvest losses at household level as a result of poor storage facilities and handling practices are high, ranging from 30% - 40% of maize produced in the country, 50% of fresh produce and 95 million litres of milk per annum. There are also high levels

of postharvest contamination that pose health risk to consumers. Effective preservation and processing of food is hindered by factors such as access to and limited knowledge on storage and preservation techniques and fluctuations in output due to seasonality and over-reliance on rain-fed agriculture.

During periods of sufficient rainfall, Kenya often realises surplus harvests of many food commodities, particularly maize, milk and pasture/fodder. However, a significant proportion of Kenya's produce is lost due to inadequate storage facilities, poor storage practices for food and lack of deliberate initiatives to harvest, dry and store surplus pasture/fodder. Although the country generally lacks storage capacity, there are pockets of surplus capacity spread across the country under the management of National Cereals and Produce Board (NCPB). Out of the total NCPB storage capacity of 28 million bags (2.52 million tonnes) only about 15% of this is currently utilized. Farmers are at times forced to dispose of their produce at very low prices during glut periods due to lack of appropriate storage facilities.

4.3.5 Poor distribution and marketing structures

Efficient and effective markets are a requirement for optimum benefit for producers, intermediary traders, processors and consumers. Inadequate infrastructural development hinders the distribution of food from high producing areas to low producing. The key market infrastructure includes roads, power, telecommunications, and work spaces, vaccination crashes, holding grounds, water and sanitation, among others.

4.3.6 High population growth rate and high cost of farm inputs

The growth rate in per capita food production has not kept pace with population growth rate in the country. High population density in high and medium agro-ecological areas has placed too much pressure on land leading to sub-divisions into non-economical units and encroachment into fragile ecosystems. Therefore the arable land has been decreasing due to establishment of settlements and commercial buildings. In addition, over-reliance on rain-fed agriculture, and unsustainable water, pastures and land use management practices has exacerbated this problem. High costs of inputs and limited diversification in terms of production of nutrient-rich foods have increased the risks of livelihood failure and health challenges. Increased productivity of small land units and marginal ecosystems can be ensured through intensification of the production processes and diversification for adaptability to various agro-ecological zones. Due to the high costs of farm inputs, farmers have shied away from farming activities and this has led to decreased production.

4.3.7 Inadequate production and conflicts

Kenya has increasingly become dependent on imports for its food requirements owing to declining per capita food production and self-sufficiency, urbanisation and globalisation trends and changing feeding habits. While consumers may have benefited from cheap food imports, reliance on these imports and food aid from external sources have to some extent reduced local production. Cross-border trade with Kenya's neighbours in the region has been on the increase, facilitating the assurance of regional food self-

sufficiency, though with some displacement effects on local production. A major challenge for Kenya is to increase productivity, efficiency in production and marketing with a view to reducing the cost of production for enhanced competitiveness. Although some parts of the country occasionally experience instances of surplus production, poor infrastructural network has hampered food distribution from surplus to deficit areas.

There is a serious challenge of conflict among communities especially in Arid and Semi-arid Lands where communities engage in fighting over resources. These conflicts adversely affect the distribution of food to such areas as traders flee from distributing food to such areas hence such areas are prone to food insecurity. Such conflicts have always led to loss of livelihoods for example cattle rustling in Arid and Semi-arid Lands have led to families losing their livestock to cattle rustlers hence posing the families to food insecurity problems. The 2007/2008 post-election violence posed a serious threat to food security the whole country as no farming activities took place and there was also massive destruction of crops in the farms.

4.4 Strategic Responses

The ministry has adopted a number of strategic responses to address the challenges observed above. Below are some of the responses adopted by the ministry according to the study.

4.4.1 Strategic responses to inadequate production and conflicts

The responses included improvement of competitiveness and efficiency of Kenya's food production and marketing systems; promotion of strategic liberalization of food trade as a means of ensuring food security; improvement of the food distribution systems including information networks; strengthening involvement of communities, private sector and producer organizations in marketing; and developing safeguard measures critical to food security, livelihood support and rural development. The ministry has worked to increase the competitiveness of Kenya's agricultural produce by addressing the cost of production including infrastructural constraints. This has been done through the provision of subsidized fertilizers to farmers. The ministry has also led to the promotion of domestic, regional and international food trade and there have been support efforts geared towards harmonization of food safety and quality standards and regulations regionally and internationally.

The government has engaged the affected communities through peace missions and disarmament exercise. Beefing up of security in such areas has been put in place as more police officers have been deployed to such areas. Ministry of Agriculture Livestock and Fisheries has intensified awareness on other farming activities in to avoid over reliance on livestock only.

Ministry of agriculture has expanded production of food through expansion of irrigation schemes. Some of the various irrigation schemes established include:

Tana Delta Irrigation scheme which is operated under the aegis of TARDA and has a potential of 3,500 acres for Maize and 1,500 acres for rice, Ahero irrigation scheme located in Nyando district and operated by farmers under NIB which has a potential of

3,000 acres for rice production, Bunyala Irrigation Scheme located in Bunyala District with a potential area of 1,200 acres for rice and Mwea irrigation Scheme located in Kirinyaga South with a potential 14,000 acres for rice production.

Commercialization of Agriculture also enabled the ministry to transform Kenya's agriculture into a profitable commercially oriented and internationally and regionally competitive activity that provides gainful employment for Kenyans. There is on-going sensitization of farmers through capacity building to undertake farming as a business. There are extension services, animal health services and provision of credit facilities for purchase of farm inputs.

Fish Farming Enterprise Productivity Programme which entails the production of fish under aquaculture systems for food production and commercial purposes is being implemented by the ministry. The aim of the project is to produce food, create employment and generate income, particularly for the unemployed young Kenyan's and the associated households, through sustainable aquaculture enterprises. This Programme is being implemented in the high aquaculture potential areas of Western Kenya, Nyanza, parts of Rift Valley, Eastern, Central Kenya and Coast regions then scaled up to other regions. The Ministry of Fisheries has three research facilities namely, cold water fish farm at Kiganjo, warm water fish farm at Sagana in Kirinyaga District and Sangoro Fish farm in Kisii District.

Small Holder Dairy Commercialization Programme (SDCP) which is a joint development programme between the Government of Kenya and International Fund for Agricultural

Development (IFAD) with an emphasis on Commercialization of dairy and dairy products through the Market Oriented Dairy Enterprises (MODE) approach is on-going. The objective of (SDCP) is to increase the income of the poor rural households that depend substantially on production and trade of dairy products for their livelihood. The programme is designed to reach 24,000 households engaged in dairy production and trading in the next six years within 9 districts spread across South Rift Nyanza, North Rift, and Western Province. This is expected to significantly reduce food insecurity levels in this region. The programme is expected to cost USD 19.5 Million.

4.4.2 Strategic responses to climate change

The government through the ministry of agriculture has played a key role in sensitizing farmers on the importance of environmental conservation. This has been done through encouraging farmers to plant drought tolerant crops and to engage in soil conservation practices. Conservation agriculture has been implemented in some parts of the country to ensure farmers embrace minimum tillage which helps to reduce soil erosion.

The study showed that there have been adaptation and mitigation strategies to climate change. Among these include production and promotion of drought tolerant, disease and pest resistant as well as early maturing varieties. This has been done in collaboration with Kenya Agricultural Research Institute (KARI). Orphaned crops have been on intense promotion by the ministry of Agriculture and the crops include Sorghum, Cassava, Pigeon Peas and Sweet Potatoes among others. Proposed mitigation measures that include appropriate use of biotechnologies which increase food production per unit area while simultaneously limiting Green House Gas emission are being implemented.

Promotion of proper management of agricultural waste e.g using cow dung to produce biogas and agroforestry especially tree-based intercropping has been implemented by the ministry.

The ministry has implemented the establishment of water harvesting structures in Arid and Semi-Arid Lands to enable households to harvest and store water for a longer period of time even when the rains have stopped. This has helped the communities in such areas to provide water for their livestock in times of drought. Integrated land and water management that have been promoted by the ministry have led to the recovery of agricultural production systems as well as reduced community vulnerabilities. Rain water harvesting and other conservation structures have provided opportunities for enhanced agricultural production.

4.4.3 Strategic responses to high prices of food items

In this regard, the ministry has been working to enhance rural employment opportunities as a means of increasing the level of food security and nutrition with a target of increasing on-farm employment at a rate of 5% per year on a sustainable basis and double the share of off-farm employment with respect to on-farm employment. Additionally, the government in collaboration with other stakeholders in the creation of on-farm and off-farm jobs has supported measures to improve security and access to land, water and technologies especially by women, pastoralists, youth and child-headed households. There has been regular review of the minimum wages to take account of food and nutrition needs, inflation rates and labour productivity.

4.4.4 Strategic responses to Inaccessibility to household productive resources

There has been improvement to equity in access and control of productive resources across genders by the government and also the empowerment of the vulnerable groups for them to actualize their full potential in food production at the household level. Agriculture and livestock services for household food security have been enhanced through farmer field days.

The creation of an efficient and easily accessible land registry system has been created by the government to solve the problem of land ownership and there has been adoption of participatory approaches to rural development and sustainable management of productive resources enhanced by the ministry. The study also showed that equitable access to, control and management of productive resources across gender has been promoted. Capacity building of rural agricultural and livestock communities on participatory rural development methodologies to enhance their adaptability to changing needs and environmental and socio-economic conditions has been intensified extension services organized by the ministry.

4.4.5 Strategies to address high population growth rate and high cost of farm inputs

The study established that agricultural intensification through sustainable and efficient use of productive resources has been promoted and diversification for adaptability has been enhanced. Sustained productivity and production of nutrient rich foods has been

emphasized by the ministry. The provision of subsidised fertilizers by the government has boosted farming activities in the country as farmers can afford to buy them and have led to reduced costs of production. Farm input subsidies have motivated farmers to engage more in farming. The study also showed that ministry has been able to ensure farmers access credits to procure farm inputs in time through provision of loans from Agricultural Finance Cooperation. Alternative farming practices are being promoted by the ministry that do not require the use of artificial fertilizers. The practices include conservation Agriculture and organic farming. Organic farming requires farmers to use organic manure from both animal and plant waste to as fertilizer in order for farmers to avoid the cost of having to buy expensive artificial fertilizers.

4.4.6 Strategies to address postharvest losses

The ministry have engaged in research and development of appropriate methods of food/forage handling, preservation value-addition and storage. The study has shown that households have been capacity built and trained on appropriate safe handling, preservation, value-addition and storage techniques. Capacity building of households on indigenous technical knowledge on safe handling, preservation, value-addition and storage of food products has also been done. Promotion of storage of livestock fodder/pasture, expansion of utilization of public storage food facilities, and encouragement of private sector investment in these facilities has been enhanced. Transformation of the Strategic Grain Reserve (SGR) into a Strategic Food Reserve (SFR) by expanding the SGR to include other critical foodstuffs such as sorghum, millet, rice, pulses, milk, meat and livestock feeds has worked to address storage losses.

Appropriate stock and cash levels for establishment of the SFR have been determined and additional funding for establishment of the SFR has been provided. The stock and cash levels are to be periodically reviewed based on demographic, economic, climatic conditions.

The study observed that processing and value addition of agricultural products did not only led to value addition of the products but also led to long storage periods before spoilage. This according to the study has enabled agricultural products to be stored for quite a long period of time without going bad while waiting to be sold in the market. Processed milk could be stored for quite a longer period of time compared to unprocessed milk. This therefore showed that processing has played a key role in reducing post-harvest losses

4.4.7 Strategic responses to poor distribution and marketing structures

Construction of roads linking producers to markets have commenced in conjunction with county governments. Increased power and water connections to markets have also been done through rural electrification programme. There has been tremendous expansion of telecommunication network in rural areas and informal settlements and also expansion and improvement of information systems has been facilitated.

More funding directed to agriculture sector has been increased and this has made the sector to create opportunities for the people and this has increased their income hence will be able to access food. Through devolution, county governments are engaged in road constructions on all counties therefore this will enhance ease of food distribution.

4.5 Discussion of results

From the findings of the study, there are numerous challenges of food security and quite a number of strategic responses have been adopted to address the challenges. The strategic responses adopted by the Ministry have addressed the challenges of food security but not adequately due to challenges the Ministry faces from their environments such as politics and inappropriate policy structures to support implementation process. Fish farming in Kenya is still very low compared to Agriculture and Livestock as it has not been embraced by many communities. The challenges of food security in Kenya are complex and dynamic hence require appropriate strategies to respond to them and the strategies should be flexible in order to address the changing environment. Formulated strategies should be followed by fast implementation plan as the environment is ever changing. The study showed that most of the strategic responses adopted by the ministry are long term and implementation process is on-going.

Despite the appropriate strategies that the ministry has adopted, there are still challenges in achieving food security in Kenya in that implementation of the strategies formulated is at a slow pace. There is also inadequate funding of the projects to be implemented from the government. Political instabilities in the country also has adversely affected the implementation of food security projects as was evident in the 2007/2008 postelection violence the rocked the country.

Although extension services to farmers are being administered, there are not provided adequately as there is limited number of staff to reach out to all farmers hence, most of the farmers do not access the services. There is also inadequate investment in research

and development as there was no immediate response to the maize Lethal Necrosis Disease that brought drastic losses to maize production.

Marketing structures are still poorly developed and also not much has been done on value addition food items. These poor marketing structures have led to uneven distribution of food to all parts of the country since high producing areas cry of prolonged storage of their produce in the grain stores and this has been evident in maize producing areas. As maize rot in grain stores in high producing areas, some parts are starving due to the fact that the surplus produced are not channelled to drought prone areas due to poor marketing structures.

4.5.1 Theoretical Link

Thompson and Strickland (1998) pointed out that an organization's strategy consists of moves and approaches devised by management to produce successful organizational performance. That strategy is a management's game plan for the business. Without a strategy, there is no established course to follow, no roadmap to manage by, no cohesive action plan to produce the intended results.

(Hambrick 1983; Kim and Lim, 1988, Miller, 1998) Organizations face significant constraints and contingencies from their external environment and their competitiveness depends on their ability to monitor the environments and adapt their strategies accordingly.

4.5.2 Other Empirical Studies

Kiptugen (2003) undertook a study on strategic responses to the changing environments in Kenya Commercial Bank and established that changes in the environment has led to intense competition in the banking industry through availability of substitute products. Adoyo (2005) focused his study on responses to changes in the external environment at Post Bank. He established that the bank has responded adequately to changes in the environment through re-organizing its organizational structure, improving its service delivery, developing new products and cultural transformation.

Ministry of Agriculture, Livestock and Fisheries face environmental challenges like any other organization therefore it should embrace strategic responses in order to achieve its objectives.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter provides the summary of the results of the study and presents a brief discussion with regards to the problem statement. It also provides suggestions for further research within the same ministry and other ministries in Kenya.

5.2 Summary of the findings

There are various concerns that have been causing food insecurity in Kenya. These challenges pose serious economic problems in the country. The challenges addressed in this study are the main challenges that require appropriate strategic responses to overcome. Climate change is among the major challenges of food security in Kenya as it has led to consistent increase in temperatures hence affecting growth of food crops. Furthermore, climate change has led to prolonged droughts which have led to reduced production as a result of crop failure in high potential areas. The effects of climate change were evident this year where rains delayed and led to delayed planting season. The escalating temperatures affect the normal growth of food crops leading to their poor performance hence reducing yields. Climate change has led to the development of erratic rainfalls that have caused flush floods. These flush floods sweep cultivated lands and cause massive erosions.

Prices of food items in Kenya keep on rising and this has been a serious challenge for both rural and urban poor. According to the study, majority of the Kenyan population is poor and food insecure as a result of unemployment. The rural poor also earn very low income which is not sufficient for sustainability therefore most of them cannot afford food as a result of high price of food items. Postharvest losses have been eminent according to the study as a result of inadequate knowledge by farmers on appropriate storage and preservation after harvest. The study showed that effective preservation and processing of food has been hindered by factors such as access to and limited knowledge on storage and preservation techniques. Poor infrastructure i.e Poor rural roads and other key physical infrastructure have led to spoilage of perishable commodities during transportation and this has caused high losses to farmers.

Poor distribution and marketing structures according to respondents has been another major challenge that has led to food insecurity. The study showed that although there have been high yields as a result of bumper harvest in high potential areas, the surplus produce does not get to Arid and Semi-arid areas as a result poor distribution mechanism. Hence the surplus produce end up rotting in silos while people are sleeping hungry in dry areas. This problem however is attributed to poor road network in the country.

Conflict among communities in some parts of the country according to respondents has caused many households to be food insecure. This is mainly the problem in pastoral communities where cattle rustling are rampant. Households according to the study have been deprived of their livelihood and left without food. Post-election violence also led to drastic food insecurity among many households as their farms were raided and evicted

from their farms. This made the affected households to abandon their farming activities and move to Internally Displaced Persons camps where they were not productive and this led them to sleeping without food.

Pests and diseases according to the study is another serious challenge of food security. This has been seen where most crops have been destroyed by pests and diseases. This was observed in the massive loss of maize plantations in Rift Valley following an outbreak of Lethal Necrosis Disease that wiped almost all plantations leading to huge decline in total maize production in the country.

In view of the challenges of food security in Kenya, Ministry of Agriculture, Livestock and Fisheries undertook various strategic responses to address the challenges. The strategic adopted by the ministry have had a positive impact in the move towards a food secure Kenya. The Ministry of Agriculture Livestock and Fisheries has been implementing a series of projects to address food shortage in the country. The projects according to the study include implementation of irrigation schemes that have been expanded in most parts of the country among them are Tana Delta Irrigation scheme, Ahero irrigation scheme located in Nyando district, Bunyala Irrigation Scheme located in Bunyala District and Mwea irrigation Scheme located in Kirinyaga South. In addressing conflicts challenge, the government has intensified security in all affected areas through dispute resolution mechanisms that ensure equitable distribution of resources through implementation of devolution.

5.3 Conclusions

The study established that the challenges of food security in Kenya are numerous and are complex in nature and therefore require implementation of appropriate strategies in order to address them. These challenges include conflicts among communities, poor distribution and marketing structures, climate change, postharvest losses and pests and diseases. The study also showed that there is need for more strategic actions to be done especially on technology improvement in farming and research and development. Despite the adverse effects of climate change most farmers still depend on rain fed agriculture which is not reliable. The study also established that the ministry of Agriculture, Livestock and Fisheries has the capacity in terms of expertise and funding to facilitate effective strategic responses to food security challenges.

The Ministry of Agriculture Livestock and Fisheries has not done enough to ensure that Kenya is food secure. This therefore means that there is still a lot that needs to be done in terms of development of appropriate strategic responses and implementation of those responses. Cases of insecurity in pastoral communities are still a major challenge to food security in Kenya and also there has not been enough sensitization on climate change effects amongst communities in Kenya. There is inadequate storage facilities to store harvested food crops and has led to massive postharvest losses.

5.4 Recommendations

The environments at which organizations operate are turbulent and therefore organizations require continuous development of strategic responses in order to remain

competitive and relevant. The ministry of Agriculture, Livestock and Fisheries should focus on prior planning and development of strategies to avoid reactive actions that are applied when situations have already gone wrong. Long term strategic planning should be put in place to avoid reactive responses like distribution of food aid to already affected people. Early warning systems should be developed in order to avert disasters. The ministry should focus more on research and development in order to be efficient in responding pests and disease outbreaks.

Extension services provision to farmers should be intensified to enlighten farmers on modern farming technologies so as to reduce over-reliance on rain-fed agriculture.

There is need to transform the Strategic Grain Reserve (SGR) into a Strategic Food Reserve (SFR) by expanding the SGR to include other critical foodstuffs such as sorghum, millet, rice, pulses, milk, meat and livestock feeds. Appropriate stock and cash levels for establishment of the SFR should be determined and also additional funding for establishment of the SFR should be provided. The stock and cash levels should be periodically reviewed based on demographic, economic, climatic conditions and institutional arrangement for the management and distribution of the food reserves should be strengthen.

5.5 Limitations of the study

The study however had some challenges as it took lot of time to make an appointment with the respondents due to their busy schedule.

Some of the respondents could offer inadequate time to interview them and therefore give shallow information.

5.6 Suggestions for further research

Further research should be done in the ministry of Agriculture, Livestock and Fisheries to evaluate the success of the strategic responses adopted.

Research should also be done other government ministries to determine the challenges they face and the strategies they have adopted to address those challenge and also to determine effectiveness of the strategies they adopt.

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Thomas

learning.

APPENDICES

Appendix I: Letter of Introduction



UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
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P.O. Box 30197
Nairobi, Kenya

DATE 21/08/2014

TO WHOM IT MAY CONCERN

The bearer of this letter NOAH KIRWA

Registration No. DG1/76114/2012

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.


PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS



Appendix II: Interview Guide for the Principal Secretary Ministry of Agriculture

Section A: Respondent Information

This section will seek to gather background information about the respondent. This will be used in analysing further the data which will be collected.

1. What is the gender of the respondent?
2. What is the age of the respondent?
3. What is the designation of the respondent?
4. How many years has the respondent worked in the Ministry?

Section B: The Challenges of Food Security in Kenya

This section seeks to gather information on the challenges of food security in Kenya.

1. What are the main challenges of food security in Kenya addressed by the Ministry of Agriculture?
2. Please explain how continuous increase in the prices of food items poses a serious threat to food security in the Kenyan population.
3. Explain how the high cost of fertilizers and planting seeds has de-motivated farming activities.

4. There exist insufficient mechanisms to distribute food after harvesting to low production regions and urban centres at competitive and affordable prices (Explain the statement given in regards to the strategic responses provided by the Ministry of Agriculture, Livestock and Fisheries).

5. What are the impacts of climate change on food production in Kenya?

6. What solutions do you recommend in the loss of food produced each year and the shortage in the market contributing to an increase in food prices.

Section C: Strategic Responses

This section seeks to gather information on the strategic responses adopted by the Ministry of Agriculture, Livestock and Fisheries in facing challenges of food insecurity in Kenya.

1. What strategic responses have been adopted by the Ministry of Agriculture to address challenges of food security in Kenya?

2. What are the constraints and contingencies the Ministry faces from external environment that affects their ability to monitor the environments and adapt their strategies accordingly?

3. Explain any challenges faced in the process of strategy formulation, implementation and evaluation in your organization?

4. Explain how you have managed the above challenges and how you have ensured that organizations objectives are met despite the challenges in your department.

5. Does the department of Agriculture review its strategic plan?

(Explain)

THANK YOU FOR YOUR COOPERATION!!!

Appendix III: Interview Guide for the Principal Secretary Ministry of Livestock

Section A: Respondent Information

This section will seek to gather background information about the respondent. This will be used in analysing further the data which will be collected.

1. What is the gender of the respondent?
2. What is the age of the respondent?
3. What is the designation of the respondent?
4. How many years has the respondent worked in the Ministry?

Section B: The Challenges of Food Security in Kenya

1. What are the challenges of food security in Kenya that are being addressed by the Ministry of livestock department?

2. There exist insufficient mechanisms to distribute livestock products after production to other regions and urban centers at competitive and affordable prices.

(Explain)

3. What are the impacts of climate change on livestock production in Kenya?

4. Rate the extent of livestock production from the year 2008 to date. (Explain)

Section C: Strategic Responses

This section seeks to gather information on the strategic responses adopted by the Ministry of Agriculture, Livestock and Fisheries in facing challenges of food insecurity in Kenya.

1. What strategic responses have been adopted by the Ministry of Livestock to address challenges of food security in Kenya?

2. What are the constraints and contingencies the Ministry faces from external environment that affects their ability to monitor the environments and adapt their strategies accordingly?

3. Explain any challenges faced in the process of strategy formulation, implementation and evaluation in your organization?

4. Explain how you have managed the above challenges and how you have ensured that organizations objectives are met despite the challenges in your department.

5. Does the department of Livestock review its strategic plans?

(Explain)

THANK YOU FOR YOUR COOPERATION!!!

Appendix IV: Interview Guide for the Principal Secretary Ministry of Fisheries

Section A: Respondent Information

This section will seek to gather background information about the respondent. This will be used in analysing further the data which will be collected.

1. What is the gender of the respondent?
2. What is the age of the respondent?
3. What is the designation of the respondent?
4. How many years has the respondent worked in the Ministry?

Section B: The Challenges of Food Security in Kenya.

1. What challenges of food security in Kenya are addressed by fisheries department?
2. There exist insufficient mechanisms to distribute fishery products after harvesting to low production regions and urban centers at competitive and affordable prices.

(Explain)

3. What are the impacts of climate change on fish production in Kenya?
4. Rate the extent of fishery production from the year 2008 to date. (Explain)

Section C: Strategic Responses

This section seeks to gather information on the strategic responses adopted by the Ministry of Fisheries in addressing challenges of food insecurity in Kenya.

1. What strategic responses have been adopted by the fisheries department to address challenges of food security in Kenya?
2. What are the constraints and contingencies the Ministry faces from external environment that affects their ability to monitor the environments and adapt their strategic responses accordingly?
3. Explain any challenges faced in the process of strategy formulation, implementation and evaluation in your organization?
4. Explain how you have managed the above challenges and how you have ensured that ministry's objectives are met despite the challenges in your department.
5. Does the department of fisheries review its strategic plans?

(Explain)

THANK YOU FOR YOUR COOPERATION!!!