



Republic of Kenya

NATIONAL FOOD AND NUTRITION SECURITY POLICY

2011

© 2011. Government of Kenya

Agricultural Sector Coordination Unit (ASCU)

Kilimo House, Cathedral Road

PO Box 30028–00100

Nairobi, Kenya

tel: +254 20 2046856

fax: +254 20 2046985

email: info@ascu.go.ke

website: www.ascu.go.ke



Contents

<i>Abbreviations and Acronyms</i>	v
<i>Executive Summary</i>	vii
1. Introduction and Background	1
1.1 Food security and nutritional status	1
1.2 Food security as an issue of national security	2
1.3 Emerging issues for food and nutrition security.....	3
1.4 Previous efforts to address food security and nutrition concerns in Kenya	4
1.5 Context of the FNSP	5
1.6 Overall policy goal and objectives	8
1.7 Scope of the FNSP.....	8
1.8 Organisation of the FNSP	8
2. Food Availability and Access	10
2.1 Introduction	10
2.2 Domestic production	11
2.3 Storage and agro-processing.....	12
2.4 Strategic Food Reserve	13
2.5 Access to and quality of markets	13
2.6 Food trade.....	14
2.7 On-farm and off-farm employment.....	15
2.8 Improving food accessibility for the urban and peri-urban poor	16
2.9 Cultural, social and political factors in accessing food	17
2.10 Irrigation and Food Security	17
2.11 Climate Change	18
3. Food Safety, Standards and Quality Control	20
3.1 Food safety and public health	20
4. Nutrition Improvement / Nutrition Security	22
4.1 Introduction	22
4.2 The life-cycle approach to nutrition improvement.....	22
4.3 Micronutrients.....	26
4.4 Diet related non-communicable diseases	27



4.5	Nutrition and infectious diseases.....	27
5.	School Nutrition and Nutrition Awareness	29
5.1	Nutrition and nutrition education in schools.....	29
5.2	Linking nutrition education with capacity and awareness.....	30
6.	Food and Nutrition Security Information.....	32
6.1	Introduction	32
6.2	National Data and Information Systems	32
6.3	Integrated Data/Information Systems and Analysis.....	33
7.	Early Warning and Emergency Management.....	34
7.1	Early warning	34
7.2	Emergency relief.....	34
7.3	Emergency response: Transfer-based entitlement schemes	35
7.4	Emergency response: Targeted emergency feeding programmes.....	36
7.5	Emergency response: Public works programmes	36
7.6	Emergency response and mitigation: Livelihoods restoration	36
7.7	Linking emergency relief, rehabilitation and recovery with development	37
8.	Institutional and Legal Framework and Financing.....	39
8.1	Institutional framework	39
8.2	Legal framework.....	40
8.3	Financing	40
9.	Policy Implementation, Monitoring and Evaluation	42
9.1	Introduction	42
9.2	Policy Implementation	42
9.3	Monitoring and evaluation	42
ANNEX.....		44

Abbreviations and Acronyms

ASALs	-	Arid and Semi-Arid Lands
ASCU	-	Agricultural Sector Coordination Unit
ASDS	-	Agricultural Sector Development Strategy
CAADP	-	Comprehensive Africa Agriculture Development Programme
COMESA	-	Common Market for Eastern and Southern Africa
DRSRS	-	Department of Resource Surveys and Remote Sensing
EAC	-	East African Community
ERS	-	Economic Recovery Strategy for Wealth and Employment Creation
EWS	-	Early Warning System
FAO	-	Food and Agriculture Organization of the United Nations
FFS	-	Farmer Field Schools
FNSP	-	Food and Nutrition Security Policy
FNSS	-	Food and Nutrition Security Strategy
GOK	-	Government of Kenya
HACCP	-	Hazard Analysis Critical Control Point
ICCFN	-	Inter-ministerial Coordinating Committee for Food and Nutrition
IMCI	-	Integrated Management of Childhood Illnesses
KFSM	-	Kenya Food Security Meeting
KFSSG	-	Kenya Food Security Steering Group
KMD	-	Kenya Meteorological Department
KNBS	-	Kenya National Bureau of Statistics
M&E	-	Monitoring and Evaluation
MDG	-	Millennium Development Goal
MSE	-	Medium and Small Enterprises
MTEF	-	Medium Term Expenditure Framework



- NCD - Non-Communicable Diseases
- NCPB - National Cereals and Produce Board
- NEPAD - New Partnership for Africa's Development
- NFSCC - National Food Safety Coordination Committee
- PRSP - Poverty Reduction Strategy Paper
- SFR - Strategic Food Reserves
- SGR - Strategic Grain Reserves
- SRA - Strategy for Revitalizing Agriculture
- STC - Stakeholder Technical Committee
- UN - United Nations
- UNDP - United Nations Development Programme

Executive Summary

1. Food and nutrition security refers to a situation where all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Currently over 10 million people in Kenya suffer from chronic food insecurity and poor nutrition, and between two and four million people require emergency food assistance at any given time. Nearly 30% of Kenya's children are classified as undernourished, and micronutrient deficiencies are widespread.
2. The Government of Kenya is strongly committed to reducing hunger and malnutrition. This includes efforts to build self-reliance to reduce chronic food insecurity, as well as measures to assist those in need when emergencies occur. Linking relief with longer-term development efforts helps mitigate the potential impact of future emergencies.
3. The new Food and Nutrition Security Policy (FNSP) provides an overarching framework covering the multiple dimensions of food security and nutrition improvement. It has been purposefully developed to add value and create synergy to existing sectoral and other initiatives of government and partners. It recognizes the need for multi-public and private sector involvement, and that hunger eradication and nutrition improvement is a shared responsibility of all Kenyans. The policy and associated actions will remain dynamic to address contextual changes and changing conditions over time. This policy is framed in the context of basic human rights, child rights and women's rights, including the universal 'Right to Food'.

Policy issues

4. *It is the policy of the government that all Kenyans, throughout their life-cycle enjoy at all times safe food in sufficient quantity and quality to satisfy their nutritional needs for optimal health.*

The broad objectives of the FNSP are:

- To achieve good nutrition for optimum health of all Kenyans.
 - To increase the quantity and quality of food available, accessible and affordable to all Kenyans at all times.
 - To protect vulnerable populations using innovative and cost-effective safety nets linked to long-term development.
5. The FNSP addresses associated issues of chronic, poverty-based food insecurity and malnutrition, as well as the perpetuity of acute food insecurity and malnutrition associated with frequent and recurring emergencies, and the critical linkages thereof. These issues are:

6. **Food availability and access:** *The government policy objective is to increase the quantity and quality of food available and accessible in order to ensure that all Kenyans have an adequate, diverse and healthy diet. This will be achieved by working towards sustainable production increases for food that is diversified, affordable and helps meet basic nutrition requirements. Better storage and processing will reduce post-harvest losses and will help smooth availability over time. The government will maintain strategic reserves comprised of both food and cash stocks to ensure rapid response to emergencies. Well functioning rural and urban markets are a key objective of government, along with promoting food trade to ensure a predictable supply of commercially available food. Efforts to enhance employment opportunities and income will focus on both on-farm and off-farm opportunities in rural areas, with related initiatives to promote urban employment and improved food access. Kenya's cultural, social and political factors will be built upon to improve food availability and access towards food security and improved nutrition for all.*
7. **Food safety, Standards and quality control:** *The government policy objective is to ensure safe, high quality food by creating public awareness on relevant issues, and by setting, promoting and enforcing appropriate guidelines, standards and a regulatory framework. Various government bodies are responsible for food safety and quality, which are governed by no less than 20 legislative acts. Coordination of activities and harmonising the regulatory and institutional framework is, therefore, essential. While food safety and quality control are national issues, concern about public health is particularly acute in urban and peri-urban areas, which require special efforts to ensure safe production, handling, storage, preparation and sale of food. Guidelines and standards, based on international standards, will be developed, revised and updated. These standards and guidelines will focus not only on food and food products but also service delivery in various sectors. The private sector will be substantial partners to further efforts to improve food product quality, regulations and safety.*
8. **Nutrition improvement:** *The government policy objective is to achieve good nutrition for optimum health of all Kenyans. Enhancing food access, providing special nutrition interventions for specific vulnerable groups and creating awareness to provision of nutritious foods to all family members and especially children are among other major government objectives. The policy adopts the life-cycle approach to improved nutrition that emphasizes the biological needs in terms of different specific amounts, types and varieties of nutrients for population groups who are at specific stages of life: (i) during pregnancy and for the newborn child, (ii) during early and late childhood, (iii) during adolescence, (iv) during adulthood, and (v) for older persons. Micronutrient deficiencies will be addressed by promoting more diversified diets, food fortification, bio-fortification and vitamin and mineral supplementation. Strategies will be developed to address diet-related non-communicable diseases caused by excessive energy intake associated with*

purchased meals and processed foods, and decreasing levels of physical activity in urban settings. Improved nutrition will also reduce the occurrence and severity of infectious diseases, with specific action for HIV/AIDS affected families.

9. **School nutrition and nutrition awareness:** *The government policy objective is to have all Kenyans knowledgeable about good basic nutrition required to live a healthy and active life, with clear and substantive roles for relevant government ministries, the media and other key stakeholders.* Efforts will focus on improved nutrition and nutrition education in schools with an emphasis on good nutrition practice and positive food habits. Building capacity amongst service providers in all sectors, enhancing nutrition-related adult education amongst the general population, and mounting effective public awareness campaigns are essential. Well founded and internationally accepted dietary guidelines adapted for Kenya will consolidate key nutritional information in a single user-friendly package.
10. **Food security and nutrition information:** *The government policy objective is to build capacity and ensure the availability of quality and timely food and nutrition security data, information and analysis for better formulation and management of integrated food and nutrition security strategies, programmes and action.* Recognizing the broad scope of food security and nutrition related information, sectoral ministries and agencies will be supported in their efforts to gather and manage crucial data and information. Cross-sectoral data will be brought together into special databases, and in some cases supplemented with more specific indicators, to allow for integrated and holistic food security analysis. Examples of such cross-sectoral databases include those maintained by the early warning system, the KNBS poverty database and KenInfo.
11. **Early warning and emergency management:** *The government policy objective is to protect vulnerable populations and address food insecurity concerns in developing capacity for purposes of early warning and emergency management using innovative and cost-effective safety nets and emergency relief programmes linked to long-term development.* Early warning systems will be expanded and strengthened to provide crucial information and analysis for emergency preparedness and response, and also to guide emergency mitigation and longer-term development. Kenya has and will continue to put in place innovative emergency response mechanisms aimed first and foremost at saving lives, linked with strategic efforts towards recovery, rehabilitation, restoration of livelihood systems, and development. These include transfers-based entitlements, cash transfers, public works programmes, input support and special measures for the protection and management of livelihood assets, particularly in Arid and Semi-Arid Lands (ASALs).
12. **Institutional and legal framework and financing:** *The government policy objective is to ensure an adequate institutional and legal framework, and to mobilize sufficient resources in order to achieve the objectives of the national Food and Nutrition Security Policy (FNSP).* Existing institutional coordinating mechanisms,

including at national and sub-national levels, will be strengthened and broadened to support the FNSP and related strategies and programmes. A multi-sectoral Food Security and Nutrition Secretariat will be created to ensure broad, cross-sectoral implementation, coordination and monitoring mechanisms. The government will commit financial resources through its Medium Term Expenditure Framework (MTEF) to meet the goals of the FNSP. Policy implementation will consider government budget allocation and staffing constraints, and will be appropriately phased within this context.

13. **Strategic approaches for policy implementation, monitoring and evaluation:**

A strong, logical and realistic strategic framework is required, with associated programmes and action plans. Actions must be purposefully linked and coordinated with one another and with sectoral initiatives of government and partners at national and sub-national levels. An essential component of the implementation strategy is to create strong and lasting advocacy mechanisms. Particularly important is the role of the media. An important component of the implementation plan will be the phasing of programme activities. The FNSP will be implemented in a manner that acknowledges changes in people's food security and nutritional status and conditions over time. In this manner, the strategy will remain dynamic and programmes will reflect the changing context, knowledge and requirements. An effective monitoring and evaluation system will help identify particularly successful and effective initiatives, and will guide the strategic re-phasing of the programme over time.



1. Introduction and Background

1.1 Food security and nutritional status

- 1.1.1 About half of Kenya's estimated 38.5 million people are poor, and some 7.5 million people live in extreme poverty¹, while over 10 million people suffer from chronic food insecurity and poor nutrition. In recent years, it is estimated that at any one time about two million people require assistance to access food. During periods of drought, heavy rains and/or floods, the number of people in need could double.²
- 1.1.2 Economic performance has a direct bearing on people's food security and nutrition status in Kenya although it is acknowledged that improved economic status alone is not sufficient to ensure nutrition security. In the first two decades after independence, the country witnessed a significant growth and improvement in living standards. However, economic growth was either stagnant or negative (compared to high population growth rates) in the 1980s and 1990s. In the agricultural sector, annual growth rates declined from 6% in the 1960s to 1.3% in the 1990s. In recent years, there have been upturn of Kenya's economy, providing renewed opportunity to enhance food security and nutrition. In 2005, the economy grew by 5.8 % while in 2006 it grew by 6%. As a result the absolute poor dropped from 56% in 2003/04 to 46% in 2006.

Text Box 1: What is food and nutrition security?

Food security is said to exist when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. This requires a nutritionally diverse diet.

The framework adopted by Kenya includes the four dimensions of food security: availability, accessibility, stability, and meeting nutritional requirements.

Kenya's approach to food security combines longer-term action to enhance productive potential and incomes, with programmes and policies that respond to immediate needs of the poor and food insecure.

1 Definition of extreme poverty

2 The recent government strategies have yielded some positive results in that in 2006, absolute poor were reduced from 56% to 46% of the population. However, in ASALS, the poverty incidence has been on the rise rather than decline.

Nutrition security is said to exist when food security is combined with education, a sanitary environment, adequate health services and proper care and feeding practices to ensure a healthy life for all household members (UNSCN 6th Report on the World Nutrition Situation).

- 1.1.3 Lack of access to adequate and diversified diet results in various forms of nutrition problems. Nutritional status of children less than five years of age showed no significant change between 1998 and 2008.³ Nationally, over 2 million children (35%) are stunted. The national per capita energy supply per day is less than the recommended rates of 2,250 Kcal/day per active African adult male equivalent and for many, the basic diet is inadequate in terms of diversity and quality (this includes both macronutrients, such as carbohydrates, proteins and fats, as well as micronutrients including vitamins and minerals). Inadequate and inconsistent access for households and individuals, sub-optimal care and feeding practices, particularly for children and women and repeated infections are the other main contributors to malnutrition.
- 1.1.4 Malnutrition occurs when dietary intake is inadequate and health is unsatisfactory, being the two immediate causes of malnutrition. In developing countries, infectious diseases, such as diarrhoeal and acute respiratory diseases are responsible for most nutrition-related health problems.
- 1.1.5 Unavailability of food, inadequate health systems, unhealthy environment resulting to the absence of proper care in households and communities are necessary elements of the underlying causes of malnutrition.
- 1.1.6 Human and environmental resources, economic systems and political and ideological factors as basic causes that contribute to malnutrition. In some cases, that environment may have gross inequalities, disparities in access to resources and/or discriminatory elements which effectively deny some people, on the basis of residence status, gender, age ethnicity, religion or other grounds. Girls and boys have different vulnerabilities in different contexts and their parents and families may be disadvantaged or disempowered in a range of different ways.
- 1.1.7 Micronutrient deficiencies are highly prevalent in Kenya, particularly at crucial stages of the life cycle when needs for specific minerals and vitamins are high. Vitamin and mineral deficiencies exist even among population groups with sufficient food in terms of meeting energy requirements. Children under five years are particularly affected by deficiencies in vitamin A (84% of children), iron (73.4%), and zinc (51%). Women, especially pregnant women, are among the most vulnerable with a high risk of iron deficiency (60% among pregnant

³ Central Bureau of Statistics, Kenya Demographic and Health Survey (1998, 2003, 2008/9).

woman) and vitamin A deficiency (39%). An estimated 16% of adult males suffer from iron deficiency (anaemia). Kenya is also increasingly faced with diet-related non-communicable diseases, especially in urban areas. These are mainly caused by excessive energy intake associated with purchased meals and processed foods, and decreasing levels of physical activity in urban settings. Additionally, millions of children and adults suffer from the ill-health effects of food-borne diseases.

- 1.1.8 The Government of Kenya is committed to eradicating hunger and malnutrition. This includes efforts to build self-reliance and to reduce chronic food insecurity, as well as measures to reduce vulnerability to shocks and crisis and assist those in need when emergencies occur. Linking relief with long-term development efforts helps mitigate the potential impact of future emergencies. The Government is committed to ensuring equitable access to and uptake of high quality and high impact nutrition interventions.

1.2 Food security as an issue of national security

- 1.2.1 Article 238 (1) of the Constitution provides that one of the principles of national security is the protection of all the citizens of Kenya, their rights, freedoms, property, peace, stability, prosperity and other national interests.
- 1.2.2 Some of the rights of all Kenyans that are protected include the right to be free from hunger, to have adequate food of acceptable quality and uninterrupted supply of clean and safe water in adequate quantities at all times.
- 1.2.3 When Kenyans suffer from hunger and malnutrition, peace cannot be guaranteed as this could lead to food riots. When access to food and safe water is guaranteed to all Kenyans at all times, this would enhance national security and Kenyans would attend to other national issues on national development.

1.3 Emerging issues for food and nutrition security

- 1.3.1 Kenya is currently facing challenges arising from global phenomena, notable among these being global warming (climate change), and global food and financial crises.
- 1.3.2 The frequency of droughts and flash floods is expected to increase both in intensity and spread as a result of climate change. The projected increase in temperatures and rainfall variability will negatively impact crop and livestock enterprises in most areas. Disease and pests associated with high temperatures are also likely to increase. Adaptation interventions that enhance farming communities' resilience to climate change induced effects are critical for the realization of the principle objectives of FNSP.
- 1.3.3 Stunting is clearly associated with reduced productivity and human capital

in adulthood; so early nutrition is also an important contributor to economic development. Other long-term effects of stunting include metabolic alterations that can result in non-communicable illnesses, such as hypertension and other obesity-related disorders. Stunting is rooted in poor foetal growth and continues up to two years after birth with the window of opportunity being conception up to two years (1000 days). In addition, despite the improvement in the overall economy, this does not translate to improved nutrition with high malnutrition levels still observed even in the high (25%) wealth quintile.

- 1.3.4 Changing lifestyles and eating habits have resulted in non-communicable diseases including cardiovascular, cancers, diabetes which are closely related to obesity and represent a significant development challenge. The health consequences of obesity related diseases range from premature death to disabilities that reduce the quality of life. Obesity is especially a big challenge in urban areas with 41% of Nairobi urban women being overweight and 3rd to 5th wealth quintile being the most affected.
- 1.3.5 The food price crisis is posing a major challenge to the country. Although Kenya has in the past experienced perennial food crises largely attributable to prolonged or recurrent droughts, the current food crisis is fuelled by such new driving forces as climate change, high-energy prices and globalization that are rapidly redefining food affordability. These factors are transforming food consumption, production and markets. In addition, they make poor people further limit their consumption and shift to even less balanced diets and less frequent meals thereby affecting health and nutrition both in the short and long term.
- 1.3.6 Food safety is critical to good health and nutrition status. In the recent past, there have been cases of aflatoxin poisoning owing to poor storage of food including during post-harvest and milling of complementary flours. Aflatoxins are a hazard in foods because they are capable of causing cancer. Another food safety concern is the overall aspect of street food. Poor sanitation and handling of street food leads to increased diarrheal diseases. This is especially prevalent in urban areas.
- 1.3.7 Global fertilizer prices have been on the rise. With high fertilizer prices, majority of farmers already face serious constraints in terms of accessing these vital inputs, thus impacting negatively on the expected crop yields. Since the country mainly relies on the global market for its fertilizer supplies, both public and private sector interventions will be vital in cushioning farmers from high fertilizer prices.
- 1.3.8 There has been a gradual reduction in the levels of food stock, mainly cereals since the mid 90s. Global stock levels have been declining by 3.4 percent annually. This decline underscores the importance of supporting domestic production as well as diversification of food production and consumption.

- 1.3.9 Competing uses for agricultural land such as bio-fuel production, human settlement and leasing out of agricultural areas for export production are likely to affect food production, but interventions to ensure that food and nutrition security for all Kenyans remain the priority of the Government.
- 1.3.10 Imports of subsidized commodities pose unfair competition to local producers and markets. Non-strategic agricultural trade liberalisation has resulted in many developing countries turning from being net food exporters to net food importers.

1.4 Previous efforts to address food security and nutrition concerns in Kenya

- 1.4.1 Kenya's first National Food Policy (Sessional Paper No. 4 of 1981), later consolidated into *Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth*, aimed to maintain broad self-sufficiency in major foodstuffs and ensure equitable distribution of food of nutritional value to all citizens. This was to be achieved mainly through Government interventions, such as setting grain prices, state monopoly of input distribution, and across the board fertilizer subsidies. Following the 1991-94 drought, Kenya's second *National Food Policy* (Sessional Paper No. 2 of 1994) promoted a market-driven approach, but on a limited scope.
- 1.4.2 The National Plan of Action on Nutrition of 1994 aimed at addressing nutrition problems in the country through involvement of various sectors and was developed through a consultative process. However, it lacked an implementation framework with clear coordination mechanisms and commitment to fund implementation of the planned activities. Significant progress has recently been made in the health sector with regard to the following:
- coordination efforts with an established Nutrition Inter agency Coordinating Committee under the Health Sector Steering Committee,
 - emergency response in management of acute malnutrition,
 - National Food Fortification Alliance with the private sector,
 - strengthening of nutrition information and coordination at the sub national levels,
 - collaboration with the Education sector for school health and nutrition initiatives,
 - linkages with Agriculture through the Njaa Marufuku Kenya program and Home Economics section for scaling up nutrition education at the community levels, and food based approaches for prevention of micronutrient deficiencies.

1.4.3 While past food and nutrition policy initiatives have met only limited progress and success, a number of important and essential lessons have been learned over the years, which helped guide the formulation of Kenya's FNSP. They include:

- i. The limited scope and focus on supply-side issues highlights the need for greater attention to access dimensions and nutritional considerations;
- ii. Strong linkages between the health and agricultural sectors, including food processing, are essential to build mutually beneficial cross-sectoral synergies in the policy arena;
- iii. Broad stakeholder participation, including a strong role for the private sector, markets, civil society and local communities in all phases will make food security a shared national responsibility. The role of the media is particularly important;
- iv. The growing number of urban and peri-urban dwellers will require a special focus to ensure adequate, safe and nutritionally diverse diets for all;
- v. Overarching policies and sufficiently strong institutional frameworks are prerequisites for success;
- vi. Effective inter-sectoral coordination mechanisms must be acceptable to all stakeholders;
- vii. Operational strategies, adequately detailed plans of action and monitoring and evaluation systems are needed to ensure effective policy implementation. These must remain dynamic as conditions and needs change over time;
- viii. Adequate and consistent budgetary allocations are essential; and
- ix. Develop and enforce an implementation framework, clear coordination mechanism and commitment to fund implementation of activities.

1.5 Context of the FNSP

1.5.1 The FNSP aims to add value, build synergies and assist with the implementation of existing national and sectoral policies and strategies to effectively address issues of food insecurity and malnutrition in Kenya. Owing to the highly cross-sectoral nature and the multiple dimensions of food security-related issues and initiatives, a very large number of relevant legislation, policies and strategies have been carefully reviewed and considered, including almost all sectors of the national economy, during the formulation of the FNSP. The aim was to understand and build from existing Government and partner initiatives, rather than duplicate such efforts. Identifying and building on such complementarities

will enhance the potential impact of the FNSP, and other related initiatives.

- 1.5.2 *Kenya's Poverty Reduction Strategy Paper (PRSP) of 2001, Economic Recovery Strategy (ERS) for Wealth and Employment Creation, 2003-2007* and the Kenya Vision 2030 ranked agriculture and rural development as the topmost Government priority, with food security listed as one of five key sub-sectors. The ERS was supported by the *Strategy for Revitalizing Agriculture (SRA) 2004-2014* which evolved into the *Agriculture Sector Development Strategy ASDS (2010-2020)*. The mission of the ASDS is to create an innovative, commercially-oriented and modern agriculture to ensure a food-secure and prosperous nation. The Vision 2030, under the economic and social pillars emphasises the enhancement of productivity of crops and livestock, incomes, and food security and nutrition.
- 1.5.3 Government's initiatives to revive the economy and the agricultural sector are fully in line with its international commitments and declarations to end hunger and extreme poverty, including at the World Food Summit of 1996, the United Nations Millennium Development Goals (MDGs), and the Comprehensive Africa Agriculture Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD) prepared in 2002.
- 1.5.4 Efforts so far have not successfully managed to address issues of malnutrition comprehensively, therefore the need to have a overarching policy that integrates food and nutrition security initiatives.
- 1.5.5 The Government of Kenya is taking its MDG commitments seriously, backed with substantial resource allocation, in collaboration with UN System in Kenya and the UN Millennium Project. Since the first report was released in 2003, the Government has renewed its efforts and resource commitment to hunger eradication through its various programmes. Nevertheless, the 2009 and 2010 Millennium Development Goals Report considered that Kenya is unlikely to achieve the 2015 target of reducing the incidence of extreme poverty and hunger by half.⁴ The FNSP demonstrates the Government's renewed commitment to hunger eradication and improved nutrition. The FNSP aims to contribute to attaining each and every MDG, which requires a substantial stepping up of efforts as indicated in Table 1.

⁴ GoK and UNDP, Millennium Development Goals Progress Report for Kenya (2003). www.ke.undp.org/MDG%20Report%2003.pdf and "State of MDGs in Kenya" on <http://www.ke.undp.org/index.php/the-s> (accessed 15 April 2011)

Table 1: Contribution of eradication of hunger and malnutrition to achieving the MDGs

MDG	Importance of eradication of hunger and malnutrition	Likelihood
1. Eradicate Extreme Poverty and Hunger	Hunger perpetuates poverty by reducing productive capacity of the weak and malnourished	Unlikely
2. Achieve Universal Primary Education	Hunger reduces school attendance and impairs learning capacity; it also reduces school attendance more for girls than for boys	Most likely Partially
3. Gender Equality & Empower Women	Gender inequality perpetuates the cycle in which mothers, as undernourished children, give birth to low birth-weight children	Unlikely
4. Reduce Child Mortality	More than half of all child deaths are caused directly or indirectly by hunger and malnutrition	Unlikely
5. Improve Maternal Health	Under-nourishment and micronutrient deficiencies greatly increase the risk of maternal death	Unlikely
6. Combat HIV/AIDS, Malaria and Other Diseases	Undernourished children are more than twice as likely to die of malaria, while hunger also spurs risky behaviour that accelerates the spread of HIV/AIDS	Potentially
7. Ensure Environmental Sustainability	Hunger leads to unsustainable use of natural resources as people look for means to survive	Potentially Partially
8. Develop a Global Partnership for Development	Subsidies and tariffs in developed countries hamper hunger-reducing agricultural and rural development highlighting the importance of developing good trade relations	Potentially Partially

Sources: "Why Hunger Reduction is Important", *The State of Food Insecurity in the World* (Rome: FAO, 2005); Likelihood of achieving 2015 target: GoK and UNDP, *Millennium Development Goals Progress Report for Kenya* (2003) and *Millennium Development Goals Report 2009 and 2010*.

1.5.6 The FNSP recognizes the broad scope and complexity of current food and nutrition security problems globally and in Kenya. For example the country is faced with rapidly rising food prices arising from high fuel prices, climate change, and diversion of cereals to bio-fuel production in other parts of the world. Other complexities include change of lifestyle, high disease burden and population growth. Therefore multi-public and private sector involvement and creation of strong linkages between food and nutrition and related sectoral and cross-sectoral initiatives are needed.

1.5.7 The FNSP is framed in the context of the Kenyan Constitution, basic human

rights, child rights and women's rights, including the universal 'Right to Food'. The Government of Kenya supports the progressive realization of the right to adequate food in the context of national food security. This includes not only sufficient intake of calories, but also the right to nutritious diets that guarantee health, growth and development at all stages of life and for all citizens. This includes in particular the specific needs of all Kenyans and in particular vulnerable and disadvantaged groups, and the special requirements of women and children, which are fundamental values of the government.

- 1.5.8 The Constitution also binds Kenya to domesticate all the international and regional treaties and conventions to which Kenya is a party related to agriculture and nutrition. In addition, the Government commits itself to annually submitting for debate to the National Assembly the progress made by Kenya in fulfilling its international obligations related to agriculture, food and nutrition security.

1.6 Overall policy goal and objectives

- 1.6.1 It is the policy of the Government that all Kenyans, throughout their life cycle enjoy at all times safe food and water in sufficient quantity and quality to satisfy their nutritional needs for optimal health.

- 1.6.2 The broad objectives of the FNSP are:

- i. To achieve adequate nutrition for optimum health of all Kenyans;
- ii. To increase the quantity and quality of food available, accessible and affordable to all Kenyans at all times; and
- iii. To protect vulnerable populations using innovative and cost-effective safety nets linked to long-term development.

1.7 Scope of the FNSP

- 1.7.1 The FNSP provides an overarching framework covering all key dimensions of food and nutrition security, and addresses the synergy that links food and nutrition security with poverty eradication. The FNSP outlines the range of priority areas and principles for Government interventions to ensure all citizens' right and access to food. It is formulated with a purposefully broad scope at a level that provides a policy basis for seeking resources, advocating higher priority interventions and developing operational and management strategies. These in turn are expected to allow action and intervention plans to not only be innovative and technically strong, but also to establish and maintain the necessary linkages within and across sectors, including the role of the private sector, to ensure effective and cost-efficient implementation. This is viewed as the best approach to achieving a healthy, agriculturally productive and hunger-

free country with all sectors and citizens, on national, county and community levels, playing an active role.

- 1.7.2 The FNSP fully recognizes the importance of creating a dynamic policy framework that is reviewed and adjusted on a periodic basis. The FNSP acknowledges the challenges of attaining food and nutrition security at all levels of society throughout Kenya. These efforts must be sufficiently broad in scope yet specific in addressing challenges posed by globalization, regional market integration, demographic change, urbanization, income inequalities and increasing pressure, on and demand for, natural resources. Accordingly, the FNSP addresses associated issues of chronic, poverty-based food insecurity and malnutrition, as well as the perpetuity of acute food insecurity and malnutrition associated with frequent and recurring emergencies, and the critical linkages thereof.

1.8 Organisation of the FNSP

- 1.8.1 The Kenya Food Security and Nutrition Policy is built around the multiple dimensions of food security and nutritional improvement. Chapter 2 addresses issues related to food availability and access, including production, storage and processing, markets, trade and income generation. Special issues include food access of the urban poor, the Strategic Food Reserve, and cultural, social and political factors. In chapter 3, issues of food safety, standards and quality control are addressed. Chapter 4 covers nutrition improvement with a focus on nutrient requirements throughout people's life cycle, micronutrient deficiencies, and diet-related and other diseases. Chapter 5 covers issues related to school nutrition and nutrition awareness and the roles of schools in promoting good nutrition. In chapter 6, food and nutrition security information and related issues are addressed. Chapter 7 addresses crucial issues of early warning and emergency management, while chapter 8 presents issues concerning the institutional, legal and financing frameworks. The Policy concludes with Chapter 9 on policy implementation, including monitoring and evaluation.

2. Food Availability and Access

Policy Statement: Subject to availability of requisite resources, the Government will ensure that every Kenyan is free from hunger, has adequate supply of food of acceptable quality, has an interrupted supply of clean and safe water in adequate quantities, at all times.

2.1 Introduction

- 2.1.1 Food availability refers to the physical existence of food, either from own production or from the markets. At the national level, food availability is a combination of domestic food production, domestic food stocks, commercial food imports and food aid. Food access is ensured when all households and individuals within those households have sufficient resources to obtain appropriate foods for a nutritious diet. It is dependent on the level of household resources – capital, labour and knowledge – and on food prices.
- 2.1.2 In Kenya, food availability has over time been understood in terms of cereal supply, and food security in terms of having enough maize. Per capita food availability has declined by more than 10% over the last three decades, while per capita consumption of maize has increased by 3% per annum. Most Kenyans still subsist on diets based on staple crops (mainly maize) that are lacking in nutritional diversity and have particularly devastating consequences on development of children. Food security therefore encompasses availability of adequate quantities of a diversity of food commodities such as other cereals, fruits, vegetables and animal products.
- 2.1.3 Food availability and access are influenced by the ability of individuals and households to produce their own food in sufficient quantity and to generate income to purchase food, the adequacy of infrastructure, effectiveness of food distribution systems and the affordability of food prices. Other factors include access and control of productive resources (land, seed and water), governance, legal and regulatory frameworks, the macroeconomic environment, gender dynamics, HIV/AIDS and other diseases, emergencies and conflicts.
- 2.1.4 High poverty levels have affected household access to food. Most Kenyans rely on markets for some or all of their food needs. While most of the poor live in rural areas, the number in urban areas is rising fast. The strategy of the government is to deliver the macroeconomic framework and incentives needed to address high food prices in a lasting manner and has emphasized employment creation as the most effective means of reducing poverty and improving access to food. Additional efforts to enhance food availability and affordability will focus on a

sustainable increase in the production of food that is diversified and healthy, and expanding trade and market opportunities based on comparative and competitive advantages. Improved access will be achieved through enhancing rural and urban employment (economic access) and improving market systems (physical access) while safety nets for the vulnerable segment of the population will continue to be implemented and expanded.

2.2 Domestic production

Policy Statement: The Government will continue to advance appropriate measures to increase quality food production to meet the needs of the citizens at all times.

- 2.2.1 The Agricultural Sector Development Strategy (ASDS) comprehensively addresses the many issues that determine domestic crop and animal production. The FNSP will help ensure that these efforts meaningfully address food availability and access concerns to improve the quantity and diversity of food to meet nutritional requirements. Amongst the key constraints that will be addressed are declining soil fertility and high input prices, losses due to pests and diseases, climate change, inappropriate land use and inadequate access to credit. Agricultural production systems in Kenya are largely rainfed, making them vulnerable to the threats of droughts and floods, despite great potential to increase the area under production. Expanded and purposefully linked agricultural and nutritional research and strengthened extension are needed to better develop and disseminate suitable technologies to sustainably address food security and nutrition.
- 2.2.2 In view of the agro-ecological diversity of Kenya, different interventions will be required to enhance production. In areas with relatively high production potential, where the highest absolute number of chronically food insecure live, continuous cultivation of soils, loss of forest cover and over-emphasis on maize production have led to a decline in soil fertility and yields. Production potential is often unexploited due to high input costs. Irrigation and water management techniques in these areas hold great potential. In Kenya's arid and semi-arid lands (ASALs), which comprise some 80% of the country and has the highest rate of food insecurity, natural resources are degraded by unsustainable land management practices. This has led to a significant loss of bio-diversity which has adversely affected traditional sources of food, income and other basic needs of many rural communities.
- 2.2.3 Urban and peri-urban agriculture (crops and livestock) is increasingly being practised and holds potential to improve food access and overall food security and nutrition conditions in these areas. However to date, there has been

inadequate support, guidance and concerted effort to develop this potential. Additionally, regulatory guidelines are required to ensure the safety and quality of food produced, sold and consumed in urban and peri-urban areas.

- 2.2.4 Livestock productivity is affected by limited access to, or high cost of feed, veterinary services and other inputs. Poor infrastructure has increased transportation and storage costs for livestock inputs and most Kenyans cannot afford the price of milk and beef products. There is inadequate support for inland fisheries and aquaculture. Despite the vast potential for investment, marine fishery has been low because of poor infrastructure and inadequate fishing technologies.
- 2.2.5. Over the past few years, demand for land for various uses has been increasing. Most of the urban areas have witnessed increased conversion of agricultural and livestock land into settlement areas. Human-wildlife conflict has also been blamed on competing land uses. Seed producers have been seriously affected by competing land uses that have resulted in reduced isolation distances, with production of seed maize being most affected.
- 2.2.6 In order to ensure sustainable increase in food production that is diversified, affordable and helps meet nutritional requirements, the Government will:
- i. Establish an Agricultural Development Fund that will focus on strategic issues and areas stipulated in vision 2030;
 - ii. Increase funding to the food and agriculture sectors to 10% of the national budget;
 - iii. Promote sustainable food production systems with particular attention to increasing soil fertility, agro-biodiversity, organic methods and proper range and livestock management practices;
 - iv. Promote the production of nutrient-rich foods (crops, livestock, fisheries) by promoting diversification and exploring bio-fortification options;
 - v. Promote and support sustainable irrigation and water management systems;
 - vi. Support the role of markets and the private sector to provide agricultural inputs and financial services at affordable prices and favourable terms to farmers, pastoralists and fisherfolk;
 - vii. Develop special programmes to support those experiencing food insecurity through targeted subsidization of critical production inputs using appropriate mechanisms;
 - viii. Support and promote agro-forestry, afforestation and re-afforestation to enhance livelihood systems and Kenya's environmental resources;
 - ix. Support investments in infrastructure, including roads, water, power, communications and markets, throughout Kenya to increase production;

- x. Promote integration of climate change adaptation in agricultural development programmes and policies; and
- xi. Improve forecasting of climatic change and support communities to respond to new opportunities and challenges.

2.3 Storage and agro-processing

Policy Statement: The Government will initiate appropriate measures, including research, aimed at addressing post-harvest losses, food quality and safety including aflatoxin infestation.

- 2.3.1 A significant proportion of the food produced is lost due to post-harvest spoilage and wastage, including in some cases from toxin causing micro-organisms. Losses are often substantial for grain and produce (fruits and vegetables) along with spoilage of animal products including milk, meat and fish. Losses of stored maize are estimated to be a staggering 30-40% per annum. Inadequate storage constitutes a public health threat when people consume spoiled food, causes supply fluctuations and exacerbates prices, all of which are key causes of food insecurity and malnutrition.
- 2.3.2 The National Cereals and Produce Board (NCPB) has a grain storage capacity of 28 million bags of maize (1 bag = 90kg), but this remains largely under-utilized with the current use of about 13%. There is little on-farm and off-farm processing of products in rural areas. Kenya lacks sufficient infrastructure for effective transport, storage, refinement, preservation, distribution and marketing of many foodstuffs.
- 2.3.3. In order to promote storage and processing of agricultural produce, including livestock and fisheries products, the Government will:
 - i. Promote and support safe and effective storage of foodstuffs by the private sector at national, county, community and household levels;
 - ii. Put in place measures that facilitate renting of underutilized public storage facilities;
 - iii. Enhance the capacity of the institutions involved in product development, standards establishment and monitoring of quality; and
 - iv. Promote safe, small-scale rural and home processing and preservation of various foods, including livestock and fishery products, grains and produce.

2.4 Strategic Food Reserve

- 2.4.1 The main purpose of the Strategic Grain Reserve (SGR) currently operated by the National Cereals and Produce Board (NCPB) on behalf of Government is to cushion farmers from the effect of over-supply in periods of good weather and to provide a first line of defence for coping with food deficits. The reserve is mandated to maintain a physical stock of 4 million bags of maize and a cash equivalent of a similar volume. The mix of grain and cash ensures that on the one hand the Government is able to save lives in the case of an emergency by mobilizing food to areas not well served by grain markets. On the other hand, cash reserves allow the Government to purchase commodities in areas with well functioning markets when an emergency occurs.
- 2.4.2 Currently, the strategic reserve comprises only maize grain which is not the main staple food for those communities often facing hunger and famine.
- 2.4.3 In order to ensure that the country has the ability to respond to critical food emergencies, the Government will:
- i. Transform the Strategic Grain Reserve into a Strategic Food Reserve (SFR) by including other critical foodstuffs, appropriate to local conditions; and
 - ii. Maintain and substantially increase the reserve in the form of physical stock and cash, which will support government policies on private sector and market development.

2.5 Access to and quality of markets

- 2.5.1 Poor physical infrastructure limits efficient food distribution and market access by farmers in areas with excess production. From the consumer perspective, many rural communities are cut off from food supplies and face high food prices. Emphasis should be on supplying local markets through local food production with a view to ensuring year-round availability of fresh and diversified foods, limit transactions costs and provide a reliable market to local farmers. Market space and facilities to handle food products in many markets in both urban and rural areas are insufficient, resulting in high levels of waste and spoilage. Many markets have insufficient management and maintenance, although local authorities often collect fees or levies. Despite recent improvements, market information systems remain inadequate to serve the needs of various users of agricultural information.
- 2.5.2 In order to ensure access to efficient and good quality food markets in both rural and urban areas, the Government will:
- i. Support investment in infrastructure to enable food to move quickly and at reasonable costs within local areas and from food surplus to deficit areas;

- ii. Enhance farmer access to timely market information services;
- iii. Support the establishment and strengthening of warehouse receipt systems and agricultural commodity exchange
- iv. Ensure that the urban development plans provide for additional and better functioning wholesale and retail markets; and
- v. Ensure that counties invest an appropriate proportion of the revenue collections on market infrastructure development.

2.6 Food trade

2.6.1 Trade in agricultural commodities is a major determinant of national food security. With rapid population increase, declining per capita production and self-sufficiency, urbanization and changing eating habits, food imports have become increasingly important in ensuring food and nutrition security in Kenya as consumers have benefited from inexpensive and a wide range of imported food and food products. Imports increased significantly after the introduction of market reforms. There are fears that food imports from developed countries where producers are heavily subsidized may displace local production. This distortion may occur in the case of regional food imports. However, government interventions may affect dynamics in the market and thereby affect the potential of markets in ensuring food and nutrition security.

2.6.2 More predictable and transparent involvement of state in markets particularly in changes in import tariffs and in NCPB purchase and sale prices will reduce uncertainty and ensure a predictable supply of food imports and reduce costs of food. Official and informal cross-border trade with the neighbouring countries is common. Enhanced trade in food products among the EAC and COMESA member States will ensure regional food self-sufficiency, provided food safety is ensured. Following Government actions to improve regional food trade, the major challenges for Kenyan farmers is to reduce the cost of their production and develop marketing arrangements to make farm products competitive.

2.6.3 In order to address the challenges on food trade and ensure a predictable supply of commercial food import, the Government will:

- i. Facilitate the competitiveness of Kenya's agricultural sector;
- ii. Foster regional trade by adhering to EAC and COMESA trade policies;
- iii. Contribute towards harmonisation of regional standards which will provide a level playing field and fair trade practices for Kenyan farmers,
- iv. Control dumping of subsidized foods; and
- v. Ensure predictable and transparent involvement of state in markets to reduce uncertainty and ensure a predictable supply of food imports.

2.7 On-farm and off-farm employment

- 2.7.1 The farm is the major employer in the rural areas with about 80% of the rural population working on-farm. Rural women provide 75% of labour in smallholdings and directly manage 40% of smallholder farms. However, access to, and control of, productive resources such as land and capital is mainly in the hands of men. This problem also relates to child-headed households and older persons, and particularly those households affected by HIV/AIDS. However, diminishing landholding sizes, declining land productivity and limited use of productive technologies limit the ability of the farm to support rural livelihoods. Consequently, low incomes and poverty characterise most smallholder food producers. Small farmers producing cash crops earn higher incomes but these incomes are threatened by loss of their market share in key areas. Livelihoods in the ASALs are under constant threat of natural and man-made disasters.
- 2.7.2 Off-farm employment is important and contributes as much as 60% of rural households' income. Its contribution to rural income is however limited by low accessibility to energy, and water; lack of capital and poor technology and skills. Participation of women and other vulnerable groups in off-farm activities is limited by access and control of resources.
- 2.7.3 The commercial sector provides employment for large segments of the population but wages are low and therefore compromise workers' access to nutritious food. Formal and informal micro and small enterprises (MSEs) play a key role in off-farm employment. However, these enterprises face various challenges including an unfavourable policy environment, an inhibitive legal and regulatory environment such as multiple licensing and fees, limited access to markets and financial services, inadequate skills and technology, limited access to infrastructure, inadequate business skills, weak linkages with large enterprises, and limited access to information.
- 2.7.4 In order to enhance productive on-farm employment, the Government will:
- i. Support measures that improve security and access to land and water resources by all Kenyans especially by taking all necessary measures to enable women, the older persons, pastoralists and child-headed households, to have access to land use and water, and the benefits that accrue;
 - ii. Review minimum wages regularly to take account of food security and nutrition needs, inflation rates and labour productivity;
 - iii. Support cooperatives, out-grower schemes and fair-trade initiatives to increase the share of small producers in the production and export of high value crops and livestock;
 - iv. Promote collective action to increase bargaining power of farmers; and

- v. Promote production of high value crops and value-addition to increase earnings.
- 2.7.5 In order to enhance productive off-farm employment, the Government will:
- i. Simplify business registration, licensing and regulations and provide legal and institutional support to small businesses throughout the country;
 - ii. Support small rural business by developing value chains and agro-processing zones by increasing access to technology;
 - iii. Support micro-finance initiatives (credit, savings and insurance schemes); and
 - iv. Support investment in the road and energy sectors to lower production and marketing costs.

2.8 Improving food accessibility for the urban and peri-urban poor

- 2.8.1 Urban areas have an overall poverty incidence of 49% and chronic food insecurity of 38%. Over two-thirds of Kenya's non-agricultural workforce, primarily in urban and peri-urban areas, is engaged in the informal sector, which is characterized by lower wages and returns than in the formal sector. Informal enterprises are constrained by high interest rates, limited access to formal credit, lack of skills, high and multiple taxation, and weak business networks. Employment in the formal sector has been constrained by a sharp drop in investment caused by infrastructure deficiencies, high interest rates, administratively burdensome and costly regulations, and a legal and judicial system which does not effectively enforce contracts.
- 2.8.2 Taken together, these factors have greatly diminished industrial competitiveness, contributing to unemployment and declining real wages. In order for the private sector to play a greater and more substantive role in achieving improved food security and nutrition, particularly in urban and peri-urban areas, these issues must be addressed. Urban and peri-urban agricultural production activities, and strengthening existing urban-rural linkages also hold promise to improve food access and overall food security and nutrition conditions in urban and peri-urban areas.
- 2.8.3 The poorest and most vulnerable urban and peri-urban dwellers may not be able to take advantage of employment and income earning opportunities. When their health and nutrition status and overall well-being is at imminent and serious risk, it may be necessary to introduce nutrition and food security monitoring and direct measures of support to ensure their food access.
- 2.8.4 In order to promote urban employment and improved access to food, the Government will:

- i. Support and simplify regulatory frameworks governing formal and informal sectors in urban and peri-urban areas and towns with a focus on employment creation and poverty alleviation;
- ii. Support and promote capacity building to enhance urban and peri-urban small businesses and entrepreneurial skills, including agricultural production;
- iii. Provide suitable zones for the informal sector through provision of workspace for small and medium businesses and support access to lucrative markets for their goods;
- iv. Support small business enterprises to access affordable financial resources;
- v. Support activities that enhance the income generation capacity of people with special needs or disadvantaged such as the physically challenged, street families and the poor;
- vi. Provide gainful employment in terms of higher returns to labour and stability in employment and income; and
- vii. Implement and monitor special measures to help the poorest and most vulnerable in urban areas meet their minimum food and nutrition requirements.

2.9 Cultural, social and political factors in accessing food

- 2.9.1 Cultural, social and political factors play an important role in the ability of individuals, households and communities to produce and access food. The choice of which commodities to produce, and whether they are produced for home consumption or commercially, may be influenced by cultural and social practices. Gender roles and biases play a strong part in the distribution of labour for various agricultural activities. Production of many traditional crops such as millet, sorghum, cassava and other tubers has given way to modern crops and changing diets. These traditional crops have different storage characteristics, for example, leaving tubers underground until they are needed for consumption, which has helped smooth access, consumption and food security over time.
- 2.9.2 As regards consumption, certain cultures do not allow eating specific foods in general or at particular periods of life. Cultural food consumption practices that compromise nutrition security and that are against basic human rights should be discouraged.
- 2.9.3 Under the Constitution, the Government has an obligation to ensure that gender disparities are eliminated. Similarly, the Government undertakes appropriate measures to ensure that political conflicts which disrupt economic activities are

eliminated and that in the ASALs, conflicts and banditry activities that restrict the movement of people and livestock towards areas of better grazing, water or markets are eradicated.

2.9.4 In order to address cultural, social and political impediments to food security and nutrition, the Government will:

- i. Promote human rights to food and adequate nutrition, and advance values and practices that protect equitable access to food by all members of households;
- ii. Promote production of traditional crops that can facilitate food access and food security over time;
- iii. Promote diversified eating habits and healthy diets;
- iv. Address root causes of insecurity and enhance capacity of communities to resist incitement to conflicts and promote public security; and
- v. Intensify agricultural and home-based food processing and preservation activities.

2.10 Irrigation and Food Security

2.10.1 Kenya's agriculture remains heavily dependent on rain-fed agriculture yet only about 20% of the country is classified as having medium to high potential for rain-fed crop production. As a result of this overdependence, the country's food security has been adversely affected by increasing frequency and severity of droughts even as flood waters continue causing havoc in many parts of the country. Harnessing these waters for irrigation development provides a good option for boosting food security both at the national, county and household levels. This is particularly because irrigation is known to increase yields of most crops by between 100 and 400% and may therefore help in reducing current pressures on land and destruction of forests. Water harvesting for crop production has also been known to increase crop yields by over 50%.

2.10.2 Kenya has a relatively large irrigation potential of 1.3 million hectares but only 105,800 ha have so far been developed. The rest has not been developed mainly due to reasons such as inadequate funding, weak regulatory and institutional framework, poor knowledge of irrigation technologies, weak land tenure systems, lack of credit facilities and inadequate research on irrigated agriculture.

2.10.3 In order to shield the country from increasingly frequent incidents of drought and food insecurity and to increase agricultural productivity, the Government will:

- i. Support water harvesting through construction of water storage facilities both as a way of controlling floods and providing water for human, livestock, aquaculture and irrigation development;

- ii. Increase funding for expansion of irrigated agriculture by at least 32,000 hectares per year in line with goals set by Vision 2030;
- iii. Review the regulatory framework governing the irrigation sector to allow for enhanced development of the sector;
- iv. Eradicate pollution in rivers, dams and lakes throughout Kenya in order to ensure that all Kenyans have an uninterrupted supply of clean, safe and adequate quantities of water, at all times;
- v. Promote water reuse, strategies for small-scale and where possible large-scale farming

2.11 Climate Change

- 2.11.1 Climate change arising from global warming is a major challenge facing all countries in the world. The consequences of climate change have already been experienced in Kenya, it has been noted that the droughts and floods are both becoming more frequent and severe with devastating effects on affected communities. The disasters arising from climate change have direct implication on food and nutrition security. Thus some communities have been confined to perennial reliance on food relief.
- 2.11.2 The traditional reaction to drought and its effect has been to adopt a crisis management approach through the provision of relief or emergency assistance to the affected areas or sectors. The result is that drought only receives the attention of decision makers when it is at peak levels of intensity and spatial extent and when management options are quite limited.
- 2.11.3 In addition, the drought management has continued to exhibit weak linkage between early warning and early response. Inability of the Government to facilitate timely response is caused by inadequate funds (contingency funds) set aside for rapid response to drought and other emergencies.
- 2.11.4 In order to address the challenges climate change pose to food and nutrition security, the Government will:
- i. Lay emphasis on strategies aimed at enabling local communities to effectively adapt to climate change and reduce impact on food and nutrition security.
 - ii. Institutionalize drought management, by exploring the possibility of creating institutions such as Drought Management Authority and Drought Contingency Fund that will ensure rapid response to climate change related calamities such as drought in ASAL areas.
 - iii. Adopt a risk management approach which is anticipatory and preventive and not reactive.

- iv. Systematize the use of drought preparedness, prevention and mitigation measures to cushion the negative impacts of droughts on development dynamics.
- v. Direct resources on preparedness for drought and floods through a variety of capacity building programs that can enhance awareness and capabilities at all levels.
- vi. Sink boreholes in the ASALs to support irrigation schemes.
- vii. Promote rainwater harvesting to ensure water is available for irrigation and livestock use, more so in the ASALs.

3. Food Safety, Standards and Quality Control

Policy statement: The Government will ensure that safe and high quality food is available to all Kenyans, at all times, by creating public awareness on relevant issues, and by setting, promoting and enforcing appropriate guidelines, codes of practice, standards and a regulatory framework.

3.1 Food safety and public health

- 3.1.1 Food quality and safety in all stages of the food chain are important goals of FNSP and must be more actively embraced at all levels of the food production, processing, marketing and home preparation and handling chain by all those involved from the public and private sectors, and by consumers. Production related incidences of food poisoning due to common agricultural residues are widespread resulting in the emergence of acute and chronic diseases. Poor hygiene and inappropriate food and livestock feed handling and storage contributes to spoilage and consumption of poor quality foods posing serious health risks (such as diarrhoea, cholera and aflatoxicosis). Improvements in food safety and quality control will lead to more diverse diets, improved consumer health and nutrition, new opportunities for local and export trade, and ultimately to enhanced food security and good nutrition.
- 3.1.2 While food safety and quality control are both national and county issues, concern about public health is particularly acute in urban areas. Agricultural production in urban and peri-urban areas, often of nutrient-rich vegetables, typically occurs along riversides using contaminated water, thereby discouraging urban consumers from diversifying their diets. This is exacerbated by informal roadside markets, further contaminating food with pollution, lead and dust. Guidelines are not provided or taught and cooked street foods are unregulated and risk contamination. In areas with no piped water, contaminated water is consumed directly resulting in health risks. Illegal alcohol is another market issue known to cause serious illness and in some cases death. These and other public health issues present a formidable challenge to achieving food security and nutrition improvement in urban and peri-urban areas.
- 3.1.3 Responsibility to date for ensuring food safety and quality is scattered amongst twelve (12) regulatory ministries/government departments and twenty (20) Acts of Parliament. Major responsibility lies with the Department of Public Health, Government Chemist, Kenya Bureau of Standards, Department of Veterinary

Services and Kenya Plant Health Inspectorate Service, among others. Coordination and some capacity aspects within these institutions have been weak, contributing to inefficiencies. Key laws that deal with food safety include the Public Health Act Cap 242 of the Laws of Kenya, Food, Drugs and Chemical Substances Act Cap 254 of the Laws of Kenya, and the Standards Act Cap 496 of the Laws of Kenya. Most of the said Acts are not in conformity with current international standards and guidelines and need to be revised and adapted based on the Hazard Analysis Critical Control Point (HACCP) and good manufacturing practices.

- 3.1.4 The National Food Safety Coordination Committee (NFSCC) has been established as an inter-ministerial body to increase awareness about the impact of food safety and quality, and initiate the revision and harmonisation of all the relevant Acts of Parliament.
- 3.1.5 The private sector comprises key stakeholders in many areas related to food safety, notably the major food processing and food marketing companies. Most companies strive to develop safe and high quality products, but government must provide appropriate standards and guidelines. The private sector is therefore a substantial partner to further efforts to improve food product quality, regulations and safety.
- 3.1.6 There are also bio-safety concerns on production, importation and consumption of genetically modified foods. However, these are being addressed through the National Bio-safety Act.
- 3.1.7 In order to improve food safety and quality control within the context of the FNSP, the Government will:
 - i. Promote safe practices in food production (crop, livestock and fisheries).
 - ii. Update, review and harmonize the regulatory and institutional framework to improve guidelines, coordination and enforcement, including food labelling.
 - iii. Promote proper storage and handling to control incidents of food-related disease outbreaks.
 - iv. Address the range of urban food safety and quality control by formalising and regulating producers and vendors, including safe water and sanitation.
 - v. Provide guidelines on the production and utilization of genetically modified products, including bio-fortified products.
 - vi. Promote public-private sector partnerships for improved food safety and quality control.
 - vii. Develop, device and use of guidelines, codes of practice and standards that relate to food, food products and nutrition services

4. Nutrition Improvement / Nutrition Security

Policy statement: The Government will ensure achievement of adequate nutrition for optimum health of all Kenyans. Enhancing food access, supporting all Kenyans to adopt effective nutrition interventions, creating awareness to ensure all Kenyans have equitable access to nutritious diets and promoting healthy lifestyles throughout the life cycle are among major government objectives.

4.1 Introduction

- 4.1.1 Kenya's food security has traditionally been defined in terms of energy intake, but the country is still far from achieving the recommended levels of 2,250 Kcal/day per active African adult male equivalent. Those who suffer from chronic food insecurity have low protein and energy, as well as micronutrient intakes. This is due to high poverty levels, inadequate diversification of food production and consumption (persistent bias towards maize), and high costs of protein from plant and animal sources. Over the past 30 years the government has successfully promoted the production of legumes such as beans, grams and peas, and their important role in ensuring dietary diversity needs to be reinforced. At the same time, emerging evidence indicates the need for greater intake of animal protein to enhance growth and development.
- 4.1.2 One of the main nutrition challenge facing Kenyans is having consistent access to food of sufficient diversity to meet nutrient needs. Making health and care considerations are of equal importance. Even where households have adequate access to food, many family diets reflect inappropriate choices that, in turn, lead to nutrition related disorders. Other challenges include inadequate access to basic health care and poor water and sanitation. Uptake of critical nutrition and health interventions focusing on child-care practices, dietary choices, improved hygiene, water and sanitation are essential to address all forms of malnutrition. Nutrition interventions delivered through the health sector will not be successful without addressing key issues related to consistent access to a diverse diet, appropriate for all life-stages and throughout the year.

4.2 The life-cycle approach to nutrition improvement

- 4.2.1 This policy adopts a life-cycle approach viewing nutritional issues across full lifestyles and generations (mother to child), and emphasizes the biological

needs in terms of different specific amounts, types and varieties of food for population groups who are at specific stages of life. This approach to nutrition is founded in the biology of human growth, development, reproduction and aging. When linked with other key variables such as income, education, food access, cultural practices, etc., the life-cycle approach helps integrate healthy consumption with food production, processing and distribution strategies. This approach focuses on the life stages and serves to outline basic nutritional needs for each. The National Health Sector Strategic Plan II focuses on the health needs of individuals through the five stages of the human life cycle: (i) pregnancy and new-born child, (ii) early and late childhood, (iii) adolescence, (iv) adulthood and, (v) older persons. In a break from previous approaches that concentrated on vulnerable groups, this concept forestalls nutrition related vulnerabilities through timely interventions at an earlier stage in life.

Maternal and newborn nutrition

4.2.2 Growing evidence shows that maternal nutrition has important direct and/or indirect consequences for later age phases. A typical “poor nutrition” scenario applicable to many women in parts of sub-Saharan Africa, including Kenya, is that she enters pregnancy undernourished, suffers from or develops iron deficiency anaemia and is adversely affected by other micronutrient deficiencies. Her poor micronutrient status may adversely affect foetal development in different ways ranging from brain development (iodine deficiency) and neural tube defects (folate deficiency). Her overall poor nutritional status is likely to predispose the developing foetus to nutritional consequences in infancy, childhood and all the way into his or her adult life. Poorly nourished women often give birth to a low birth weight infant who starts life at a disadvantage that is likely to affect his or her nutritional status and development through childhood and adolescence. Malnutrition is rooted in foetal growth; therefore, critical window when the malnutrition problems is in the first 100 days. The priority nutritional problems affecting maternal health are inadequate energy intake and micronutrient deficiencies. Close birth spacing, low mother’s education, poor health seeking behaviour, inadequate water, hygiene and sanitation and poverty are the main social determinants of malnutrition.

4.2.3 In order to achieve the objective of improving maternal and newborn nutrition, the Government will:

- i. Promote actions to ensure pregnant and lactating women and their families have access to and are knowledgeable about their need for an adequate and nutritious diet;
- ii. Support the establishment of a monitoring and support system to promote compliance with iron/folate supplementation and healthy weight programme before and during pregnancy and lactation;

- iii. Support the development of a universal programme of iron/folate or multi-micronutrient supplementation for adolescent girls and young women and promote dietary diversification and consumption of fortified food at the household level;
- iv. Promote behavioural changes; strengthen linkages between nutrition care in health facilities and community centres, and monitor birth weights of babies born outside health facilities;
- v. Promote early initiation and exclusive breastfeeding;
- vi. Promote linkage of nutrition interventions and nutrition education of mothers with Safe Motherhood, Baby Friendly Hospital Initiatives, immunization, malaria control and Integrated Management of Childhood Illness (IMCI); and
- vii. Promote workload reduction technologies and increase income-generating activities for women.

Early childhood nutrition

- 4.2.4 The key problems of early childhood are stunting, acute malnutrition, as well as vitamin A, iron, iodine and zinc deficiencies. Only 32% of Kenyan children are exclusively breastfed during their first six months and the diets offered after six months to complement breast milk are of low quality. A big challenge is the use of flours made from multiple cereal and legume for complementary feeding. However, these do not provide sufficient iron for the rapidly growing infants due to the high phytate levels found in these foods. The high phytate levels can also cause poor calcium absorption leading to rickets.
- 4.2.5 The major causes of childhood malnutrition include low rates of exclusive breastfeeding, early introduction of complementary foods that lack sufficient energy density and critical micronutrients, low feeding frequency, and inadequate caring capacity at the household and community level.
- 4.2.6 In order to achieve the objective of improving early childhood nutrition and survival, the Government will:
- i. Promote and protect exclusive breastfeeding and create an enabling environment which will include enactment and enforcement of a law to regulate marketing of breast-milk substitutes (Code of Marketing of Breast-milk Substitutes) and ensuring supportive labour laws in relation to maternity leave;
 - ii. Support the development of systems to implement the right to proper nutrition and health care for all children as per the Constitution;
 - iii. Promote improvements to micronutrient status of children and support micronutrient supplementation;

- iv. Ensure equitable access to high impact nutrition and health interventions and increased uptake of optimal feeding and hygiene practices.
- v. Support expansion of growth monitoring and promotion to all communities.

Late childhood nutrition

- 4.2.7 In late childhood, most children face problems of reduced food intake due to long periods in school without access to good food and lack of school feeding programmes. Intestinal parasites, problems related to hygiene as well as vitamin and mineral deficiencies affect this age group, in turn affecting health and learning.
- 4.2.8 In order to achieve the objective of improving late childhood nutrition, the Government will:
- i. Support coordination efforts to improve nutrition through schools, including full integration in the curriculum, routine health/nutrition assessments and school meal standards;
 - ii. Support adoption of food preparation and eating practices that better ensure children's adequate nutrition; and
 - iii. Lay emphasis on improving sanitation and hygiene.

Adolescence nutrition

- 4.2.9 Adolescence is another period of accelerated growth and change, bridging the complex biological, emotional and social transition from childhood to adulthood. Young people most often pattern the behaviour they adopt during this period for their lifetime and as such their food consumption and nutrition habits tend to have long-term consequences on their health, their quality of life and in many cases the nutrition and health of the families they eventually begin.
- 4.2.10 Another related nutritional challenge facing a specific group of adolescence is related to the amounts and types of food provided in schools. Care is needed to ensure that energy, protein and vitamin and minerals are provided in boarding school diets, and that they are adequate to meet their biological changes and thereby assure proper growth and development.
- 4.2.11 In order to achieve the objective of improving adolescent nutrition, the Government will:
- i. Support coordination efforts to improve nutrition through schools,

- including full integration within the education curriculum, routine health/nutrition assessments, school meal standards;
- ii. Promote the establishment of lifestyle micronutrient supplementation programmes to prevent such deficiencies among young women;
 - iii. Promote the importance of adequate nutrition for young women especially before pregnancy; and
 - iv. Promote use of fortified foods in the diet.

Adult nutrition

4.2.12 One of the nutritional challenges facing adults is inadequate energy intake due to poverty, diets of inadequate diversity, poor nutritional practices ranging from over-consumption of fats to smoking and alcohol consumption which increase the risk of chronic illnesses (cardiovascular diseases, cancers, hypertension, osteoporosis, diabetes, etc.) and premature death. Inadequate intake of iron is increasing, causing iron deficiency anaemia which in turn lowers physical productivity.

4.2.13 In order to achieve the objective of *improving adult nutrition*, the Government will:

- i. Promote good eating habits and weight monitoring, and establish supportive community based health and nutrition counselling centres;
- ii. Support the development and dissemination of national food and dietary guidelines and lifestyle education packages on a regular basis with revisions at least every five years; and
- iii. Improve the system of social safety nets to ensure all affected family members have adequate protein, energy as well as necessary micronutrients in their daily diets.

Nutrition for older persons

4.2.14 Older persons have different nutritional needs associated with decreased energy requirements, and weakening of bones and muscles. It is estimated that 10% of the older persons need assistance to access adequate food. Physical degeneration, low resistance to infection and other micronutrient related deficiencies have made the issue of aging a major concern.

4.2.15 In order to achieve the objective of *improving nutrition of older persons*, the Government will:

- i. Develop and actively disseminate dietary guidelines and standards for older persons;

- ii. Develop and support nutrition care initiatives and support community-based life-style and health services; and
- iii. Improve the system of social safety nets to ensure the older persons have adequate protein, energy as well as necessary micronutrients in their daily diets.

4.3 Micronutrients

- 4.3.1 Micronutrients are vitamins and minerals which, though required in small quantities, are essential for normal functioning of body systems. Diets in Kenya are typically deficient in one or more micronutrients particularly vitamin A, iron, iodine and zinc. Among the main causes of the widespread micronutrient deficiencies are low levels of micronutrients in diets of reduced diversity and characteristics of the normal diet that make some of the micronutrients consumed unavailable in terms of absorption (phytates in maize and whole wheat flour, etc). However, some vitamins and minerals are not found in sufficient quantities in the overall diet of the general population, and some population groups, such as young children and pregnant and lactating women need higher levels of some minerals and vitamins because of special requirements of the life cycle.
- 4.3.2 Efforts need to focus on four main areas to successfully address all forms of vitamin and mineral deficiencies for people in various life stages. These are: 1) dietary diversification, 2) food fortification with vitamins and minerals, 3) bio-fortification, and 4) vitamin and mineral supplementation. Each of these has its place in an overall strategy to assure adequate vitamin and mineral nutrition for all members of the population across their full life cycle. Each of the areas has different costs, different stakeholders in terms of responsibility, and while some strategies may be effective on their own (universal salt/iodized salt) a careful integration of multiple interventions is necessary to substantially decrease or eliminate each of the major micronutrient deficiencies. Nutrition education, promotion of a more varied diet to a package of food products with various macro- and micronutrients, as well as promotion of home/kitchen gardens and rearing of small livestock, all relate to diversifying diets. Iodine deficiency has largely been controlled in Kenya through successful universal salt iodization (industrial food fortification). Some fats, sugars and flours in Kenya are fortified.
- 4.3.3 The FNSP recognizes that for some specific groups there is need for vitamin and mineral supplements and a strategy is required to expand the public health sector's role in larger well targeted supplementation programmes for groups such as pregnant women, young children and older persons. There is also a need for quality control as a growing demand and influx of vitamin and mineral supplements increases the potential for poor quality products to reach the market. Quality control will also assure supplements do not reach the consumer through

channels and persons unqualified to guide the consumer in their appropriate and safe use.

- 4.3.4 In order to address *micronutrient deficiencies*, the Government will:
- i. Support integrated, multi-intervention strategies to eliminate all vitamin and mineral deficiencies for all age and life stage groups;
 - ii. Develop standards and support high quality commercial micronutrient fortification activities;
 - iii. Promote guidelines developed for the distribution and sale of off-the-counter vitamin and mineral supplements; and
 - iv. Promote cross sectoral and public private alliances for development and operations of programmes to deliver and promote micronutrients to all sectors of the population.

4.4 Diet related non-communicable diseases

4.4.1 In the past, Kenyan communities consumed foods that are low in fat and rich in fibre. Recently, however, diet related non-communicable diseases (NCDs) such as diabetes, heart diseases, some cancers, kidney and liver failures have been on the increase. Contributing factors are diverse and include imports and local production of more processed foods, changes in life-style, eating habits, urbanization and globalization. In the absence of a strong and effective promotion and education of a healthy diet and lifestyle these and other factors have contributed to a shift from traditional foods low in fat and rich in fibre towards a diet with many commercially processed food products many of which contain high levels of saturated fats and simple carbohydrates and sugars. Consistent consumption of such foods and in many cases a more sedentary lifestyle are prime causes of obesity, cardiovascular problems, and various other non-communicable degenerative diseases later in adulthood. This “nutrition transition” has been growing in Kenya for some time and there is now a noted increase in the prevalence of NCDs.

- 4.4.2 In order to prevent and control *diet related non-communicable diseases*, the Government will:
- i. Support efforts to prevent NCDs through the promotion of the consumption of healthy foods and diet, and physical activity and exercise;
 - ii. Promote programmes on prevention and management of diet related NCDs; and
 - iii. Promote screening for non communicable diseases (NCDs).

4.5 Nutrition and infectious diseases

- 4.5.1 Inadequate nutrition results in an impaired immune system, increased vulnerability to infections and increased nutritional needs which very often are difficult to meet in the prevailing circumstances. Very often infection and malnutrition becomes a spiral that leads to more illness and malnutrition, and for many, especially young children, to death. Improved survival and quality of life of individuals is achieved through adequate nutrition. The aim of nutrition care and support for people with infections is to attain and maintain healthy weight and body composition, improve the immune system and optimize medical therapy.
- 4.5.2 The high disease burden of HIV/AIDS, malaria, diarrhoea, tuberculosis and other infections threatens food and nutrition security. Infections deplete household resources and decimate economically productive individuals, families, communities and whole population groups. Nutrition also remains a key element of providing optimal treatment and care of persons with HIV and AIDS, plus other infections. Adequate nutrition includes optimal micronutrient intake, which is critical in the management of the disease.
- 4.5.3 The health care systems are not adequately equipped with personnel, equipment and supplies to provide optimal nutritional care and support for people with infections. Therapeutic supplements offered in hospitals are often inadequate and not integrated into the programme efforts reaching those with infections including HIV and AIDS.
- 4.5.4 In order to break the cycle of *poor nutrition and infection*, the government will:
- i. Provide support for ensuring adequate nutritional care (including micronutrient supplementation, supplementary fortified foods and therapeutic foods) for affected vulnerable populations.
 - ii. Promote programs to advocate for prevention of malnutrition and strengthen nutritional care and support for people with infections. Strengthen the provision of nutrition services through public and private sectors including an emphasis on food-based approaches to address the socioeconomic impacts of HIV/AIDS and other infections
- 4.5.6 The interaction of nutrition and infections (including malaria, helminths, measles, etc.) is well understood in the scientific and medical literature, but it needs greater emphasis in pre-service and in-service training for health professionals. Many diseases and conditions, e.g. diarrhoeal diseases and worms, can be prevented through proper sanitation. The provision of clean water alone would significantly reduce disease burden and contribute greatly to good nutrition. Environmental sanitation such as proper disposal of human and household waste and personal hygiene such as washing of hands are other low cost measures.

- 4.5.7 To prevent malnutrition from confounding effects of *infectious diseases*, the government will:
- i. Support the development of guidelines and implement necessary training on the role of nutrition in preventing malaria and tuberculosis and on nutritional support for patients infected by and recovering from these diseases.
 - ii. Support investment in safe water and sanitation facilities.
 - iii. Promote programs on awareness creation on disease prevention strategies at house-hold level
 - iv. Support mainstreaming of nutrition in all sectors to enhance nutrition information among the population

5. School Nutrition and Nutrition Awareness

Policy Statement: The Government will ensure that all Kenyans are well informed about proper basic nutrition required to live a healthy and active life.

5.1 Nutrition and nutrition education in schools

- 5.1.1 Malnutrition in early childhood can affect school enrolment, attendance, attentiveness, concentration, aptitude and overall performance. Children who are stunted due to malnutrition in early childhood perform lower on IQ and other tests. A child who is malnourished and in poor health cannot adequately take advantage of instructional and learning materials and programmes. Good nutrition is essential to realize the learning potential of children and to maximize returns to educational investments.
- 5.1.2 Nutrition education and promoting good nutrition practices in schools are known to have a significant effect in fostering healthy eating habits. The Ministry responsible for matters relating to education is a key partner in the fight against food and nutrition insecurity in Kenya. Schools provide an ideal setting to promote good nutrition as they reach a high proportion of children and adolescents and provide opportunities to demonstrate and practise production of nutrient rich foods, proper storage, handling and preparation, and healthy eating habits. Schools can contribute to reducing all types of nutrition problems by integrating nutrition in the school curriculum and integrating interventions into routine school activities.
- 5.1.3 In order to optimize school nutrition, the Government will:
- i. Ensure nutrition-related learning experiences are integrated into a course of instruction in each successive grade;
 - ii. Promote links between routine health and nutrition services and school activities, including regular monitoring of nutritional status also covering pre-schools;
 - iii. Support the detection and referral of malnourished students to health facilities, counselling services, social protection or feeding programmes and other community agencies and services which can respond to identified needs; and

- iv. Encourage uptake of high impact interventions and adoption of optimal practices related to eating and hygiene as identified under the life cycle approach (late childhood to adulthood) through schools.
- 5.1.4 The role of the Ministry responsible for matters relating to education needs to be dynamic, substantial and multifaceted. Curricula to teach good nutritional practices will be adapted to national and county conditions and will be reviewed and updated regularly. Community organizations such as parent-teacher associations will be key partners in school initiatives.
- 5.1.5 In order to enhance nutrition education in schools, the Government will:
- i. Review curricula to enhance nutrition information that can be included in existing classes, activities and learning materials; and
 - ii. Extend the school garden concept to every school, including container gardens in urban schools, with a focus on using the gardens to teach and demonstrate not only safe food production, but also food preservation and preparation.
- 5.1.6 School meal programmes contribute to decreased hunger, which helps children concentrate on their studies. Such programmes motivate parents to enrol their children in schools and alleviate short-term hunger in malnourished or otherwise well-nourished school children. This helps to increase the attention and concentration of students, producing gains in cognitive function and learning. The programmes can also address specific micronutrient deficiencies in school-age children. The most important of these are iodine and iron, which directly affect cognition and can translate into better school performance. The feeding programmes should include nutritious foods produced in school gardens and in local communities. Feeding with nutritionally balanced foods and appropriate guidelines must also include pre-schools and boarding schools.
- 5.1.7 In order to enhance school meal programmes, the Government will:
- i. Establish standards and regulations for school meals programmes that cover storage, preparation, handling and quantity of food served to students;
 - ii. Improve the quality of and expand school meal programmes to include pre-schools and boarding schools in collaboration with local communities;
 - iii. Discourage the selling of food in and around the schools; and
 - iv. Provide food handlers in schools with updates and appropriate training on preparation and service of quality foods.

5.2 Linking nutrition education with capacity and awareness

- 5.2.1 Adult education and awareness also need to be strengthened. At present, education systems at various levels do not transfer adequate nutrition knowledge

aimed at influencing life-long dietary practices. Improving nutrition will require enhancing knowledge, awareness and practices of all stakeholders. This will require building the capacity of frontline field staff, including teachers, extension agents, health practitioners and other service providers to incorporate nutritional and food safety considerations and messages into their routine work. Their knowledge and understanding must be adequate in both depth and scope to handle the many facets of nutrition issues.

- 5.2.2 Nutrition and food safety awareness campaigns using appropriate media need to be developed and implemented over a long period of time. Crucial nutrition-related topics should be taught through formal and informal lessons on activities related to food production, home level preservation and storage, food preparation, food safety and the importance of dietary diversity. To be most efficient and cost-effective, nutrition-related activities supported by the Ministry responsible for matters relating to education should be organized in collaboration with specialists and extension workers from other ministries such as the Home Economics sections of the Ministry responsible for matters relating to agriculture and the Nutrition Division of the Ministry responsible for matters relating to health. Adult education initiatives supported by the agricultural sector ministries, already include nutritional topics and efforts to promote production and consumption of diverse, nutritious and safe foods.
- 5.2.3 Efforts to develop internationally accepted, Kenya specific Dietary Guidelines have already been initiated and will become a major force behind nutrition education and nutrition community awareness at most stages of the life-cycle. Dietary Guidelines are a major integrative factor for nutrition education, awareness and promotion that serve to bring together researchers, nutritionists, health care providers, educators, media, private sector and consumers on common ground. This initiative will bring many of the key nutritional and dietary facts together in a single user-friendly package.
- 5.2.4 In order to enhance the overall nutritional status of the general public and nutrition awareness and capacity amongst adults, the Government will:
- i. Develop and widely promote, across all age and demographic groups a national set of internationally accepted Dietary Guidelines adapted to the nutritional requirements and practices in Kenya;
 - ii. Develop knowledge packages in the field of nutrition and dietetics for various types and levels of service providers and professionals;
 - iii. Ensure that adequate nutrition content is included in curricula of all relevant service providers, and that regular refresher courses are available;
 - iv. Improve food production and nutrition knowledge within the education sector through multi-sector and community collaboration;

- v. Increase educational resources for nutrition education as part of formal and non-formal classes and activities;
- vi. Support nutrition research and strengthen linkages between research and extension;
- vii. Support nutrition education for consumers and producers through informal adult education initiatives (such as Farmer Field Schools FFS) and awareness campaign; and
- viii. Support the use of social networks through the internet and mass media.

6. Food and Nutrition Security Information

Policy statement: The Government will build capacity and ensure the availability of quality and timely food security and nutrition data, information and analysis for better formulation and management of integrated food security and nutrition policies, programmes and action.

6.1 Introduction

6.1.1 Given the broad scope of food security and nutrition as defined in the FNSP, a wide array of data, information and analysis is required for cross-sectoral analysis and decision-making. Among others, relevant data and information are required for purposes of early warning to anticipate potential food emergencies, for planning long-term development interventions, and for monitoring and evaluating progress and performance. Much of the required data and information is of a sectoral nature and as such is gathered and managed by relevant line ministries and agencies. Cross-sectoral data can then be brought together through appropriate database systems, and in some cases supplemented with more specific indicators, to allow for integrated and holistic food security analysis. Kenya has an array of both sectoral and cross-sectoral data systems that will provide crucial information and analysis in support of the implementation of the FNSP, as described below:

6.2 National Data and Information Systems

- 6.2.1 Agricultural statistics are crucial for food security assessment, monitoring and analysis, but analysts are faced with a number of serious constraints. Production data are generated through estimates based on unstructured observations and the local knowledge of extension workers rather than through formal statistical processes and survey techniques through sampling. Low extension worker to farmer ratios, limited capacity to analyze data and low frequency of agricultural censuses and surveys, raise general concerns over data reliability. Additionally, agricultural statistics are aggregated such that sub-national analysis by agro-ecological or livelihood zones is difficult, limiting their utility for detailed cross-sectoral food security analysis.
- 6.2.2 Remote sensing and agro-meteorological data are collected by the Department of Resource Surveys and Remote Sensing (DRSRS), the Kenya Meteorological Department

(KMD), and others. Data and information are obtained from aerial surveys, satellite imagery and rainfall recorded at ground level. Such data are crucial for early warning purposes. However, limited networks of rainfall stations, especially in the drought-prone ASALs, leave these areas wanting for more information. Improved agrometeorological data, complemented by remote sensing techniques and better data on agronomic and livestock conditions, will support the generation of timely production forecasts and estimates.

- 6.2.3 Market information systems are operated by various institutions, however there are limitations in coordination, harmonization of methodologies, analysis and dissemination as well as in scope and geographical coverage, focusing on major markets and commodities. Price data also suffer from poor response rates and delays in processing and reporting. A number of opportunities exist to improve market and trade information, including the use of mobile phones, short message service (SMS) and others.
- 6.2.4 Health and nutrition data are collected by the Ministry responsible for health, KNBS and other institutions that deal with food security and nutrition issues. Both information sourcing and the databases are poorly managed. Data collected in the national sample frame are not disaggregated to lower administrative levels, and integrated analysis with other socio-economic descriptors such as poverty is limited, thus limiting opportunities for improved targeting of interventions. However, there is child health and nutrition data that is disaggregated up to lowest level such as Child Health And Nutrition Information System (CHANIS). In addition, there is lack of policy, regulatory and adequate institutional framework for data management and exchange.

6.3 Integrated Data/Information Systems and Analysis

- 6.3.1 Information from all of the above-mentioned data systems, as well as an array of additional data and information being gathered by various partners and stakeholders, are essential to meaningfully understand the multiple dimensions of food security and nutrition. No single government or partner agency can (nor should) be expected to collect and manage the full range of food security and nutrition data and information. Instead, it is essential to build linkages and use information generated by the full range of stakeholders (including development partners who hold data and information outside of government-managed information systems) to strengthen integrated and holistic food security and nutrition analysis. This includes the need to better integrate local-level knowledge and information into the existing information systems. Such integrated data and information is essential for policy making, targeting and planning interventions as well as early warning in food security and nutrition
- 6.3.2 In order to enhance the quantity, quality and timeliness of food security and nutrition information and analysis, the Government will:

- i. Strengthen networking and coordination of relevant sectoral and integrated databases of all stakeholders and their applications to enhance all aspects of food security and nutrition analysis, understanding and activities in Kenya;
- ii. Enhance the collection and use of knowledge and information at the national, county and community levels;
- iii. Encourage monitoring of food consumption and dietary indicators;
- iv. Promote and support development and management of domestic, regional and international food market and trade information databases to inform food security and nutrition initiatives;
- v. Support systems to effectively feedback information in appropriate formats on food security and nutrition to priority audiences, including national, sub-national and community levels using appropriate media;
- vi. Strengthen nutrition surveillance, data collection, analysis and dissemination;
- vii. Integrate nutrition in the Integrated Disease Surveillance and Response (IDSR); and
- viii. Promote use of technologies to enhance cost-effectiveness, timeliness in reporting and user friendliness.

7. Early Warning and Emergency Management

Policy statement: The Government will protect vulnerable populations and address food insecurity concerns in developing capacity for purposes of early warning and emergency management using innovative and cost-effective safety nets and emergency relief programmes linked to long-term development.

7.1 Early warning

7.1.1 Early warning systems (EWS) monitor and detect unusual deviations from normal situations, and provide timely warning of potential crises. An effective EWS is able to prevent, or at least mitigate, an evolving natural or man-made disaster from developing into an emergency or crisis in identifying risk factors and through effective communication with key decision-makers. When emergencies do occur, early warning systems help guide the response by identifying affected population groups and, to the extent possible, their emergency requirements. The EWS provides crucial information and analysis for emergency preparedness and response (both food and non-food), and also

Text Box 2: Existing Kenyan institutions that are involved in coordinating food security and nutrition matters

- 1) Kenya Food Security Meeting (KFSM): Established and housed in the Office of the President, responsible for food security monitoring and for advising on emergency response.
- 2) Inter-ministerial Coordinating Committee on Food and Nutrition (ICCFN): Housed in the Ministry of Planning and National Development responsible mainly for nutrition issues in development planning.
- 3) The Agricultural Sector Coordination Unit (ASCU): Responsible for coordination and spearheading of policy, legal and institutional reforms across ten agricultural sector ministries as provided for by the ASDS. Also coordinates development partners and non-state actors in the implementation of the ASDS.
- 4) National Food Safety Coordinating Committee (NFSCC): Responsible for increasing awareness and advising on food safety and quality related issues.

guides emergency mitigation and long-term development initiatives. Both the Government and development partners operate early warning systems and collect information and data for integrated food and nutrition security analysis.

- 7.1.2. Chronic, poverty-based food insecurity and malnutrition in Kenya is compounded by risk factors such as periodic droughts, floods, diseases and civil strife (or conflict). Floods are a regular event and, while they are generally more localized than droughts, they remain an important cause of food emergencies. Heavy rainfall and floods have also increased the burden of human and livestock disease, which has required special emergency initiatives owing to the serious threats to human health, while affecting trade. Rapid screening at community level helps in early detection of child malnutrition and timely response. The Government needs to strengthen its early warning capacity at national, county and community level for food and nutrition security.

7.2 Emergency relief

- 7.2.1 Emergency relief is common in Kenya and is extremely expensive⁵. Accordingly, the Government has adopted a twin-track approach to meet the needs of the chronically vulnerable on the one hand, and to respond to emergencies on the other. These efforts are linked with one another and with broader development initiatives to address chronic poverty, the key underlying cause of food insecurity.
- 7.2.2 Kenya has and will continue to put in place innovative emergency response mechanisms for affected populations including internally displaced persons. These are aimed first and foremost at saving lives, linked with strategic efforts towards recovery, rehabilitation, restoration of livelihood systems, and development. These include transfers-based entitlements, cash transfers, public work programmes, input support, and special measures for the protection and management of livelihood assets and mechanisms to protect and promote optimal feeding of infants and young children, particularly in ASALs which are most prone to food emergencies.
- 7.2.3 Issues related to refugees from other countries, which are hosted in Kenya, are complex and fall under the mandate of the Ministry responsible for foreign affairs. In 2010 the number of these refugees who have fled their home countries primarily to escape internal conflict and war stood at about 350,000. The FNSP recognizes the right to food of these vulnerable groups and the Government will seek ways to include them in appropriate initiatives.

⁵ According to the ALRMP Implementation Completion Report (2003), the 1999-2001 drought cost US\$ 300 million (Kshs 24 billion) in food aid alone. OP estimates that the 2005/06 drought cost US\$ 450 million (Kshs 32 billion).

7.3 Emergency response: Transfer-based entitlement schemes

- 7.3.1 Based on household composition, these schemes are designed for smooth consumption to better meet dietary requirements through transfer-based entitlements which can include direct food handouts, food-for-work, cash-for-work and supplementary feeding programmes. The high administrative and logistical costs associated with traditional programmes have led to the development of more cost-effective tools which often target specific groups: the older persons, children, the malnourished, poor pregnant women, single parents, the disabled and the HIV/AIDS infected. Additionally, there are increasing trends suggesting that universal social protection and related interventions may in some cases be more effective than targeted safety nets in achieving widespread progress against food insecurity and malnutrition.
- 7.3.2 Food aid has been the most common form of transfer-based entitlement in Kenya in response to food emergencies. Concerns have been raised about the appropriateness of some foods donated to certain communities and the efficiency of food aid supported programmes, including lack of timeliness, high costs of delivery and administration, and leakages in the distribution of food aid. Moreover, food aid may cause disincentives for investment in domestic production as a result of reductions in domestic prices.
- 7.3.3 Cash transfers may be a viable alternative to direct food transfers, especially in situations where private markets have the capacity to meet shortfalls in food availability. These transfers may achieve better results if they are timely, predictable and guaranteed. The aim is to reduce poverty in the short term through cash transfers while at the same time trying to encourage investments in human capital by making these transfers conditional upon regular school attendance or regular use of preventive health care services.
- 7.3.4 In order to put in place effective relief and safety nets through transfer entitlement schemes, the Government will:
- i. Where appropriate, replace direct food relief distributions with cash transfers to improve efficiency and reduce costs. Food aid should only be provided under rapid onset disasters, severe shortages and non-functional markets;
 - ii. Consider an appropriate combination of universal and targeted interventions to achieve widespread progress against food insecurity and malnutrition;
 - iii. Link transfer-based schemes to long-term development through predictable and guaranteed programmes; and
 - iv. Ensure meaningful community and private sector participation in all phases of transfer-based entitlement schemes.

7.4 Emergency response: Targeted emergency feeding programmes

- 7.4.1 Targeted emergency feeding programmes mainly focus on people with special nutritional needs. The programmes save lives and represent an investment in human capital by reducing the long-term effects of malnutrition. Supplementary feeding programmes for children are common in the country, as are schemes to provide additional rations for pregnant and lactating mothers, older persons, HIV/AIDS patients and orphans. Budget constraints and the absence of clear guidelines often limit supplemental feeding programmes. The food basket for direct feeding and emergency programmes is normally the same across the country and does not consider local diversity of dietary patterns. The basket is typically deficient in micronutrients and inadequate in the provision of calories during disasters.
- 7.4.2 In order to enhance the effectiveness of direct feeding emergency programmes, the Government will:
- i. Review guidelines and support efforts for emergency, supplementary and therapeutic feeding; and
 - ii. Ensure that the programmes provide adequate and nutritious foods according to different physiological and regional demands.

7.5 Emergency response: Public works programmes

- 7.5.1 A useful emergency response tool is to channel resources into public work programmes aimed at developing communal infrastructure such as road access, land reclamation, markets and construction of water points and irrigation structures. In these programmes individuals from affected communities are paid in the form of food or cash for their labour. Cash-for-work schemes are preferred as they require much less infrastructure, are easier to implement, replace distress sales, and the money can be used according to individual needs and priorities. Food-for-work is appropriate only where food is unavailable in the market.
- 7.5.2 In order to promote and upscale *public work programmes* that provide a short-term safety net and create physical assets in the long run, the government will:
- i. Use public works programmes to support the improvement and maintenance of social and market infrastructure in areas with high acute food insecurity; and
 - ii. Put in place mechanisms for replacing food-for-work with cash/voucher-for-work programmes where efficient food markets are functioning.

7.6 Emergency response and mitigation: Livelihoods restoration

- 7.6.1 When emergencies such as droughts, serious floods and fires occur, essential household capital and assets may be damaged or destroyed, or may be depleted by distress sales to meet basic needs, including food. In such cases, poor households may require non-food assistance to recover from the emergency event and to restore their means of livelihood. This will help affected households to maintain their productive capacity and avoid a chronic reliance on food assistance. In crop producing areas, emergency agricultural relief may include basic input provision (seed, fertilizer, etc.) and in some cases, tools and other capital that may have been lost or sold.
- 7.6.2 The ASAL areas of Kenya comprise some 80% of the country, one-third of the population and more than two-thirds of the national livestock herd. These fragile areas are hardest hit by recurring droughts, floods and conflict and accordingly require the most emergency assistance. In addition to meeting human emergency food and non-food requirements in these areas, emergency efforts also focus attention on the protection and management of livestock. Drought in the ASAL areas has often resulted in mass deaths of animals due to the depletion of pastures, water, conflicts and the emergence of diseases. In 2005/06 some Kshs 18 billion worth of livestock were lost to drought. Such substantial loss of assets increases vulnerability and food insecurity. De-stocking, proper grazing and water management reduce mortalities, along with investment in infrastructure such as water points, roads, stock routes and markets. Restocking allows households to restore their livelihoods by re-building their asset base and therefore continue with their normal lives post-drought.
- 7.6.3 Besides drought, floods and fires are becoming more frequent depriving the vulnerable groups of their basic livelihoods. Floods are becoming common in even the ASALs where rainfall has over time been depressed. Fires on the other hand are increasingly becoming common in the slum dwellings in urban areas. These calamities necessitate emergency responses in terms of food, health services and shelter.
- 7.6.4 In order to help restore livelihoods systems the Government will:
- i. Assist households affected by emergencies to restore lost livelihoods assets and capital through emergency programmes linked to long-term initiatives;
 - ii. Promote and support public and private sector investments in ASAL areas, including rehabilitating and initiatives to avoid loss of livestock; and
 - iii. Promote the use of more animal based products in support of ASAL livelihoods systems and improved nutrition.

7.7 Linking emergency relief, rehabilitation and recovery with development

7.7.1 Safety nets and other emergency-supported activities alone cannot promote livelihoods and help move people out of poverty and food and nutrition insecurity on a permanent basis. Emergency programmes are not a substitute for long-term development programmes and should be run concurrently with other interventions to enable the poor to participate in growth processes. Strong linkages will therefore need to be made between emergency programmes and developmental policies and strategies with similar food and nutrition improvement objectives. In particular, linking emergency feeding programmes with schools can help improve knowledge and long-term dietary practices. Other relief initiatives can help build sustainable infrastructures and support market development. Environmental degradation of the fragile ecosystems and poor management of water resources also limit the development potential of these areas.

7.7.2 In order to build *links between emergency and development* in marginal areas, the Government will:

- i. Support emergency activities that lay a solid foundation for long-term development in areas where emergencies are frequent;
- ii. Promote livelihoods diversification in environmentally fragile areas that may be unable to support sustainable livelihoods under current conditions;
- iii. Support community fodder/pasture banks and reseeded in ASALs;
- iv. Support re-stocking and de-stocking activities when and where appropriate;
- v. Support activities that help build and improve national and county infrastructure, including roads, water, markets and electricity; and
- vi. Enhance school enrolment and completion rates among the food insecure households.

8. Institutional and Legal Framework and Financing

Policy statement: The Government will ensure that efficient and effective institutional and legal frameworks are established for the implementation of the FNSP.

8.1 Institutional framework

- 8.1.1 Given the multi-dimensional and cross-sectoral nature of food security and nutrition, lessons from other countries indicate that only those with well institutionalised national coordinating mechanisms have been truly effective in developing and implementing food security and nutrition policies. At present, four national institutions are actively involved in the coordination of food security and nutrition related issues (Text Box 2). While these four institutions have worked relatively well, there is need to bring them together to ensure more interaction and cross-sectoral collaboration to guide the implementation of the FNSP. Through the FNSP, the Government will therefore reorganise and strengthen the existing structures to form a strong Food and Nutrition Security Secretariat. Utilizing existing structures under this new coordinating mechanism will minimize the need to establish new institutions and bodies.
- 8.1.2 These food security institutions will be reviewed and their scope expanded at both national and county levels in order to oversee, guide and support the implementation of the FNSP and related strategies, action plans and programmes. County Food Security Committees will be established. There will be need to harmonize the committees at all levels for efficiency and effectiveness. At the national level, a national food and nutrition security steering committee will be formed to play a key oversight role.
- 8.1.3 Food and nutrition security secretariats will be formed at national and county levels to bring together all relevant ministries to ensure broad, multi-sectoral implementation, coordination and monitoring mechanisms, provide a forum for an integrated response to both emergency and chronic food and nutrition security issues, and serve as an advisory body to the Government on issues relating to food and nutrition security.
- 8.1.4 These secretariat will be supported by four Stakeholder Technical Committees (STC), developed according to the four major pillars of the FNSP, namely 1) Emergencies, 2) Nutrition, 3) Availability and Access, and 4) Food Safety and Quality. The STCs will be responsible for providing professional advice in food and nutrition security policy issues; developing guidelines for planning, implementing, monitoring

and evaluating national food and nutrition related strategies, action plans and programmes; and creating and managing a databank on food and nutrition security interventions, amongst others.

8.2 Legal framework

8.2.1 Initially, the Cabinet Secretaries responsible for matters relating to the agricultural sector will re-define the roles of existing coordination institutions to facilitate effective and efficient implementation of the FNSP. As policy implementation proceeds, revision to existing legislation and new laws, regulations and guidelines will be put in place in order to ensure food safety and quality, adhere to internationally recognized standards and nutritional guidelines, and to respect and ensure the right to adequate food by all Kenyans.

8.2.2 To ensure food and nutrition security is achieved, the Government will:

- i. ensure that efficient and effective institutional and legal frameworks are established for the implementation of the FNSP;
- ii. make legislation and guidelines regulating effective implementation of the FNSP at both the national and county levels;
- iii. domesticate all the international and regional treaties and conventions to which Kenya is a party related to agriculture, food and nutrition security;
- iv. prepare a report annually that will be submitted for debate to the National Assembly on the progress made by Kenya in fulfilling its international obligations related to agriculture, food and nutrition security; and
- v. ensure that Kenya's international obligations relating to agriculture, food and nutrition security are fulfilled through the actions of the relevant Cabinet Secretaries.

8.3 Financing

8.3.1 The Government will commit financial resources through its budgeting process to meet the goals of the FNSP. The national and the county secretariats, in collaboration with the national and the county governments and the supporting institutional structures, will ensure that priority areas as to be identified in the associated Food and Nutrition Security Strategy (FNSS) are allocated sufficient funding in the budget planning process. Budgetary allocations will give particular attention to monitoring and evaluation mechanisms to ensure the efficient and effective implementation of the FNSP.

8.3.2 Effective implementation of the FNSP will depend on the active involvement of the private sector in food marketing, commercial farming, food imports, and food processing and fortification. Eradication of poverty also depends on

the expansion of employment in the private sector. The private sector will be encouraged to enhance investment in food and nutrition security and promote pro-poor growth. In addition, the Government will seek assistance from national and international partners interested in supporting efforts to alleviate food and nutrition insecurity in Kenya.

9. Policy Implementation, Monitoring and Evaluation

9.1 Introduction

- 9.1.1 Effectively implementing cross-sectoral initiatives is always complex. As mentioned, the FNSP seeks to add value, complement and build synergies with related sectoral initiatives. This principle will be extended to implementation strategies.
- 9.1.2 A strong, logical and realistic strategic and implementation framework is required, with associated programmes and action plans. Actions must be purposefully linked and coordinated with one another and with sectoral initiatives of the Government and partners at national and county levels. This, however, will not be sufficient to meaningfully address food insecurity and malnutrition in Kenya over the long term. An essential component of the implementation strategy is to create strong and lasting advocacy mechanisms. Particularly important is the role of the media, local communities and civil society which must be clearly and consistently used as strategic partners to achieve long-lasting food security and improved nutrition in Kenya.

9.2 Policy Implementation

- 9.2.1 The FNSP will guide food and nutrition security programmes that are being implemented by line ministries and partners.
- 9.2.2 An important component of the implementation plan will be the phasing of programme activities. It is recognized that not all required activities can be implemented immediately and simultaneously. While some priority actions can start immediately, others may require further development, advocacy, preliminary research or a pilot phase. This will allow a realistic approach for funding arrangements over time. Under this phased approach, the strategy will be developed covering a 15-year period, with three 5-year phases, each with carefully planned, mutually supportive activities that build from the preceding phase.
- 9.2.3 The FNSP has been purposefully developed to acknowledge ongoing changes in the many variables that affect people's food security and nutritional status over time. Existing activities that will be strengthened and new programmes that grow out of FNSP will be monitored throughout each phase as will be key environmental and demographic variables that relate to their impact and relevance. In addition to ongoing monitoring, towards the end of each phase,

a thorough evaluation will be conducted to identify successful initiatives, challenges and new opportunities which will guide activities in the subsequent phase. An essential component of the periodic evaluations of the FNSP will be to review and revise national food and dietary guidelines as necessary. In this manner, the strategy will remain dynamic and programmes will reflect the changing context, knowledge and requirements.

9.3 Monitoring and evaluation

- 9.3.1 An effective monitoring and evaluation (M&E) system will be built into the strategic framework from the onset. The system will monitor programme implementation and performance against a set of pre-determined indicators. In addition, the M&E system will carefully monitor and track actual food security and nutrition conditions at national and county levels. Effort will be made to link the FNSP M&E system with other existing monitoring and information systems. Line ministries will be supported in their own efforts to monitor their contributions towards attaining food and nutrition security goals and objectives through their own sectoral plans and technical programmes. The use of participatory monitoring and evaluation approaches, currently used by several ministries, will be applied as appropriate. These activities will help identify particularly successful and effective initiatives, and will guide the strategic re-phasing of the programme over time.

ANNEX

1. The FNSP is in conformity with the following provisions of the Constitution:

NO.	ARTICLE	PROVISION
	2 (1)	The Constitution is the supreme law of the Republic of Kenya and binds all persons and all State organs at both the national and county levels.
	43 (1) (c) and (d)	Subject to availability of requisite resources, the Government shall ensure that every Kenyan has a right to be free from hunger, to have adequate food of acceptable quality, uninterrupted supply of clean and safe water in adequate quantities.
	53 (1) (c)	Every child has a right to basic nutrition, shelter and health care.
	57(d)	The State shall take measures to ensure the right of older persons to receive reasonable care and assistance from their families and State.
	21 (2)	The Government has an obligation to take legislative, policy and other measures including the setting of standards to achieve the progressive realisation of the rights guaranteed under article 43.
	22	The rights and fundamental freedoms in the Bill of Rights are enforceable and therefore a constitutional reference can be filed in Court by any person claiming denial, violation or infringement of the same.
	46 (1)(c)	Consumers have a right to goods and services of reasonable quality, to the protection of their health, safety and economic interests.
	11 (2) (b) and (c)	The role of science and indigenous technologies in the development of the nation and promotion of the intellectual property rights of the people of Kenya.
	2 (6)	Any treaty or convention ratified by Kenya shall form part of the law of Kenya.
	60 (1)	Land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable

66 (1)	The Government shall regulate the use of any land or any interest in or right over any land, in the interest of defence, public safety, public order, public morality, public health or land use planning.
42	Every person has the right to a clean and healthy environment.
132 (1) (iii)	The President shall submit a report for debate to the National Assembly on the progress made in fulfilling the International obligations of the Republic.
132 (5)	That the President shall ensure that the International obligations of the Republic are fulfilled through the actions of the relevant Cabinet Secretaries.
132 (3) (b)	That the President shall direct and co-ordinate the functions of Ministries and Government Departments.
152 (1) (d)	The Cabinet consists of not fewer than fourteen and not more than twenty-two Cabinet Secretaries.
186 (1)	Except as otherwise provided for by the Constitution, the functions and powers of the National Government and the County Governments, are as set out in the Fourth Schedule.
186 (2)	A function or power that is conferred on more than one level of Government is a function or power within the concurrent jurisdiction of each of those levels of Government.
186 (3)	A function or power not assigned by the Constitution or national legislation to a County is a function or power of the National Government.
200(1)	Parliament shall enact legislation governing all matters necessary or convenient to give effect to the Chapter of the Constitution dealing with matters relating to devolution.
238 (1) and (2) (b)	National security is the protection of, <i>inter alia</i> , right to be free from hunger, to have adequate food of acceptable quality and uninterrupted supply of clean and safe water in adequate quantities.

Fourth Schedule, Part 1, paragraph 18	It is the mandate of the national Government to deal with transport and communications, in particular road traffic, construction and the that operation of national trunk roads, standards for the construction and maintenance of other roads by counties and railways and pipelines, marine navigation, civil aviation, telecommunication and radio and television broadcasting.
Fourth Schedule Part 1, paragraphs 29 and 30	It is the mandate of the national Government to formulate both agricultural and veterinary policies.
Fourth Schedule, Part 2, paragraph 1	It is the mandate of county Governments to deal with and handle agricultural issues, including crop and animal husbandry, livestock sale yards, county abattoirs, plant and animal disease control, licensing and control of undertakings that sell food to the public and veterinary services.
Fourth Schedule, Part 2, paragraph 7	The county Governments have a mandate relating to trade development and regulation, including markets, trade licences, fair trading practices and cooperative societies.
Fourth Schedule, Part 2, paragraph 8	The county Governments have a mandate to handle and deal with county planning and development including statistics.
Fourth Schedule, Part 2, paragraph 10	The county Governments have a mandate relating to implementation of specific national Government policies on natural soil, water conservation and forestry.
Fourth Schedule, Part 2, paragraph 11	The county Governments have a mandate to deal with public works and services, including storm water management systems in built-up areas and water and sanitation services.
Fifth Schedule	Enactment of legislation referred to under Article 200(1) shall be enacted within a period of 18 months with effect from the 27 th day of August 2010.

2. The FNSP has been aligned to the Kenya Vision 2030 which:

- (a) has the objective of transforming Kenya into a newly industrialised, middle-income country providing a high quality of life to all its citizens by the year 2030;

- (b) identifies the agricultural sector as one of the six growth drivers of the country's economy;
- (c) is key in enabling the country in the promotion of an innovative, commercially-oriented, and modern agricultural sector through:
 - i. transforming key institutions in agriculture and livestock to promote agricultural growth;
 - ii. increasing productivity of crops and livestock;
 - iii. introducing land use policies for better utilisation of high and medium potential lands;
 - iv. developing more irrigable areas in arid and semi-arid lands for both crops and livestock; and
 - v. improving market access for the smallholders through better supply chain management; and
- (d) aims at adding value to farm and livestock products before they reach local and international markets.

