

FOOD INSECURITY: CAUSES AND POLICY FRAMEWORK IN STRENGTHENING FOOD SECURITY IN KENYA'S AGRICULTURAL SECTOR

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ABSTRACT: *According to United Nations Food Agriculture Organization and the United States of America department of agriculture in the World Food Summit in 1996, Food security exists 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. Food security is basic to the survival of any nation, be it at individual, family or national level. This therefore means that food security should have top priority since no meaningful development in economic, social or cultural sphere is possible without it. However in Kenya, with a population of more than 40 million people, about 10% is classified as food insecure according to United States of America Department of Agriculture - Food Security Analysis March 2009. This is growing at an annual rate of about 30%. Kenya is the largest import market for food and agriculture products in East Africa. Kenya imported about 725 million in agriculture products during 2009, up from 525 million in 2007 in an attempt to mitigate the crisis. This implies that the Government of Kenya should come up with policies that ensure people have access to enough food. This paper examines the role of policy framework in strengthening food security in Kenya.*

KEYWORDS: Food Security, Policy Framework, Economic Development, Agricultural Sector, Kenya.

INTRODUCTION

Food security refers to the availability of food and one's access to it. A household is considered food secure when its occupants do not live in fear of hunger or starvation. According to the World Bank (1986, p. 1), food security is access by all people at all times to enough food for an active, healthy life. Food security also refers to a situation in which all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life (Kenya Food Security Steering Group, 2008). Food insecurity has been described as a condition in which people lack basic food intake to provide them with the energy and nutrients for full productive lives.

Worldwide, around 852 million people are chronically hungry due to extreme poverty, where up to 2 billion people lack food security intermittently due to varying degrees of poverty (FAO, 2003). Six million children die of hunger every year – 17000 every day. In Africa, food security has worsened since 1970 and the proportion of the malnourished population has remained within the 33 to 35 percent range in the Sub-Saharan Africa. The prevalence of malnutrition within the continent varies by region. It is lowest in Northern Africa (4percent) and highest in Central Africa (40 percent) (Rosegrant *et al.* 2005). Over seventy percent of the food insecure population in Africa lives in the rural areas. Ironically, smallholder farmers, the producers of over 90 percent of the continent's food supply, make up the majority (50 percent) of this population. The rest of the food insecure population consists of the landless poor in rural areas (30 percent) and the urban poor. Throughout the developing world, agriculture accounts for

around 9 percent of the GDP and more than half of total employment. In countries where more than 34 percent of the population is undernourished, agriculture represents 30 percent of GDP and nearly 70 percent of the population relies on agriculture for their livelihood (Pinstrup-Aderesen, 2002). This shows that many of Africa's economies rely on agriculture of which Kenya is a part. Because over 70 percent of the poor live in rural areas, where also the largest proportion of the food insecure live, it is evident that we cannot significantly and sustainably reduce food insecurity without transforming the living conditions in these areas and coming up with the right policies .

Food security includes at a minimum:-

- i. The ready availability of nutritiously adequate and safe foods
- ii. An assured ability to acquire acceptable foods in socially acceptable ways (i.e without resorting to emergency food supplies, scavenging, stealing or other means that are not acceptable).

Supply of food should be sufficient in quantity and quality and also provide variety. Food access addresses the demand for the food. It is influenced by economic factors, physical infrastructure and consumer preferences. Hence food availability, though elemental in ensuring food security, does not guarantee it. For households and individuals within them to be food secure, food at their access must be adequate not only in quantity but also in quality. It should ensure an adequate consistent and dependable supply of energy and nutrients through sources that are affordable and socio-culturally acceptable to them at all times. Food security should translate to an active healthy life for every individual. For this to take place the nutritionally adequate diet should be biologically utilized so that adequate performance is maintained in growth, resistance or recovery from disease, pregnancy, lactation and or physical work.

Food insecurity has the potential to influence food intake and ultimately the health and nutritional status of households. In developing countries over 85 percent of the food consumed by poor households in rural setting is obtained from the farm (IFRI, 2002). The importance of foods purchased from markets in meeting household food security depends on household food income and market price.

The Kenya's economy is based on agriculture; the sector directly contributes 24% of the Gross Domestic Product (GDP) and 27% of GDP indirectly through linkages with manufacturing, distribution and other service related sectors. Approximately 45% of Government revenue is derived from agriculture and the sector contributes over 75% of industrial raw materials and more than 50% of the export earnings. The sector is the largest employer in the economy, accounting for 60 per cent of the total employment. Over 80% of the population, especially those living in rural areas, derive their livelihoods mainly from agricultural related activities (www.foodsecurityportal.org.kenya). The Kenya government must therefore allocate sufficient resources to its agricultural sector to ensure that national food security is achieved through self sufficiency in the production of basic food and the generation of foreign exchange which can be used for the importation of other foods and occasional importation of basic food when the need arises.

The policies on food stated in Sessional Paper No. 4 of 1981, No.1 of 1986 on national food policy and later on Sessional Paper No. 2 of 1994 are all oriented towards improved food production and distribution. In the 1970's Kenya was self sufficient in food production.

In the 1980 to 1990, agricultural production as a whole grew at an average rate of 3.5% per year. The rate of growth was 4.0% this was acquired through the use of hybrid maize and increase in the number of improved cattle. Tea production grew from 73,000 tons in 1980 to 197,000 tons in 1990 making Kenya the world's largest exporter. Coffee production over the same period increased from 51,700 tons to 112000 tons. Horticultural production also registered growth. The production of other major crops such as Sugar, rice and pyrethrum also increased (Pinstrup, 2002).

Causes of Food Insecurity

Generally in Sub Saharan Africa, Food insecurity arises primarily when food production is constrained, for example by climatic conditions such as drought or floods; when there is insufficient production in a particular area to feed the number of dependent population living there; and/or when local food prices/imports are very high, which may be due to increases in fuel/transportation costs or to the vagaries of international commodity markets. The food supply problems in Africa are exacerbated by the phenomenon of rapid urban expansion and the concentration of migration flows to regional capitals. Africa has the fastest growing population in the world currently standing at about 6.8 billion, which is projected to double by 2050 to 12 billion. Its urban population is also expanding more rapidly than any other region – at 3.3 percent a year (Bernet & Bugalema, 2001). If current trends continue, by 2050 more than half the continent's population will be living in cities. Agricultural productivity therefore needs to keep pace in order to feed the growing urban population.

However, rural productivity in Sub- Saharan Africa ranks among the lowest in the developing world. This is caused by a broad spectrum of factors, including: extreme climatic conditions; the persistence of traditional methods of subsistence farming rather than using high-tech inputs and modern methods; and low investment in rural infrastructure, inter alia. The extreme climatic conditions that frequently afflict the continent often result in the loss of harvests and livestock, and this can lead to large-scale famine and massive displacement of populations.

Conflicts affecting various African countries have also led to massive migration and instability in the countries, Kenya among them (Bernet & Bugalema, 2001). This puts the African countries at vulnerable position. Due to these harsh socio-political and economic conditions the continent needs to come up with a policy framework that will cushion the affected countries.

Low political support and non-performance of policies have affected agricultural growth. Kenya's leadership must play its part in guiding agricultural development than hitherto. It must drive agricultural development process and must provide political support, which is so vital for a rapid and sustained growth process.

Natural resource constraints

The limitations of the natural environment in the Greater Horn of Africa place certain constraints on improving food security. Africa has been affected by drought; there is a mean decrease in annual rainfall in Sahelian zone of Sudan, Kenya and parts of Ethiopia and Tanzania. Repeated occurrence of drought and high variability in precipitation has reduced the ability of many small holders to maintain their assets or to respond when weather conditions are good. Other natural disasters such as pest infestations and periodic flooding destroy area specific production levels, for example, Budalangi area in Kenya. This calls for a more effective weather and pest early warning system in the region and in particular Kenya.

Land is the main asset in agricultural production in Kenya but limited availability of productive land is a major constrictive to increased agricultural production. Kenya has an area of about 587,000 sq km of which 11,000 and 576,000 are water and land mass respectively. Only 16% receives reliable rainfall. The rest falls under arid and semi arid lands (ASALS). The main feature of Kenya's agriculture is domination of small scale farmers who account for 75% of total agriculture production and 70% of marketed agriculture output being produced on an average scale of: Over 60% of maize, 65% of coffee, 50% of tea, 90% of sugar, 80% of milk, 85% of fish and 70% of beef (IFRI, 2002). While production carried out on small land holdings fall between an average of 2 – 3 hectares of land, Large scale farming take up 50 hectares and above accounting for 30% of marketed agricultural produce; tea, coffee, horticulture, maize, wheat and livestock keeping for commercial purposes.

Low agricultural productivity mean that many of those in the rural areas remain subsistence producers, therefore, the large quantity of food at low prices which is essential for economic growth in urban areas is not available. This has led to a sharp increase in food prices especially in the urban areas, for example, the price of a 2 kg tin of maize which is quite high. Increase in productivity and growth linkages both in rural areas and between urban and rural areas are a requisite to increase incomes and sustained access to basic foodstuffs. In the urban centres approximately 470,000 persons in the lowest poor category suffer extreme food insecurity (Bernet & Bugalema, 2001). World Food Organization conducted an assessment in March 2009, maize consumption by poor households had gone down by 22% in urban slums and 23% in Mombasa in response to an increase in prices. Increase in prices in beans had reduced consumption.

Another challenge facing land ownership and productivity in Kenya is the fact that land has been one of the most contentious issues in Kenya's political economy. The lack of a coherent land policy that harmonizes the different land based activities such as agriculture, pastoralism, tourism, industrial location and human settlement has continued to undermine agricultural development and food security. The surveying, titling and registration of land is about 80 percent complete in the high and medium potential areas of the country but this cannot be said for ASAL areas. Some authors believe that ownership of land greatly influences the intensification of agriculture as title to land which gives one the exclusive rights to operate a particular land holding, invest on it and can also be used as collateral in sourcing financial credit (Bwika, 1990). Lack of title deeds has weakened farmers resolve to operate their land holdings and has also weakened long-term investments on land. Further, land ownership and credit access is highly biased against women who are the main operators of land in Kenya. Some empirical evidences have pointed at non-existent casual relationship between, the formal registration/titling of holdings and the propensity to invest, demand credit, increase yields and exchange land through sales and purchases. Nevertheless, it is accepted that to achieve the desired effect of land registration and titling, other complimentary factors such as access to quality inputs, infrastructure and efficient marketing of produce must be in place. These complimentary factors are mostly unavailable leading to missing markets and non-realization of increased productivity (Migot-Adhola *et al.*, 1994; Obunde *et al.*, 2004).

Closely related to the above is an over reliance on primary agriculture; which implies low fertility soils, minimal use of external farm inputs, significant food crop loss both pre- and post-harvest, minimal value addition and product differentiation, and inadequate food storage and preservation which ultimately result in significant commodity price fluctuation. Ninety five percent of the food in Sub-Saharan Africa is grown under rain fed agriculture, Kenya is not an

exception. Hence food production is vulnerable to adverse weather conditions. There is an overall decline in farm input investment including fertilizers, seeds and technology adoption. Access to fertilizer use is constrained by market liberalization and trade policies that increase fertilizer prices relative to commodity prices, limited access to markets and infrastructure, limited development of output, input and credit markets, poverty and cash constraints that limit farmer's ability to purchase fertilizer and other inputs. The soils continue to degrade leading to a reduction in the productivity. Some of the causes of soil fertility depletion in Kenya include the limited adoption of fertilizer replenishment strategies and soil and water conservation measures; the decline in the use and length of fallow periods; expansion of agricultural production into marginal and fragile areas; and the removal of vegetation through overgrazing, logging, development, and domestic use. A significant amount of the food is lost through pre- and post-harvest losses. The tropical climate makes foods produced in these regions prone to pests and diseases. Poor handling and storage further increase the post-harvest losses. Management of the African agricultural system is further complicated by the existence of diverse heterogeneous systems.

Insufficient Incentives for food production

Government initiatives to change consumption patterns out of economic self-interest are usually ineffective. Efforts to protect local markets from inexpensive foreign grains including cheaper products from neighbouring countries are impeded by black markets leakage that also distorts the food availability situations in both donor and recipient countries. Government production and marketing board policies, influence what farmers grow. In Kenya, government crop breeding research, extension, and grain marketing in the 1980s focused on and successfully encouraged the production of maize, not sorghum. Overall, relative crop prices influence what is grown, sold, or later consumed and this influences food security at the national and household levels.

Cash crop promotions, by governments seeking to increase export earnings, may discourage production of food crops for local consumption through price, tax, and marketing structures. Although, the Kenya government has been trying to subsidize the prices of fertilizer and seed, more still need to be done.

On the other hand, high taxation especially on inputs including machinery, fuel and spare parts make Kenya agriculture expensive and less competitive. Taxation and policy biases against agriculture include: concentration of public investments in areas of infrastructure and provision of safety nets in urban areas; direct taxation of agricultural based exports and local authority tax; subsidies and tax waivers for capital intensive technologies such as computers and mobile phones instead of reducing costs of agricultural inputs; development of infrastructure in urban areas rather than in rural areas where the infrastructure is needed most; weak farmers institutions to support agriculture; and market access and transport costs that are biased against rural development (World Bank 2000). Input intensive technologies are neither economical when farmers must pay prices for fertilizers and receive only 30 to 60 percent of the market value for their produce, nor are they economical when extra production cannot be transported and sold because of lack of infrastructure.

Rapid population growth

The population growth in Kenya is high. This is a cause of food insecurity because the available land for use is not able to meet the demand. There is also pressure on the existing land leading

to soil erosion, deforestation leads to low production. This has also led to forest encroachment, like the Mau forest.

Population growth rates remain high because of poverty and accompanying problems of poor child survival rates. Limited access to or the absence of basic services such as health facilities and education means low contraceptives prevalence rates, illiteracy rates especially among women.

Agricultural productivity is threatened by the HIV/AIDs pandemic. The opportunity costs in terms of foregone production is high while at the same time, mortality and morbidity from HIV/AIDs is resulting to labour shortage for both farm and domestic work. In the rural areas, estimates indicate HIV infections to be between 12-13 percent (World Bank 2000). This threatens the ability of the small farmer to produce sufficient foodstuffs. Similarly, other diseases such as tuberculosis and malaria are resulting to the same, (Saitoti, 2000; Wilson, 2001; Barnet and Rugalema, 2001). As indicated poor levels of health undermine labour productivity. Improvements in health services and education especially those targeting women will contribute to reduction in population growth rates and average size of family over time. A healthy and educated population will in turn, contribute to increased productivity and economic growth.

Poor economic policy environment

Economic and agriculture policies that distort prices of agricultural inputs and outputs adversely affect investments in agricultural production, marketing and storage as well as incomes earned from these activities. For example in Kenya, there is lack of commitment to the existing policy. Weak market integration due to poor infrastructure and domestic international trade restrictions affect the ability of food surplus countries and regions to export to food deficit countries and regions. Public infrastructure which is an important condition for food availability and access remains a challenge. Liberation of marketing system has encouraged the growth of small firms. But in many areas private traders are not able to respond to liberalized markets because of lack of access to working capital, getting a loan from the bank is not easy, security will be required. Firms need technology, financing and management support to increase food availability at low cost.

Liberation of marketing systems has been worsened by the effects of globalization. Globalization is a concept that allows countries to benefit from capital flows, technology transfer, cheaper imports and larger export markets in the long term. However, the effect of globalization on any country depends on that country's level of economic development, structures in place during the implementation stage and flexibility of its economy. Globalization has three dimensions. The first refers to the multiplication and intensification of economic, political, social and cultural linkages among people, organizations and countries at the world level. The second dimension is the tendency towards the universal application of economic, institutional, legal, political and cultural practices. This is related to the first dimension, in that, increased linkages generate a need for common institutions and rules. The third dimension is the emergence of significant spillovers from the behavior of individuals and societies to the rest of the world. Due to the interrelation of the various dimensions, policies made in one country are bound to have effects on another. With globalization comes liberalization of markets. The food security threat caused by liberalization is due to dumping of heavily subsidized produce in developing countries and premature exposure of upcoming industries to genuine competition from producers in developing and developed countries. In

addition, most profits are repatriated by transnational companies reducing the potential for poverty reduction to direct employment alone (Oxfam, 2002). In most cases, the pay is low because the national policies do not protect the labourer. This therefore, puts Kenya in a disadvantaged position, being one of the developing countries.

In addition, Weak research and extension linkages have adversely affected agricultural production. Although Kenya's agricultural research system is relatively strong as compared to other developing countries, progress in increasing total factor productivity in agriculture suggests that it has inherent weakness that forces it to operate below its potential. This has been related to weaknesses in research priority setting, financing, management and poor inter-agency linkages under funding of operational costs; lack of managerial autonomy and accountability (Simons & Gitu, 1989; Gitu, 2001; Omamo, 2003). A major limiting factor to agricultural research has been the fact that local research institutes mainly rely on donor funds. The weaknesses in research and extension linkage have limited the generation of new technologies. Recent analysis shows a declining trend in efficiency and effectiveness of the Ministry of Agriculture extension services (Kosura, 2000). This has been as a result of declining budgetary allocations to the sector, lack of clear objectives, failure to identify the role of beneficiaries and poor organizational and institutional structures among others. Although new technologies are available on shelf, the farming community has not benefited from them since research findings do not flow to the farming community as a result of dysfunctional extension service.

Political instability and absence of good governance

In greater parts of Africa, there has been civil strife. Both military confrontation and attendant political instability have undermined food security. Agricultural production has been disrupted by actual conflict and war – induced mass migrations and by an emphasis on defenses over and above agricultural and social sector spending. Governance has been characterized by autocratic rule and by extensive centralization required to maintain state power (USAID, 2009). In Kenya, the outbreak of Post Election Violence in the year 2008 led to loss of lives, displacement of people, the affected were not able to harvest their crops and in some areas the crops were burnt in the *shamba* (farm). This adversely affected food productivity and security in the country. Most of the people who fled political violence in Kenya's Rift Valley Province, the country's breadbasket, are farmers and their displacement during harvest season undermined national food security, humanitarian officials said. "They lost their tools, livestock, seed and fertilizer, the unrest erupted at a time when farmers in the region were harvesting and preparing the land for planting before the long rains in March and April. The USAID-funded Famine Early Warning Systems Network (FEWS Net) warned that the political crisis was likely to cause severe food insecurity in both rural and urban areas. "Nearly 20 percent (300,000 tonnes) of the maize crop in the country's uni-modal, long-rains dependent grain-basket had not been harvested at the onset of the crisis.

Maize is Kenya's staple food and price increases due to diminished production in the Rift Valley highlands, where most of the cereal is grown, will hurt consumers countrywide, according to FEWS Net. It affected the price of foodstuffs not only in the urban areas but also in the rural areas. The violence also affected milk delivery to factories, leading to shortages and price hikes. Livestock theft was widespread during the violence and dairy farmers in areas hit by violence.

Weak regional institutions and donor coordination

Generally, in Africa, there are weak institutions, for example, IGADD – Inter Governmental Authority on Drought and Development is weak and needs to be strengthened. Donor coordination is not strengthened. Local participation is not adequate. The donations are not spent well. This discourages more support from the donor countries for example the HIV/AIDS case, the Free Primary Education Fund, the donors are not willing to release until they account for it. Corruption has killed our institutions. There should be transparency and accountability in Kenya.

The role played by financial institutions and marketing research is critical in boosting food security. However, in Kenya, this is an area that needs to be strengthened. Strong credit and marketing institutions supported agricultural production systems in the first decade after independence. This included: Agricultural Finance Corporation (AFC) for credit, National Cereals and Produce Board (NCPB) for marketing, maize, wheat and other cereals, Kenya Meat Commission (KMC) for marketing meat, Kenya Cooperative Creameries for milk and Kenya Sugar Authority (KSA) for sugar just to mention a few. These institutions initially performed fairly efficiently, but due to high-level government interference, corruption and poor management, their performance deteriorated to a point that they increasingly failed to provide services to the farmers. For example, before the onset of market liberalization, formal agricultural credit was provided at subsidized rates through a number of credit schemes especially for maize farmers. These schemes are no longer in operation. In comparison with commercial banks, lending rates of the AFC were lower, more stable and widespread. In an attempt to increase financial resources to the sector, the government introduced a requirement that commercial banks and non-banking institutions have to lend between 17-20% and 10-15% to the agricultural sector. However, this has not happened, as both institutions have remained conservative and adamant to lending to agriculture probably due to the assumed risks and uncertainties associated with agricultural production.

Other constraints which have also contributed to the decline in agricultural production and productivity and must be removed include: lack of storage and other post-harvest technologies; lack of a comprehensive legal framework to guide formulation of consistent policies; poor marketing information, lack of capacity by the private sector to take over functions previously performed by the state before liberalization; inadequate integration and coordination of activities by major players within the sector including the various Government Ministries, farmers' organizations, private sector, donors and NGOs, inadequate high yield crop and livestock varieties, and high input costs especially animal feeds (GoK, 1986; Nyangito *et al.*, 2001; Eicher, 1988; Gitu & Short, 1990). These constraints must be removed if agriculture productivity is to be increased. In addition, there is need to improve macro-economic performance which would enhance domestic saving rates to promote capital formation for wealth creation and economic growth.

In summary, the causes of food insecurity in Kenya include low agricultural productivity, inadequate infrastructure, limited well-functioning markets, high population pressure on land, inadequate access to appropriate technologies by farmers, effects of global trade and slow reform process among others (A paper presented during a conference on assuring food and nutrition security in Africa by 2020 in 2004 in Kampala – Uganda). In short, low political support and non-performance of policies have affected agricultural growth. Kenya's leadership must play its part in guiding agricultural development than hitherto. It must drive agricultural development process and must provide political support, which is so vital for a

rapid and sustained growth process. However, the Kenyan government has tried to put various policies in place, but still more need to be done.

Policy Framework

Food pricing, marketing and distribution policy

The food prices have been liberalized. However, to protect farmers from extreme fluctuations in their returns, minimum prices should be maintained for maize, wheat, rice and sugar cane based largely on import disparities. Targeted assistance should be given to vulnerable groups such as school children, disabled, lactating mothers in food deficient areas and street children. Food aid such as famine relief should continue to be given to families affected by drought and other calamities. Non Governmental Organizations need to assist the government in targeting food assistance to needy groups. A training and financial assistance programme ought to be put in place for commodity dealers to enable them to take over successfully storage, marketing and distribution of cereals from National Cereals and Produce Board.

The pastoralists need to be assisted in terms of marketing their produce through encouraging private entrepreneurs to set up slaughter houses and strengthening the Kenya Meat Commission. The licensing of other milk processing plants to reduce the monopoly of Kenya cooperative societies is necessary. There was the plan of maintaining rural roads to facilitate the marketing and distribution of food. Marketing information system will also be improved to disseminate more widely up to date, market information to assist farmers, trades and consumers.

Agricultural Inputs Policy

The objectives of the government agricultural and livestock are to ensure that adequate and quality inputs are made available to farmers. The importation and distribution of fertilizer was liberalized in 1991. However, the prices of fertilizer have been going up hence the need for a fertilizer policy which will be focused on achieving efficient and timely importation. Measures should also be taken to ensure adequate provision and optimum utilization of other agricultural chemicals and the users educated on the use of these chemicals. The main aim of policy for seeds will be to ensure adequate supplies of high quality seeds of improved varieties of a wide range of crops.

Agricultural and Livestock Credit Policy

The government ought to assist the farmers in getting access to credit facilities. The government should therefore establish an agricultural development bank to replace Africa Finance Cooperation (AFC). The Bank will focus its field operations to the agricultural sector, develop and promote insurance cover programme which will be backed by a loan guarantee fund and a crop and Livestock Insurance Policy. The cooperative Bank of Kenya will strengthen in its lending to small scale farmers.

Policy on Research and Extension

This policy is aimed at achieving the following:

Breeding programmes aimed at continuous increase in the yields of already established crops.

- a) Breeding for disease and pest resistance. Efficient fertilizer use, drought to tolerant crops, oil crops and environmental protection.
- b) Improvement of the genetic potential of animals suitable for and semi arid areas.

The artificial insemination service (AI) was introduced in 1940's. The government should continue strengthening the service by allocating increased levels of resources for training staff, staff deployment and operational funds.

The policy of establishing self sustaining animal health and dipping services need to be maintained by the Government. The policy is to move gradually from subsidized services to increased cost sharing and eventually to full-cost recovery and privatization of some veterinary service.

Food Security Policy

The main objective of food security policy is to ensure an adequate supply of nutritionally balanced foods in all parts of the Country. Food security at the national level will be achieved through:

- a) Increasing food production in all areas.
- b) Promoting drought resistant crops such as sorghum and millet in dry land areas.
- c) Rapid development of the country's irrigation and drainage system.
- d) Establishment a food commodity monitoring and reporting system.
- e) Continued monitoring and forecasting of weather conditions in the main agricultural zones and wider dissemination of food.
- f) Adequate multi commodity strategic reserves.
- g) Liberalization of marketing, including importation of food, subject to variable import duties wherever appropriate.
- h) To achieve good nutrition for optimum health of all Kenyans and to protect vulnerable populations using innovative and cost effective safety nets linked to long term development.

Food security at the level of individual and households will be achieved through the following:

- a) Providing incentives to farmers for improved agricultural production.
- b) Improved extension services on storage methods to reduce post harvest losses.
- c) Improved health and nutrition education
- d) Provision of emergency food relief programmes.

Strategy for Revitalization of Agriculture (2004-2014)

This policy is aimed at transforming agricultural sector into a more commercially oriented and competitive sector, capable of attracting private investment and providing high income and employment. SRA has been revised to Agricultural Development Strategy (2009-2020) to align the sector to vision 2030. The Sessional Paper No.2 of 1994 was meant to intensify the production of food particularly maize, wheat and rice, promote drought resistant crops and

irrigation systems. However, in line with the policy objectives, the government continues to take measures to achieve food security.

Measures to Achieve Food Security in Kenya

The concept note outlining Kenya's Special Program for Food Security (KSPFS) was developed in the year 2002. Poverty Reduction Strategy paper and Kenya Rural Development strategy were used as the building blocks. These strategies describe measures needed to alleviate poverty in Kenya. Many people live in the rural areas where the main activity is agriculture (www.foodsecurityportal.org.kenya).

The food security programme gives specific focus to the more than 15 million absolute poor households living in the rural areas as farmers, pastoralists and fisher – folk. The KSPFS programme for instance, is working towards food security needs of these people by encouraging and supporting farmers and community based organizations (CBO's) in their efforts to improve agricultural production and other income generating activities, for example the ministry of agriculture has been distributing free seeds, providing fertilizer to farmers at subsidized prices. This is one way of supporting the rural farmer.

In June 2003, Kenya government launched an economic recovery strategy for wealth creation and employment in order to halt and reverse further economic degeneration and poverty. To attain the goals stated in Economic Recovery Strategy the ministry of agriculture and livestock developed the strategy for rehabilitation of agriculture 2004 – 2014 that defines ways and means of economic recovery through improved agriculture growth which was launched in 2004. It recognizes the need to mobilize resources to stimulate agriculture growth and need for coordinated resource utilization.

The farmers are also encouraged to identify their priorities and make donations on the services they need to solve their problems. The extensive service providers work closely with them.

Farmers are encouraged to form cooperative societies that are able to market their produce for example the new Kenya Cooperative Creameries (KCC) is greatly assisting the farmers in the rural areas. Demands from farmers fall under different categories; information, technologies, credit, marketing, some of the demands can be provided immediately while others require research or borrowing of technologies from elsewhere or seeking for financial resources, the ministry of agriculture sent a delegation to Israel and borrowed a technology on irrigation, this leads to land reclamation. Within the country there are many successful experiences that have benefited local farmers and communities. The approach of SPFS is in up-scaling such successful experiences. This is best achieved by organizing farmers tours to areas where solutions to their demands have succeeded, farmers learn faster from other succeeding farmers, for example in Ukambani, farmers are doing well using irrigation, an approach that has proved useful and cheap.

Extension advisory services are carried out, here group approach is employed. This enables extension service providers to reach many farmers at a go. It also helps farmers to identify their problems and assess the progress they are making.

The government is encouraging smaller family/households through strengthening the family planning services in Kenya.

The government is trying to tighten the governing structures for accountability and responsibility.

From the afore mentioned, it is evident that the government is trying but still more needs to be done to address the problem of food insecurity. On the part of the farmers, resources are required for capacity building (for both farmers and extension workers) credit and grant to farmers groups. Other measures should include among others;

1. More emphasis on research and extension. The government needs to come up with varieties of seeds that take a shorter period to germinate as compared to the current hybrid that takes about six months to mature.
2. Land wastefulness should be eradicated while encouraging land consolidation especially in the rural areas.
3. Drought resistant crops should be advocated for.
4. Management information systems should be enhanced. This is where the farmers are able to access information on areas such as weather forecast, prices of commodities and other relevant information.
5. A management system to ensure we have enough food that is nutritious for example, beans and fish. This means that eating habits should change. The people should change their attitudes on certain types of food which are nutritious. Most people are used to ugali and have found it hard to change to something else.
6. The agricultural shows should be encouraged with demonstrations at these agricultural exhibitions.

Conclusion and Way Forward

Food security remains a challenge in Kenya in spite of the good policies put in place by the government. In my view, there is need for commitment to the existing policies and strengthening them. There is need to interrogate the weaknesses of the existing policies. Proper coordination of the existing policies should not be overlooked, these to include; allocation of enough funds for implementation of these policies, being accountability and transparency in disbursing the funds. The citizens of Kenya have a major role to play in ensuring there's sufficient and nutritious food. With all these resources put together there's hope for a food secure Kenya.

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