

# Food Availability and Price Stability in Kenya

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**Abstract:** *There is an increasing need to improve upon availability of food in our households. Increased access to food is determined by food production and distribution networks; the financial situation of governments and consumers also determine the ability to get imports or movements of food inside the deficit countries or areas. The aim of the study was to determine factors influencing food availability and price stability in Kenya. This paper analyses secondary literature on the influence of food security on food availability; the influence of new Technology on food availability and food price influence on food availability. The findings indicate that, at Regional level, the number of food surplus countries has decreased thus creating dependency on the global markets and food Aid. At the national level few countries produce enough food to meet their own needs, making the rest dependent on their capacity to purchase imported food. Most households are poor and cannot cover their own requirements, instead rely mainly on food AID. Food distribution network systems are often inadequate to ensure availability of sufficient food at local level. Households in pastoral and marginal cropping areas currently face moderate to extreme levels of food insecurity, due to ongoing drought, increasing staple food prices. Decisions made within households also determine the allocation of income for food and non food consumptions thus affecting the availability of food distributed among the household members. The study recommended that all the stakeholders should improve food distribution network systems to ensure availability of sufficient food at the local level; the government also to provide low cost preservation systems; the government to introduce sustainable livelihood strategies to address food insecurity problems among the poor households.*

**Keywords:** Food availability, Food security, Food distribution, Price stability

## 1. Introduction

Food security entails food availability (through production, markets and safety nets, for example relief food; access through own farm supply, better incomes, and efficient distribution systems; stability of access (value addition for example through processing and storage employment and income stability) and utilization (for instance, safe water sanitation and health facilities) at all times and for all people (World Bank, 1986; FAO, 1983).

Although the percentage of hungry people in the World has fallen between 1981 and 2001, an estimated 852 million people worldwide are still chronically undernourished; among them are 170 million children under five years of age (IFPRL, 2005). In many African countries, food security at both national household levels is dismal. Though, there are more undernourished individuals in India alone than Africa, it is in Africa that one finds the highest prevalence of undernourishment. Whereas, 14% of the global population is undernourished, 27.4 % of the population of Africa is as a whole undernourished (FAO, 2003). In more than a dozen countries, the rate of undernourishment is above 40% while it exceeds 50% in those countries experiencing or emerging from armed conflicts (Todd, 2004).

## 2. Problem Statement

Food availability is determined by food production and distribution networks/ imports. It is obvious that food production in principle, increases food availability. However,

distribution networks (e.g. roads, communication, modes of transport and information systems) contribute greatly to food availability. The financial situation of governments and consumers determine the ability to get imports/movements inside the deficit country or area. Major developments have occurred, particularly in the regional distribution networks, but especially sub-national infrastructure requires further development or maintenance to get food quickly to shortfall areas and groups. The storage and handling capacity is important for physical food reserves, but it is expensive, and local capacities may have decreased due to stagnating yields. (FAO, 2003). The purpose of this study therefore is to examine the factors influencing food availability and price stability in Kenya.

## 3. Objectives of the Study

- Find out how food security influences food availability
- Find out the influence of new technology on food availability
- Determine the influence of prices on food availability and the influence of women on food availability.

## 4. Literature Review

### 4.1 Food security

Food security and economic growth interact in a mutually reinforcing process over the course of development. It is only in modern times that entire societies have achieved food security. Earlier own privileged members of the society were

able to escape from chronic hunger and the constant threat of famine (Fogel, 1991).

Many countries in the developing world, especially in Africa and South Asia, have not managed this escape. In these countries, understanding the factors that cause widespread hunger and vulnerability to famines, and the mechanisms available to alleviate their impact, remain important intellectual challenges (Ravallion, 1987, 1997; Sen, 1981; Dreze and Sen, 1989).

Achieving food security at the societal level is not just the result of one way causation from economic growth generated by private decisions in response to market forces. Improved security stems directly from a step of government policies that integrate the food economic growth with improved income distribution (Timmer, Falcon and Pearson, 1983) with such policies, economic growth and food security are mutually reinforcing. Countries in the East and South Asia offer evidence that poor countries using this strategy can escape from hunger in two decades or less.

Despite the global communities pledge to reach the millennium Development Goals by 2015, goals which pace an end to hunger at the center of the objectives, there is still not widespread understanding that food security needs to be connected directly to economic growth strategies if these goals are to be achieved. The focus is on food security as an objective of national policy. At that level policymakers have an opportunity to create the conditions under which households can gain access to food on a reliable basis through self – motivated interactions between local markets and home resources. The perspective taken is thus, primarily an economic one.

In the context of food insecurity, focusing on interventions that benefit women’s sub – economy can positively impact on food security. Once this condition is met, individuals and households will be in a better position to negotiate a transition to improved welfare. They proposed that empowering food providers will allow them to negotiate their advantage ( Valdivia, 201).

Ramirez, (2002) reported that, households facing the risks associated with rain fed agriculture tend to diversify their sources of income, and that often includes off - farm activities, an emphasis on livelihood strategies begins to address this fact. He further claimed that agricultural development strategies need to become more agroecozone – specific and address multiple livelihood strategies that households employ to increase income. A proxy for permanent household income is the total expenditure, including value of home – produced food.

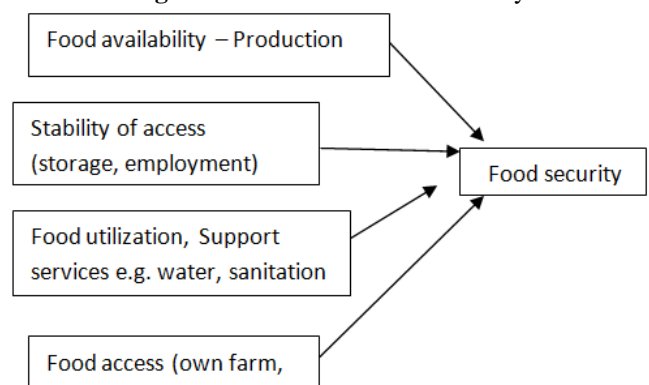
At the regional level, the number of ‘food surplus’ countries has decreased, increasing the region’s overall dependency on the Global markets and food Aid. At the National level, few countries produce enough food to meet their own needs, making the rest dependent on their capacity to purchase imported food (e.g. Namibia and Botswana) or on food Aid (e.g. Lesotho, Malawi and Zimbabwe). At the local level

many households are poor, cannot cover their own requirements, and rely on food Aid. (USAID, 2011)

Food security exists when all people at all times have physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life. Food security has three dimensions;

- Availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports.
- Access by households individuals to adequate resources to appropriate foods for nutritious diet and
- Utilization of food through adequate diet, water, sanitation and health care (United States Development of Agriculture, 1996:2).

Figure 1: Elements of Food Security



Source; adapted from Diru, (2005)

Pretty and Hine, (2007) reported that in developing countries, evidence from research shows that yields from organic systems tend to be staple when converting from low – input systems (those that may have been by-passed by the green revolution) such as those frequently found In East Africa; they can outperform traditional systems and can match and often increase those yields of more conventional input intensive systems over time. Africa was associated with yield increases rather than with yield reductions.

According to Borlag and Gibbon, (2007), organic farming increases access to food in three levels;

- Increased quantity of food produced per farm leads to household food security and all members of the household having access to enough food.
- The production and selling food surpluses at local markets means that farmers benefit from extra incomes increasing their purchasing power.
- Fresh organic produce is available to more people in the wider community. Organic farming enables new and different groups in a community to get involved in agricultural production and trade where previously they were excluded for financial or cultural reasons.

National food security does guarantee household food availability. The government continues to feed section of the population that is chronically food insecure; on average 1

million per year especially in arid and semi – arid areas. In the year 2008 Kenya faced a real challenge of food availability. Failure of short rains in 2007 and long rains in 2008 in lower Eastern, North Eastern and parts of Central provinces, post election violence, spread of livestock disease and the escalating cost of farm inputs contributed to major food deficits in the country due to declining production.

Current assistance programmes are inadequate to mitigate existing and expected food deficits and high malnutrition. In areas of humanitarian access, expanded programming should be implemented to address current and expected food insecurity. However development of food strategies is critical in order to reach affected households in areas with limited humanitarian access.

Households in pastoral and marginal cropping areas are currently the most food insecure in East Africa. These households are facing moderate to extreme levels of food insecurity due to an ongoing drought, deteriorating purchasing power, and in some areas limited access to markets and humanitarian assistance. Following two seasons of average to above average rainfall in most areas, the 2010 October – December rains were extremely poor by some measures, the worst in 30 years – across the regions Eastern sector. January/February harvests completely in most agro pastoral areas. In pastoral areas, poor rainfall has severely limited both livestock consumptions and pasture/water availability. Households purchasing power has also declined across these same drought affected areas (USAID, 2011).

In the context of food insecurity, focusing on interventions that benefit women's sub-economy can positively impact on food security. Once this condition is met, individuals and households will be in a better position to negotiate a transition to improved welfare through empowering food providers which will allow them to negotiate their advantage (Valdivia, 2001).

#### 4.2 New Technology

Modern agricultural methods have brought spectacular increases in productivity – more cereals and animals per hectare, more meat and milk per animal, more food output per person employed. Any farmer with agricultural system with access to sufficient inputs, knowledge and skills can produce large amounts of food. However the majority of the chronically hungry are small – scale farmers in developing countries who produce much of what they eat and often poor and marginalized from input and product markets. East Asia, another third in South Asia, another third is in Sub – Saharan Africa, and 5% in Latin America/ Caribbean and in North Africa (USAID, 2011).

Food distribution networks are often inadequate to ensure availability of sufficient food at the local level (USAID, 2011). This is because most of the transport roads are impassable thus leading to lack of equitable distribution of food; some areas have a lot of food while others die of hunger.

The availability of new technologies, such as improved seeds

and agronomic practices, and investment in infrastructure and policies for market creation, are key factors that facilitate commercialization process. Technological change implies increased productivity. Commercialization implies increased market transactions for capturing the grains from specialization (Von Braun, 1995)

The decisions rural households make with regard to adopting agricultural technologies and practices while keeping subsistence activities in place, are influenced by numerous factors including commodity prices, market development, labor markets perceived risk, and economic returns to land and labor. These variables include; house hold access to food, distress states, and seasonal migration. In other words, such decisions have to do with how much of the household natural and human capital is kept, bartered, sold and bought. The data presented by Von Braun (1995), Ellis (2000), Gladwin et al (2001), and others, emphasizes the need to address multiple household income generating strategies as the entry point, rather than agricultural intervention per se.

Agricultural productivity remains important in nonetheless. However, it is ironic that technological innovations in agriculture is successful, it contributes to society increasing food supplies at lower prices and by contributing labor to non- agricultural sectors; in other words, the benefits may not be captured by agricultural households (mundlack, 1999).

#### 4.3 Commercialization / Price influence on food availability

The World Bank (1986), Reported that, the European Union was the top food importer in 2005, followed at a distance by USA and Japan. Food is traded and marketed on a global basis. The variety and availability of food is no longer restricted by the diversity of locally grown food or the limitations of the local growing season. Between 1961 and 1991, there was a 400 increase in a worldwide food exports. Some countries are now economically dependent on food exports, which in some cases account for over 80% of all exports.

In the pre - modern era, the sale of the surplus food took place once a week when farmers took their wares on market day into the local village market place. Here, food was sold to grocers for sale in their local shops for purchase by local consumers. With the onset of industrialization, and the development of food processing industry, a wider range of food could be sold and distributed in distant locations.( USDA, 1996)

It was reported on March 24th, 2008, the consumers worldwide food rising prices. Reasons for this development include changes in weather and dramatic changes in the global economy, including higher oil prices, lower food reserves, and growing consumer demand. In the long term, prices are expected to stabilize, farmers will grow more grain for both fuel and food, eventually bring prices down (FAO, 2005). Economic accessibility of food is determined by the price of food and by the purchasing power of consumers and

governments. The price of food resources firstly determines the amount consumed. Obviously, the more expensive food is, the less the consumer can purchase. Low food prices are attractive to consumers, but are known to discourage agricultural production and productivity, as farmers fail to meet the costs of inputs and make profit. Prices are determined by the efficiency of production (based on comparative advantages and good production techniques) and market conditions or government regulations. Secondly, the purchasing power of households and governments and competing demands determine their capacity to purchase food. The rising health costs are an example of competing demands for scarce funds at the household, national and regional level. Poorer governments and consumer groups do not have access to sufficient food; they rely on food aid or face malnutrition, if no proper remedial action is taken.(USAID, 2001).

The Malawian case showed that the proportion of households in each income decile selling maize was higher in the bottom decile. However, as sellers, they sell early in the season when the prices are at their lowest, and as buyers, they buy in the deficit season, in local markets or villages when prices are highest. Similar experiences have been reported from Kenya's maize sub – sector (Mbithi, 2000)

Kenya's economic liberalization, which began in the early 1980's opened both input and output for forces of demands and supply in most agricultural commodities. Liberalization has led to increased input sources, increased output market channels, wide variations in both input and output prices and wide fluctuations in the commodity production ( Freeman and Omiti, 2003; Nyangito, 2001). Liberalization has also increased producer's options on maize marketing channels – co operatives, private millers, roadside markets etc. over this period, the horticultural sub – sector, experienced rapid growth rising mainly from changing dietary preferences, increased participation of women in the labor market, and emergence of various market outlets for fresh fruits and vegetables supermarkets, whole sellers, assemblers.etc ( Kantika and Lumpkin, 2005)

Milk market has undergone a major transformation since its liberalization in 1992.this ended KCC monopoly in urban areas and opened up the dairy industry to private sector investors in input provision and marketing, with resultant redistribution of socio – economic pay – offs to smallholder farmers, market actors and consumers (Omiti and Muma, 2000; Omore et al 1999; Stool and Shapiro, 1994).

Although the 2010 long – rain staple food harvests from Ethiopia and Kenya were above normal, poor market infrastructure and high marketing costs have constrained lower price transmission from surplus areas, exposing pastoralists to high and increasing price of local staple food due to high transactions costs. This situation is exacerbated this year ( 2011), by a above – average fuel prices which have led to significant increases in transport costs, particularly to markets in isolated areas. Prices of rice and sugar that comprise other important diet commodities have remained high.

#### 4.4 Influence of decision making on food availability

The endogenous consequences of commercialization for consumption and nutrition relate to decision making within households. One set of decisions affects the allocation of income for food and non- food consumptions. Another set concerns how the available food and other consumption items are distributed among household members and how they spent their time, (Von Braun, 1995).

### 5. Methods

Data for this review was obtained from the research reports, articles, conference reports and abstracts. Data concerning food availability/sustainability was obtained globally, regionally, nationally and locally. Reports and journals were searched from the internet and University libraries.

## 6. Results and Discussions

### 6.1 Food Security

The reviewed literature reveals that, food security and economic growth interact in a mutual manner. This is because; the societies and countries that have achieved food security are also economically stable. It has been discovered that privileged members of the society normally escape chronic hunger and constant threat of famine (Fogel, 1991). In addition, Countries in Africa and South Asia have not managed to escape from food insecurity since; they have been unable to alleviate factors that cause widespread hunger and vulnerability to famines which pose great challenges to food security.

The study also discovered that, to achieve food security, the government should come up with policies that integrate food economic growth with improved income distribution (Timmers, Falcon and Pearson, 1983). It has been discovered that food production both at national and local level decreased, thus making most countries depend on global markets and food AID (USAD, 2001). The majority of the chronically hungry people are the small scale farmers in developing countries (Kenya included). National food security guarantees household food availability as indicated by Borlag and Gibbon (2007). It was also discovered that, one way of improving food security, in our households is by focusing on interventions that benefit women's sub-economy through empowerment. As recommended by Valdivia, (2001). It was also discovered that, multiple income generating strategies can improve food availability in households but not only depending on agricultural interventions (Ellis, 2000). However, agricultural productivity remains important.

### 6.2 New Technology

Food availability is also determined by new technologies such as improved seeds and agronomic practices, and investment in infrastructure and policies for market creation (Von Braun, 1995). The study also discovered that, insufficient of food availability in rural households was caused by poor distribution network systems at the local

level (USAID, 2001).

### 6.3 Food Prices

The literature also revealed that, Kenya's liberalization has led to increased input sources, increased output market channels, wide variations in both input and output prices, and wide fluctuations in seasonal commodity production (Freeman and Omiti, 2003).

Economic accessibility for food is determined by the price of food and by purchasing power of the consumers and the governments. The more expensive food is, the less the consumer can purchase. Currently, there is worldwide food rising prices due to weather and dramatic changes into the global economy, including high oil prices, lower food reserves and growing consumer demands (FAO, 2005).

### 6.4 Decision making

Decision making within households was discovered to have an impact on the allocation of income for food and non-food consumptions and they also influence food distribution among the household members (Von Braun, 1995).

## 7. Conclusions

It was considered that the agriculture is an important but not a sole condition for the food availability. There is need to address multiple household income generating strategies that will serve as the entry point to a wider system that ensures food security.

The major constraints of ensuring food availability were Political related; lack of proper policies related to economic growth and with improved income distribution and those related to lack of inputs. These inputs include infrastructure, credit, sustainable and appropriate technologies. The technological issues included the need for low cost preservation systems, improving the efficiency of the food chain, training use of sensitivity analysis in priority setting, technology transfer, risk management for small scale farmers, use of appropriate biotechnology under African control and optimizing the use of indigenous foods and technologies.

## 8. Recommendations

- 1) Food distribution network systems should be made adequate by the Government to ensure availability of sufficient food at local level.
- 2) The Government should also provide low cost preservation systems, improve the efficiency of food chain and action oriented training programs to small scale farmers to improve their food production.
- 3) Informed decisions concerning food and non-food consumption items should be wisely made within a household since they affect family income, thus leading insufficient availability of food.
- 4) The Government should also introduce sustainable livelihood strategies to address food insecurity problems among the poor household.
- 5) Farmers should be encouraged to grow more grains for

both fuel and food in order to stabilize the prices.

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