

## Food Insecurity in the East African Region: Policy Dilemma

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### Abstract

*The countries in the East African region are not able to produce enough food for their population, thus there is high child mortality and a high proportion of people who cannot meet their energy (calorie) requirements. An eclectic approach is used to highlight the various policy interventions that have been used in the region to mitigate food insecurity. In an effort to assure food security countries in the region have applied a cocktail of policies. Broadly, the policy interventions are divided into three, those that focus on cushioning the consumers, those that focus on ensuring that the producers stay in production and those that facilitate trade. These interventions have been carried out intermittently, sometimes with abrupt changes in speed and direction, therefore do not achieve much, because they are costly and unsustainable thus the region continues to suffer from food insecurity. There is need for paradigm shift in the policy direction to focus more on improved food production and productivity, agro-processing and regional trade. In addition, development of technological, infrastructural, and marketing innovations by both the public and private sector should be encouraged. Governments in the region should endeavour to provide the necessary economic infrastructure and policy commitments to improve food security region.*

### Introduction

The East African Community region is frequently affected by food shortages and pockets of hunger due to a complex mix of factors including; unstable social and political environments, macroeconomic imbalances in trade, natural resource constraints, natural disasters, poor food distribution network within the member countries and inadequate food trade between the member countries. These countries also experience high weather variability which has been compounded by

climate change and the absence of good governance. (Omiti, *et.al.*, 2011; Smith *et al.*, 2000; Nile Basin Initiative, 1998). The region has a huge untapped potential to produce enough food for themselves and surplus for trade (United Nations, 2010).

Food security is multidimensional and encompasses food availability, accessibility and utilization to sustain a healthy and productive life at individual, household, national and regional levels, at all times (FAO, 1996). Inferring to both physical and economic access to food that is nutritious and meets people's dietary and preference needs at both household and individual level. Per capita availability of food is influenced levels of food supply and demand such as factors of production (land, labour and capital), population growth, price levels, average levels of disposable income, tastes and preferences (Omiti, *et.al.*, 2011; NEPAD, 2009; FAO, 1996). In the region a mired of constraints Many countries in the Nile basin region are structurally unable to escape from food insecurity because there is inadequate food supply resulting from a complex mix of factors including; unstable social and political environments, macroeconomic imbalances in trade, natural resource constraints, natural disasters (e.g., drought, floods, pests such as locusts, disease) and the absence of good governance (Pingali *et al.*, 2006; Smith *et al.*, 2000).

The East African Community Food Security Action Plan has been developed to address food insecurity in the region. It forms the initial step of implementing the provisions of the EAC Treaty as set out in Chapter 18 Articles 105 -110. It guides the development of strategies and programmes and projects and has been formulated in the context of the CAADP and NEPAD framework. In this connection the EAC Climate Change Policy was to be developed so as to address the adverse effects of climate change in the region (EAC, 2011).

### **Food insecurity in the EAC region**

The region has been faced with persistent and chronic food insecurity due to several compounding factors. First there has been persistent slow or rather inadequate growth of the agricultural sector. Secondly, most soils in the region are infertile due to prolonged and intensive land use, shortening fallow periods that used to restore fertility and productivity. Thirdly, the production systems practiced in the region are highly dependent on rainfall and are reliant on traditional factors of production (land, labour and capital). Farmers have little or no risk mitigation measures against the variable weather conditions thus exposed to failure in both crop and livestock production systems, which in turn, affect the proportion of food that is produced, consumed and marketed (Omiti *et al.*,

2011; Omiti *et al.*, 2008; Smith *et al.*, 2000). Fourthly, pests and diseases in both crop and livestock systems cause substantial damage during production and storage processes. These constraints tend to aggravate the risk averse behavior of farmers (Barrett *et al.*, 2005; Freeman *et al.*, 2003).

The countries in the region import food to meet domestic demand. Some of these are sought as food aid). An increased food import bill tends to be the opportunity cost for other imports such equipment or investments in research and technology. And the same time tends to hinder the developments of food markets (Barrett, 1999; Yu et al, 2010). Population growth is a salient and critical factor that will have implications on food availability; there are implications for national planning and socio-economic development including food security. No effective policies are in place to cope with the unprecedented pressure in the region. Natural resources especially land and water are increasingly diminishing, implying that technology and innovation will have a big role to play in ensuring that agricultural commodities are produced at higher yield per unit of land, water, energy and time (Omiti, et.al., 2011).

This paper explores the policy dimensions of chronic food insecurity in the East African region, by reviewing the various policy options that the governments have put in place to enhance food production capacity and trade to feed the increasing human population and support sustainable livelihoods in the five East African countries.

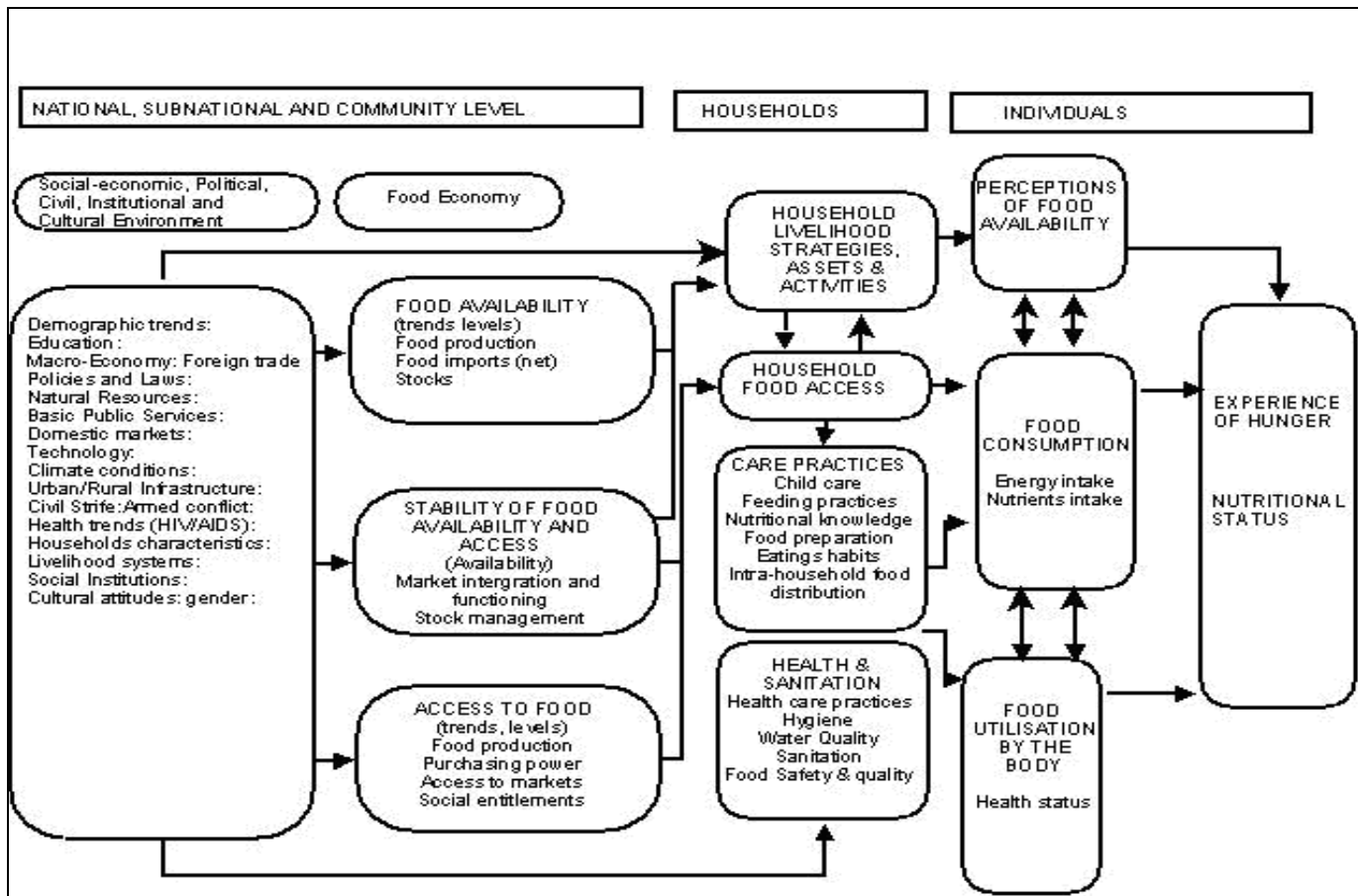
## **Conceptual Framework**

Food security involves a multiplicity of factors and institutions including implementation of policies, strategies and programmes to guarantee its availability, accessibility, effective and efficient utilization by all people at all times (FAO, 1996). Food availability encompasses domestic production, import capacity, available food stocks and food distribution systems in a country or region. Adoption of modern agricultural technologies plays a pivotal role in increasing production and productivity which is critical for achieving a food supply-demand balance. Access to food is essentially determined by the purchasing power (i.e., incomes and wages), poverty level, prices of food, and the distribution, transport and market systems. Effective utilization of food is influenced by people's culture, access to knowledge about proper nutrition, energy and clean water. Figure 1 shows the conceptual relationships embodied in assuring food security at a multi-sectoral and multi-dimensional level. For food security to be achieved, relevant policy recommendations and

implementation on food and livelihood security is a prerequisite (United Nations, 2010; NEPAD, 2009; Tschirley *et al.*, 2008; Majid, 2004).

Food markets in the East African countries are thin and weak, there aren't sufficient domestic demand or export possibilities to stimulate growth in food production. Markets play a critical role in ensuring that the food produced is distributed (Omiti *et.al.*, 2011). There is need to increase food production and productivity. Proactive policies will need to be applied now to exploit the agriculture potential and trade opportunities in the region to meet future food demand (Tshirley *et al.*, 2008).

**Figure 1: Food Security as a Multi-dimensional and Multi-sectoral context**

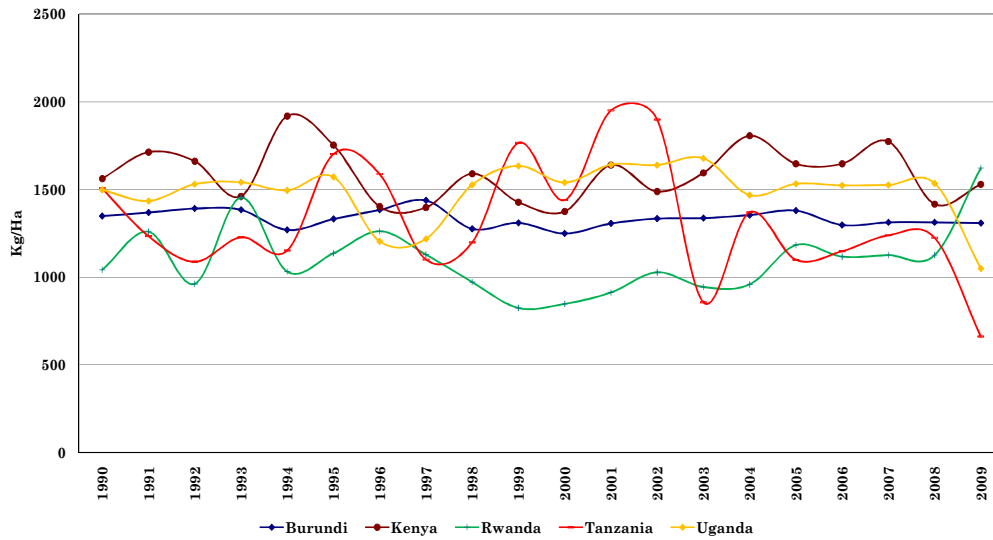


Source: Adapted from NEPAD (2009) and Benson (2004)

### Food production in the region

Average per capita food production in most countries of the region has not been enough to feed growing human population. The level of productivity for the different food crops is critical since the food basket is a mix of essential foodstuffs, where sources of energy (cereals) are critically important. As an illustration, Figure 2 shows the trends in cereal yields in the region between 1990 and 2009 it is evident that overall productivity has been declining. Uganda is generally self-sufficient in most of the staples, except rice and wheat. Uganda supplies about 5% of Kenya's maize requirement in addition to exporting to Rwanda, Burundi and Tanzania, Uganda can potentially serve as a grain basket for the region. Tanzania is a net importer of cereals with a productivity of 1,350 kg/ha (FAO, 2010; Pauw, 2010).

**Figure 2: Cereal yields (Kg/ha) in the East African countries, 1990-2009**



Source: FAO Statistics Division, 2010

The low cereal productivity in the region is partly attributed to limited adoption of high-yielding varieties and low usage of improved technologies (e.g., hybrid seed, chemical fertilizer). Burundi, Uganda, and Rwanda have low fertilizer use of less than 3 kg/ha. With hindsight on attitudes to risk under rainfed agriculture, issues of water-efficient technologies have become increasingly important due to the resultant pollution and salinity due to high fertilizer use (Khalifa, 2010; Omiti *et al.*, 2008).

Roots and tubers are main staple foods in Rwanda and Burundi. Kenya has an average of about 10 Tons/Ha with the other the countries are producing between 4 Tons/Ha and 8Tons/Ha (FAO, 2011). Except for Irish potatoes, markets for roots and tubers are not well developed on a national or regional scale due to the bulkiness and perishability of these food commodities (Omiti, *et.al.*, 2011).

Pulses (e.g., beans, peas) are an important source of protein especially for rural population in most Sub-Saharan African countries, which may not frequently afford the relatively more expensive meat (e.g., beef, chicken). In the region productivity ranges from 0.4Tons/Ha in Kenya to 0.7Tons/Ha in

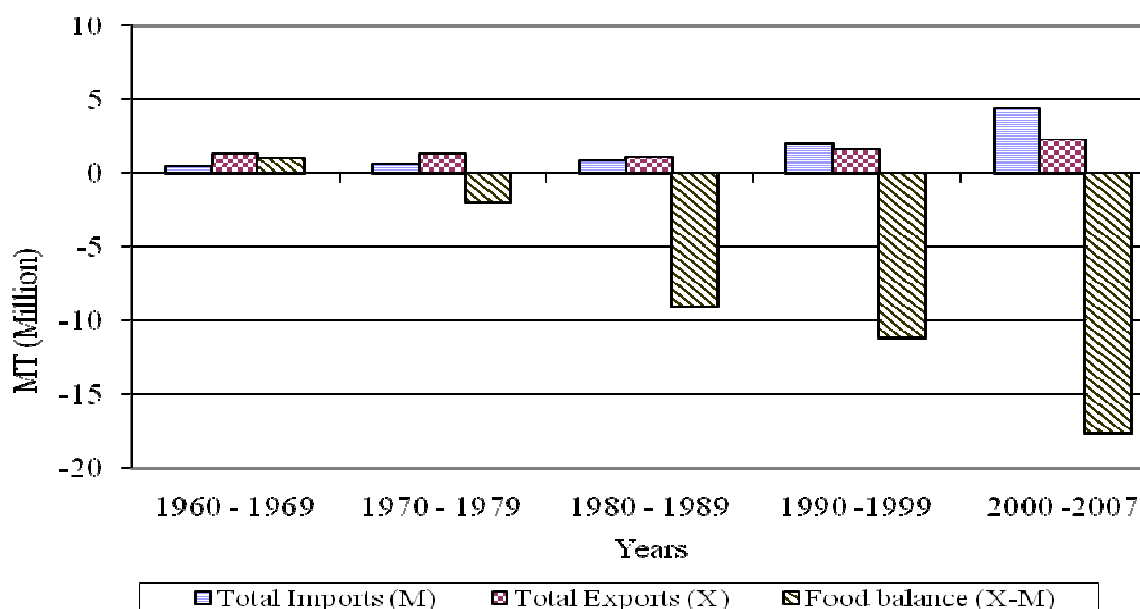
Rwanda, Tanzania and Uganda. Productivity of pulses has been increasing annually, Burundi achieves about 0.9Tons/Ha (FAO, 2011). A major challenge to increasing pulse production lies in the fact that most of pulses are often intercropped and therefore proper crop husbandry is not often practiced widely.

Livestock production systems range from subsistence to intensive commercial production. The countries in the region have different production systems that range from nomadic grazing, through small-holder farming based on animal traction and growing of legumes and forage to enhance livestock production and to increase soil fertility and crop yields. Average productivity ranges from 550 kg/animal in Kenya compared to other countries which recorded average productivity levels in the range of 150–250 kg/animal (FAO, 2011). These low levels of performance demonstrate that the production efficiencies especially in nutrition and feeding.

### **Food imports into the region**

Intra- regional trade between the East African countries is relatively small and a good portion is not accounted for, this remains un-exploited. The insignificant volume of intra-regional trade has been attributed to various policy, institutional, non-tariff barriers to trade that inhibit movement of goods and services from one country to another. The signing of the EAC Customs Union Protocol in 2004 set forth an ambitious agenda aimed at further integrating the Member Countries into the global economy, through deeper regional integration. The Parties agreed to eliminate, by 2010, internal tariffs based on the principle of asymmetry and set a three-band Common External Tariff (CET)<sup>2</sup>. Rules of origin have also been agreed to accord EAC preferential tariff treatment to goods originating from EAC Members. The adoption of the EAC CET has resulted in an average applied tariff of 11.6%, compared to 16.8% for Kenya, 13.5% for Tanzania and 9% for Uganda before the customs union came into force (EAC, 2009). However, by reason of being classified as sensitive items, the liberalization trend is not reflected in the agreed CET for staple food products. On average, food imports surpass food exports suggesting that the region is becoming increasingly food-deficient (Figure 3), which is an important policy.

**Figure 3: Average Annual Balance of Food Imports and Exports of East African Countries**



Source: FAOSTAT, (2011)

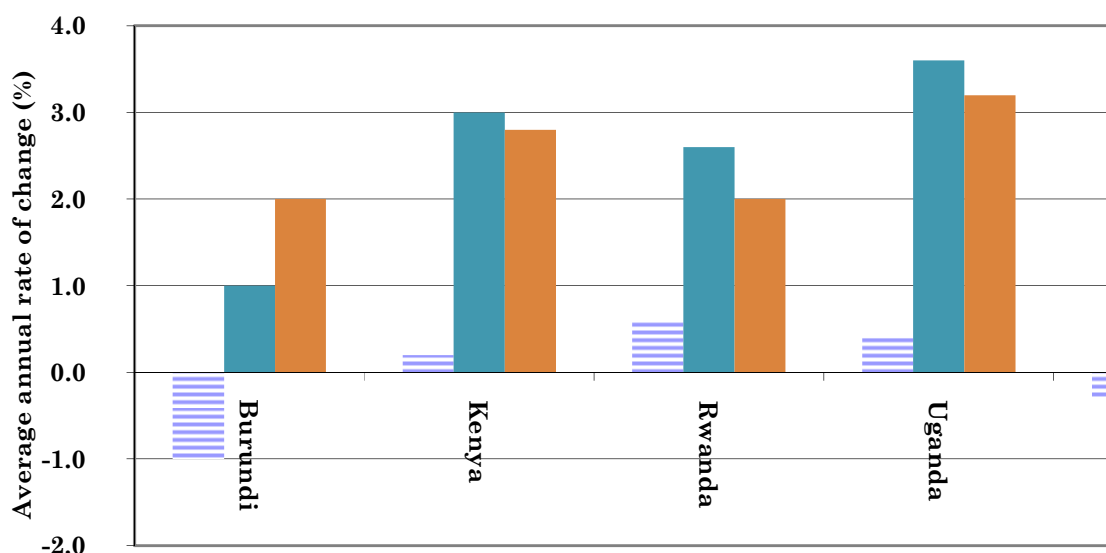
When the share of food aid in total consumption is taken into account, Burundi recorded 5 percent of total consumption was from food aid (World Bank, 2011). Besides maize, other staples imported during the same period were wheat and rice there is a need to expand wheat and rice farming in the region to reduce heavy dependency on imports.

### **Urbanization and per capita supply**

Urbanization is driving the socio-economic development of most countries in the region. Tanzania 25 percent of its population in the urban areas, while Kenya has 21 percent, Uganda 12 percent (World Bank, 2011). Comparison with other countries the average annual change in food availability per person (Figure 4) is declining for Burundi, and Tanzania indicating high food insecurity. The growth in food availability and population growth shows positive growth in Kenya and Uganda where food availability per person has been growing at about 1% annually, for the last two decades (1990-2010).



**Figure 4: Average annual rate of change (%) in food consumption and population growth 1990 - 2005**



Source: FAOSTAT, 2011

### Addressing the Policy Dilemma of Food Insecurity

Policies in response food and nutrition security have been taken by countries in the region. These can be grouped into three main groups i) Trade-oriented policy responses that use policy instruments, such as reducing tariffs and restricting exports to reduce prices and/or increase domestic supply. ii) Consumer-oriented policy responses that provide direct support to consumers and vulnerable groups in the form of food subsidies, social safety nets, tax reductions and price controls, among others; and iii) Producer-oriented policy responses intended to support farmers to increase production, using measures such as input subsidies and producer price support programmes to facilitate implementation of food security policies as well as promote agricultural growth Table 1 (FAO, 2009).

**Table 1: Some food security policy interventions in the Eastern African region**

<b>Policy Intervention</b>	<b>Burundi</b>	<b>Kenya</b>	<b>Rwanda</b>	<b>Tanzania</b>	<b>Uganda</b>
<b>Consumer oriented measures</b>					
Reduce taxes on food grains	√	√		√	√
Cash transfers	√	√			
Price controls and/or consumer subsidies		√	√		
Food stamps or vouchers	√			√	
Food-for-work	√	√			
Nutritional and Health Assistance			√		√
<b>Producer oriented Measures</b>					
Agricultural input subsidies		√			
Increase food supply using food grain stocks		√		√	
Input Vouchers			√	√	
Input distribution			√	√	
Finance/credit	√	√	√	√	√
Insurance Schemes		√			
New Land Policies		√	√		
Institutions		√	√	√	√
Knowledge & Extension		√	√		
Information collection systems			√		
<b>Trade oriented Measures</b>					
Increase food supply via imports		√	√		
Reduce food import tariffs		√			
Lower import tariffs for agricultural inputs		√			
Food export restrictions		√		√	√

Source: (FAO, 2009; Karugia *et al.*, 2009)

### **Consumer oriented measures**

Increasing public food stocks and providing consumer subsidies are a common measure taken in the region. However, these have had limited influence on the grain markets because of the amounts made available through the national grain reserves. All the countries in the region have reduced or eliminated food tariffs or taxes with the exception of Rwanda. The impact of tariff reduction on food prices depends on the extent of the reduction, however generally tariffs have been declining as a result of multilateral, regional and bilateral agreements. Kenya and Rwanda have put price controls in an attempt to keep the price low for consumers. Enforcing price controls is costly and difficult in case there is no adequate public stock or imported supply to meet demand at government-fixed prices. Prices fixed at low levels are also likely to discourage domestic production and create a black market.

Social safety nets have been used to dampen the social impact of the crisis and to avert starvation and malnutrition of most vulnerable groups in both urban and rural areas, usually in form of targeted cash-based transfers and food access-based approaches. Food assistance includes direct food transfer, food stamps or vouchers and school feeding. The latter has been used to keep children in school.

### **Production oriented measures**

Production oriented measures include initiatives to support producers through non-market and market mechanisms such as introduce or expand input supply (mainly fertilizer) subsidy programmes. In the region as earlier highlighted fertiliser use is still low thus production is constrained by the high cost of fertilizer making it unaffordable and inaccessible especially to smallholders. As a result in the region, together with the private sector projects have been set up to increase the access to inputs by supporting stockist right at the local level a good example is the Kilimo Biashara project in Kenya (MoA, 2010). Market information and extension service are provided for farmers by the respective government ministries and Non-governmental organisations to boost production and productivity. Crop and livestock insurance is a new initiative in the region where private insurance companies are now providing weather based insurance portfolio for a variety of crops.

## **Trade oriented measures**

The most commonly used trade measure in the region is the export bans this practice results in the separation of surplus food production zones from the deficit markets. A report by the World Bank on maize marketing in East Africa, showed that the export bans lead to lost opportunities for farmers and traders, and as a result there was reduced investment in production in subsequent seasons leading to an overall reduction in food production. The EAC is in the process of development, of a regional legal, regulatory and institutional framework for EAC SPS Protocol. The principal objective of the EAC SPS Protocol is to enforce sanitary and phytosanitary measures in order to promote trade.

## **Cost implications**

The implications of the different cocktail of policy response to ensure food security usual come with huge cost implications. In particular there is usually the challenge of financing subsidies, social protection programmes, as well as food and fuel imports. Most governments resort to using their foreign exchange reserves and/or domestic borrowing (United Nations, 2010).

The total expenditure on food subsidies have been projected to exceed 1 percent of GDP in Burundi. The total transfer cost (including agricultural subsidies). In Malawi, the transfer cost, estimated at about 2.6 percent of GDP (approximately 15 percent of government expenditure) (FAO, 2009). This suggests that there needs to be a paradigm shift in policy interventions in order for them to be effective. The best bet policy option would be one that assures household access to food while, at the same time, increasing food supply and improving the livelihoods of both the producers and consumers (Omiti, *et.al.*, 2008).

## **Suggestions to ensure food security**

### **Food production and productivity**

The region needs to focus on food production and productivity, determinants of achieving food production revolve around land, access to technology, credit, infrastructure (including water), and markets. The region should prepare to embrace an *African Green Revolution*. This will mean that focus will be on increasing output per unit area through use of improved seed, improved breeds, integrated pest and crop/animal management, adoption of biotechnology and increased input use e.t.c. Focus should also be on increased cropping frequency this can be achieve through irrigation and varietal adaptations. The rate of adoption of these technologies should be enhanced through the

use of better delivery mechanisms and systems. Each country in the region should focus on exploiting the resources that are at their disposables implying that different interventions to assure food security will be implemented.

### **Post harvest Technology**

Post harvest technology is critical for the region because it allows for arbitrage, especially storage and value addition technology. The governments in the region should nurture the development of technological, infrastructural, and marketing innovations in crop, fish and livestock production through investments, governance structures and political goodwill.

### **Encourage regional agricultural trade**

Regional trade provides an opportunity to stabilizing food supply and food prices. This is in line with the opportunities identified in the CAADP framework, which highlights the importance of trade infrastructure, market access, and cross-border trade to attain food security (NEPAD, 2009). East Africa Customs union protocol should be enforce to promote trade through low preferential tariff rates and investments. The removal of various restrictions on trade will reduce costs, thereby facilitate increased cross-border flow of agricultural commodities. The region should leverage on the trading blocks that exist i.e. the Eastern and Southern African (COMESA) and the East African Community (EAC).

### **Conclusion**

For the region to assure food security going forward the aim would be to formulate/ implement policies that;

- i. Develop strategies that focus on food self sufficiency instead of food security
- ii. Increase food production and productivity
- iii. Buffer domestic prices from world prices
- iv. Negotiate trade agreements as a region block and enforce regional trade agreements

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