ReSAKSS ECA East & Central Africa
Regional Strategic Analysis and Knowledge Support System
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April 2009

Responding to Food Price Crisis in Eastern and Southern Africa: Policy Options for National and Regional Action

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Abbreviations and Acronyms

AfDB	African Development Bank
AGMARK	Agricultural Market Development Trust
AGOA	African Growth and Opportunity Act
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
ASARECA-AGROBIO	ASARECA Central Africa-Agro-biodiversity and Biotechnology
AT-Uganda	Appropriate Technology-Uganda
AU-NEPAD	African Union-New Partnership for Africa's Development
CAADP	Comprehensive Africa Agriculture Development Programme
CGIAR	Consultative Group on International Agricultural Research
CIMMYT	International Maize and Wheat Improvement Centre
CNFA/RAISE	Citizens Network for Foreign Affairs/Rural Agriculture Input Supply Expansion
COMESA	Common Market for Eastern and Southern Africa
CPI	Consumer Proposed AfDB corridors and the trans-African road network price index
DFID	Department for International Development
DRC	Democratic Republic of Congo
EAC	East African Community
EAGC	Eastern Africa Grain Council
EASCOM	Eastern Africa Seed Committee
ECAPAPA	Eastern and Central African Programme for Agricultural Policy Analysis
ECX	Ethiopia Commodity Exchange
EDRI	Ethiopian Development Research Institute
EPA	Economic Partnership Agreement
ESA	East and Southern Africa
ESRF	Economic & Social Research Foundation
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FEWSNET	Famine Early Warning Systems Network
FPI	Food price index
GDP	Gross domestic product
GHA	Greater Horn of Africa
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDPs	Internally displaced persons
IFPRI	International Food Policy Research Institute
IITA-FOODNET	International Institute of Tropical Agriculture–Foodnet
ILRI	International Livestock Research Institute
IPCC	International Panel on Climate Change
KIPPRA	Kenya Institute for Public Policy Research and Analysis
NARO	National Agricultural Research Organization
NGOs	Non-governmental organizations
ODA	Official development assistance
PMA	Plan for Modernisation of Agriculture
PNSP	Productive Safety Net Program

PVP	Plant Variety Protection
RATIN	Regional Agricultural Trade Intelligence Network
REC	Regional economic community
ReSAKSS-ECA	Regional Strategic Analysis and Knowledge Support System–East and Central Africa
R&D	Research and development
SADC	Southern Africa Development Community
TOSCI	Tanzanian Official Seed Certification Institute
U.S.A.	United States of America
USAID/EA	United States Agency for International Development/East Africa
VAM-M&E	Vulnerability and Analysis Mapping-Monitoring and Evaluation Unit
VAT	Value added tax
WFP	World Food Programme

1. INTRODUCTION

Global food prices increased at unprecedented rates in 2007 to the latter part of 2008 to levels higher than the price spikes of 1995–1996. Although this trend later reverted into a downward price spiral on the global scene, in Eastern and Southern Africa, country level food price indices show a continuing albeit less steep upward trend by January 2009. The Food and Agriculture Organization of the United Nations (FAO) food price index (FPI) increased by 56% between March 2007 and March 2008 (Figure 1). Unlike in the past where prices of only a few commodities were affected, the recent price surge affected most food commodities. Prices of most of the world's key cereals, oilseeds, dairy products and meat increased substantially. Rising food prices had adverse effects in many countries, with significant hunger, poverty and macro-economic implications. Urgent and coordinated action is required at country, regional, and international levels focusing not only on urgent short-term responses but also on comprehensive medium- to long-term solutions.

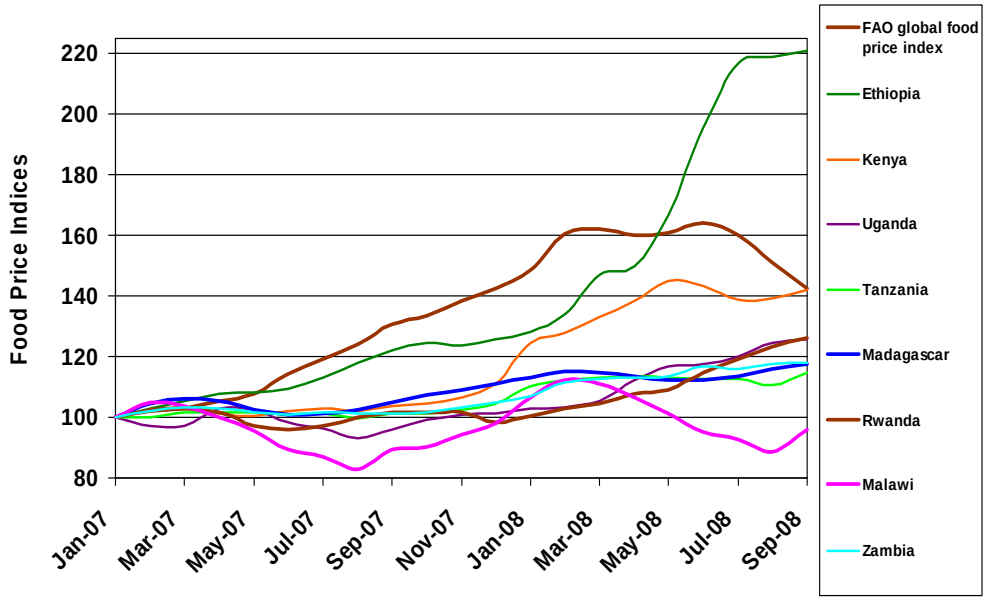
This paper addresses the magnitude and implications of food price changes in national and regional markets in Eastern and Southern Africa (ESA) with a view to provide the evidence base for effective policy action. Specifically, the paper:

- analyses trends and outlooks in country and regional data, presents evidence on the regional food situation, and explores the nexus between high domestic food prices and global food prices,
- highlights regional and national dimensions of food price increases and how they are related to food security in the region, and
- provides practical short-, medium- and long-term options for governments and other stakeholders for addressing the problem posed by the food price crisis.

2. DRIVERS OF GLOBAL FOOD PRICE INCREASES

A number of demand side and supply side factors have been identified as the key drivers of the 2007–2008 surge in global food prices. The key factors responsible for increasing demand for food are rising incomes, growing uses of food grains for biofuel production and animal feed, increasing world population, and urbanization. On the supply side, high agricultural input prices (especially fertilizers and fuel), reduced world stocks, reduced exports, and declining agricultural resources have been associated with low supply of food commodities.

Figure 1 : Evolution of global Food Price Index and Food Price Indices of selected ESA countries



Sources: FAO (2008a); Ethiopia Central Statistical Agency (2008a); Institute of Statistics and Economic Studies of Burundi (2008); Central Bank of Burundi (2008); Central Bank of Kenya (2007); Kenya National Bureau of Statistics (2008); Tanzania National Bureau of Statistics (2008); Central Bank of Madagascar (2008); National Statistical Office of Malawi (2008); Central Statistical Office of Zambia (2008); Uganda Bureau of Statistics (2008a); National Institute of Statistics of Rwanda (NISR) and Ministry of Finance and Economic Planning (2008).

Many developing countries have experienced high economic growth in recent years. Developing countries in Asia, especially China and India, continue to show strong sustained growth. Real gross domestic product (GDP) in the region increased by 9% per annum between 2004 and 2006. Sub-Saharan Africa also experienced rapid economic growth, with many countries reporting economic growth of about 6% per annum in the same period. This growth in incomes is a key driver of change on the demand side of the world food equation. The rise in incomes is contributing to changes in preferences towards high value commodities such as vegetables, fruits and livestock products. For example, per capita demand for meat and dairy products has been rising steadily over the past two decades in China and India with increasing incomes. This rise in demand for animal products is further fueling the demand for staple grains to supply animal feeds, contributing to rising grain prices.

Moreover, increasing oil prices have led some countries to divert grain to the production of biofuels, further fueling the rapidly rising grain prices. In the U.S.A., which supplies more than 60% of world maize exports, a quarter of the maize crop (11% of the global crop) went into biofuel production in 2008. The country is spending US$ 7 billion a year supporting ethanol which consumes 20% of American corn. The European Union (EU) has set a target of 10% of its transport fuel to come from biofuels by 2020 (Evans 2008). Available evidence shows that the demand for biofuels will probably rise. Notably, the U.S.A.—one of more than 20 countries to require the use of biofuels—passed a law in

December 2007 requiring use of 15 billion gallons of ethanol by 2015, more than double the current level.

Global population growth is postulated to continue until at least 2050 and this growth will mainly take place in developing countries. Concurrently, urbanization is advancing rapidly. It is estimated that half of the world population will live in urban areas by 2050. The rapid population growth implies that there are now more people to feed while the shifts in population patterns are bringing with them radical changes in food demand and consumption patterns. These demographic changes are likely to sustain high food prices over the long run.

Food supply depends on production and availability of stocks. World cereal production in 2006 was about 2 billion tonnes which is 2.4 percent less than it was in 2005. Most of the decrease is the result of reduced planting and adverse weather in some major producing and exporting countries. Between 2004 and 2006, wheat and maize production in the EU and the U.S.A. decreased by between 12 and 16 percent. On the positive side, coarse grain production in China increased by 12 percent and rice output in India increased by 9 percent over the same period. In 2007, world cereal production was expected to rise by almost 6 percent due to sharp increases in the production of maize, the main coarse grain. In 2006, global cereal stocks—especially those of wheat—were at their lowest levels since the early 1980s. Stocks in China, which constitute about 40 percent of total stocks, declined by approximately 50 percent between 2000 and 2004. End-year cereal stocks in 2007 were expected to remain at 2006 levels. As opposed to cereals, the production of high-value agricultural commodities such as vegetables, fruits, meat and milk is growing rapidly in developing countries. In response to perceived food shortages, important food producers have imposed restrictions on grain exports. This has served to fuel price surges, a situation which is made worse when matched by importing countries seeking to purchase larger than normal volumes to build stockpiles (Von Braun 2007).

Globally, scarcity of resources suitable for agricultural production is beginning to have an effect on food supply. Most of the arable land is already under cultivation and this coupled with land resource degradation and competition with other uses means that availability of land for agricultural production is nearing its limit. In Asia, for example, less and less water is available for irrigation. While evidence of the impact of climate change on global food production is not conclusive, the verdict of the International Panel on Climate Change (IPCC) is that extreme weather events will make a big difference to world food security. The world is witnessing increasing uncertainty and variability in rainfall and droughts. Risk-averse farmers and support agents overestimate the negative impacts and are hence reluctant to invest and exploit the opportunities of average and good seasons, which force them to remain vulnerable to climate shocks.

Other studies have pointed at another possible short-term supply side issue which attributes some of the 2008 price volatility to speculative investors seeking safety in commodity markets from the then weak American dollar and falling equity and bond markets (Evans 2008). The uncertainty of the strength of the dollar led investors to shift to real assets, leading to a rapid rise in fund and particularly index fund investments in commodities (McCalla 2009; IATP 2008). Since commodity supply markets were already tight relative to demand due to declining stocks and drought in key supply countries as discussed above, commodity prices became vulnerable to speculators' actions. The FAO estimates that in April 2008, 30 percent of the rise in maize prices was due to non-market factors which include the actions of speculators (FAO 2008e).

Why the downward spiral in global food prices

Estimates by researchers in 2008 (IFPRI 2008; Evans 2008) were indicative of a structural change in the pricing in food markets; a sustained move to a new and higher plateau for prices. This structural change would derive from demand drivers; especially fast income growth in China and India, alternative uses of grain in biofuels, and feedstock, which were projected to lead to a faster growth in demand for grain than supplies at least in the short term. However, a combination of factors on the global scene saw a reversal in the upward price trend (see Figure 1). Oil prices fell from highs of US$147 per barrel to levels of US$37 per barrel by January 2009. In addition, higher prices led to a huge supply response with additional land under farming increasing by at least 3 percent globally, which coupled with favorable weather led to record harvests for wheat, rice and coarse grains in major producing countries except Australia (McCalla 2009). However, as seen in Figure 1, the dip in global food prices has not been replicated in ESA, with food prices still higher than their pre-2007 levels and in some cases continuing to rise.

There is little information on why prices in ESA, at the country and the regional level, have not declined following trends in the global food price situation. Some of the key questions high in the minds of policy makers are: What is happening to food prices in their countries and at the regional level? How similar or different is the food price situation in the region from what is being experienced globally? What unique features of the food situation in ESA provide policy makers with leverage to take action to address or avert the food price crisis as it plays itself out in the global scene? These questions need urgent answers in order to develop comprehensive actions to address high food prices.

3. APPROACH

This study brings a range of national, regional and international expertise to bear on the questions posed above so as to provide the evidence base for policy actions to address the food crisis in ESA. While countries may find it in their interest to act individually to address the crisis, the study argues that there is considerable scope for ESA to act under the auspices of regional economic communities (RECs) such as the East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA) and the Southern Africa Development Community (SADC) to overcome the challenges posed by the global food price crisis and exploit the opportunities that the high prices may present.

Our approach involved assembling a range of secondary data on domestic food prices in a number of countries in the ESA region. Expert consultations were conducted to assess the quality and consistency of different data sets. Both aggregate price data (such as the consumer price indices and food price indices) and individual agricultural commodity price data were collected. In addition, data on production, consumption, and trade flows were assembled. The main data sources were public sources such as publications of statistical agencies, central banks, and ministries of agriculture. Others were FAO, the African Development Bank (AfDB), COMESA, and the Regional Agricultural Trade Intelligence Network (RATIN).

Trend analysis was undertaken to provide evidence of the behavior of food prices in ESA. Correlation analysis was used to explore association between international and domestic food prices.

In addition to the analytical work, consultations were held with key experts and partners representing government policy advisors, policy think tanks, researchers, private sector and emergency relief agencies in a number of meetings in the region. The feedback from these meetings was used to refine the findings and policy actions identified in the paper.

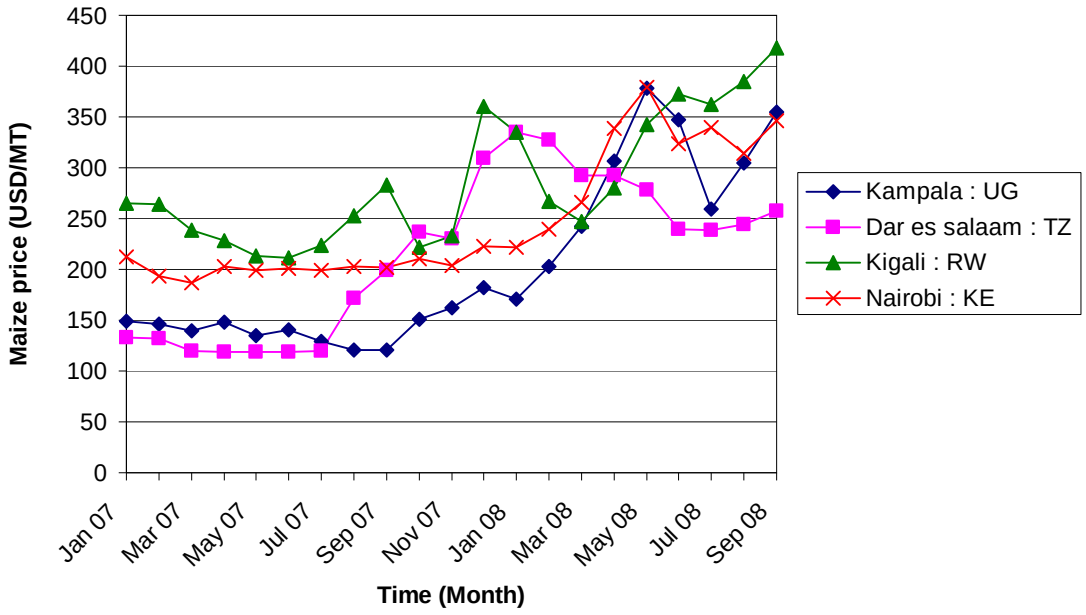
4. WHAT IS THE FOOD SITUATION IN ESA?

Food price behavior

The universal indicator for price changes is the consumer price index (CPI). CPI is a measure of inflation and it includes indices for goods and services. Between January 2007 and September 2008, CPI in Burundi, Ethiopia, Kenya, Malawi, and Tanzania show upward trends with higher increases from mid-2007. However, there are significant differences among countries with inflation being higher in Ethiopia and Kenya than in the other countries. The food price index (FPI), which captures trends in major food commodities for most countries in the region, forms over 50 percent of the CPI and has been growing at higher rates in Ethiopia, Kenya, and Tanzania (Annex Figure 1). As noted, unlike the FAO Global Index which has since declined, the FPI for individual countries in ESA has continued to increase as per January 2009. Up to March 2008, countries hardest hit by food price inflation were Ethiopia followed by Kenya. Ethiopia exhibited the highest increase in FPI between March 2007 and March 2008. Second in line was Kenya which experienced an increase of about 20 percent in its FPI over the same period. Uganda and Rwanda experienced the smallest increases in their FPIs compared to other ESA countries between March 2007 and March 2008. From March to September 2008, Ethiopia still experienced the highest increase in FPI compared to other ESA countries. Second in line was Rwanda (20 percent) followed closely by Uganda (19 percent) and Kenya (15 percent). Figure 1 shows that the Food Price Index (FPI) in Uganda has consistently increased since March 2008, such that the 19 percent increase in FPI between March and September 2008 is substantial. For countries where the increase was less than 10 percent, this suggests a weak association between global food prices and domestic food prices in many countries in ESA. This could be explained partly by the fact that the price indices comprise different food items.

Prices of key commodities show similar trends. A glimpse of price trends of maize in the urban cities shows that prices have been on an upward swing since mid-2007, but shot up significantly from December 2007 (Figure 2).

Figure 2. Evolution of maize prices for selected ESA cities (USD/MT).



Source: RATIN (2008a).

Further evidence of the different effects of international food prices on countries and the tenuous association between international and domestic prices is provided in Table 2 and Annex Figure 4. While domestic maize price trends have tracked international prices in the recent past, the relationships are inconsistent (Annex Figure 4). Another key observation is that domestic prices for various commodities in most countries are much higher than international prices, suggesting the existence of protectionist domestic policies.

Table 1: Changes in local and international prices (%) March 2007–June 2008

Commodity	MARKET	Price (US$) March 2007	Price (US$) March 2008	Price (US$) Sept. 2008	% change (March 2007-March 2008)	% change (Jan-March 2008)	% change (March-Sept. 2008)
Maize	US Yellow	168.2	232.67	234.44	38.3	14.5	1
	Nairobi (Kenya)	187	240	346	28.3	8.1	44
	Kigali (Rwanda)	239	267	418	11.7	-20.3	57
	Dar es Salaam Tanzania	120	327	258	172.5	-2.4	-21
	Kampala Uganda	140	203	355	45	18.7	75
Rice	Thai A1	263.3	521.5	764.25	98.1	43.1	47
	Kigali Rwanda	759	901	1137	18.7	-1.2	26
	Dar es Salaam Tanzania	545	666	802	22.2	-10.4	20
	Kampala Uganda	668	824	970	23.4	21.7	18
	Nairobi Kenya						
Beef	Beef (Australian, cow beef, boneless)	2607	2940	3734*	13	9	27*
	Kampala Uganda	1714	2350	2685*	37	11	14*
	Zambia (Mixed Cut)	3226	4346	4954*	35	7	14*

* Jan 2007; ** Jan 2008; *** Annual change from January 2007 to January 2008.
Sources: FAO (2008b); RATIN (2008a); Central Statistical Office of Zambia (2008).

Maize

Global maize prices (US yellow) increased by 38 percent between March 2007 and March 2008. However, the increase was a massive 172 percent in Dar es Salaam (Tanzania) and 45 percent in Kampala (Uganda) in the same period. In the first 3 months of 2008, international prices of maize rose by about 15 percent. In the same period, the price increased by 19 percent in Kampala and by 8 percent in Nairobi. However, it declined by 20 percent in Kigali (Rwanda) and marginally (2 percent) in Dar es Salaam in the same period. Between March and September 2008, the global price of maize did not change much (1 percent increase). However, this was matched by substantial maize price increases in Kampala (75 percent), Kigali (57 percent) and Nairobi (44 percent); Dar es Salaam experienced a decrease of about 21 percent in maize prices. A key observation is that domestic maize prices tend to be higher than the global maize price with Kampala (Uganda) experiencing the highest increase in maize prices between March and September 2008.

Rice

Between March 2007 and March 2008, the international price of rice increased by 98 percent and this was matched by substantial rice price increases within major ESA cities.

Rice prices increased by about 23 percent, 22 percent and 19 percent in Kampala, Dar es Salaam and Kigali, respectively. Rice prices increased by 43 percent globally between January and March 2008 but rose by about 22 percent in Kampala. Declines in rice prices were recorded in Kigali (-1 percent) and Dar es Salaam (-10 percent). Between March and September 2008, the price of rice in global markets increased by about 47 percent and this was matched by substantial increases in rice prices within main ESA cities. Rice prices have increased by about 26 percent in Kigali, 20 percent in Dar es Salaam and 18 percent in Kampala. Domestic rice prices tend to be higher than the global rice price.

Beef

Between March 2007 and March 2008, beef prices increased by about 13 percent on global markets and this was matched by higher increases in beef prices within Kampala (37 percent) and Zambia (35 percent). Between January and March 2008, the global price of beef increased by about 9 percent and this was matched by similar increases in Kampala (11 percent) and Zambia (7 percent). However, between March and August 2008, the price of beef on global markets increased by about 27 percent and this was matched by smaller beef price increases within main ESA cities. Over the same period, beef prices increased by about 14 percent each in Kampala and Zambia.

To what extent are global prices transmitted to ESA markets?

Small and fragmented markets such as those in ESA are vulnerable to price changes in international markets which translate into price instability on domestic markets. However, the extent of the degree to which price volatility is transmitted to domestic markets depends on a range of factors and hence varies from country to country. Price transmission effects provide insights into the nexus between domestic and international food prices. They indicate the extent to which domestic markets are integrated into global markets and therefore the degree to which changes in global prices might influence domestic prices. This information is important for guiding policy makers on whether to look for solutions to address the food price problem at the domestic, regional or global level.

While recognizing that food price indices do not necessarily comprise the same food basket, one can use their relationships to infer the extent to which world food prices are associated with domestic food prices. This would certainly be the case if there is strong substitutability among food commodities and prices are transmitted to domestic markets. To overcome anomalies arising from countries having different food baskets in the FPI, prices of key tradable and non-tradable staples were considered. Price transmission effects are inferred from the correlation coefficients between the global prices of maize, rice and wheat and domestic prices in selected ESA countries. Correlation coefficients are computed using nominal values. Since the approach does not account for seasonality, inflation and other important factors, it is assumed that the international market affects prices in domestic markets when the correlation coefficient is 90 percent or above. The global prices are expressed in local currency to remove the effect of exchange rate appreciation of the domestic currency versus the US dollar. The results show that world market prices are correlated with maize prices in Zambia and Tanzania and much less so in Kenya, Uganda and Rwanda (Table 1). World rice prices show a much closer association with domestic prices in Tanzania and clearly no association with prices in Uganda. World market prices for wheat show a close association with domestic

prices in Kenya and Zambia. For Rwanda and Zambia, the two countries where data for vegetable oil were available, domestic prices are highly correlated with world prices. World prices of livestock products (meat and dairy) do not show a significant association with domestic prices except in the case of Rwanda (meat) and Zambia (milk).

These results suggest that the level of import dependence is driving price transmission from global to domestic markets. ESA countries depend on the world market for vegetable oil, rice and wheat supplies and price transmission effects are stronger with a one to three-month time lag, perhaps reflecting the time required to transport supplies to local markets. This is not the same case with maize, for which regional trade, both formal and informal, is significant.

The results also show that countries in ESA are affected differently by the price surges, meaning the severity of the problem is different in different countries and different commodities are important in contributing to inflation in different countries. Even in neighboring countries it is observed that the price of a commodity may display different behavior.

Table 2: Correlation coefficients between world and domestic prices in selected countries between January 2007 and May 2008

		Kenya	Uganda	Zambia	Tanzania	Rwanda
Maize	No lag	0.79	0.51	0.78	0.88	0.45
	1-month lag	0.88	0.68	0.73	0.78	0.44
	2-month lag	**0.91**	0.83	0.63	0.66	0.34
	3-month lag	0.82	0.85	0.43	0.48	0.39
Rice	No lag	-	-0.01	-	**0.94**	0.82
	1-month lag	-	0.05	-	**0.92**	**0.93**
	2-month lag	-	0.11	-	**0.93**	**0.97**
	3-month lag	-	0.13	-	**0.95**	**0.93**
Wheat	No lag	0.84	-	0.37	-	-0.50
	1-month lag	0.87	-	0.54	-	-0.53
	2-month lag	0.87	-	0.70	-	-0.48
	3-month lag	0.84	-	0.80	-	-0.50
Vegetable oil	No lag	-	-	**0.95**	-	**0.970**
	1-month lag	-	-	0.89	-	**0.990**
	2-month lag	-	-	0.82	-	**0.992**
	3-month lag	-	-	0.74	-	**0.978**
Bovine meat	No lag	-	0.83	0.64	-	**0.93**
	1-month lag	-	0.80	0.53	-	**0.90**
	2-month lag	-	0.80	0.42	-	0.87
	3-month lag	-	0.76	0.26	-	0.84
Poultry	No lag	-	-0.15	-0.05	-	-
	1-month lag	-	-0.24	0.13	-	-
	2-month lag	-	-0.24	0.16	-	-
	3-month lag	-	-0.30	0.01	-	-
Milk (powdered)	No lag	0.00	0.87	**0.91**	-	0.23
	1-month lag	0.00	0.70	**0.99**	-	0.43
	2-month lag	-	0.74	**0.99**	-	0.48
	3-month lag	-	0.76	-	-	0.59

Sources: FAO (2008b); Ministry of Agriculture of Kenya (2008); Uganda Bureau of Statistics (2008a); Central Statistical Office of Zambia (2008); Tanzania Chamber of Commerce, Industry & Agriculture (2008); Ministry of Agriculture and Animal Resources for Rwanda (2007-2008).

Which factors influence the degree of price transmission?

The results presented above suggest some degree of price transmission of global prices to domestic markets, but the extent of this transmission differs by country and commodity. Clearly, global price changes are not fully transmitted to domestic markets and there is evidence that in some cases, domestic markets in ESA countries are

insulated from international markets. The pattern of price changes even in neighboring countries suggests that other regional and domestic factors may be critical in determining the extent to which domestic markets are integrated into global and regional markets. For example, the degree of price transmission may depend on whether a country's main staple is traded or non-traded; whether a country is landlocked or not; and whether a country is a net importer or net exporter of food. Other factors include conflict or post-conflict, neighborhood effects, level of infrastructure development, and domestic policies among others. It was not possible to analyze all of these factors because of lack of data. However, two factors that were considered for analysis are tradability of a country's main staple and landlockedness. The results on these two factors are conclusive on tradable and non-tradable commodities and mixed on whether a country is landlocked (Table 4).

Table 3: Country level change in commodity prices

Country	% change FPI Mar 2007 to Mar 2008	% change FPI Mar to Sept 2008	Staple food	% change in commodity price Mar 2007 to Mar 2008	% change in commodity price Mar to Sept 2008	Severity	Traded?	Landlocked?
Kenya	20.1	14.6	Maize	30.0	55.8	+++	Yes	No
Tanzania	11.2	1.3	Maize	93.7	-	++	Yes	No
Zambia	9.1	4.5	Maize	33.8	-1.4	+	Yes	Yes
Rwanda	1.7	20.4	Beans	35.5	18*	+	Yes	Yes
Uganda	8.6	19.2	Banana	6.7	25.8	+	No	Yes
Ethiopia	39.4	50.2	Teff	19.81	-	++++	No	Yes

Sources: Central Bank of Kenya (2007); Kenya National Bureau of Statistics (2008); Ministry of Agriculture of Kenya (2008); Tanzania National Bureau of Statistics (2008); Tanzania Chamber of Commerce, Industry & Agriculture (2008); Uganda Bureau of Statistics (2008a); Ethiopia Central Statistical Agency (2008a); EIAR (2008); Central Statistical Office of Zambia (2008); National Institute of Statistics of Rwanda and Ministry of Finance and Economic Planning (2008); Ministry of Agriculture and Animal Resources Rwanda (2008).

As was previously noted, tradables experienced higher price increases compared to non-traded food commodities between March 2007 and March 2008. This pattern was still observed between March and September 2008. Over that period, maize prices within Kenya increased by about 56 percent. On the other hand, non-traded bananas in Uganda increased by about 26 percent between March and September 2008, while beans in Rwanda increased by about 18 percent between March and July 2008. No data was available for *teff* prices in Ethiopia after March 2008.

The above points to the merits of a nuanced approach to the analysis of the global food price crisis to take account of not only regional and country specificities but also household differences. A number of examples highlight this need. Uganda's ability to be self-sufficient in basic food staples, most of which are non-tradables, has been shown to cushion households against high food prices (see Box 1). Ethiopia has implemented domestic policies that have been shown to raise food prices even though the country's main staple is non-traded (see Box 2). Although the correlation coefficients in Table 1

show that prices of meat products are correlated with global prices for Rwanda, this may reflect increasing demand fueled by rising incomes in the country. Therefore, rising domestic demand may be fueling high price growth rather than transmission of world prices to local markets. Similarly, milk supplies to Uganda's urban markets mainly come from relatively long distance areas such as western Uganda, and high fuel costs coupled with poor infrastructure may lead to a rise in transport costs reflected in retail prices.

Box 1. Uganda: Household level analysis

Ugandans should not see sustained, generally significant food price increases in their country due to the isolation of the country from global markets and its ability to be self-sufficient in basic food staples. However, Uganda is a key staple exporter to the region such that the secondary effects of regional price increases on household food security and welfare in Uganda could be significant. Therefore, the country should adopt an alert wait-and-see stance in relation to rising food prices. However, measures should be implemented to enhance food access for the Ugandans in Karamoja and the internally displaced persons (IDPs) in northern Uganda.

Why the need to adopt an alert wait-and-see stance in relation to rising food prices? It seems as if most Ugandan households would be quite exposed to the potential adverse effects of rising food prices. Even if Uganda is self-sufficient in basic food staples, about 83% of all Ugandans are net buyers of all food and 63% are net buyers of staples only. More specifically, about 66% of all Ugandan households are significant net buyers who do not rely on their own production for most of their food consumption. Their food sales are 50% or less of their food purchases and 25% or more of the food they consume is provided by markets. Among rural households, the proportion of significant net buyers not relying on subsistence agriculture for food consumption is about 61%.

Further analysis reveals that bananas, roots and tubers are the primary sources of calories for Ugandan households, which tend to rely mainly on their own production for the provision of these food commodities. These staples are important substitutes to replace those such as beans whose prices rise significantly. Moreover, diet quality seems to improve with rising income in Uganda, although not strongly. Therefore, rising food prices that decrease the purchasing power of Ugandan households should only slightly worsen diet quality in the country.

Source: IFPRI Kampala (2008).

Box 2. Ethiopia: Causes of rising food prices

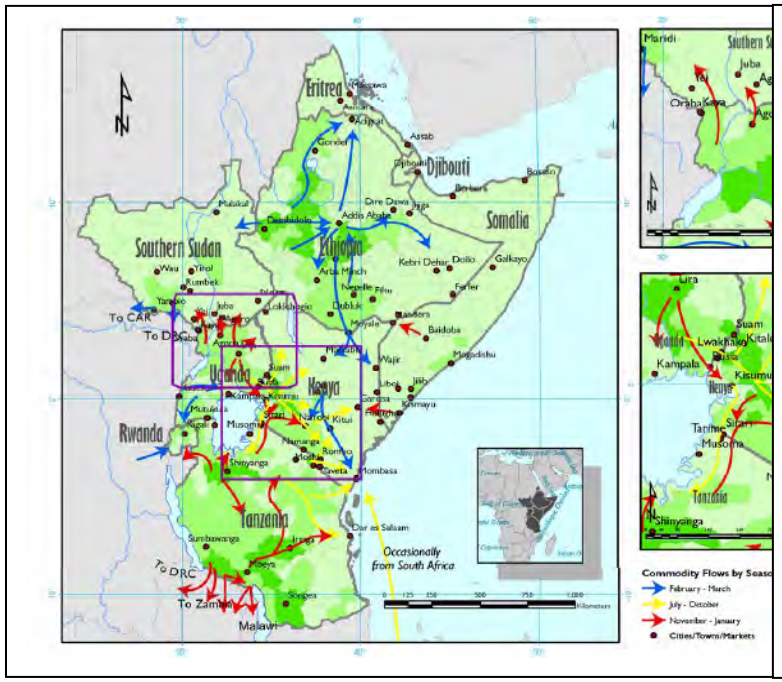
Grain price variability stemming from rainfall variability has been the key feature of Ethiopian grain markets. However, in recent years, prices have been surging considerably even with good harvests caused by good weather in the country. The recent price increase in Ethiopian grain markets forced the government to intervene through two major measures—an export ban for major grains and subsidized sale of grains (wheat) to low-income urban households. The possible causes of the unusual price increases in spite of consecutive years of good harvest since 2004/05 include:

- Overall increase in grain demand not matched by an increase in supply. The demand increase is due to: nominal income increase (rapid increase in government expenditures); credit access (commercial and microfinance); increase in the value of export receipts; cash and in-kind transfers from remittances and productive safety net programs (PSNP); and population growth.
- Government policy of relying on domestic rather than international food aid.
- Reduced marketable supply from small-scale farmers due to increased retention on farm.
- Alleged collusion among a few big traders and unions (cooperatives).
- Rising marketing costs due to the introduction of value added tax (VAT) on food items and increasing fuel prices.

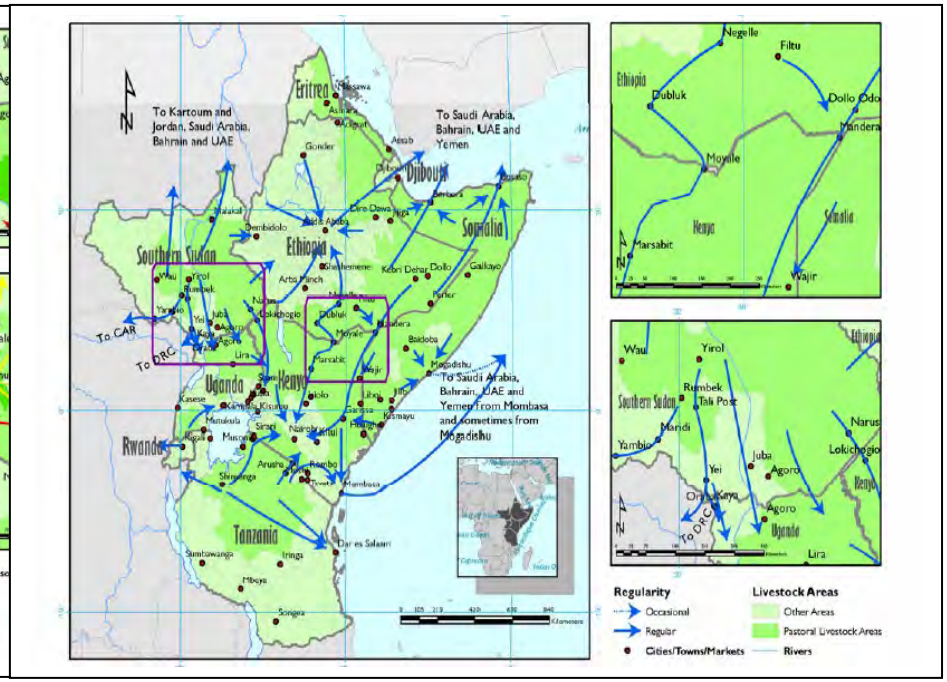
Source: Dorosh and Subran (2007).

Figure 3. Production spots and market flows in the Greater Horn of Africa (GHA).

Maize



Livestock



Source: FEWS NET (2007)

Regional trade potential

These results point to the importance of domestic and regional markets in discussions regarding food prices and food security in ESA. Domestic food prices are to a large extent determined by local and regional demand and supply conditions. In recognition of this fact, COMESA countries committed themselves to moving away from a national to a regional approach to dealing with regional food security at a meeting held in Nairobi in October 2004 (Nairobi Declaration of the Second Meeting of Ministers of Agriculture 2004).

Using the example of maize, a key and strategic food crop in ESA, the potential for regional trade in food can be illustrated. Total trade in maize in COMESA was worth US$ 1.35 billion in 2002 and US$ 0.8 billion in 2003. However, less than 10 percent of this trade has been intra-regional (Nyoro et al. 2007). Most trade in maize is with countries outside COMESA. The increase in global prices implies that domestic production can become more competitive than before and this presents a number of ESA countries with an opportunity to expand domestic production and supply regional markets. However, the question is what needs to be done for this to be achieved?

Cleary trade flows from surplus to deficit areas (Figure 3) are an important buffer for localized price surges and should be facilitated rather than impeded. Policies to improve the efficiency of the informal trade would contribute significantly to food security in the region. Policies such as export tax or export ban only dampen incentives to producers and fuel speculation in the market.

5. WHAT ARE THE KEY DRIVERS OF THE FOOD SITUATION IN ESA?

The conflicting pattern of price changes in different countries points to the need to explore further the regional dimensions of the food security situation in the ESA. A nuanced approach that takes into account both the regional and the national contexts offers better prospects for understanding the food situation in ESA and identifying potential solutions to the food crisis. The question that begs answers is whether there is scope for a regional approach to addressing the food price problem and the wider food security issue the high and volatile prices engender. The results show that countries are affected differently by the price surges, that is the severity of the problem is different in different countries. Price surges occur at different times of the year even for the same commodity and commodities do not hold equal importance in contributing to food price inflation in ESA countries. All these considerations suggest that there might be considerable scope for addressing the high food price problem by exploiting the implied national and regional synergies.

The factors affecting demand for food in ESA are similar to the global factors discussed earlier. They include rising population and incomes (from sustained economic growth in most countries) and urbanization with the attendant changes in consumer preferences. In the ESA region there are internal disparities related to distribution of incomes which make certain population categories more vulnerable to price changes. However, the effects of these demand side factors may not have been as rapid as to be responsible for the sudden price surges and volatility. Conversely, a closer scrutiny of the supply

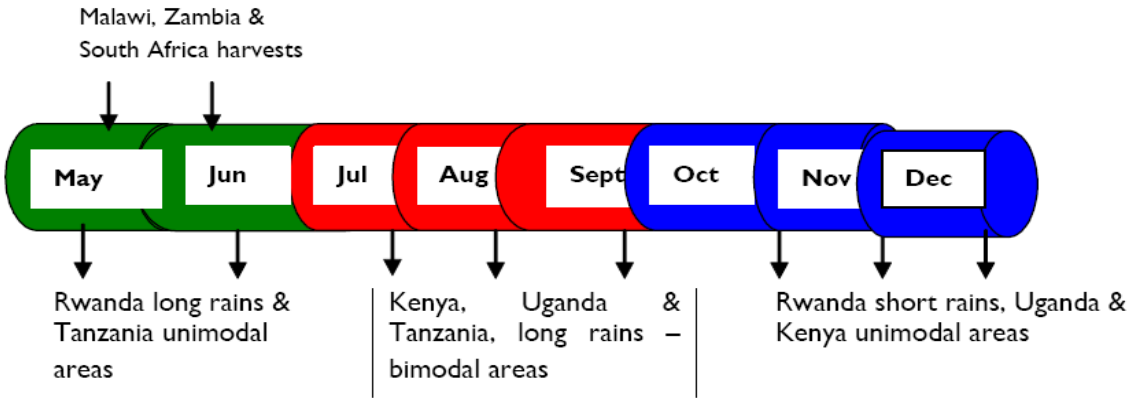
side may offer better prospects for unearthing the factors responsible for the volatile and rising food prices in ESA countries.

A key factor is spatial climatic variability which assumes even greater importance when it is considered that agriculture in the region is mainly rainfed. Only 12.6 million hectares representing about 2 percent of the potential irrigable land area of 596.7 million hectares is currently under irrigation in COMESA countries. The length of the growing period is highly variable, ranging from only a few days in the Sahara to a whole year in the DRC (Annex Figure 5). It is predicted that with climate change, this scenario will change as will the frequency and variability of droughts and flash floods. As in other parts of sub-Saharan Africa, ESA soils are highly variable, degraded, eroded and deficient in key nutrients.

Diverse soil and climatic factors give rise to a range of agro-ecological zones with differing agricultural potential. However, the diversity in agro-ecological zones implies the possibility of a much diversified agricultural production, from drought resistant crops and livestock to intensified crop and livestock production. Even where countries produce similar agricultural products, spatial climatic variability implies that supplies are available at different times in a year due to staggered harvesting in the region (Figure 4).

Domestic markets are small and fragmented with individual farmers selling small quantities of the same product. There are considerable trade potentials associated with small markets and the phenomenon of staggered harvesting since surplus areas can supply food to deficit areas within and between countries.

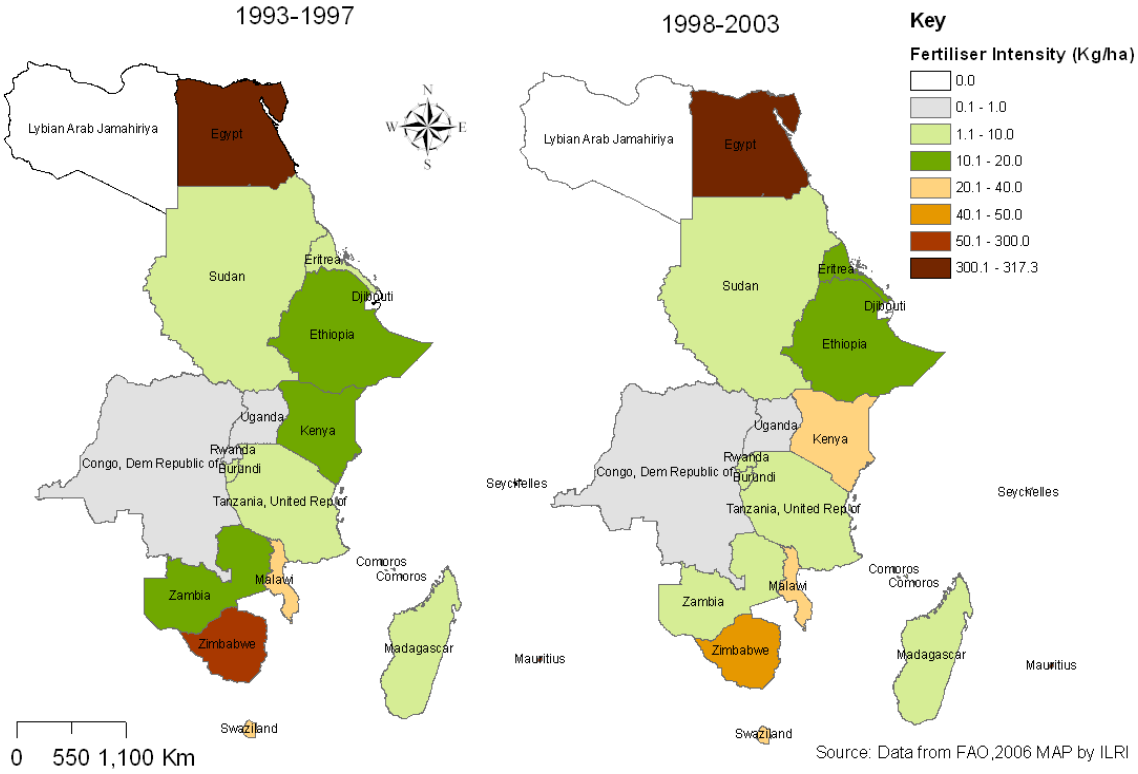
Figure 4: ESA harvesting timeline



Source: RATIN (2008b).

As in the global scene, increasing prices of key inputs (fertilizer, fuel for transportation and feeds) are constraining supply response even as food prices increase in ESA (Annex Figure 6). The high fertilizer prices are likely to reduce an already very low intensity of fertilizer use even further (Figure 5).

Figure 5. Fertilizer use intensity in COMESA countries.

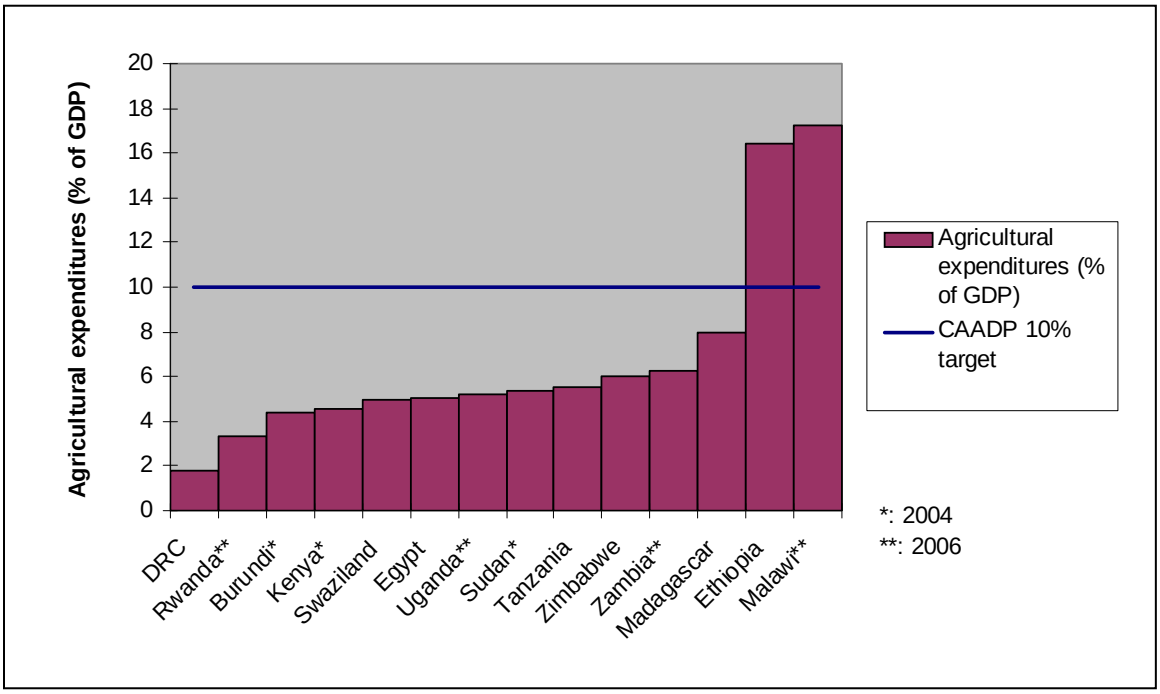


Source: ILRI (2008a).

In many ESA countries, sub-regional and regional markets are poorly integrated due to infrastructure limitations and tariff and non-tariff barriers to trade. Trade barriers include restriction of movement of staple foods coming from neighboring countries, export bans and cumbersome customs procedures. These barriers are unpredictable and make it risky for trading firms to invest in developing durable marketing networks across ESA. They also impose transaction costs on investors and traders which results in lower demand and lower prices for farmers and higher prices for consumers. For instance, in reaction to rising food prices, Tanzania and Ethiopia imposed export restrictions in an attempt to shore up their own domestic supplies.

A key factor responsible for low supply of food in ESA has been the low level of public sector investment in agriculture. Spending on agriculture relative to agricultural GDP is low. In 2005 only Ethiopia and Malawi (and recently joined by Angola) spent 10 percent or more of their total expenditure in agriculture among the 19 COMESA countries (Figure 6). Many countries are unlikely to meet the Maputo Declaration to allocate 10 percent of government expenditure to agriculture by 2008. Official development assistance (ODA) to African agriculture has been on the decline for the last two or so decades (Figure 6). The under investment by governments and donors has translated to low investment in public agricultural research, rural infrastructure, and rural development in general. Research intensities, i.e. agricultural research and development (R&D) spending as a percentage of agricultural GDP, show that countries in sub-Saharan Africa invested 0.72 percent of their agricultural GDP in agricultural R&D as compared to 2.36 percent for developed countries in 2000.

Figure 6: Agricultural Expenditures versus the CAADP 10% Target



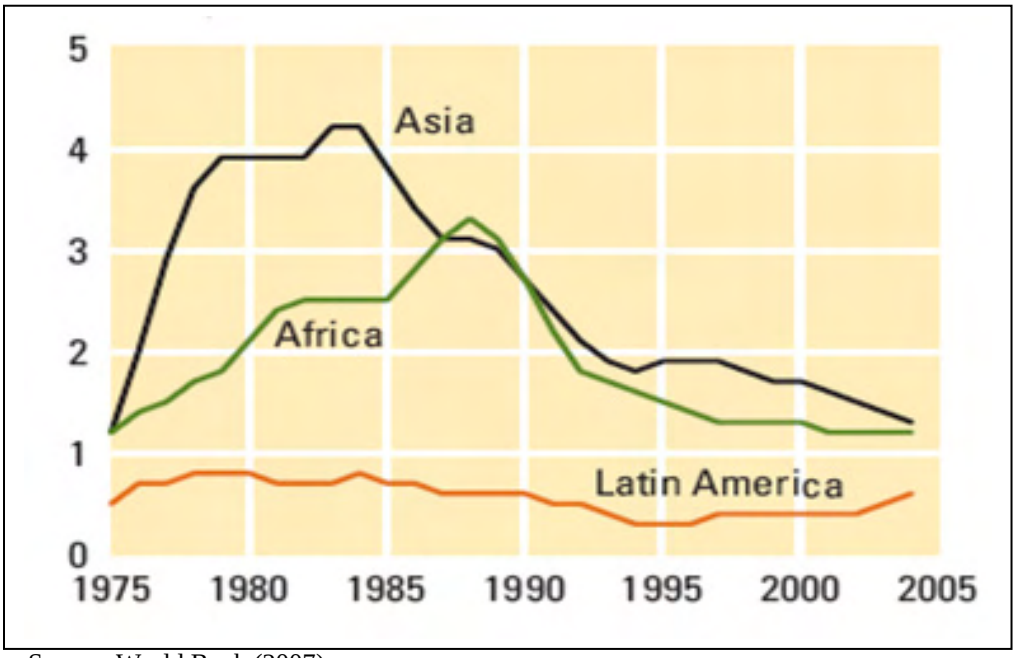
Source: ILRI (2008a).

Low spending on agriculture also has some roots in the agricultural policies of developed economies. Farmer support programs in developed economies including trade restrictions and commodity market regulations subsidize production and frequently result in price premiums that boost supply. A measure of the level of subsidy, the producer subsidy equivalent (PSE), gives ratios of 36 percent for the EU, 60 percent for Japan and 33 percent for the OECD countries for the period 1999–2001. Subsidized agriculture in developed economies has led to a history of huge farm surpluses which are later dumped in developing economies leading to low international market prices and reduced incentives to invest in agriculture.

Disruption of supply in countries in conflict (DRC, Sudan and Uganda) or emerging from conflicts (Kenya) is another factor. Over the years agricultural areas suitable for expansion of production have become limited. High agricultural potential areas in swathes of DRC, southern Sudan and northern Uganda are not readily opened up due to conflicts or because they contain protected tropical forests. Besides providing facilities for human habitation, areas emerging from conflict will require basic infrastructure to support agricultural production. Tropical forests need to be protected since their exploitation carries significant environmental costs in terms of loss in biodiversity and ground cover. At the national level, many of the above factors apply in addition to stagnant or declining productivity and poor market organization of key staple foods. Another factor that may keep food prices up for a while in ESA countries is the strength of the dollar against local currencies. The financial crisis which started in the latter part of 2008 has led to a tightening of credit markets which in turn has depressed demand for commodities on global markets. This in turn is predicted to lead to lower export earnings. Given that most ESA countries are net food importers, lower export earnings will tighten access to import dollars, constraining ability to import adequate food on the market thus keeping prices up at least in the short term.

Low agro-potential, low use of inputs, lack of markets, and low investments in agricultural and rural development, have led to agricultural productivity in sub-Saharan Africa being the lowest in the world. In ESA yields of most crops are below African and global levels except for cassava, beans, coffee and tea (Omamo et al. 2006). For example, large declines in maize productivity in Eritrea and Swaziland have been recorded in the last decade. Tanzania and Mauritius have shown good productivity gains. Most of the other countries recorded modest gains or losses in productivity (Table 5). Low agricultural productivity has meant that food supply which has been growing at a rate of 2.5 percent in COMESA has not kept pace with the population growth rate of 3 percent. Food deficits have become a common feature in many of the countries in the region.

Figure 7. ODA to agriculture by region, 2004 US dollars billions.



Source: World Bank (2007).

Table 4: Trends in maize productivity in COMESA and other regions (tonnes/ha), 1995–2006.

	1995-1997	1998-2000	2001-2003	2004-2006
Burundi	1.3	1.1	1.1	1.1
Comoros	2.4	2.2	2.3	2.3
Congo, DRC	0.8	0.8	0.8	0.8
Djibouti	1.7	1.7	1.7	1.6
Egypt	6.7	7.5	7.5	8.0
Eritrea	0.4	0.6	0.4	0.2
Ethiopia	1.6	1.7	1.7	2.0
Kenya	1.6	1.5	1.6	1.8
Libya	1.3	2.2	1.7	2.3
Madagascar	0.9	0.9	1.1	1.4
Malawi	1.3	1.6	1.1	1.1
Mauritius	4.6	6.3	7.2	7.3
Rwanda	1.1	0.8	0.8	0.8
Sudan	0.6	0.7	0.8	0.8
Swaziland	2.0	1.7	1.1	1.0
Tanzania	1.6	0.7	1.3	1.6
Uganda	1.4	1.7	1.8	1.5
Zambia	1.7	1.4	1.5	1.9
Zimbabwe	1.2	1.2	0.7	0.6
COMESA & EAC	1.8	1.9	1.9	2.0
Northern Africa	4.7	5.4	5.6	6.0
United States of America	7.7	8.5	8.6	9.6
Central Asia	2.7	3.5	4.6	5.5
Eastern Asia	4.8	4.9	4.8	5.2
Western Asia	3.4	3.5	3.6	4.5

Source**:** Authors' calculations based on FAOSTAT dataset (the figures indicate three-year averages).

6. WHAT IS THE IMPACT OF RISING FOOD PRICES?

Country Level

ESA countries have high heterogeneity in agro-ecological, geographic, climatic, and socio-economic conditions between and within themselves. Some of these differences determine which staple foods are produced and whether households are net buyers or sellers of staple grains. Other differences arise from whether the country is landlocked, in conflict, has neighbors in conflict, or has poor infrastructure. In the event of rising food prices, the most vulnerable countries are the net importers of food, especially when the staple is tradable (for example maize), with a high level of import dependence for inputs such as fuel and fertilizer. The impacts caused at the macro level are inflated food import bills, deficits in the current account of the balance of payments, and fiscal sustainability of imports.

Per capita incomes have been increasing in recent years in most ESA countries. Even countries, such as Ethiopia, Tanzania, and Zambia with high incidence and prevalence of hunger reported strong growth rates. While this growth needs to be increased and sustained if meaningful gains are to be made in hunger and poverty reduction, rising food prices would erode all the gains made in the recent past. For poor people in ESA, higher food prices can be devastating because it reduces their purchasing power and ability to buy food. Economic growth and development would be undermined in the face of inflationary pressure and unsustainable food import bills. On the positive side, farmers' incomes may increase and this could raise incentives for increased productivity if the high prices are transmitted to farm level.

Household level

Rising food prices negatively affect most households in ESA because food accounts for 40–70 percent of household expenditures in the region. Households are affected differently; the poor are hit hardest and the poor in urban areas more so than those in rural areas. The urban poor who depend mostly on markets for their food supplies are hit hardest because food prices tend to rise faster than their incomes. In the rural areas net buyers of food have to cope with higher food budgets while net food sellers may gain through increased agricultural incomes. The rural landless are particularly vulnerable.

It is expected that households that are net sellers of food benefit from rising prices while net buyers of food lose because their food budgets rise. Rural households in ESA spend a higher proportion of their income (45–75 percent) on food compared with urban households (34–58 percent) The proportion is higher in drought years and lower in good production years (Jayne et al. 2007) (Table 6). Households that are net buyers of staple grains are generally poorer and have smaller farm sizes and asset holdings than the median rural household. They are directly hurt by higher mean grain prices. Only about 5 percent to 15 percent of the rural population buys and sells the main staple commodity in the same year (Jayne et al. 2007). They comprise both relatively large farms that sell grain and buy back small quantities of processed meal, as well as relatively poor households that make distress sales of grain after harvest only to buy back larger quantities later in the season. However, this latter sub-group typically comprises less than 10 percent of the rural farm population.

Table 5: Expenditure on food as percentage of total household expenditure

Country	National	Rural	Urban
Burundi	74	75	48
Ethiopia	66	68	55
Kenya	51	62	40
Malawi	56	45	58
Madagascar	63	75	54
Tanzania	65	67	54
Rwanda	68	77	49
Uganda	45	50	34
Zambia	68	74	57

Source: Country welfare monitoring reports.

Economic intuition implies that rising food prices accompanied with no proportional rise in income means reduced purchasing power for the household and hence a reduction in the level of bundles of goods and services that the household can afford. This is called the income effect in economics terms. It depends on both the income elasticity of demand for goods/services and the expenditure share of goods/services. In most developing countries, the income effect of rising food prices is likely to be large in the sense that with rising food prices, the number of affordable bundles of goods/services is likely to drastically shrink. Moreover, if the share of food expenditures in total expenditures is large, as shown in Table 6, the income elasticity of demand for major staples tends to be very high.

Table 6: Expenditure on food as % of total household expenditure/ income

Country	National	Rural	Urban	Source
Burundi[1]	74	75	48	Burundi Household Survey, 1998, in World Bank, 2006
Ethiopia[1]	66	68	55	Ethiopia Household Survey, 2000, in World Bank, 2006
Ethiopia[1]	66.1	67.9	55.2	Welfare Monitoring Survey, 2000
Kenya[3]	51.1	62.3	39.6	Basic Report on well-being in Kenya based on the Kenya Integrated Household Budget Survey, 2005/06
Malawi	61.5	59.2*	35.2**	Malawi household Survey, 1997/98 in Bokosi, 2008
Malawi[1]	71	74	42	Malawi Household Survey 1997/98 in World Bank, 2006
Malawi[2]	55.6	45.1	58.7	Integrated Household Survey, 2004-2005
Madagascar[1]	72	75	62	Madagascar Household Survey, 1999
Madagascar[2]	63.3	74.9	53.6	Periodical Household Survey, 2005
Tanzania[2]	71.2	72.3	67.8	
Tanzania[2]	65.4	67.0	54.2	Household Budget Survey, 2000/01
Rwanda[2]	68.55	77.14	48.47	Welfare Monitoring Survey Report for Rwanda, 2000-2001
Uganda[2]	44	50	33	Uganda National Household Survey, 2002/2003, UBOS
Uganda	45	50	34	Uganda National Household Survey, 2005/2006,UBOS
Zambia	68	74	57	Zambia household survey, 1998, in World Bank, 2006

1 Mean monthly; 2 Annual; 3 Mean monthly per adult equivalent

* Southern region as a proxy
** Urban region as a proxy

The income effect of rising food prices could be dampened if it is relatively easy for the household to substitute one staple food whose price is rising with a cheaper food

product that is as nutritious and easy to handle as the previous one. However, if the household cannot easily find cheaper nutritious food products, then, it will likely reduce the resources it allocates towards non-food items so as to improve its food security. More specifically, the household could reduce the level of resources allocated to care, health care, and water and sanitation to increase its food expenditures and enhance food security. Such action could lead to a deterioration of the nutritional status of the household.

7. RESPONSES TO FOOD PRICE CRISIS

Regional and international response

The rising food prices of 2007 to 2008 resulted in social unrest in over 30 countries on the globe, especially in the urban areas where riots and protests were reported. Key multilateral agencies, including the World Bank, the United Nations, the FAO, and the African Union-New Partnership for Africa's Development (AU-NEPAD) in turn announced needed actions to respond to the situation. On February 13, 2008, the FAO announced that 36 countries were in crisis as a result of higher food prices and required external assistance, 21 of the countries being in Africa. In January, in Davos and in Addis Ababa in April, World Bank President Robert Zoellick called for action to tackle hunger and malnutrition in a world of rising food prices, noting that hunger and malnutrition is the forgotten Millennium Development Goal (Zoellick 2008).

Countries with food related protests 2007-2008

1. Argentina
2. Bangladesh
3. Burkina Faso
4. Cameroon
5. China
6. Cote d'Ivoire
7. Egypt
8. Ethiopia
9. Guinea
10. Haiti
11. Honduras
12. India
13. Indonesia
14. Italy
15. Jordan
16. Madagascar
17. Malaysia
18. Mauritania
19. Mexico
20. Morocco
21. Mozambique
22. Pakistan
23. Philippines
24. Senegal
25. United Kingdom
26. Uzbekistan
27. Yemen

Source: McCalla 2009. What is next for commodity and food prices? Paper presented at the University of Alberta week, February 5, 2009, Edmonton..

A series of meetings highlighted the need to invest in agriculture as a means to tackle the perceived food price crisis. In May 2008, AU-NEPAD organized a four-day workshop to build a coordinated African response to high food prices on the continent using the framework of the Comprehensive Africa Agriculture Development Programme (CAADP). Workshop participants highlighted that high food prices on the continent exposed the long-term under-investment in agriculture and called upon all stakeholders to devise and implement measures to improve food security in Africa (AU-NEPAD 2008). A high-level FAO conference on world food security and the challenges of climate change and bio-energy was held in early June 2008 and was attended by officials from 181 countries. The summit's final declaration adopted by acclamation reads: 'There is an urgent need to help developing countries and countries in transition expand agriculture and food production, and to increase investment in agriculture, agribusiness and rural development, from both public and private sources' (FAO 2008c). The FAO Regional Conference for Africa was held in the third week of June 2008 in Nairobi, with food security at the top of its agenda. The meeting highlighted that slow growth in agricultural

production caused food insecurity. The Director General of FAO, Dr Jacques Diouf, explained that African agriculture still faces many constraints, including undercapitalization which makes it inefficient and uncompetitive (FAO 2008d; Opondo 2008).

There is need to clearly understand the unique features of food markets in ESA so that proposals coming out of the meetings and workshops on rising food prices are augmented by a strong evidence-base of the food situation in the region. For the ESA countries, regional collective action holds promise to individual country response so as to benefit from the heterogeneity in potential agricultural products and production horizon.

Country responses

All countries in ESA were affected at various levels by rising food prices and have responded in different ways to the situation. Common responses broadly aim to ensure that there is an adequate and affordable food supply for the majority of consumers and safety nets are provided for the most food insecure and vulnerable. They also aim at fostering the agricultural supply response. The responses observed in the ESA region were a combination of measures aimed at consumers, producers, and trade. Measures implemented by COMESA member countries are shown in Tables 7 and 8.

Support to consumers is often the first course of action for most countries in an attempt to reduce the vulnerability of poor consumers in rural and urban areas to food price increases. The most popular support for consumers has been reduction of taxes on food and seven COMESA countries were already implementing this policy by June 2008. This was followed by price controls and/or subsidies which were implemented by four countries, with one country giving fuel subsidies. The other policy action is to boost domestic supply by using reserves and this is being implemented by five countries.

Supply side measures are aimed at inducing rapid supply response to restore a better balance between food supply and demand. They include price controls and subsidies on key inputs through the distribution of seeds and fertilizers directly or through a system of vouchers and subsidies and guaranteed minimum prices (often high) for outputs. Trade measures aimed at ensuring domestic food security are designed to increase imports or restrict exports. Measures designed to increase imports have been implemented by two countries and those to restrict exports by four counties.

Social measures to protect food consumption of the most vulnerable populations (for example the extremely poor and children) have also been implemented. Those most vulnerable to food price shocks need to be protected from nutritional deprivation, making distress sales of their assets, and reductions in their real purchasing power. Measures that have been used include school feeding programs in five COMESA countries, cash transfers, and food-for-work and food ration schemes which have been implemented by four COMESA countries.

If these immediate measures are to have a sustained impact, they should be followed up by actions in the medium-term that will result in an accelerated and significant reduction in the number of people at risk of hunger and malnutrition. The focus for the longer-term should be on generating and enabling farmers to apply sustainable technologies that enhance capacity to meet food needs in the medium- and long-term. The course of

action taken by a country thus depends to a large degree on whether they are net importers in which case they resort to building of stocks, such as maize in Kenya. If they are net exporters, they use protectionist policies, such as. banning exports as was done for maize in Tanzania.

Table 7: Policies currently implemented to respond to rising food prices in ESA region: Domestic policies aimed at consumers and producers– November 2008

	Consumers						Domestic supply			
Country	Reduce taxes on food grains	Price controls/ consumer subsidies	Cash transfer	Food for work	Food ration/stamp; vouchers	School feeding	Increase supply using food grain stocks	Agricultural input subsidies	Increase administered prices for producers	Incentives for expanding production (credit)
Burundi	√		√	√	√	√				
Comoros Islands										
Congo Rep.		√								
Djibouti	√									
Egypt				√		√				
Eritrea		√	√	√						
Ethiopia	√						√			
Kenya	√		√	√	√	√	√	√	√	√
Libya				√	√	√				
Madagascar	√									
Malawi			√					√		
Mauritius		√								
Rwanda		√								
Seychelles										
Sudan	√						√			
Swaziland										
Tanzania	√				√		√			
Uganda										
Zambia	√						√			
Zimbabwe		√	√			√				

Consistent with long-term policies to improve food security
Some concerns for long-term food security
Likely to hinder long-run food security depending on duration and targeting
Highly likely to hinder long-run food security and/or create serious problems in neighboring countries

Table 8: Policies currently implemented to respond to rising food prices in ESA region: Trade policies for responding to rising food prices–November 2008

	Trade Measures - food commodities							Trade measures - agricultural inputs	
Country	Increase supply via imports	Lower import tariffs	Increase import quota	Export restrictions	Increase export taxes	Reduce export quotas	Compensatory financing	Lower import tariff for fertilizer	Lower import tariff for seed
Burundi									
Comoros Islands									
Congo Rep.									
Djibouti									
Egypt				√					
Eritrea									
Ethiopia	√			√					
Kenya	√	√		√				√	
Libya									
Madagascar									
Malawi				√					
Mauritius									
Rwanda	√								
Seychelles									
Sudan									
Swaziland									
Tanzania				√					
Uganda									
Zambia				√					
Zimbabwe									

Source: Adapted from World Bank (2008b), updated using country sources.

Short-term impacts of current policies and their implications

Best bet policy options should increase household purchasing power, have no negative impact on food supply response, and should not reduce incomes of poor food sellers. Actions to free import restrictions and release food grain stocks into the market often have immediate and favorable effects on consumers and on economic efficiency in general. However, they provide only one-time relief and once the tariff or tax has been reduced to zero, no further reductions in price can take place through this measure. Furthermore, they entail revenue losses for the government which, in some countries, could be substantial.

While trade restrictions may help to contain pressures on domestic prices, they may signal problems and lead to panic buying in domestic markets. In extreme cases where the restrictions are implemented effectively, farmers can reduce planting of cereals in the face of low domestic prices for their products coupled with high prices for inputs. Export restrictions may also exacerbate price instability in regional markets, especially when they are implemented in an *ad hoc* and uncoordinated manner by different countries. Increased volatility may in turn worsen food security in neighboring countries.

Safety net programs must be carefully designed since they may place large demands on institutional capacity, which may often be lacking or can become overstretched. Major challenges include leakage of benefits to non-target groups, resale of vouchers by the target group, and rent seeking by officials implementing the programs. Care is also needed to ensure that safety net programs do not impede the formation of a private marketing sector by driving out nascent, indigenous, private sector input suppliers, which may jeopardize medium- and long-term food security. In terms of costs, safety net programs may be infeasible for low income countries without donor support, however, costs can be reduced through better self targeting, for example through conditional transfers such as food for work and cash for work. Other safety nets, such as emergency food aid, food consumption subsidies, and ration card systems also provide a safety net for the most vulnerable pockets of society but may involve significant leakages and if entrenched beyond the short-term have the effect of derailing the domestic producer supply response.

For rural households, an integrated approach to social protection should be taken that combines traditional transfers (social safety nets) and policies that enable smallholders to respond quickly to the market opportunities created by higher prices.

Buffer stocks have been used in the past to regulate market supplies to help stabilize prices. However, these involve high fiscal costs, management, and governance and are not immune from misuse by corrupt governments. The price effects are also not very clear. Other market based risk management tools such as warehouse and market information systems lead to improved market efficiency and have the capacity to enhance private sector development.

In the medium- and long-term, renewed attention to the agricultural sector will be essential. High food prices constitute an important opportunity to boost agriculture since they provide incentives to the private sector to invest and produce. Moreover, there is ample scope for substantial increases in agricultural production and productivity. Productivity increases will require significant and sustained investments in public goods such as agricultural research, extension, agricultural and general infrastructure, along

with credit and risk management instruments, all of which will complement increased price incentives.

8. KEY MESSAGES AND PRIORITY POLICY ACTIONS

Addressing the effects of the food price surge and volatility requires effective policy actions by stakeholders in the food sector. Policy actions are required to protect the consumption and welfare of those vulnerable to high prices, to exploit diversity in the region to promote national and regional food security, and to enhance domestic food production. Specific policy actions are presented in **Error! Reference source not found.**Table 9.

Table 9: Policy actions for responding to rising food prices in ESA

Policy Measure	Short-term actions	Medium- to long-term actions
Protect the vulnerable	Targeted food subsidies and cash transfers where markets are working Tax reductions on food grains Targeted food aid in areas where food is not available in markets Supporting the agricultural production activities for poor rural food producers, who are net food buyers in addition to providing social protection	Build and strengthen social safety nets to help create individual, household, and community assets
Promote regional trade	Avoid ad hoc export restrictions as they exacerbate the price spiral and instability in regional markets Institute predictable restrictions by using strategies such as trigger stocks Reduce/remove import tariffs on food stocks Harmonise trade policy to remove non-tariff barriers to trade and simplify trade procedures Harmonise product standards and customs requirements Improve security along trading routes	Build a regional food reserve, using for example, a warehouse receipt system Upgrade and maintain infrastructure and facilities on the main trade corridors in the region to facilitate movement of food from supply to deficit areas
Enhance regional market information and intelligence systems		Invest in improved market information and intelligence systems across the region by strengthening and using regional institutions for disaster preparedness and response Develop appropriate

Policy Measure	Short-term actions	Medium- to long-term actions
		frameworks for preparedness, response, and learning Promote research as an important tool for providing the evidence base for such preparedness, response, and learning
Exploit economies of scale in procurement of agricultural inputs and facilitate trade in inputs		Undertake joint procurement of agricultural inputs Harmonise policies and regulations to ensure duty and tax free movement of inputs Develop capacity for quality control Promote regional distribution of agricultural inputs
Advocacy efforts for a more equitable world trading system		RECS should take the advantage presented by the high food prices to extract maximum benefits from the Doha round of the WTO negotiations and other initiatives geared at opening of markets for African exports
Establish regional food reserves		Review policies on grain storage and buffer stocks to allow for building of regional strategic reserves Since most governments no longer have the facilities required to hold grain stocks, the private sector should be provided with incentives to enable them to play the complementary role as in the emerging warehouse receipt system
Avoid dampening food price incentives to producers	Remove price controls which serve as a disincentive to farmers preventing them from responding to high food prices	

Policy Measure	Short-term actions	Medium- to long-term actions
Make agricultural inputs affordable	Implement "smart" fertilizer and seed subsidies that do not undermine local private sector enterprise Use vouchers redeemable at certified rural stockists Provide credit guarantees Reduce transportation costs by such strategies as reducing domestic taxes on fuel	Enhance input distribution systems by developing networks of agro-dealers through training, facilitating access to credit, development of affordable input packages, and group organization to reduce transaction costs
Make agricultural technologies available	Leverage past investments in R&D to widely pilot and scale-up best bet technologies to boost crop and livestock yields and conserve natural resources	Invest in R&D to develop new technologies to respond to emerging challenges
Promote innovative risk management programs	Test and pilot innovative risk management programs such as warehouse receipt systems and weather-based indexed crop and livestock insurance schemes	Upscale the best-bet risk management instruments

9. CONCLUSIONS

This paper draws the following conclusions:

Although rising food prices are contributing to food price inflation in ESA, the changes in global food prices are not completely transmitted to domestic markets.

A regionally coordinated response offers an alternative that is potentially more effective in responding to the food price crisis than individual country responses.

The crisis provides an opportunity to promote agricultural led development through increased domestic production, regional trade, and integration in ECA.

Addressing the harmful effects of the food price surge and volatility will require actions by various stakeholders along the food chain. On the one hand, the consumption and welfare of the vulnerable sections of the population must be protected by ensuring access to affordable food supplies. On the other hand, high food prices provide positive incentives for farmers to increase domestic food production and regional trade. Favorable commodity prices also foster innovation that enhances competition along food value chains.

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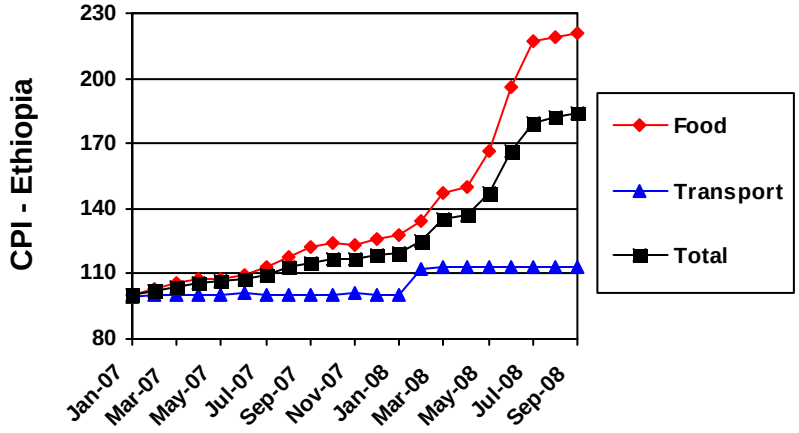
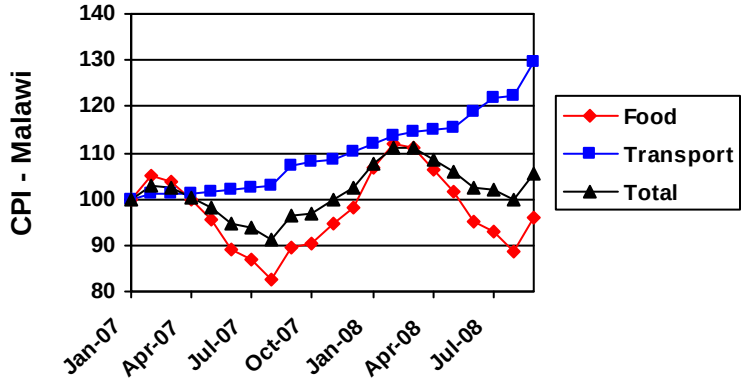
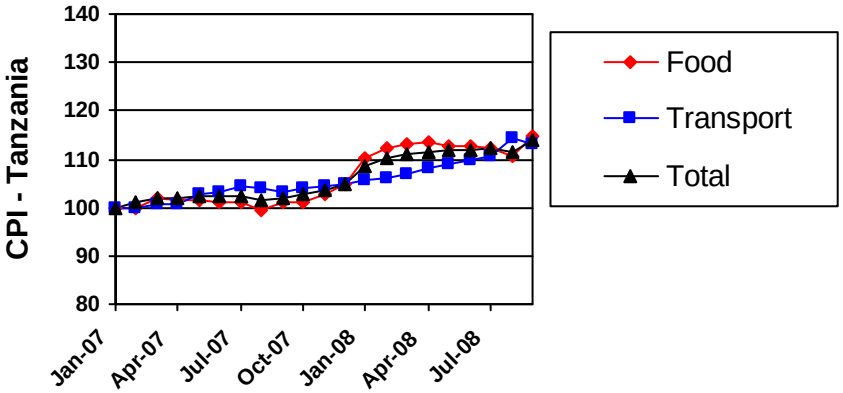
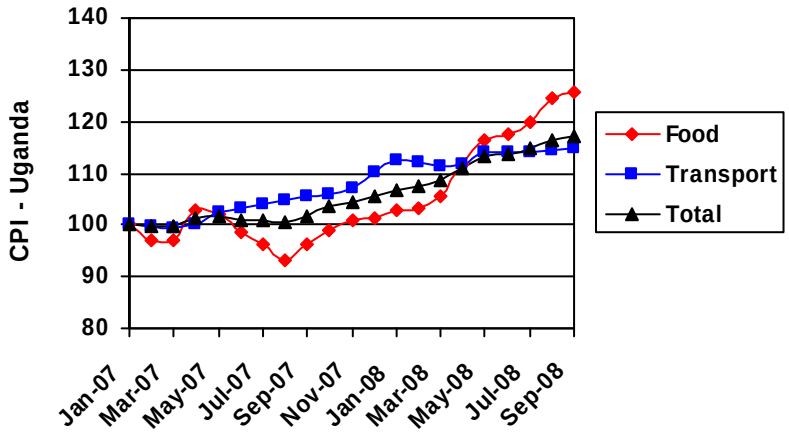
ANNEX: ADDITIONAL FIGURES FOR THE REPORT

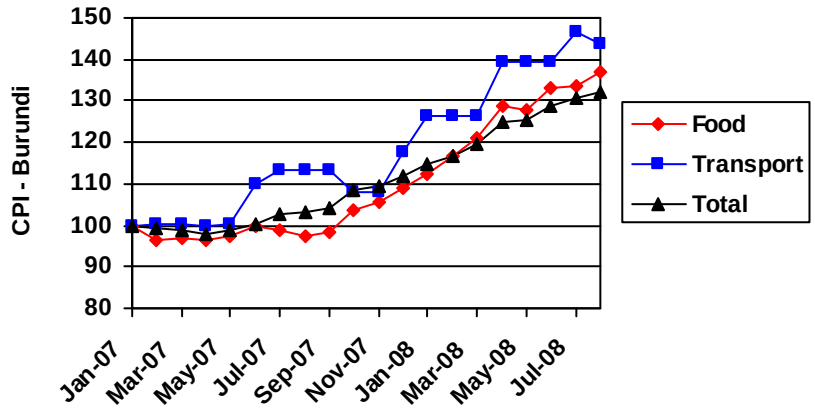
Annex Figure 1. CPI for Ethiopia, Malawi, Tanzania, Uganda, and Burundi









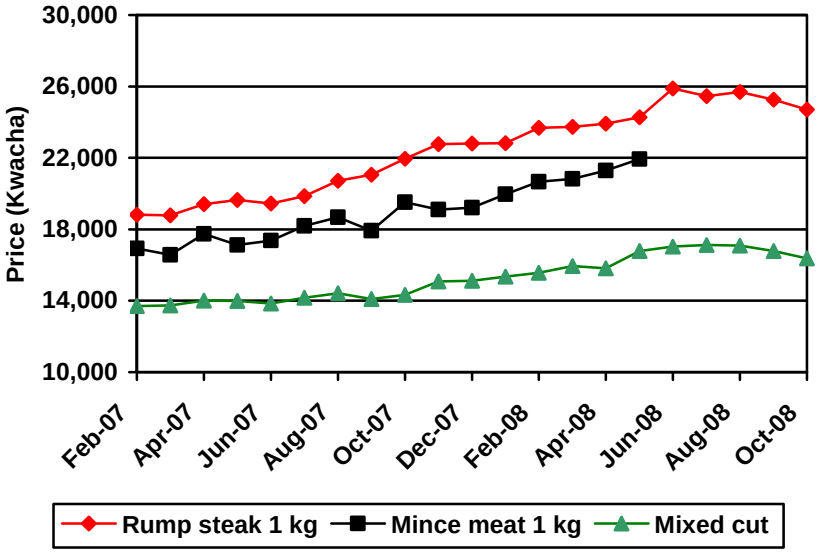


Sources: Ethiopia Central Statistical Agency (2008b); Central Bank of Kenya (2008); Kenya National Bureau of Statistics (2008b); National Statistical Office of Malawi (2008); Tanzania National Bureau of Statistics (2008); ISTEEBU (2008); Uganda Bureau of Statistics (2008b).

Comments

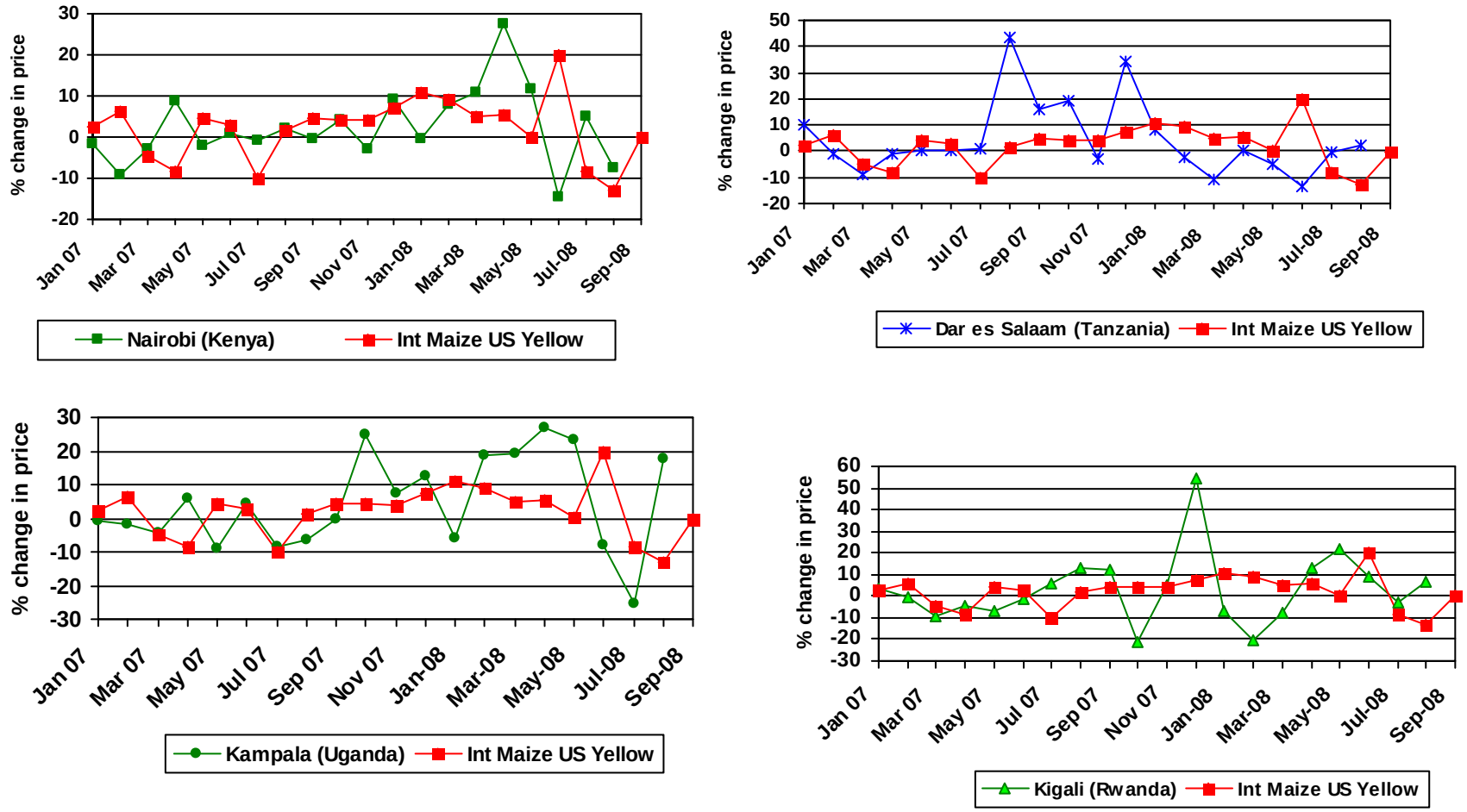
- Ethiopia**:** FPI is still higher than the total FPI. There was a sharp increase in May 08. Between March and September 2008, FPI rose by 50% and total CPI by 36%.
- Malawi: Food CPI is lower than total. transport CPI is very high and increasing.
- Uganda: FPI was lower than the total CPI up to around April 2008 where it went up and is now more than total CPI. Between March and September 2008, FPI rose by 23% and total CPI by 8%.
- Tanzania: Food FPI and total FPI are more or less the same.
- Burundi: Transport is growing faster than all other prices.

Annex Figure 2. Evolution of meat prices in Zambia



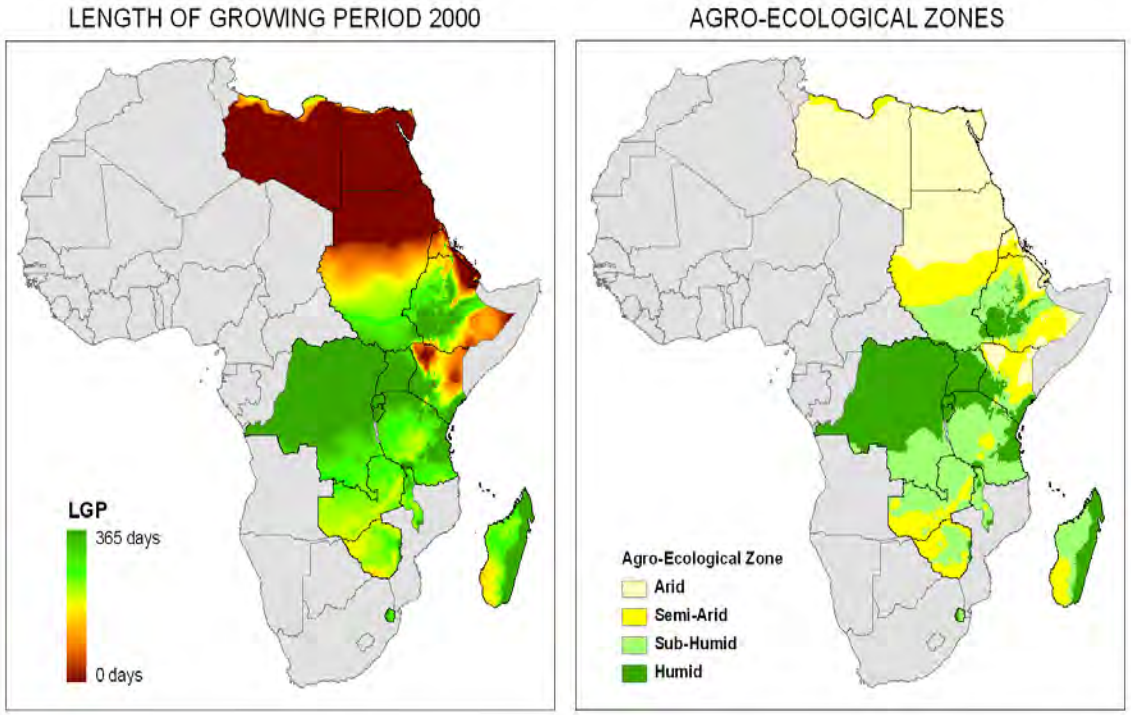
Comments:
Meat prices are on the decline in Zambia.

Annex Figure 3. Change in world and domestic maize price for selected ESA countries



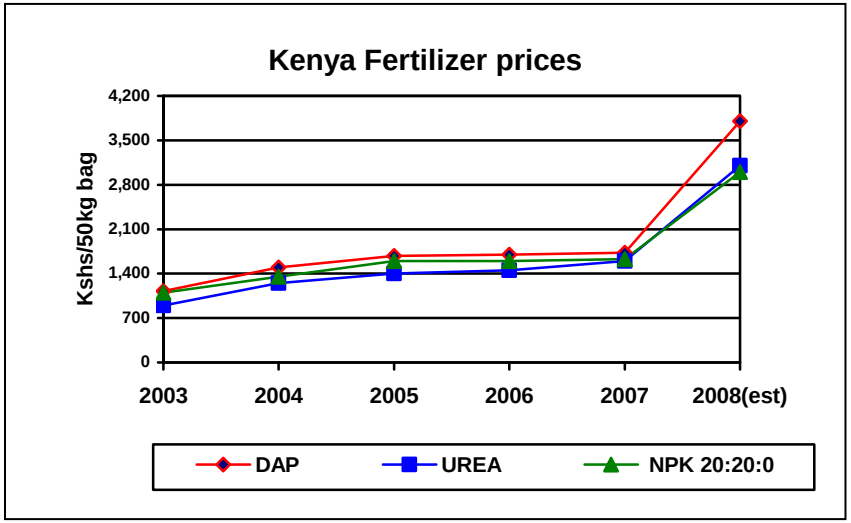
Source: FAO (2008) RATIN (2008)

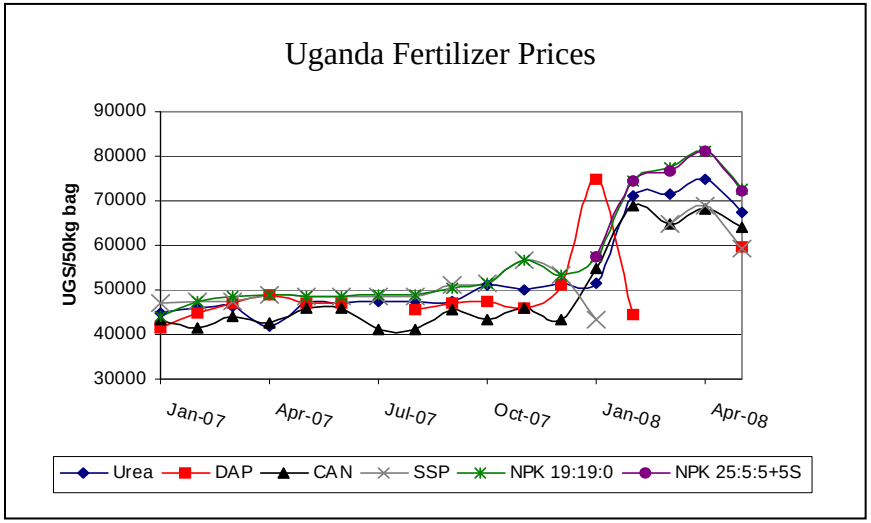
Annex Figure 4: Length of growing period in ESA

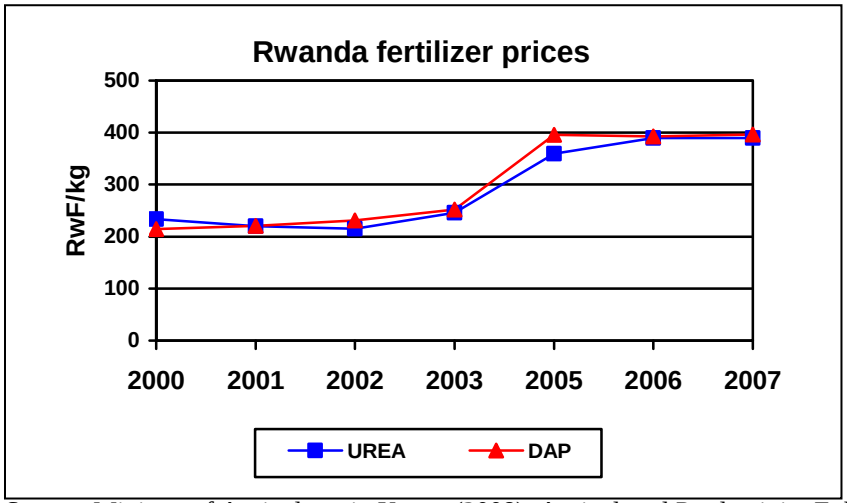


Source: ILRI (2008b).

Annex Figure 5. Evolution of fertilizer prices in selected ESA countries

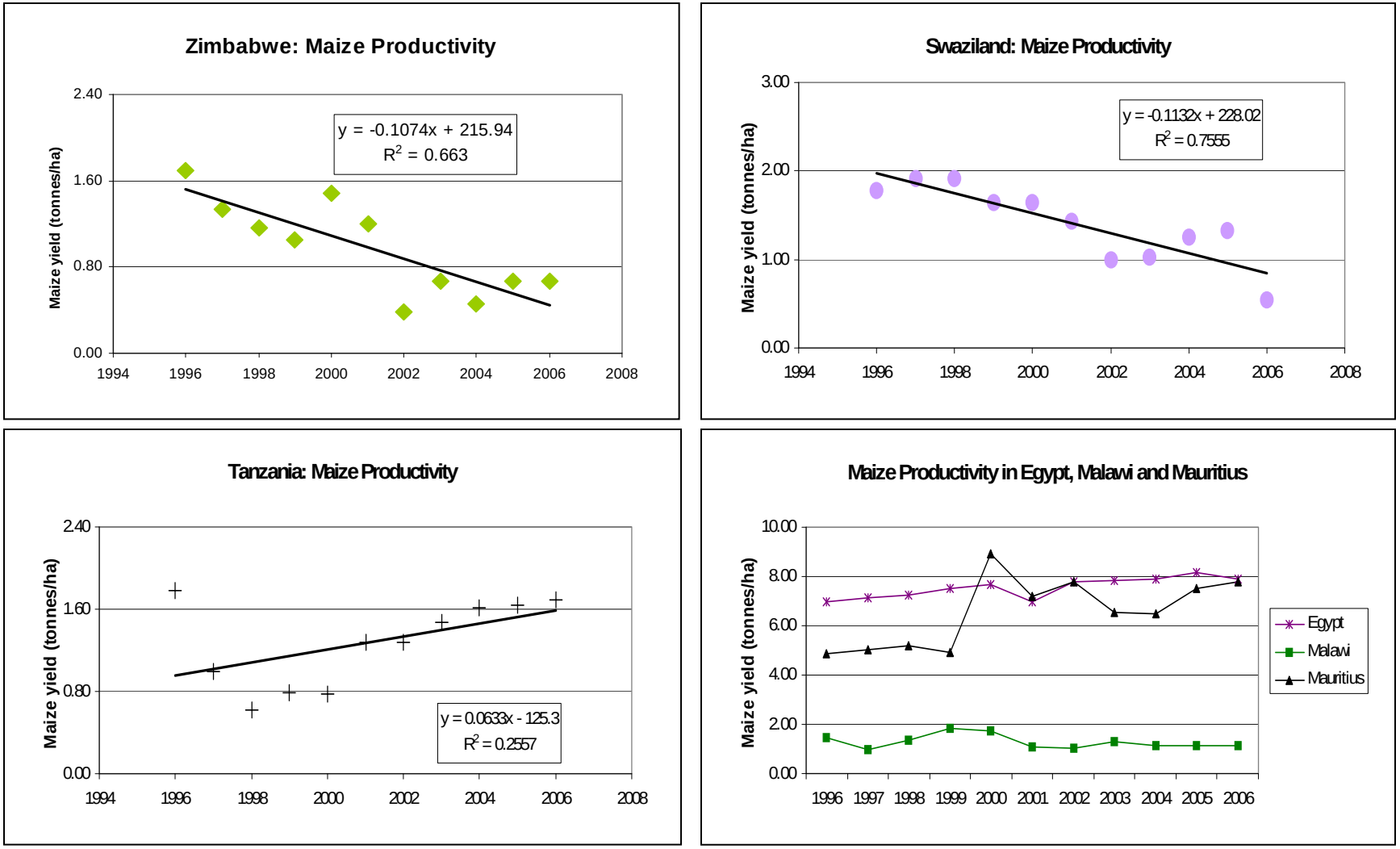






Source: Ministry of Agriculture in Kenya (2008); Agricultural Productivity Enhancement Programme in Uganda (2005-2008); Ministry of Agriculture and Animal Resources for Rwanda (2008b).

Annex Figure 6. Trend in maize productivity for selected ESA countries



Source: FAO (2008).

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