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Rising Global Food Prices – Policy Challenges and Options for Southern Africa

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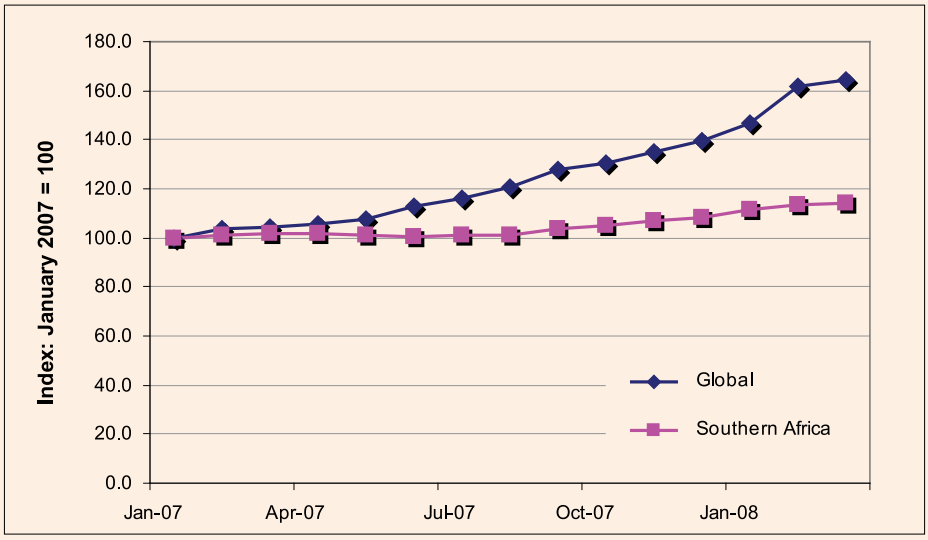
This paper considers the implications of rising prices of major food commodities in southern Africa. First, a global perspective on the phenomenon is provided, focusing on the key factors driving the upsurge in prices. Recent trends in food prices in a representative selection of southern African countries are then considered. Emerging evidence of poverty impacts is presented. The policy challenges and options facing the region's governments are then discussed. Broad conclusions round out the analysis. The paper's central argument is that appropriate policy responses to effects of rising food prices involve a mix of short-term social protection responses, long-term measures aimed at spurring agricultural productivity growth, and domestic and regionally conceived and implemented efforts to rationalize and strengthen the roles of public sectors in the region's food economies.

A GLOBAL PERSPECTIVE

Food prices started to creep upward soon after the millennium, and then, last year, began to rise sharply with the rate of increase now the highest in the last 20 years. The Food and Agriculture Organization of the United Nations (FAO) global food price index shot up nearly 40% in 2007 (FAO 2008a). The escalation accelerated further in 2008, with the index rising 16% in January and February alone (Figure 1). Overall, world food prices have roughly doubled over the last five years. Food prices in the southern African region have also been increasing, but at a slower pace (Figure 1). But, as will be shown below, there is considerable variation in the path of recent food prices at the country level.

Figure 1—Global and Southern African Food Price Indices - 2007-08



Sources: FAO 2008a; Lesotho Bureau of Statistics 2008; National Statistical Office of Malawi 2008; Bank of Namibia 2008; SAFEX 2008; Statistics South Africa 2008; National Bureau of Statistics Tanzania 2008; and Central Statistical Office Zambia 2008.

Notes: The global food price index is computed by FAO and covers a basket of 55 different food items. The southern African food price index is computed as a population-weighted average of official food price indices reported by national statistical agencies of Lesotho, Malawi, Namibia, South Africa, Tanzania, and Zambia. These indices cover the major staples, meat, fish, dairy products, fruits, vegetables, non-alcoholic beverages, sugar, and key confectionaries.

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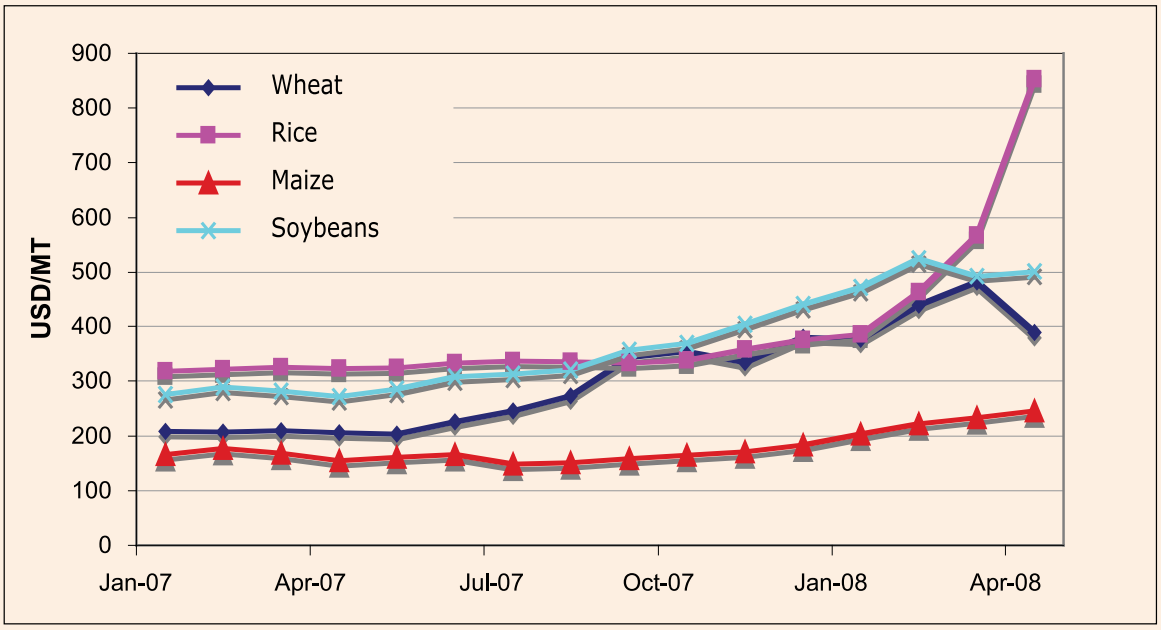
Underpinning the climb in global food prices are major leaps in the prices of key crops. Since the beginning of 2007, maize is up 59%, wheat 88%, soybeans 85%, and rice 165% (Figure 2). Dairy products, meat, poultry, palm oil, cassava and other important commodities are also on the rise. Though the declining US dollar—based on which most commodities are priced—has somewhat overstated the price growth, inflation-adjusted increases have still been large. Real food prices are approaching the all-time highs of the mid-1970s (International Grains Council 2008). These price increases are being transmitted to domestic markets around the world, where they have ignited protests and riots in countries as diverse as Bangladesh, Burkina Faso, Cameroon, Egypt, Guinea, Haiti, Ivory Coast, Mauritania, Morocco, Senegal, Uzbekistan and Yemen. Clearly, rising food costs are stretching the abilities of many poor consumers to feed themselves and their families. Several factors are combining to produce these effects.

Figure 2—World Crop Prices - 2007-08



Rapid Growth in Demand and Low Stocks

Cereal consumption has increased faster than production in recent years. Global stocks have shrunk to their lowest levels since the early 1980s, in spite of a record world grain harvest in 2007 (Figure 3). Much of the growth in demand stems from rising incomes in the developing world (especially in China and India), along with urbanization and continued population growth. More affluent consumers in low-income countries are demanding more meat, milk, and eggs which, in turn, has pushed up the price of grains used for livestock and poultry feed (USDA-ERS 2008). This phenomenon is responsible for about half of the growth in food prices in recent years (von Braun 2007).

Biofuels

The use of food crops—especially maize—to produce biofuels is a significant new factor in food markets. The United States is spending billions of dollars to subsidize conversion of maize into ethanol, to fuel motor vehicles. These subsidies are having dramatic effects. Nearly one-quarter of the United States maize crop was converted into ethanol in 2007[4], and the area planted with maize reached record levels, displacing other crops. Growth in food-based biofuels is considered second only to income growth as a driving factor in world food markets; it may be responsible for as much as 30% of recent price increases (Rosegrant 2008; von Braun 2007; Box 1).

High Fuel Prices

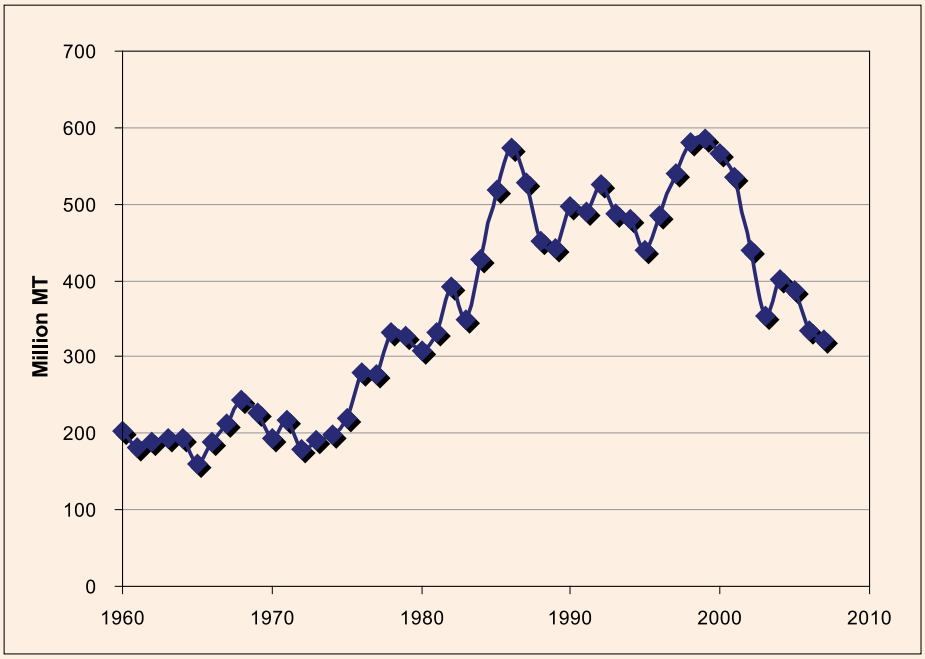
Another significant, and related, factor is the sharp jump in oil and gas prices, which has made it more expensive to cultivate, fertilize, and transport crops. Higher energy and fertilizer costs account for about 15% of recent food price increases (World Bank 2008).

Extreme Weather

Weather and natural disasters are also contributing to the rising prices. Some weather events, such as the severe Australian drought, have limited crop production. Extreme weather events of this type have also been linked to global climate change, which appears to be increasing the frequency and intensity of natural hazards, with negative effects on food productivity (Lobell et al. 2007). Though

[4] Distillers converted 79 million tonnes of US maize into ethanol in 2007, nearly seven times more than the 12 million tonnes consumed for the same purpose in 1997.

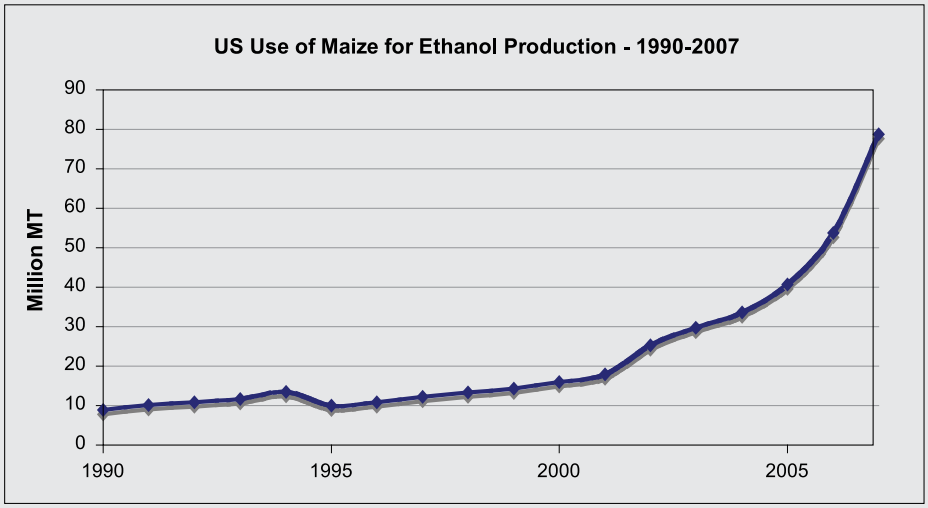
Figure 3—World Grain Stock - 1960-2007



Box 1—Energy and Food: The New Connection

Distillers converted 79 million tonnes of US maize into ethanol in 2007, nearly seven times more than the 12 million tonnes consumed for the same purpose in 1997. Driving this explosive growth is a federal fuel tax exemption that gives an effective subsidy of 51 cents per gallon of ethanol. Additional distilleries now under construction could take as much as 114 million tonnes of maize in 2008. In addition to putting strong upward pressure on maize prices, high ethanol subsidies have had pervasive effects in the US Corn Belt, driving up land prices and setting off a boom in the construction of bins for on-farm grain storage.

They have also pushed up prices of other crops—especially soybeans—that compete for the same cropland (Brown 2008).



Source: USDA-FAS (2008)

The use of maize to produce motor fuel is creating a tighter link between energy prices and food prices than can be explained by the increasing cost of transportation and energy-related agricultural inputs. Given current subsidies and $100-per-barrel oil, US distilleries can afford to pay more than $275 per tonne of maize—a price many millions of poor consumers cannot afford. A $140 oil price—only $15 more than the price, at the time of writing—would make it worth their while to pay nearly $400 per tonne of maize. The huge size of the transportation energy market in proportion to the ethanol industry means that, given current subsidies, future use of maize to produce fuel may be limited only by availability (Brown 2008).

overall world food production has a continuous upward trend, the combination of uncertain supply and tight stocks is adding to the upward impetus of food prices (Economist Intelligence Unit 2007; International Grains Council 2008).

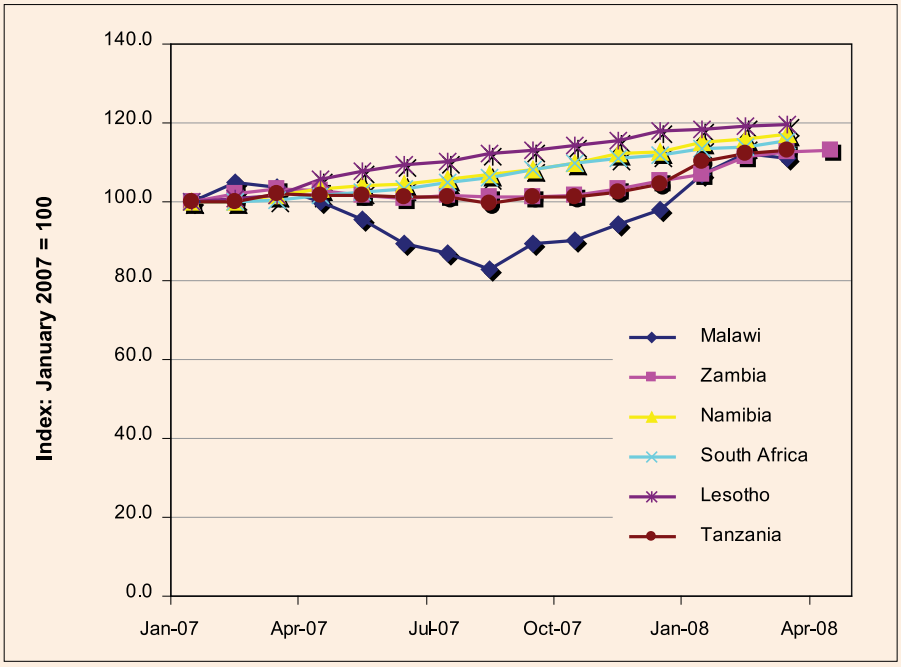
Commodity Price Speculation

High and rising food prices have attracted the attention of investors and speculators. A broad-based shift of capital into commodities has occurred in recent years, as other classes of investments have become less attractive (Masters 2008). Massive purchases of food commodity futures by large institutional investors—such as corporate and government pension funds, sovereign wealth funds, and university endowments (also collectively referred to as "index speculators")—are likely putting an upward pressure on food prices. These investors have collectively purchased over 2 billion bushels (43.5 million metric tonnes (MT)) of corn futures in the last 5 years. At present, they have stockpiled enough corn futures to fuel the entire US ethanol industry at full capacity for one year. Their current stockpile of wheat futures is enough to cover US demand for bread, pasta, and baked goods for 2 years. A key recognition is that as food prices increase further, demand from such speculators also increases.

RECENT TRENDS IN FOOD PRICES IN SOUTHERN AFRICA

Higher world food prices are being reflected in higher prices in domestic markets in southern Africa, with some variation across countries. Between January 2007 and March 2008, food price indices in several countries in the region rose between 11 and 20%. Figure 4 shows recent trends in seven countries that together capture the range of impacts in the region. The smallest increases were seen in Malawi (11%), Zambia (13%), and Tanzania (13%), which are three countries with relatively large maize economies. All three countries were significant food exporters during this period, but each recently introduced maize export bans, which may have helped shield them from external price increases (Banda 2008).[5] Namibia and South Africa registered mid-range increases for the group (17 and 16%, respectively) but probably for different reasons. Namibia is an important food importer, but it usually produces a significant share (close to 50%) of its needs for the grains showing the greatest price increases on global markets. South Africa's food economy is large and, thus, more stable than those elsewhere in the region, but it has been struggling to cope with a depreciating currency, which is driving up costs of all imports, including food. Lesotho is heavily reliant on imported food and, thus, registered the largest increase over the 15 months, approximately 20%.

Figure 4—Food Price Indices in Selected Countries in Southern Africa 2007-08



Sources: IMF 2008; Lesotho Bureau of Statistics 2008; National Statistical Office of Malawi 2008; Bank of Namibia 2008; SAFEX 2008; Statistics South Africa 2008; National Bureau of Statistics Tanzania 2008; and Central Statistical Office Zambia 2008.

[5]Note, however, that once domestic supplies in Malawi began to fall, prices rose much more quickly than did those in other countries—more than 20% in the six months from July 2007 to January 2008.

Between April 2007 and March 2008, average market prices of maize, the region's most important food commodity, were up 32% in Zambia, 65% in Mozambique, and well over 100% in Malawi and Tanzania (FEWSNET 2008; RATIN 2008). The price of maize in Zimbabwe was not spared given the effects of that country's hyperinflation. In South Africa, the largest market in the region (producing 65% of the South African Development Community's (SADC) maize), the spot price of maize in early May 2008 was 35% higher than it was in January 2007 (SAFEX 2008).

Impacts on Poverty

Early measures of the impacts of rising food prices on poverty in the region indicate that price increases of staple foods have resulted in 2 and 4.4% increases in poverty in Malawi and Zambia, respectively (Ivanic and Martin 2008). The result for Malawi is particularly significant, given the country's recent successful effort to boost agricultural production, which has made it an important exporter of food to other countries in southern Africa. Other countries are likely to be even more vulnerable. FAO lists four SADC countries among those that are already facing food crises borne out of high food prices: Democratic Republic of Congo, Lesotho, Swaziland and Zimbabwe (FAO 2008b).

Policy Challenges

Prices of most crops are expected to continue to climb and remain well over their 2004 levels through 2015 (World Bank 2008). This will pose twin challenges for governments in southern Africa. One is to protect the poor from food price increases, ensuring that those who are living on the edge are not pushed into destitution. The other is to harness higher prices to stimulate greater food production and raise rural incomes over the long run. Responses to the first challenge must not be allowed to undermine those to the second. Finding the right mix of policy measures is the challenge.

SHORT-RUN POLICY OPTIONS

Social Protection

One way to protect vulnerable consumers from food-price increases in the short run is through social protection measures featuring in-kind and cash-based transfers (i.e., cash or cash-equivalents, like farm input and food vouchers), which are targeted toward the poorest and most vulnerable segments of society (von Braun 2007, 2008). Targeted food-for-work and school feeding programs like those implemented in many countries in the region (WFP 2008) can provide effective safety nets for specific vulnerable groups. But high food prices are rendering in-kind food assistance increasingly costly (WFP 2008). However, such assistance may be the only viable option where prices are high and local supplies are limited. Given that southern African countries, on average, consume a significant share (more than 50%) of the global emergency food aid and given that USA, Canada and Australia are the sources of more than 60% of such food, this may be the region to be mostly affected by the falling stocks. Where cash transfers are feasible, care must be taken to ensure that they do not add to inflationary pressures in food markets. Many African countries already operate conditional or targeted cash transfer programs, which offer support to participants based on their income, location, or occupation, or in exchange for completing certain requirements (such as school attendance or vaccination). In the SADC region, Lesotho, Mozambique, and South Africa currently operate such programs. Small-scale cash transfer pilots have been implemented in a number of countries, including Malawi and Zambia. These and other cash transfer pilots can provide valuable information and practical lessons for implementation in other countries in the region (e.g., Devereux 2007; Harvey and Marongwe 2006; UNICEF 2006).

Consumer Subsidies

Broad-based subsidies to cap domestic food price increases are also a possible short-term option. However, experience from elsewhere in the world indicates that these measures can be very costly (because they benefit many people who do not really need assistance) and are difficult to terminate (Timmer et al. 1983). Broad-based subsidies may also depress producer prices, undermining efforts to increase agricultural productivity and output. Subsidies targeted at the most needy can be very effective, but these are difficult to administer properly (Timmer et al. 1983).

Tax and Tariff Policy

As recently implemented in Zimbabwe[6], an effective broad-based option to reduce food costs to consumers is to reduce taxes and tariffs on imported food commodities. This lowers consumer prices where they have risen above import parity, while maintaining the correct incentives for farmers.

Export Restrictions

Restrictions on food exports (as currently in effect in Malawi, Tanzania and Zambia) may conserve domestic supplies in the short run, but they deny local farmers the benefits of profitable external outlets for their crops. By creating artificial barriers to trade within natural market sheds, export bans can also have destabilizing effects on regional markets.

[6]On 8 May, 2008, the Government of Zimbabwe (Chronicle, Zimbabwe 2008) removed food import taxes up to 30 June 2008 as a temporary measure to provide a buffer to the food price increases.

LONG-RUN POLICY OPTIONS

Public Investment Priorities

In the longer term, countries must stimulate food production. At a minimum, governments must find ways to help farmers benefit from higher prices, even as they attempt to shield consumers from the negative effects of costly food. They must also recognize that several factors continue to limit producer responses to price signals, including poor access to seeds, fertilizers, and other inputs; poorly functioning markets; and poor transportation infrastructure. To eliminate such barriers, governments must increase public investment in rural infrastructure -- including investments in agricultural land and water management. "Soft" market infrastructure such as market information systems, warehouse receipt systems, and commodity exchanges, agricultural research and development (R&D), extension systems, and veterinary services are critically needed. Most SADC countries have yet to allocate at least 10% of their national budgetary resources to agriculture as agreed by African Heads of State in 2003.[7]

Policy Reform and Institutional Innovation

Especially important is the continued progress in lowering barriers to expanded intra-regional trade in food commodities. But to be politically viable, such reforms must not come at the cost of increased market volatility, especially since the effects of such volatility tend to fall disproportionately on the poor and vulnerable. Sound regulatory and legal frameworks are also necessary to create the security needed for long-term private investment in key physical, human, and organizational capacity in agribusiness. The scope to develop institutions that allow countries to use commodity future markets and global reinsurance markets more easily to address underlying risk factors must be grasped, ideally at a regional level. Also needed at the regional level is a comprehensive market intelligence system that allows comprehensive tracking and interpretation of developments in global commodity and financial markets. Such a system would greatly facilitate the emergence and efficiency of modern risk management measures.

CONCLUSIONS

Addressing the consequences of rising food prices will be challenging for southern African countries. Even more demanding will be adjusting to the underlying causes of high prices and volatile markets, as many of those causes lie outside the region.

Countries in the SADC region will likely differ in terms of their exposure to global rising food prices, and in terms of how they might respond. It may emerge that some countries will not register large direct impacts of global food price rises, either because much of their population relies on non-tradable staples (e.g., cassava in Mozambique) or because they are not fully integrated into global food markets due to a range of commodity transfer costs that give them a degree of "natural protection" from conditions in global markets (e.g., Malawi, Zambia or Zimbabwe). For this latter group, regional markets will be increasingly important. The potentially diverse set of impacts in the region is clearly an important empirical issue that warrants careful research.

On balance, in the short term, higher food prices are likely to hurt southern Africa more than they help. As world prices are increasingly reflected in domestic markets, recent evidence suggests that the impact on poor people is likely to be dire. Sound social protection and trade policies will be crucial in all countries. Proactive engagement by the region in the rapidly evolving international debate on rising food prices is vital. Also important is strategic involvement in the continuing debate on the impacts of subsidized production of food-based biofuels by rich countries on global and regional food security. SADC, Common Market for Eastern and Southern Africa (COMESA) and other regional actors have important roles to play in such efforts.

In the medium- to long-term, some countries in the region (net exporters) may successfully ramp-up production in response to the higher prices and benefit accordingly. But for others (net importers), the higher prices may imply considerable adjustment costs. But even for this latter group of countries, the new global food price regime may harbor important opportunities for agriculture-led growth. If countries are to grasp such opportunities, national and regional food policy systems will need to become considerably more nimble and sophisticated than they are at present. Efforts to reduce barriers to regional trade in food must be strengthened. New roles for public sectors are implied but are not entirely clear as yet. Here, too, SADC, COMESA and other regional actors could play crucial leadership roles in helping to facilitate dialogue and build consensus on these newly emerging public imperatives.

[7]The share of the agricultural sector in the budgets of African countries range between 2 and 5% (UNECA 2007).

REFERENCES

Banda, S. 2008. Zambia too suspends maize exports. Africa News. http://www.AfricaNews.com/site/list_messages/18092

Bank of Namibia. 2008. Bank of Namibia Statistics. http://www.bon.com.na/stats/statistics.aspx?t=4

Brown, L. 2008. Why Ethanol Production Will Drive World Food Prices Even Higher in 2008. Washington, DC: Earth Policy Institute.

Central Statistical Office Zambia. 2008. Government of Zambia, Central Statistical Office. http://zamstats.websitedesign.co.zm/media/april_2008_cpi__press_release.pdf

Chronicle, Zimbabwe. 2008. Government removes import duty for imported food. Daily paper, 14 May, 2008, Bulawayo, Zimbabwe.

Devereux, S.; Mthinda, C.; Power, F.; Sakala, P.; Suka, A. 2007. An Evaluation of Concern Worldwide's Dowa Emergency Cash Transfer Project (DECT) in Malawi, 2006-07. http://www.concern.net/documents/362/DECT2007-FinalEvaluationReport5BJuly-07D0aa.pdf

Economist Intelligence Unit. 2007. World Commodity Forecasts: Food, Feedstuffs and Beverages. London: Economist Intelligence Unit.

FAO (Food and Agriculture Organization of the United Nations). 2008a. International Commodity Prices. http://www.fao.org/es/esc/prices/PricesServlet.jsp?lang=en

FAO. 2008b. Crop Prospects and Food Situation (periodical, FAO, Rome), various issues. Available online at http://www.fao.org/giews/english/cpfs/index.htm

FEWSNET (Famine Early Warning Systems Network). 2008. Southern Africa Food Security Update. Washington DC: Famine Early Warning Systems Network (FEWSNET).

Harvey, P.; Marongwe, N. 2006. Independent Evaluation of Oxfam GB Zambia's Emergency Cash-Transfer Programme. http://www.undp-povertycentre.org/publications/cct/OxfamZambiaCashEvaluation.pdf

International Grains Council. 2008. Grain Market Report, April 2008. London: International Grains Council.

IMF (International Monetary Fund). 2008. Presentation of the IMF Resident Representative in Mozambique to the Development Partner Group: April 6, 2006. Accessed on 8 June, 2008 at https://www.imf.org/external/country/MOZ/rr/pdf/2006/040606.pdf

Ivanic, M.; Martin, W. 2008. Implications of Higher Global Food Prices for Poverty in Low-Income Countries. Policy Research Working Paper 4594. Washington DC: World Bank.

Lesotho Bureau of Statistics. 2008. http://www.bos.gov.ls/

Lobell, D. B.; Burke, M. B.; Tebaldi, C.; Mastrandrea, M. D.; Falcon, W. P.; Naylor, R. L. 2007. Prioritizing Climate Change Adaptation Needs for Food Security in 2030. *Science* 319(5863): 607–6101.

Masters, M. 2008. Testimony of Michael W. Masters, Portfolio Manager Masters Capital Management, LLC before the Committee on Homeland Security and Governmental Affairs United States Senate May 20, 2008. http://hsgac.senate.gov/public/_files/052008Masters.pdf

National Bureau of Statistics Tanzania. 2008. http://www.nbs.go.tz/publications/new_releases.htm

National Statistical Office of Malawi. 2008. http://www.nso.malawi.net

RATIN (Regional Agricultural Trade Intelligence Network). 2008. http://www.ratin.net

Rosegrant, M. 2008. Biofuels and Grain Prices: Impacts and Policy Response. Testimony before the Committee on Homeland Security and Governmental Affairs, United States Senate, May 7, 2008.

SAFEX (South African Futures Exchange). 2008. Agricultural products, market price history. http://www.safex.co.za/ap/market_price_history.asp

Statistics South Africa. 2008. http://www.statssa.gov.za/keyindicators/cpi.asp

Timmer, P., W. Falcon, and S. Pearson. 1983. Food Policy Analysis. Washington DC: Johns Hopkins University Press.

UNECA (United Nations Economic Commission for Africa). 2007. Africa Review Report on Agriculture and Rural Development. Addis Ababa: United Nations Economic Commission for Africa.

UNICEF (United Nations Children's Fund). 2006. The Malawi Social Cash Transfer Pilot Scheme - Preliminary Lessons Learned Paper presented at the Conference on "Social Protection Initiatives for Children, Women and Families: An Analysis of Recent Experiences" New York, 30-31 October 2006. http://www.undp-povertycentre.org/publications/cct/Malawi_Social_Cash_Transfer.pdf

USDA (United States Department of Agriculture)-ERS (Economic Research Service). 2008. Feed Grains Database. http://www.ers.usda.gov/Data/FeedGrains/

USDA (United States Department of Agriculture)-FAS (Foreign Agricultural Service). 2008. Production, Supply and Distribution Online. http://www.fas.usda.gov/psdonline/

Von Braun, J. 2007. The New World Food Situation: New Driving Forces and Required Actions. IFPRI Policy Brief, December 2007. Washington DC: International Food Policy Research Institute.

Von Braun, J. 2008. Rising Food Prices: What Should Be Done? IFPRI Policy Brief, April 2008. Washington DC: International Food Policy Research Institute.

WFP (World Food Programme). 2008. WFP's Operational Requirements, Shortfalls, and Priorities for 2008. Rome: World Food Programme.

World Bank. 2008. Rising Food Prices: Policy Options and World Bank Response. Washington, DC: World Bank. Available online at: http://siteresources.worldbank.org/NEWS/Resources/risingfoodprices_backgroundnote_apr08.pdf

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