

Policy Implications of High Food Prices for Africa

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- ▼ *The first half of 2008 witnessed a dramatic rise in commodity prices that brought back sad memories of the 1974/75 food crisis. Food price increases averaging 52 percent between 2007 and 2008 have posed a heavy burden on consumers in net food-importing countries, especially in Sub-Saharan Africa. The pressure of increasing food prices was a major factor in riots that erupted in many countries (Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, and Senegal).*

Fearing social upheavals, some major food-exporting countries have imposed export restrictions ranging from export taxes to export bans. The small shares of global supply that are traded for the major food crops—7 percent for rice—means that small reductions in export volumes lead to disproportionate price increases.

Although the price crisis appeared to arise suddenly, it has been building in Africa for at least three decades. Since 1980, Africa has neglected agriculture, as evidenced by low crop yields (Figure 1). Structural adjustment programs led to the dismantling of many institutions and programs inherited or established after independence. Without a doubt, many of the parastatal corporations were bloated, inefficient, and corrupt; food security reserves were used for political patronage; extension services failed to deliver services; and cooperatives were politicized. But instead of improving the functioning of such essential institutions, donors and, in turn, African countries pursued market solutions that decimated these institutions.

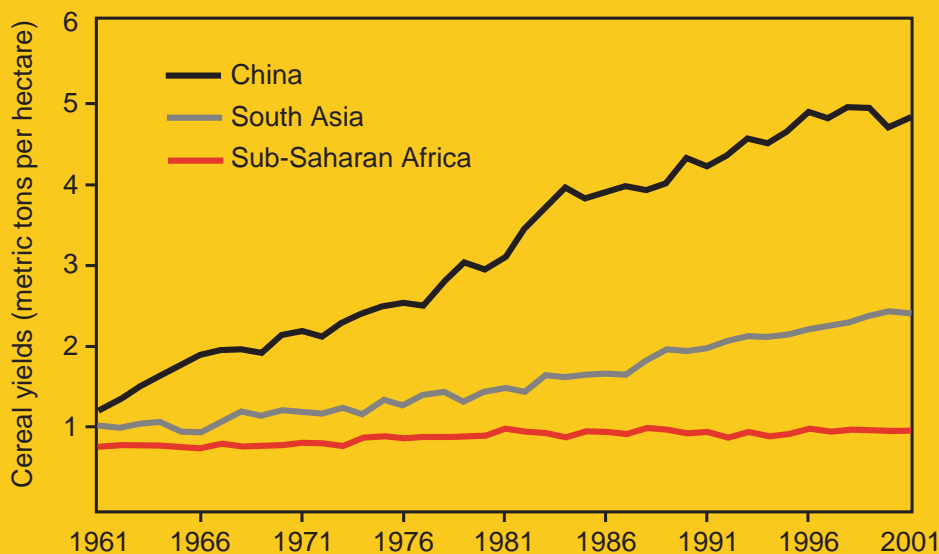
The international community contributed to Sub-Saharan Africa's neglect of agriculture

even before the widespread adoption of structural adjustment programs. The United Nations and multilateral and bilateral agencies gave confusing advice. Development theories first favored industrialization; then agro-industries, integrated rural development, and export-crop-led agriculture, and finally smallholders' staple food crops. Overseas development assistance (ODA) for agriculture fell from 18 percent in 1980 to 4 percent in 2007. The continued policy shifts and the decline in financial flows to agriculture over three decades laid the foundation for the 2008 food crisis.

POLICY REQUIREMENTS

African countries have realized the need to accord higher priority to agriculture. At the second African Union Summit held in Maputo in 2003, African heads of state and government set a target of 6.2 percent annual growth in the agricultural sector and decided to allocate 10 percent of their national budgets to agriculture. They also established a framework—the Comprehensive Africa Agriculture Development Programme

Figure 1 Cereal yields in China, South Asia, and Sub-Saharan Africa, 1961-2001



Source: FAOSTAT 2001.

(CAADP)—that will guide investment in the agricultural sector. The CAADP provides a framework for consultations between African countries and the donor community with the objective of reaching agreement on national compacts for joint action. Progress has not been as fast as hoped for, but six countries have reached or surpassed the 10-percent target set for budgetary allocation to agriculture. Aggregate growth in the agricultural sector (not the staple food crop sub-sector) also increased to more than 5.5 percent in 2006.

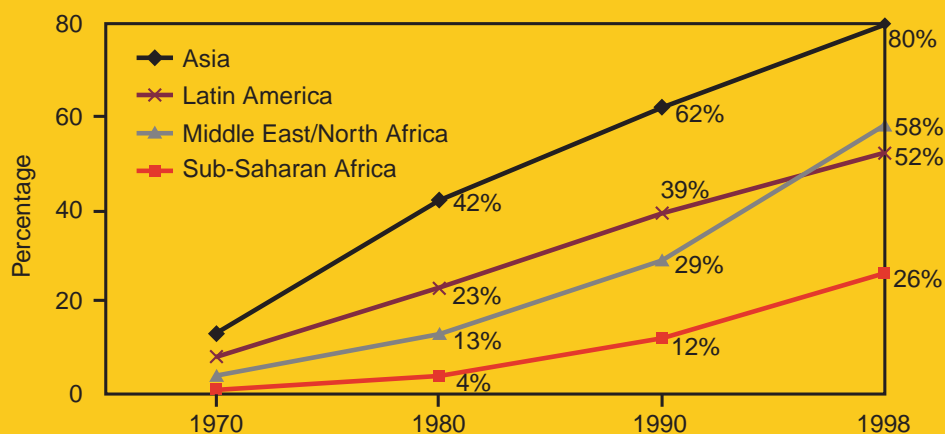
Much more must be done to develop focused policies that will lead to sustainable staple food production driven by advances in productivity rather than by expansion of cultivated area. Recognizing that the vast majority of African farmers are smallholders and mostly women, African countries must develop specific pro-poor smallholder policies.

Many African countries have planning units in their Ministries of Agriculture to help develop policies for attaining CAADP objectives, but these are usually understaffed and have insufficient analytical capacity. Data quality is generally poor.

Formulating appropriate policies will require giving attention to many key areas. Discussed here are improved seeds, fertilizers, financial services, subsidies, markets, and infrastructure.

SEEDS

Agriculture starts with seeds (used here in the broadest sense to include vegetative plant parts used to produce crops), which are the basic building blocks for the next harvest. Farmers all over the world must start with the best possible seeds suited to their local environments and food preferences. Nowhere

Figure 2 Rates of variety adoption by region, 1970-98

Source: Ninth Meeting of the Science Council of the Consultative Group on International Agricultural Research (CGIAR), World Agroforestry Centre, Nairobi, March 27–April 1, 2008.

in the world is the diversity in micro-ecologies and food crops greater than in Africa. Many of the crop varieties that have been selected are no longer able to produce adequate yields to feed a rapidly growing population. Because they have been selected for low-input agriculture, the seeds saved by African smallholder farmers do not have the potential to respond to improvements in soil fertility. Early efforts to improve African agriculture depended heavily on field testing crop varieties from other continents. This effort had only limited success and resulted in low adoption of new crop varieties (Figure 2). A major plant-breeding effort focused on Africa's staple food crop is urgently needed.

African countries have lagged behind in plant breeding because of the acute shortage of trained scientists and support institutions. The Alliance for a Green Revolution in Africa (AGRA) is now undertaking an effort to redress this situation by training some 250

plant breeders—80 with Ph.D. and 170 with M.Sc. degrees—in African universities. Trained plant breeders need institutional support and facilities, and public-private partnerships are needed to establish and endow institutions to support plant-breeding work in Africa.

Plant-breeding efforts will have no impact if the new varieties are not multiplied in sufficient quantity to be available for use by farmers. Hybrid seeds must be produced by specialized entities, public or private, in sufficient isolation to avoid contamination and must be purchased every year by farmers. Hybrid seeds saved from a previous crop quickly lose vigor. Seeds from crops such as rice, millet, sorghum, and roots and tubers can be saved from previous harvests and planted for up to five years without serious loss of vigor. The main problem with using saved seeds from these crops is the accumulation and transfer of diseases and pests from one generation to the next.



Seed multiplication in Africa has until recently been mostly in the public domain but public seed production agencies have not fared well. Multinational and national private seed companies have taken large shares of the seed market. Indigenous seed companies have taken hold and are expanding in East and Southern Africa but not yet in Western Africa. AGRA is working with several partners to set up financial institutions that provide funding to existing and start-up small local seed companies.

The issue of loss of biodiversity resulting from the widespread use of improved varieties is often raised, and it is a legitimate question. African farmers are not only interested in having a multiplicity of plant species on their farms, however; they are also looking for ways to improve their livelihoods. Using improved varieties can help them attain this goal. Major national gene banks need to ensure the maintenance and documentation of local genetic material, which constitutes the reservoir for ongoing and future breeding work as well as for monitoring genetic erosion.

Another issue regarding improved varieties concerns biotechnology and genetically modified organisms (GMOs). Biotechnology is used not only for GMOs, but also for rapid propagation, multiplication, and production of planting material, especially with vegetatively propagated species. The production of improved varieties by conventional breeding will largely bridge the productivity gap for African farmers. With good agronomic practices and wise use of fertilizers and irrigation, the large-scale adoption of improved varieties should double or triple current yields. This possibility will postpone the decisions on the use of GMOs, thus giving African governments additional time in which to train personnel and set up national and subregional institutions to handle questions related to the use of GMOs. With the increasing evidence of climate change, African governments should address this matter with some urgency.

Major constraints to the development of the seed industry include the tendency for government institutions to monopolize production of foundation seed and



the lengthy process of varietal testing and release. These delays were justified when seeds were imported from outside the region and could be sources of new diseases. Now that improved varieties are being produced in Africa from African germplasm, and in many cases using national germplasm, these slowdowns may be unnecessary.

FERTILIZERS

African farmers use only 23 kilograms of fertilizers per hectare, and Sub-Saharan African farmers just 9 kilograms per hectare—the lowest rate in the world. African soils, the oldest in the world, have been leached and eroded for millennia. Population density has reduced the scope for shifting cultivation and fallow systems. Continuous cultivation in the absence of nutrient replenishment from organic or inorganic fertilizers has resulted in serious soil nutrient depletion that must be reversed. Agronomic practices that combine legumes and non-legumes, either as inter-

crops or in rotation, should be exploited to the fullest to reduce the use of inorganic sources of nitrogen. Nonetheless, inorganic fertilizers will be needed.

African countries need to improve their fertilizer procurement practices, and the African Development Bank, AGRA, and other donor agencies are exploring ways to do so. Almost all of the fertilizer used in Sub-Saharan Africa is currently imported. Bulk purchases and negotiation can reduce the cost of fertilizer delivered to ports or entry points. Experienced fertilizer traders should be involved in negotiations with the major fertilizer manufacturers to reduce unit costs. Bulk purchases also lead to the use of larger ships that reduce shipping costs. Total cost reduction through bulk purchasing and negotiation has been estimated to be at least 15–20 percent for volumes imported by Kenya and Tanzania. Greater savings are likely through bulk fertilizer imports for groups of neighboring countries that are dependent on major transport corridors, like Kenya, Uganda,

Rwanda, and Eastern DRC, or Mozambique, Zimbabwe, Malawi, and Zambia. Governments and the private sector should work together to ensure that the financial resources to pay for imported fertilizer are available and that foreign exchange is allocated in a timely manner.

Africa must also produce more of the fertilizer it uses. Africa has large deposits of natural gas that can be harnessed to produce nitrogen fertilizer, but these deposits have hardly been exploited. In Nigeria, the company Notore is undertaking a new effort to produce an initial 600,000 metric tons of nitrogen fertilizer using the country's abundant natural gas. This fertilizer would meet the current nitrogen needs of Nigeria and much of West Africa. Production of nitrogen fertilizer in other parts of Africa should also be explored. In addition, Africa has considerable deposits of phosphate rock and lime that could be developed. Potash deposits are less abundant, with the deposit in Mozambique being the best known.

Finally, fertilizer-use efficiency must be improved. The low levels of fertilizer applied per hectare and the high unit cost make it imperative that farmers use the most appropriate fertilizers for their soils and crops and apply them when critically needed to maximize effect. Countries need support to establish soil-testing laboratories and must undertake large-scale soil testing on which to base fertilizer recommendations. Simple, easy-to-use soil-testing kits are also needed to facilitate soil testing by extension agents and farmers. Fertilizer quality plays a major role in the response of crops, and national capacities for quality control of fertilizers should be built or strengthened.

FINANCIAL SERVICES

Rural Africa is short of the financial institutions that are critical to business development, including agricultural development. Farmers, and particularly smallholder farmers, are forced to borrow at high interest rates from moneylenders. At the same time, private banks are awash with money that they cannot lend. Banks are reluctant to lend to agriculture because of the risks associated with the sector: drought, pests, and market failures. The small amounts needed by smallholder farmers also increase the cost of loan administration.

At independence, African countries set up a variety of financial institutions, most of which have collapsed owing to corruption and underestimation of administration costs. The lack of financial literacy and the popular belief that loans from government institutions do not need to be repaid have not helped. To reduce risks, several nongovernmental organizations (NGOs) and bilateral aid agencies have experimented with various types of credit guarantee schemes. These schemes are normally small in scale, of limited duration, and separate from national or area-based agricultural development programs.

AGRA has started a new effort aimed at scaling up credit guarantee schemes. For example, in collaboration with the government of Kenya, AGRA and the International Fund for Agricultural Development (IFAD) are partnering to provide US\$2.5 million each to Equity Bank to constitute a credit guarantee fund of US\$5 million. Equity Bank will then provide US\$50 million in loans to agro-dealers and farmers in 70 districts in conjunction with the government's program for accelerated input supply. Other commercial banks in the country are interested in participating. Should



credit guarantee schemes take hold in African countries, more than US\$2 billion could be available to Africa's hard-pressed farmers.

SUBSIDIES

Subsidies for agriculture are and will remain controversial. Agriculture in developed countries and other developing regions is heavily subsidized. The Common Agricultural Policy of the European Union has produced perhaps the highest subsidy levels in the world. The average U.S. farmer is not doing too badly either. Yet these subsidy-using countries and the multilateral financial institutions protest against subsidies in Africa. In Africa, they say, market forces must be used to boost production of crops in which Africa has a comparative advantage. Yet the developed countries use subsidies to give their farmers

a comparative advantage in crops they would otherwise not produce. Considering the insignificant share of Africa in the global trade of staple food crops, it appears that developed countries are not protecting global or African markets from distortion, but rather protecting the market share of their subsidized exports.

Some African countries have now reversed policy and are supporting small-holder farmers; this includes providing input subsidies for seeds and fertilizers. One outstanding example is Malawi, which provides a subsidy of up to 70 percent for fertilizers. Kenya recently announced a fertilizer subsidy of approximately 30 percent. Subsidies alone may not be sufficient, but without some form of support, credit, or smart subsidies, the targets set by African leaders for progress in the agriculture sector, especially in the staple food subsector, will remain a mirage.

MARKETS

Seeds and fertilizer, whether imported or produced at home, are of no use if they are not physically and economically accessible to farmers. African small-scale farmers have difficulty getting access to seeds, fertilizers, and other agricultural inputs because they are not available near their communities, they come in large packages, and they are expensive. Physical proximity can be improved by increasing the density of agro-dealer networks. Agro-dealers should also be trained in business management and safe handling of chemicals and provided with financing at affordable terms to enable them to stock inputs in sufficient quantities. Extension services should engage in training and demonstration activities that will lead farmers to use increased volumes of agricultural inputs and thereby make agro-dealerships sustainable.

Interventions to increase staple food production should be matched by programs for improving small farmers' access to markets where they can sell surplus production. Food should freely flow from surplus areas to deficit areas at national and regional levels. The governments of the Common Market for Eastern and Southern Africa (COMESA) signed the "Maize without Borders" declaration in 2005 to enable such flows, but recent food security concerns have provoked export restrictions.

Lack of market infrastructure, high transport costs, high storage losses, and lack of market information in Africa combine to destroy enormous value in the continent's food markets. By investing to reduce these costs, African countries have an opportunity to fundamentally alter incentives to farmers, traders, and processors in ways that promote value addition and consumers' access to food at stable prices.

INFRASTRUCTURE

Africa's very poor rural infrastructure constitutes perhaps the single most limiting factor to the continent's agricultural development. The density of paved roads per 1 million inhabitants varies from 59 kilometers in the Democratic Republic of Congo to 114 kilometers in Tanzania, 230 kilometers in Nigeria and 1,402 kilometers in Zimbabwe. India, in contrast, has 1,000 kilometers of paved roads per 1 million inhabitants. The poor state of rural roads in Africa increases transaction costs for inputs and outputs and limits the extent to which trade can ensure the distribution of food within countries and between countries in a subregion. It is often cheaper to import food from Asia or North America than to move surpluses from the interior of an African country to the cities. In addition, only 5 to 7 percent of Africa's arable land is covered by irrigation schemes. Market infrastructure and rural electrification are in a poor state. Basic processing of Africa's staple foods would improve value, increase shelf life, and reduce postharvest losses, but the necessary storage, handling, and processing infrastructure is limited.

CONCLUSION

African agriculture is at a crossroads. The current high food prices and the instability they have provoked in several countries have added impetus for African countries to review their agricultural policies and programs. New agricultural policies will have to be more focused on staple food crops and on their main producers—smallholders, most of whom are women. The new policies must remove constraints that impede access by smallholder farmers to the knowledge, technology, and



financial services they need to increase farm productivity in a profitable and environmentally sustainable manner. Institutional mechanisms that lower the risks of lending to the agriculture sector and to smallholders in particular should be established and programs developed to leverage financial resources from the commercial banking sector.

Governments and the private sector have an opportunity to work together to support the procurement, blending, and packaging of fertilizers. Together they can also support the breeding and multiplication of improved seeds. Government policies should support agro-dealers to ensure that improved seeds and other inputs are available to farmers.

The many issues that African countries must address will be beyond the capacity of

most countries, even after financial resources in private banks are leveraged. External assistance will be very much needed, especially to develop essential road infrastructure, irrigation, and rural energy. Other issues, including land policy, will also need attention.

The road ahead for African agricultural development, especially the attainment of food security, will not be easy. African governments will need to formulate and implement bold pro-poor, pro-smallholder farmer policies that will increase farm productivity, trigger a sustainable green revolution, and end the cycle of food crises in Africa.

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