Government Economic Policies and Food Production in Sub-Saharan Africa

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Many countries in sub-Saharan Africa suffer from chronic food shortages. In recent years, more than half of the countries south of the Sahara have had to import large portions of their basic staple food. Only a handful of the countries in the region have become net food exporters, and even some of these have had to import cereal grains to meet their basic food requirements.

A number of factors are responsible for the inability of African countries to feed themselves. High among these are the populace's lack of skill, limited education facilities, the difficulty of obtaining recent technical breakthroughs, and the lack of physical capital normally found on industrial-country farmsites. Native African farmers typically lack expensive machinery and have only limited access to irrigation equipment. Consequently, the bulk of agriculture in the region is heavily dependent on favorable weather. Unfortunately, as the last several years have demonstrated, drought is an ever-present danger. Sub-Saharan agriculture also suffers from shortages of fertilizer, particularly in landlocked countries that rely on costly, antiquated, and frequently unsafe trade routes to the nearest seaports. Moreover, domestic fertilizer production facilities often suffer from shortages of skilled personnel and lack of spare parts. These factors limit capacity utilization and cause prices to escalate far above the cost of imported fertilizer.

While technical problems are a major contributor to sub-Saharan agricultural difficulties, government economic policies also have an important effect on agricultural production. As in the United States, government programs frequently influence agricultural output by regulating pricing of key agricultural commodities. Government policies also affect food markets, particularly the policy of providing small farmers with facilities to sell produce outside their localities. Government pricing and marketing policies are also directed at generating government revenue and subsidizing the production of other crops.

Important aspects of African governmental agricultural policies differ from those of the United States government, however. Unlike the United States, where agricultural policy since the 1930's has aimed at stabilizing, if not increasing, farm prices, many African governments try to restrain

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or lower food prices by limiting the prices paid to farmers for agricultural products. In some countries this is done to reduce the high operating costs of inefficient and undercapitalized public sector marketing agencies. In others, agricultural prices are limited to reduce consumer prices for the poor. Frequently, however, when inexpensive food is available to everyone, rather than restricted to persons with low incomes, the policy serves to redistribute income from the rural areas to key urban population groups. For example, the price of Zambia's basic staple has traditionally been kept low to allow the mining company to pay somewhat lower wages than might otherwise be demanded by the mining unions. In other countries in which the bulk of the population lives in rural areas, relatively well-paid civil servants living in the capital are often the primary beneficiaries of low food prices.

Although practices differ among countries, many countries limit food prices by requiring farmers to sell their produce at a fixed price to a government-related marketing board and by fixing the prices the board can charge the public. For example, in Malawi all domestically-grown maize must be sold to Malawi's agricultural marketing agency. In Zambia all maize for interprovincial sale must be sold to the National Agricultural Marketing Board. Such marketing boards are common throughout Africa. In southern African countries like Zambia and Malawi marketing boards play a special role in facilitating the transfer of produce from surplus to deficit areas and in the export of smallholder cash crops.

In these countries, new agricultural producer prices are announced one to several months before the beginning of the new crop season. New consumer prices are often announced at the same time. By setting the prices simultaneously, the government effectively determines the marketing agency's operating surplus or deficit. When combined with the agency's nonoperating costs and revenues, the price-setting establishes the agency's overall financial position. In the case of large deficits, a direct governmental appropriation may be made, or a temporary loan provided by the central bank. Alternately, deficits may be covered by increasing the agency's outstanding loan balances or "overdraft," in traditional British banking terminology. In some countries, increasing overdraft balances represents a large, if not the major, source of credit expansion to the public sector. Thus, in some countries the agency will often have a separate credit ceiling or overdraft limit, particularly if International Monetary Fund (IMF) stand-by arrangements have incorporated ceilings on total net domestic assets or aggregate net domestic credit. This in turn limits the marketing agency's overall deficit. If the agency is approaching its overdraft limit, it will need a higher government subsidy or a change in the agency's overdraft limit to continue operating. Alternatively, providing the agency or government with credit for financing losses and subsidy payments can restrict the availability of credit to more productive activities and pressure the country's balance of payments by increasing aggregate credit in the economy. This helps explain why IMF-supported adjustment programs

typically involve both limits on total credit expansion and the increase in net credit to the government or the public sector generally.

In addition to pricing and marketing policies, governments can affect food production through exchange rate policy. This occurs because most developing countries, particularly those in sub-Saharan Africa, depend heavily on imported goods and have noncovertible currencies the value of which is determined by the government through the central bank. Typically, when a country's currency is overvalued, imports are scarce and the returns to farming are depressed. In this situation, farmers near the country's borders can often sell produce abroad for an implicitly higher price, whether in currency or in barter trade, if neighboring prices are higher than domestic prices or if neighboring currency values are artificially low.

What are the effects of these policies on local food production? Although the lack of experimental controls makes it difficult to provide firm empirical evidence, economic theory and the limited data on the elasticity of supply with respect to producer prices strongly suggest that efforts to limit food prices can reduce agricultural output. Without a price ceiling, the price and output of the crop in question are determined by the demand for and the supply of the commodity. It is fair to assume that quantity demanded will rise as prices fall, most probably because the population as a whole can afford to buy more of the commodity. Supply is also determined by the price. Farmers are willing to produce more units as prices rise because the returns from production increase compared to the returns from other crops or the cost of providing additional inputs. In equilibrium, production will settle at the point at which market quantity demanded and quantity supplied are equivalent.

If a price ceiling is imposed that is lower than the price at equilibrium, quantity supplied will decrease, as some farmers will switch to producing other crops, reduce their effort, or shift their sales to unregulated markets. The magnitude of the decrease will depend on producers' responsiveness to price changes, but production will fall. Moreover, the quantity demanded at the lower price will exceed the quantity supplied through the regular market. This suggests that producers may be able to sell additional units by charging a higher price. Producers may find it worthwhile to produce more than they otherwise might and sell the additional units privately. This type of incentive explains the frequency of black markets where price ceilings are imposed.

In addition to affecting supply, government ceilings on food prices also increase the demand for food. As the price of food is lowered, the quantity demanded expands. This increase poses serious economic problems. If domestic production becomes insufficient to satisfy demand, the country may have to import food, which would divert foreign exchange from potentially more productive uses. The problem may become particularly severe if price controls are placed on food items that are already

import dependent. In Zambia, for example, price controls on bread have reduced supplies so that domestically produced bread accounts for less than ten percent of Zambia's consumption needs. Importation of wheat to produce bread has added to Zambia's already severe balance of payments problem. Moreover, the controls apparently have diverted consumption away from domestically-produced maize meal. Zambia's bread problem also may be partly a product of external food assistance. Apparently, recent imports of aid-financed wheat have resulted in an increased demand for bread. This increased demand may be helpful to industrial countries with unsold wheat supplies, but it threatens to exacerbate Zambia's balance of payments situation as demand exceeds available donor financing.

Although government policies limiting food prices are prevalent, problems can also arise when governments act to raise the producer price of key foodstuffs. This encourages domestic farmers to produce more food. If domestic production exceeds local demand, stocks will accumulate. If a poor harvest occurs, this accumulation can be desirable. However, maintaining accumulated stocks imposes costs on the public sector that must be covered, through compensating reductions in prices paid for other commodities, higher consumer prices, or increased government subsidies that are in turn financed through higher taxes or, more typically, increased governmental borrowing. In Malawi, for example, the cost of storing maize has been borne by the Agricultural Development and Marketing Agency, which has run up its outstanding credit balance and has been forced to limit producer prices for other crops. A more serious consequence of raising prices for domestic food crops is that production may be shifted away from competing export crops that may provide greater net benefit to the country in terms of foreign exchange. In Malawi, for example, policies to develop maize stocks by increasing prices reduced the relative returns to groundnut, cotton, and tobacco farming. This encouraged farmers to decrease production of these export crops and increase production of maize. In 1982 and 1983 this led to dramatic increases in marketed maize production—approximately eighty percent—while marketed output of groundnuts, cotton, and fire-cured tobacco, the competing smallholder crops, fell by thirty to fifty percent. Partly in response to this situation, the Malawian authorities agreed to increase producer prices for the 1984-1985 growing season for crops other than maize.

Conclusion

What lessons can be drawn from this brief and perhaps oversimplified survey of government agricultural policies in sub-Saharan Africa? First, domestic policies play an important role in the availability of food often as much or more so than natural resources or technical expertise. Well-intentioned government efforts to lower food costs through price controls can inhibit production and stimulate consumption beyond domestic production capabilities, which creates new import requirements. When prices are kept below production and handling costs, financial pressures are

created that force governments and marketing agencies to raise taxes, absorb credit that might otherwise be used for more productive activities, or lower producer prices for other commodities. Because these policies affect major portions of a country's agricultural activities, they can easily overwhelm the effects of food aid and technical assistance.

A second lesson is that donor countries must understand local economic and technical conditions if their assistance is to be of significant value. In some cases, aid can actually be counterproductive. For example, grants of certain foods may create foreign exchange problems for a country if the assistance changes consumers' tastes and the foods in question cannot be grown locally. Similarly, efforts to foster more advanced, capital intensive farming methodologies may prove counterproductive if they place undue demands on the recipient country's foreign exchange resources. Consequently, donor nations must study the economic and technical characteristics of developing countries before offering food and agricultural aid, particularly simple transfers of surplus agricultural commodities.

The third lesson to be gleaned from this review is that establishing domestic agricultural policy is a highly complex operation, one demanding expertise that is frequently scarce in developing countries. Knowing how to set relative producer prices, determine adequate margins for agricultural marketing agencies, and provide seasonal credit for small farmers are difficult tasks. Technical aid to high-level policymakers can be valuable, if only to educate officials about the risks in setting producer and consumer prices. Currently, the World Bank and other multilateral development institutions fund such technical assistance. Nevertheless, the demand for such services is far greater than developmental institutions can provide. Consequently, donor nations might consider devoting a portion of their aid budgets to technical assistance for financial and policy planning, particularly in view of the effect such assistance can have on a country's entire agricultural effort.