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*Designing Market-based Approaches
to Short and Long-run Emergency Assistance in Africa*

Introduction

It is well accepted that emergency food transfers are required to meet the food needs of affected populations during acute, short-run emergencies. It is also widely acknowledged that growing incomes and well functioning markets are necessary to facilitate access to food by vulnerable groups over the long run. What is less appreciated is that market-based strategies can be used to a) directly address short-run emergencies, and b) reduce the severity of short and long-run emergencies. The purpose of this short paper is to call attention to research findings that provide important guidelines for how this can be done.

In addition to localized transitory emergencies requiring quick responses to avert famine, it is important to recognize a looming long run emergency in Sub-Saharan Africa, one that will result in a food shortfall of 50 million tons by the year 2000 if measures are not taken now to reverse current trends (Pinstrup-Anderson 1994; see also Yudelman, et al. 1994). For this reason, we stress that disaster relief programs to protect vulnerable groups' access to food during transitory crises will be more successful and less costly when combined with strategies to alleviate the chronic causes of poverty. This requires a focus on achieving productivity gains in the entire food system that increase incomes and reduce the real cost of food to consumers over time. The scale of vulnerability to drought and other transitory crises in Africa is primarily due to structural causes of poverty related to low-productivity agricultural systems. Since poverty is the major underlying cause of food access problems, measures to increase real incomes and reduce food costs are crucial, and both of these are achieved mainly through productivity growth throughout the food system.

Guidelines

On-going field research provides some guidelines concerning how emergency assistance can be designed to improve or at least not hinder the functioning of markets, and how longer-run development assistance can be designed to enable vulnerable households to cope more effectively during transitory food shortfalls:

1. Invest in local analytical capacity to understand the behavior of the food system into which food aid is injected. Monetization is often seen as one way to reconcile the potential conflict between the short-run objectives of food aid and the long-run development objectives of the country. Selling the food rather than distributing it free of charge is thought to support the development of markets and avoid some of the disincentive effects that may accompany free distribution. However, whether monetization in fact relieves this conflict in any given country depends on many details of the food aid program. Experience in Mozambique of selling food aid into a competitive market system shows that food aid can destabilize the market and can also generate very large rents to the large traders who typically act as first-buyers. In Zimbabwe, the monetization and subsidization of maize through the existing large-scale milling system suppressed the growth of small hammer mills and small-scale trading networks that were to be the cornerstone of the donor-supported Grain Market Reform Program. In each case, a better understanding of the marketing system into which food aid was being injected could have helped avoid many of these problems.

2. Create a food aid distribution system that ensures active exchange of information across programs for free distribution and programs for monetization. Non-market distribution of food aid inevitably affects markets. Often, these effects stem only from the fact that free distribution of food aid is never perfectly targeted. As a result, the aid displaces some amount of grain purchases that receiving households would otherwise have made on the market, thus reducing demand and driving prices down. At other times, emergency grain

* The opinions expressed here are the entire responsibility of the Food Security Project and do not necessarily reflect the official position of the Ministry of Agriculture and Fisheries

leaks directly on to markets. In either case, the emergency program can have very significant effects on markets. Donors and private sector participants in the monetization program need to have reliable information on emergency distribution plans if they are to manage their program in a way that strengthens rather than harms markets.

3. Work with government agencies, trade associations, NGOs and other donors to invest in public goods such as market information systems, communication networks, a process for establishing legal foundations of markets, and contract enforcement capabilities. Market information systems can be especially helpful in monitoring the effects of food aid programs on markets.

4. Reduce food costs by expanding the range of products available to produce and consume. Accurate knowledge of consumer behavior (e.g., knowledge of potential demand for products currently not in the market) is critical to guide market development programs to improve household access to food, particularly for low-income consumers. Key findings from on-going research in this area include:

a. Consumer preferences can be largely policy-driven. White maize meal consumption patterns in much of eastern and southern Africa appear largely to reflect the influence of food policies affecting the relative convenience and affordability of refined maize meal in relation to whole meal, rather than a strong taste preference for refined meal. For example, less than 20% of 344 urban consumers surveyed in Nairobi in 1993 expressed a strong taste preference for the more expensive refined maize meal, as opposed to the much less expensive unrefined (*posho*) meal. The most important factors affecting consumer choice was relative price and procurement convenience, both of which are largely a function of prevailing and historical government policy. Policy regulations that increased time costs for procuring whole meal and increased its price relative to refined meal (due to subsidies on the latter) have apparently biased urban white maize consumption patterns towards the latter.

b. Consumer subsidies on refined maize meal in Kenya and Zimbabwe have not necessarily promoted food security. Rather, these policies (and associated controls on maize marketing) have entrenched a relatively high-cost marketing system and impeded the development of lower-cost channels. Regulations or inefficiencies at certain stages of the controlled marketing system impose costs that overwhelm the effects of direct

government subsidies. Findings from both Kenya and Zimbabwe indicate that the subsidy on sifted (refined) flour during 1993 was approximately equal to the difference in milling margins between the large-scale milling firms producing the refined meals and informal hammer mills producing whole meals (Mukumbu and Jayne 1994; Rubey 1993; Chisvo 1993). This suggests that governments could have attained their objective of low-cost food for urban consumers just as effectively without any subsidy if they had taken the policy steps needed to make whole meal more easily available in the market.

c. Subsidies on sifted flour in Kenya, Zambia, and Zimbabwe were captured primarily by high income consumers. This conclusion follows from the finding that consumption of whole meal appears to be negatively related to household income, while refined meal consumption positively related to income (Mukumbu and Jayne 1994; Rubey 1993; Diskin 1994). These findings also suggest that whole maize meal is to some extent self-targeting, i.e., given its low price relative to alternatives, it would be the product of choice for many low-income households. These findings are consistent with recent findings elsewhere in Southern Africa (Rubey 1993; Diskin 1994; Jayne et al. 1994).

d. Evidence from Mozambique and Zambia suggests that preferences for white over yellow maize are less strong than previously thought. In Mozambique, where yellow and white maize grain and meals have been freely available at market prices for more than five years, white grain typically receives a 30% to 35% premium over yellow. Whole yellow meal is typically 30% cheaper than refined yellow meal. At these price relationships, poor consumers strongly prefer yellow, unrefined maize meal. Sahn and Desai (1992) estimate that the poorest 20% of consumers in the capital city, Maputo, allocate 15% of total expenditures to yellow maize grain and meal (primarily unrefined), and only 3% to white maize. In Zambia, when yellow maize was imported in response to the 1992 drought and injected onto local markets, its price was 10% to 35% lower than white maize for comparably refined meals. Thus, the record in both countries suggests that poor consumers can receive substantial benefits without any government subsidies simply by allowing unrefined yellow meal to be readily available in the market. More generally, allowing greater consumer choice in food can go a long way towards replacing government subsidies in economies that have been heavily regulated.

e. Market reforms that allow the system to be more responsive to consumer preferences may also facilitate increased productivity and employment growth. For example:

i. Yellow maize currently has higher yields than white maize under the same production technology in Southern Africa. Allowing smallholders to produce yellow maize would thus increase productivity at the farm level;

ii. At the sectoral level, allowing the market to determine the demand for yellow maize could also increase the policy options available to government to ensure sufficient maize supplies at stable prices. This conclusion is based on the fact that the world market for yellow maize is far larger and far more stable than that for white maize. Policy makers can therefore use it much more effectively to stabilize domestic markets. If governments make the political decision that their constituents will not have access to yellow maize in spite of an apparent niche for it among low-income consumers in some countries, then it is important to recognize that this decision entails relatively higher stock levels and stockholding costs, relatively higher white maize prices, relatively higher import prices in the event of shortfalls, and relatively higher levels of food insecurity.

iii. Whole meals can be argued to increase food system productivity, since they yield 15% to 40% more human food, and at a lower price, for a given amount of grain.

iv. Hammer mill technology (which is used to produce whole meal) generates more employment per unit of production, and because the equipment is much less expensive, provides an entrepreneurial opportunity for far more people than does large scale roller mill technology.

f. Perhaps most importantly for future research, we stress the importance of *ex ante* analysis that informs decision makers regarding how preferences may change with policy, instead of implicitly taking preferences as given and formulating food policies around prevailing consumption patterns. When given a wider range of products differentiated by price, consumer choices may be more flexible than supposed by conventional wisdom. Improved knowledge of consumer behavior can widen policy makers' perceptions of feasible options to protect vulnerable groups and increase receptivity to sustaining the recent food policy reforms in Africa. A corollary of this is that this kind of knowledge may help policy

makers feel less compelled to reimpose controls at a later stage in the reform process.

5. Focus on the cost and reliability of food supplies to rural areas as a part of income diversification strategies designed to promote access to food over the longer run. It is difficult for rural households to exploit alternative income earning opportunities such as cash cropping or non-farm employment when food markets do not assure a reliable supply of food in rural areas or when retail food costs in rural areas are so high that these activities become unviable. Thus, underdeveloped rural food markets trap smallholders in food security strategies that result in incomes and food security levels lower than they would otherwise be.

6. Focus on achieving productivity gains in the entire food system. Government and donor disaster relief programs to protect vulnerable groups' access to food during transitory crises will be more successful and less costly when combined with strategies to alleviate the chronic causes of poverty. This requires a focus on achieving productivity gains in the entire food system that increase incomes and reduce the real costs of food to consumers over time. The scale of vulnerability to drought and other transitory crises in Africa is primarily due to structural causes of poverty related to low-productivity agricultural systems. Since poverty is the major underlying cause of food access problems, measures to increase real incomes and reduce food costs are crucial, and both of these are achieved mainly through productivity growth.

7. Researchers need to study the implications for emergency programs of evolving United States and international food and trade policies. Changes in the international policy environment brought on by GATT, and in the domestic environment by pending changes in U.S. commodity policy, may make it easier to design market-based approaches to emergency assistance. One important effect of these policy changes is likely to be further reductions in industrial country grain surpluses. Assuming continued commitment by these countries to humanitarian assistance, this new policy environment introduces the possibility and perhaps necessity of delinking such assistance from commodity policy. In other words, it may now be possible to see a time when emergency assistance programs would be based on a pot of money rather than a bushel of corn. Relaxing the requirement that emergency assistance monies be used to purchase surplus commodities could bring significant benefits in the form of reduced costs and increased programmatic flexibility:

a. **Having money rather than commodities to respond to emergencies can reduce international transport costs and time procurement delays.** This is possible because food emergencies seldom affect all areas of a country or region. Thus, it is generally possible to procure needed supplies in surplus areas of the affected country, or at least in regional markets. This should improve timeliness (a frequent problem in emergency programs) and reduce costs.

b. **Donors and national governments could more easily facilitate effective market responses to emergency situations.** One can imagine an approach in which donors and the local government mount cash for work projects in areas of the country affected by drought or some other natural or man-made disaster, thereby increasing effective demand in the area. At the same time, they facilitate market response to this increased demand through temporary transport subsidies into the area. This approach could be effective if the country has areas of surplus production and if an adequate trading network exists. If domestic surplus areas do not exist, special lines of credit to importers could also be used. This is only one example of how markets could be utilized more effectively to address emergency situations in the new policy environment.

Notes

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