



INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

sustainable solutions for ending hunger and poverty

2033 K Street, NW
Washington, DC 20006-1002 USA
Tel: +1.202.862.5600
Fax: +1.202.467.4439
Email: ifpri@cgiar.org
www.ifpri.org

Implications of the Food Crisis for Long-term Agricultural Development

Nicholas Minot

Senior Research Fellow, Markets, Trade, and Institutions Division

International Food Policy Research Institute

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The prices of maize, wheat, rice, and other crops have more than doubled over the past two years. These price hikes have been catalyzed by various factors including the rising cost of oil, biofuel subsidies in the US and Europe, the depreciation of the US dollar, the prolonged drought in Australia, and restrictions on the export of rice and wheat by various countries including Vietnam, India, Russia and Argentina.

However, these short-term “headline” causes would not have had the same dramatic effect on world markets if we had not experienced a 5-10 year period of disequilibrium, in which the growth in cereal demand outpaced the growth in cereal production. This imbalance has been reflected in declining global cereal stocks since 2000. Cereal demand has been growing at 2-3% per year, thanks to rising incomes in China, India, and, more recently, sub-Saharan Africa. As incomes rise, people diversify their diet and consume more meat and other animal products, increasing the demand for feed, particularly maize. Meanwhile, yield growth in these cereals has declined from 3% in the 1970s to 1-2% in the 1990s, largely due to declining public investment in agricultural research.

What are the implications for long-term agricultural development strategy? The most immediate need is to accelerate yield growth, particularly in the staple-food crops. This is necessary for cereal supply to keep pace with growing demand, thus maintaining downward pressure on cereal prices. Although private-sector investment in agricultural research is rising, it cannot fill this gap because private firms are not interested in seed that is easy to recycle from one season to the next. And yet, numerous economic studies (over one hundred to date) confirm that investments in agricultural research in developing countries offer high rates of return, generally more than 30% per year. National agricultural research institutes in developing countries have experienced declining budgets since around 1990, partly as a result of ill-advised reductions in government spending associated with structural adjustment programs. Similarly, international agricultural research centers have suffered budget cuts because the international community interpreted falling food prices as a sign that food shortages were a thing of the past. Renewed support for agricultural research and development should include short- and long-term training for agricultural scientists, competitive grants for research, funding to evaluate impact, and assistance with management and organization of research institutes.

Second, the institutions that deliver technology from the researcher to the farmer need to be strengthened. Agricultural extension services must broaden their mandate from technical information about new varieties and fertilizer application rates to include more information on prices and markets in response to the growing commercialization of agriculture in developing countries. In addition, efforts to make extension services more responsive to the needs and constraints of farmers should be supported and scaled up.

Third, access to modern agricultural inputs, such as fertilizer and improved seed, can best be assured by developing private distribution networks. One approach is to work with agro-input dealers to improve coordination and reduce costs. Large-scale fertilizer subsidy programs are not a long-term solution, but subsidies may be justified to demonstrate the benefits of new technologies (if temporary) or for poverty reduction (if targeted to poor households). Programs that distribute vouchers redeemable at agro-input dealers help strengthen the private distribution system. This approach shows promise in some situations, but needs to be tested more widely.

Fourth, higher productivity may cause local gluts and price collapses if the marketing system is not able to efficiently distribute the surpluses to consumers throughout the region and from the harvest season to the off-season. For this reason, investments in agricultural research and development must be coupled with efforts to reduce the cost of marketing and storage in developing countries. Progress is needed in the following five areas:

- a) Public investment in marketing infrastructure. This includes the construction and maintenance of ports, bridges, roads, and market places. Too often infrastructure spending is biased toward urban areas, reflecting the greater political power of urban residents, but it is the “invisible” investments in rural roads that often has a higher payoff. The use of labor-intensive food-for-work programs to maintain rural roads can serve both infrastructure and poverty-reduction goals.
- b) A policy environment that is conducive to agricultural marketing. This involves the establishment of a clear set of guidelines regarding the roles of the private and public sector. Private traders can assemble, transport, store, and distribute food at a lower cost than government agencies. Yet, policies in many developing countries make food marketing more risky than it needs to be. Occasional export bans, unpredictable intervention in buying and selling staple crops, vague declarations against “hoarding” or “price gouging”, and impediments to cross-border trade contribute to a climate of uncertainty, which discourages investment and raises the cost of marketing at the expense of both farmer and consumer.
- c) Reduction in internal and external barriers to trade. Reducing the cost of agricultural marketing within a country helps distribute surpluses to consumers, raising prices for farmers and reducing prices for consumers. The same logic applies to agricultural trade that crosses international borders, whether it is formal overseas trade or regional cross-border trade. The current food crisis provides several examples of the adverse impact of export restrictions in raising the prices paid by importers and making global food markets more volatile. Less widely appreciated is the fact that high tariffs have similar effects, raising domestic prices and exacerbating world price volatility. Industrialized countries must provide better access to their markets and eliminate tariff escalation, which more heavily protects processed goods. However, most of the potential gains from trade liberalization in developing countries depend on those countries reducing their own protectionist policies.
- d) Efforts to promote transparency in agricultural markets. Too often food marketing is hampered by limited access to information, little or no formal credit, and a wide range of local units of measure which prevent farmers and traders from comparing prices. Market information systems that collect and disseminate information about prices and market conditions exist but must be improved and expanded. New approaches to providing

credit to farmers and traders on a sustainable basis are needed. And efforts to standardize weights and measures would promote competition.

- e) Improved instruments to manage risk. Many of the government interventions that make markets unpredictable in developing countries are tied to efforts to reduce price volatility. Although some fluctuation in agricultural prices is inevitable, there are methods of reducing the risk associated with this volatility. Greater attention should be given to 1) efforts to facilitate storage by traders and farmers, 2) the development of insurance based on weather indexes, and 3) the use of futures markets to hedge, thus “locking in” the price of politically-sensitive imports.

However, it is a mistake to think that one can design in advance the optimal long-term agricultural development strategy. Agricultural policy and public investments must adapt in response to evolving conditions, including those brought about by climate change, the rising demand for bio-fuels, changing diets, and urbanization. Thus, it is essential that developing countries improve their own capacity to collect information, analyze data, diagnose problems, and identify policy solutions. In particular, there is a need for more systematic and regular evaluation of policies and programs to assess their effectiveness.

In summary, long-term agricultural development strategy should focus on investments in agricultural research and extension, nurturing private input markets, and promoting efficient crop markets through infrastructure, trade, transparency, risk management, and a conducive policy environment. In the long term, these measures will ameliorate the rise in food prices and reduce market volatility in local, regional, and global food markets.

Thank you.