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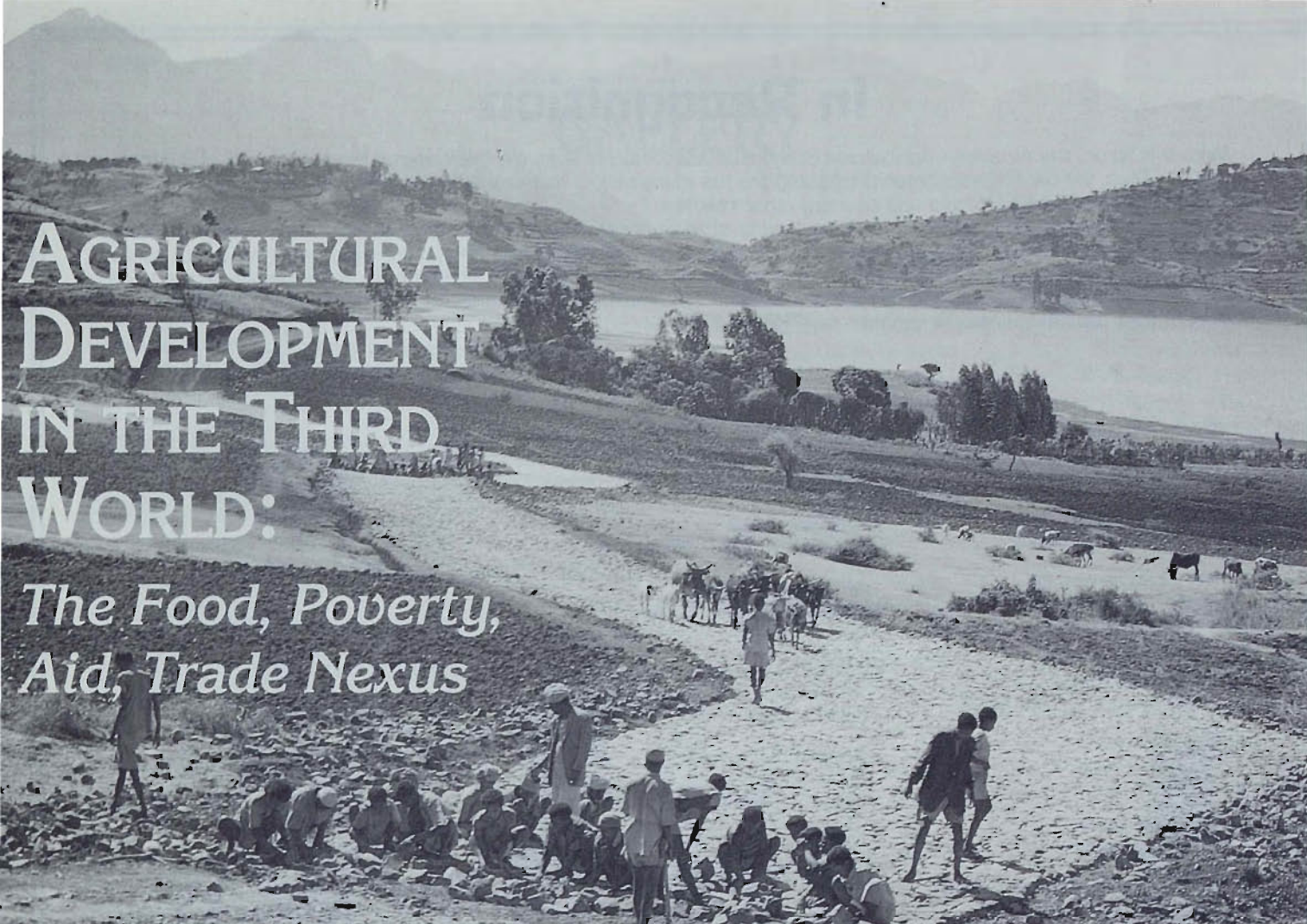
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AGRICULTURAL DEVELOPMENT IN THE THIRD WORLD:

The Food, Poverty, Aid, Trade Nexus



— by John W. Mellor —

➤ It is time for developing countries to emphasize agriculture and employment-based growth strategies. This approach will generate demand for food even more rapidly than the supply of food can be created in the developing countries. Concurrently, the surplus production capacity for food in the developed countries can be used to meet this growing effective demand.

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S. farmers, humanitarians, and the people of developing countries have a particularly strong mutual interest in the expansion of incomes in developing countries and the related growth in international markets. In fact, prospects for such growth have never been greater. That optimism is based in large part on the continued expansion of human capital in developing countries throughout the distorted, maladjusted 1980s and major advances over the past 20 years in the strategic knowledge of what is needed to produce broad-based development. There is also encouraging evidence of a possible shift in the geopolitical environment toward increased attention to development and the elimination of hunger.

Currently, however, four common misconceptions pose formidable obstacles to cooperative action and effective policies that could exploit the mutual interests of developed and developing countries:

- The first misconception is that eliminating hunger through accelerated rural growth in developing countries cannot occur alongside expanding commercial markets for food exports from the U.S. That would seem too good to be true.

- Second, concern about the effect of food aid on producer incentives causes us to overlook already-existing distortions that reduce employment and associated demand for food far more than food aid-induced distortions.
- Third, the emphasis on capital as a source of economic growth diverts attention from agricultural technologies and how they can contribute to increased rural incomes, thereby stimulating consumer demand, employment growth, and food consumption.
- And fourth, the notion that the GATT agricultural negotiations are largely a developed country issue obscures the reality that agricultural trade is critical to developing country economies. In fact, agricultural trade among developed and developing countries is not only highly complementary, but also represents the only major expanding market for U.S. agricultural exports.

Realizing the optimistic vision of economic growth and substantial reductions in poverty and hunger will require a partnership between developed and developing countries. Specifically, that partnership should encourage a reorientation of developing countries toward an agriculture and employment-based growth strategy. It would include increased use of food aid, the transfer of scientific capacity, elements of trade liberalization, and a variety of food security arrangements—all to be facilitated by both bilateral and multilateral institutions. By exploiting the mutual interests of developed and developing countries, it may now be possible to free the world's half billion to one billion hungry from extreme poverty through increased incomes and access to food.

Agriculture/Employment-Based Development

People now recognize that the proximate cause of hunger in developing countries is lack of purchasing power on the part of the poor. Some misinterpret this reality as implying that poverty and associated hunger are simply problems of unequal income distribution in developing countries. That view overlooks the role of food production as a primary determinant, directly and indirectly, of the income of poor people in these countries.

The bulk of the poor in developing countries are scattered throughout the rural areas, employed largely in agriculture or related occupations. The scarcity of capital in poor countries makes it impossible in the short run to absorb more than a small portion of these people outside the rural sector. Consequently, growth in food production—and agriculture in general—is the only means by which the employment and incomes of the poor can be increased on a widespread basis. And it is only through increased incomes that the poor will be freed from hunger in a self-reliant manner. The potential for agriculture-led income growth is great because of the concentration of poverty in rural areas that are highly responsive to modern agricultural technology. As development occurs—through greater use of modern technologies—poverty can be quickly reduced in those areas.

Agriculture-based development expands employment and incomes in two ways. First, efficiency-enhancing technologies lead to

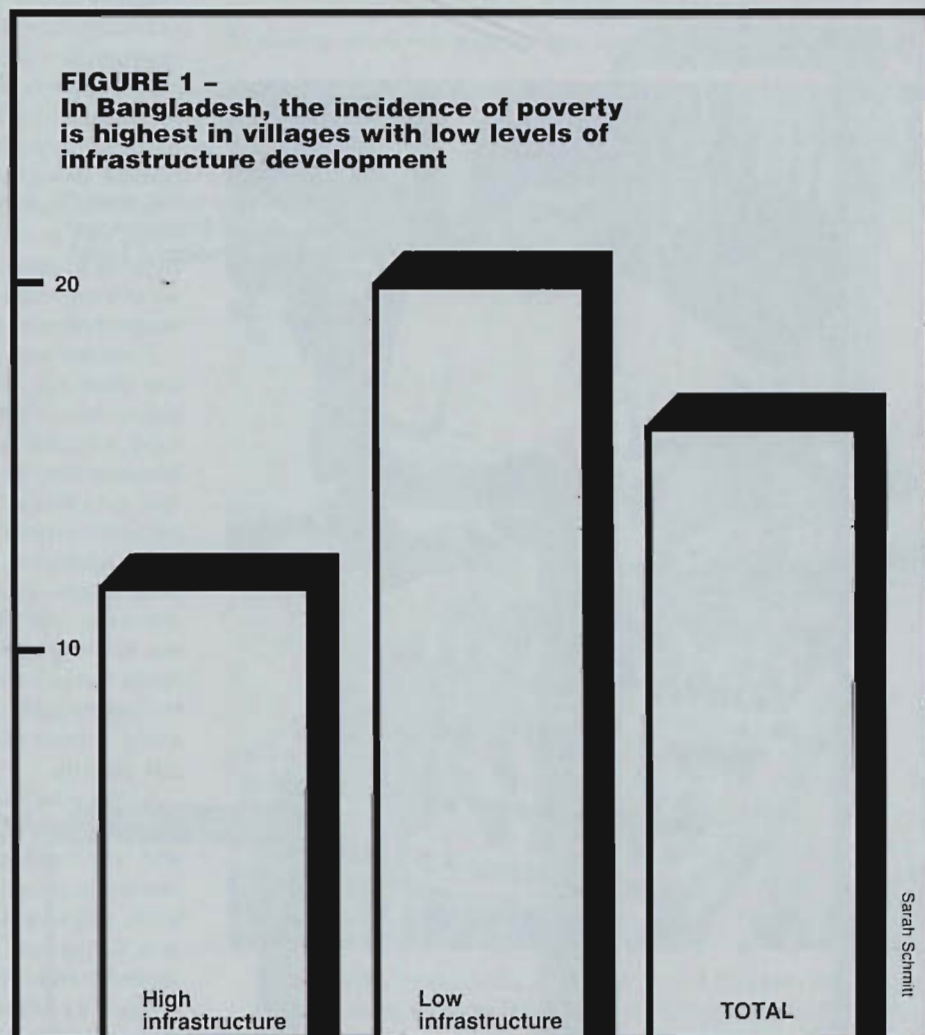
higher production and more employment in agriculture. Second, and far more important for employment, small farmers spend much of their additional income (60 percent or more) on locally produced, labor-intensive goods and services, including livestock and horticultural products, as well as nonagricultural goods and services. These expenditures have large multiplier and linkage effects in the nonagricultural sectors, stimulating large increases in employment throughout the rural economy.

Two side relations are notable. First, meeting rapidly growing food requirements of an expanding workforce by commercial imports tends to raise food prices relative to other goods through the effect on real exchange rates, unless these imports are matched by extraordinary success with exports. This is because of the heavy weight of food in developing economies. In fact, with respect to food supply-demand balances, low-income countries behave very much like closed economies. Second, economic growth driven by rural employment and related domestic demand restrains the use of capital (the scarce factor of production). As a result, the rural strategy leads to faster growth in employment, and faster overall economic growth.

Three Key Elements

It is useful to simplify an agriculture/employment development strategy to three key needs:

Efficient markets. Improved agricultural technologies make it possible for individual farmers to produce more than they consume. These marketable surpluses require that small farmers integrate into product markets, input markets like those for fertilizer, and markets for a myriad of consumer goods and services.



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Conditions are too complex and dynamic for governments to operate these markets. But, concurrently, these markets are so embryonic that they require major government attention if they are to be efficient and effective. Such a role is far from *laissez faire* and requires large numbers of trained people, effective institutions, and flexibility.

Foreign technical and financial assistance can facilitate market development processes, but astute diagnostic capabilities are also required. The current foreign assistance fad of pretending that little such assistance is needed in a simplistic drive for deregulation and desubsidization is destructive.

Indigenous agricultural research. Improved agricultural technology leads to net additions to national income and is the basic engine of growth in low income, substantially rural developing countries. However, agricultural technology can't simply be transferred across highly diverse conditions. The necessary adaptive research requires the training of scientists, the building of research facilities, and the organizing of private or public institutions to distribute products incorporating the new technologies. Furthermore, widespread adoption of improved technologies requires a myriad of complementary institutions such as facilities for rural credit and the distribution of seeds and fertilizer.

Again, foreign assistance can play a major role in the growth of



Agricultural research is increasingly sophisticated, offering vast scope for technical assistance to national systems, often through large complex international research centers depicted here.

national research systems and the institutions critical to technological change. Bilateral donors such as the United States can mobilize their own national research and education capacities to assist in these important endeavors not only for the benefit of the developing countries but for the long-term benefit of U.S. farmers producing farm products for export. Because the United States has a clear comparative advantage relative to other countries in this area, the development of national research and institutional capacity should be central to U.S. bilateral foreign assistance efforts.

Rural infrastructure. Agricultural development requires massive investment in physical rural infrastructure as well. Electric power, communications and, in particular, rural roads are examples. Infrastructure like roads and telephones make it possible for farmers to buy farm inputs, to sell surplus production, and to buy consumer goods necessary to raise the standard of living of their families.

Good infrastructure is also essential for bringing trained people to rural areas. They are the embodiment of the institutions essential to technological progress. Educated people are understandably hesitant to bring their families into backward, isolated rural areas.

Infrastructure is particularly important to poverty reduction—1970s foreign aid fads to the contrary (Fig. 1). Conditions in Bangladesh illustrate the point. In that country, the poverty rate is 40 percent lower and calorie intake of the poorest people is 7.5 percent higher in villages with good infrastructure than villages with poor infrastructure, other factors roughly constant.

Similarly, wage rates are 12 percent higher per hectare, employment in agriculture 4 percent higher, and employment in nonagriculture 30 percent higher in the villages with good infrastructure. The differences are largely associated with the direct and indirect effects of higher agricultural productivity and production.

The need for large investments in rural infrastructure offers an extraordinary opportunity to use the massive surplus food production capacity of the developed countries. The most important input for building rural infrastructure is labor which, when employed in building roads and other rural infrastructure, uses most of its new income to purchase food. Consequently, there is an extraordinary opportunity to use large quantities of food aid in support of rural public works.

Food aid can help both to relieve poverty and poor nutrition in the short run and to provide the basis for increasing domestic production in the long run. When used in building infrastructure, food aid adds to supplies but, because of its link to increased employment, it also increases demand for food. Therefore, it neither cuts into local production incentives nor acts as a substitute for commercial food imports.

An additional 20 million tons per year of food aid—triple present levels—could be effectively used under the right kind of domestic and international assistance programs. This 20 million ton estimate is based on the need to build a minimal grid of rural roads throughout the developing world over a 15-year period and the assumption that there is a willingness to lift people to levels of living at least slightly above a nutritionally defined level of absolute poverty.

To be effective, the necessary roads and other infrastructure must be reliable, permanent, “all-weather” facilities. Thus, food and labor resources should be combined with other resources as needed to provide effective facilities. Rather than be purely make-work, projects should reduce their food component to between 15 and 40 percent of total resource cost, allowing for an increased share for other required resources.

Such an effort calls for a major reorientation of development assistance. For example, in negotiating with developing countries,

USAID should give priority to rural infrastructure projects and see that food aid is complemented with requisite other resources, either from other donors or by the country itself. The World Bank and the World Food Programme should also coordinate their efforts to emphasize rural infrastructure and obtain the optimal mix of food and other resources.

Undertaking a strategy of agricultural development has substantial political implications for developing countries. It necessarily involves widely dispersed rural people—small farmers, landless laborers, and petty entrepreneurs—in geographically and individually decentralized decision-making processes. Such a strategy lends itself well to decentralized, democratic processes, with a market orientation. And it runs counter to the highly centralized political systems based in urban areas often found in developing countries. As rural education expands, rural politicians will increase their influence. Food aid for infrastructure can accelerate the evolution of political systems more in favor of rural constituencies by providing higher incomes and improving rural communications.

Agricultural Trade

Agricultural production in developing countries is especially labor-intensive. In addition, multiplier effects of agricultural production on employment in other sectors of the economy are high and the poor have a high propensity to spend increased income on food. Therefore, even rapid increases in domestic agricultural production tend to fall short of the increases in demand associated with it. This expectation is consistent with the observation that the fastest growing developing countries in terms of production of basic food staples have nearly quintupled the imports of those same commodities during the past few decades (Fig. 2).

Developing countries are fortunate that there is surplus food production capacity in the developed countries. This surplus capacity permits these countries to more aggressively pursue expansionary employment programs without fear of higher costs for food imports undercutting their efforts. That is good for both poverty reduction and for economic growth.

It is also good news for U.S. farmers who face a major structural problem of continual increase in the productivity of their agricultural resources and little or no increase in domestic demand, although not all their adjustment problems can be solved by growing demand of developing countries.

An agriculture-based strategy of development requires deployment of capital, as well as food imports in order to create employment. The demand for capital-intensive agricultural inputs such as fertilizer and various industrial intermediate products grows rapidly with the adoption of new technologies. If these inputs are provided by domestic production, capital intensity would increase, thereby limiting the potential expansion in employment and, hence, in demand for food. Thus

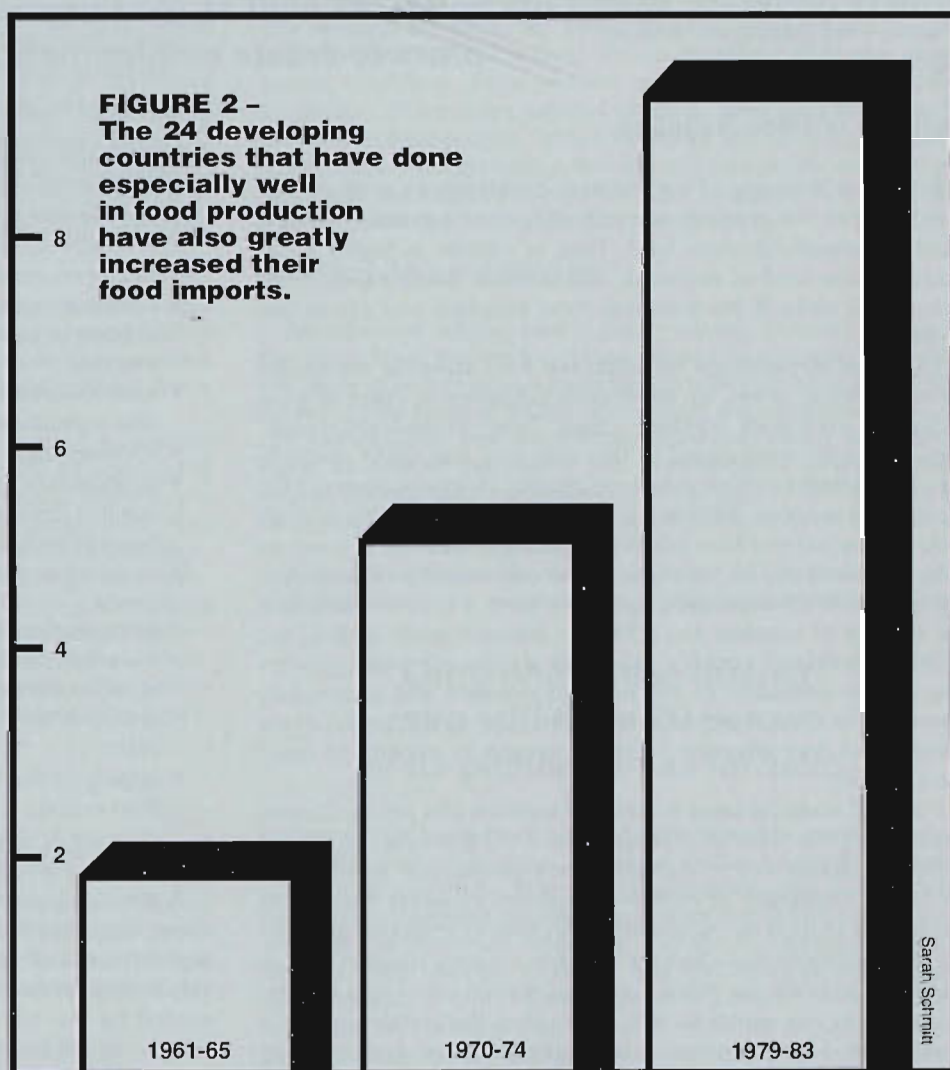
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capital-intensive inputs should, in large part, be imported.

Basic food staples are also scarce in developing countries, reflecting rapid growth in demand and limitations of land area. Therefore, virtually all developing countries can be large and growing net importers of basic food staples or, more generally, land-using agricultural products. For the poor developing countries, these imports must be paid for in substantial part by agricultural exports. Producers of such agricultural commodities, particularly cereals, in developed countries have much to gain from such development. However, to realize that potential, they must take a statesmanlike view of trade.

GATT Negotiations

Because agriculture bulks so large in their production, consumption, and trade, the current round of GATT negotiations in agriculture are of crucial interest to developing countries. Understandably, they are pessimistic about the opportunities to influence the negotiations. Nonetheless, both developing country leaders and U.S. farmers should recognize the importance of the



negotiations to developing countries and their prospective food imports.

At the same time that developing countries increase their net imports of food staples, virtually all will produce some agricultural commodities for which they have a comparative advantage for exporting to other countries. They are already immense exporters of tropical agricultural commodities and have large potentials for increased exports of labor-intensive agricultural commodities for which demand in developed countries is still only mildly inelastic. An example is horticultural products for which the developing countries share of trade is growing and for which they already have close to half the market.

Thus, in the interests of growth in agricultural trade, the GATT negotiations must modify the trade regimes of the developed countries so that they import more of the relatively labor-intensive commodities that help increase incomes and hence the demand for food in developing countries. There is also a need for a free play of comparative advantage for those countries that are net agriculture importers but have an advantage in export of a specific agricultural commodity that is competitive with developed countries.

As a minimum, GATT negotiations should provide most-favored-nation treatment to developing countries in the critical areas of labor-intensive agricultural commodities. Fair GATT rules would also protect the interests of the few developing countries that are exporters of basic food staples (Thailand and Argentina alone provide 80 percent of net exports of basic food staples for developing countries).

Stability of Food Supplies

Finally, a strategy of agricultural development brings large numbers into the political process who, quite naturally, become used to consuming more food. That, of course, is highly desirable. But this kind of economic and political transformation has substantial risks if international food supplies and prices are unstable.

Increased dependence on imported food supplies will create severe political stress for developing countries in years of poor global, or even poor domestic crops. Thus, if developing countries are to be encouraged in this direction, the world needs to turn its attention to how to ensure stability in food supplies. That task is made more difficult by the increased instability of both food production and food prices in recent decades.

In this context, U.S. farmers, developed country officials and the rural poor of developing countries have a mutual interest in the stability of supplies and prices for internationally traded food grains. Developed country exporters should eliminate policies that create instability in international markets and uncertainty about future food supplies and prices. The GATT negotiations should also give attention to stable growth in exports of basic food staples.

Food aid could be used to stabilize supplies and prices. Donors usually vary the volume of program food aid from year to year to offset variations in the domestic food production and foreign exchange availability of recipient countries. However, the overall availability of food aid is unreliable, shifting in response to political developments and changes in donor country supplies. As an international body, the World Food Programme could play a stabilizing role in this situation. But, apart from the stabilizing role it plays in food emergencies, it is unable to do so over a longer term in part because it receives its food resources from the same

donors that provide food aid directly to recipient countries.

Stability could also be achieved through the revival, improvement, and expansion of the International Monetary Fund's Cereal Facility. Originally, it was created to finance food imports for poor countries when they have domestic crop failure or when prices soar in international markets. But lack of separation of the Cereal Facility from broader functions of the IMF and excessively stringent operating rules have greatly limited its role in reorienting development strategy toward agriculture and employment growth. It is in the interests of both the poor developing countries and agricultural exporters to rehabilitate this facility.

An Opportunity

We now have an extraordinary opportunity to quickly and almost completely end hunger and poverty in developing countries. Pursuit of an agriculture-led, employment-oriented growth strategy will generate demand for food even more rapidly than the supply of food can be created in the developing countries. Concurrently, the surplus production capacity for food in the developed countries can be used to meet this growing effective demand.

However, if the surpluses in one part of the world are to be put together with the deficits of another, trained people and institu-

tional structures are necessary.

The effective development of agriculture in developing countries requires technological assistance from the developed countries and massive use of food aid for building infrastructure. On the trade front, it means open-trading regimes that make room for labor-

intensive agricultural imports from developing countries so that they can increase their imports of land-using food staples and of capital-intensive intermediate products.

The most valuable elements of trade and foreign assistance for developing countries are:

- a trading regime that ensures ready access to growing imports of basic food staples and stability in international markets;
- most-favored-nation treatment of their exports of labor-intensive agricultural commodities;
- nondiscriminatory treatment of tropical agricultural exports;
- rapid growth in food aid as institutional structures are built to use this assistance for employment-creating purposes, particularly including rural infrastructure;
- rapid expansion of the capacity of developing countries to create the institutions of agricultural research and to promote technological innovation by small farmers through the use of the scientific and higher education capacities of the developed countries;
- growth in the policy-analysis capability of developing countries;
- large financial flows to allow imports to grow more rapidly than exports to facilitate employment growth and to assist changes in policies to more decentralized, rural-based, employment-oriented strategies of growth.

A major reorientation of foreign assistance is required to exploit these opportunities and at least marginal adjustment in domestic agriculture and trade policy. Indeed, substantial efforts are required if American farmers are to seize the opportunities presented by the complex interactions among hunger, technology transfer to developing countries, income growth among poor people, trade and U.S. farm exports.

