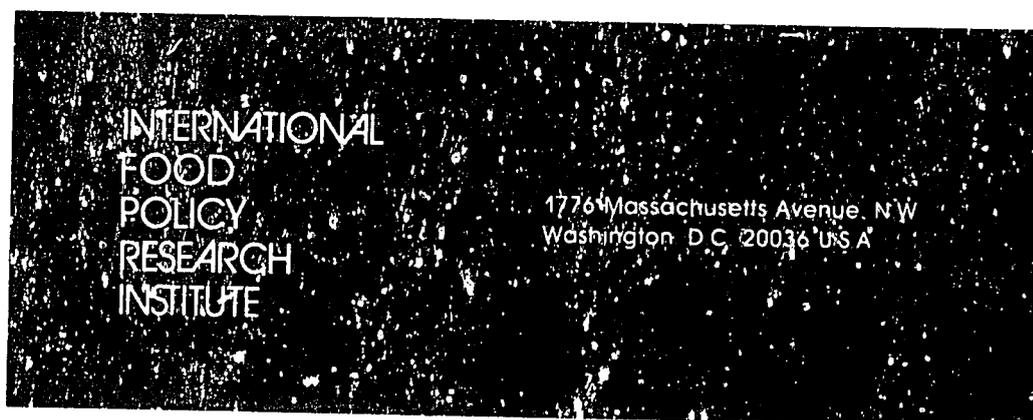

Food Policy, Food Aid and Structural Adjustment Programmes: The Context of Agricultural Development

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The context of agricultural development

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There are two troubling aspects to structural adjustment programmes currently underway in developing countries. First, in the urgency to achieve short-term objectives, adjustment programmes often neglect long-term concerns of sustained growth. Second, the immediate impact of adjustments can lead to a deterioration in the income and nutritional status of the poor. This article emphasizes the need for structural adjustment programmes that help set the stage for renewed economic growth and are sensitive to the well-being of the poor. It recommends a strategy of agricultural development to return developing countries to their comparative advantage in the production of labour-intensive goods and to encourage overall growth. Furthermore, it argues for the use of food aid to support that strategy and as a means to protect the poor from the hardships inflicted by adjustment programmes.

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Developing countries have experienced a series of economic crises growing out of the rapid increase in oil prices of the 1970s and continued low and unstable prices for exports. Contributing to these problems has been a rapid increase in private capital flows that have often exceeded local investment capacities, thereby encouraging high levels of public consumption and a low rate of return on investment. In recent years these and similar problems have severely distorted the functioning of many developing economies and have resulted in unmanageable debt repayment schedules, large and often growing budget deficits, and rapid inflation.

Many developing countries have now implemented structural adjustment programmes to confront these problems. Exchange rates have been realigned to deal with shortages in foreign exchange, agricultural prices have been set at parity with international prices, public expenditures have been drastically reduced, and markets are now operating more freely. Considering the size of shocks to developing country economies and the aftermath of the debt crisis, the course of these adjustment efforts is encouraging.

There are, however, two troubling aspects of these structural adjustment programmes. First, the climate of urgency that surrounds adjustment proposals argues for quick fixes and diverts attention away from critical long-term development issues. In many instances, the ultimate success of adjustment efforts can only be measured in how they contribute to long-term development efforts aimed at upgrading such public goods as education, rural and urban infrastructure and agricultural research. In other words, successfully implemented adjustments should set the stage for renewed growth.

Second, adjustment policies can inflict considerable hardship on the

poor. Fiscal and monetary policy changes often produce falling real wages, substantial increases in food prices and reductions in food subsidies and other transfer programmes to the poor. While the accelerated growth consequent to macroeconomic reforms may expand employment and even nominal wages, there is increasing evidence that the very poorest do not immediately participate in such improvements. In the short run, the poor may even suffer a deterioration in their income and nutritional status.

Economic growth

Adjustment programmes typically involve radical changes in government policies designed to improve the efficiency of the public sector. Depending on the specific situation, a number of adjustment options are available. Reduced government expenditure can be used to free resources for more productive use and, when combined with tight monetary policies, works to contain inflation. A devaluation of domestic currency reduces the outflow of foreign exchange by affecting the relative price of traded goods, thereby restricting the demand for imports and promoting exports. Market restructuring schemes can be used to save on administrative costs of government-operated marketing organizations and to restore price incentives to domestic production.

Adjustment policies are designed to produce a streamlined public sector, a more balanced external account and more efficient internal markets. These outcomes represent necessary – but not sufficient – conditions for accelerated economic growth. If growth is to be achieved, the resources obtained through adjustments must encourage expenditures on the public goods needed to facilitate broad-based development. In other words, along with effective improvement in sectoral policies, adjustment programmes must be directed towards the specific goals of an overall strategy of development.

In the past, development efforts have frequently focused on capital-intensive strategies of growth. To ensure the availability of resources for investment in high-growth capital goods production, these strategies suppress the production of labour-intensive consumer goods. As a result, growth in employment is minimized. Underlying these strategies is the assumption that factor proportions in production are technologically fixed and that a surplus of labour can, only in the long-run, be mobilized by an expansion in the supply of capital. In addition, because the supply of capital goods is seen to be the principal constraint to development, little is done to promote agricultural production.

The assumption that factor proportions are technologically fixed ignores the role of technological innovation in improving factor productivity – specifically labour. Furthermore, by ignoring the vital link between the market for labour and the market for food, capital-intensive strategies create distortions in the allocation of resources for the production of food. Throughout the developing world increased employment of the poor creates large increases in the demand for food. Elasticities of expenditure on food run as high as 0.62 to 1.06 for the poor in developing countries.¹ Unless sufficient supplies of food are available to meet increased demand, prices increase and the real incomes of the poor decline concomitantly. The pursuit of a capital-intensive strategy of development therefore tends to place an undue burden on the poor and represents a failure for developing countries to exploit their comparative advantage in labour-intensive production.

¹Harold Alderman, *The Effect of Food Price and Income Changes on the Acquisition of Food by Low-Income Households*, International Food Policy Research Institute, Washington, DC, 1986.

In the context of a global economy, adjustment programmes should move to exploit that comparative advantage. Therefore, a major focus of structural adjustment should be towards accelerated long-term growth in employment of the poor. The link between increased employment and the demand for food suggests that adjustments promoting growth in agriculture can be especially effective in promoting overall growth. Given the present global debt crisis, a capital-saving agricultural strategy seems particularly appropriate. By raising the purchasing power of the poor through increased employment, agricultural growth gets food into the hands of the poor through market mechanisms. Over time, it can eliminate much of the need for policies such as food subsidies which distort the functioning of a developing economy.

The development of agriculture promotes employment of the poor through increased production of labour-intensive wage goods, particularly food. Such a strategy emphasizes the widespread dissemination of new agricultural technology to increase yields and to improve the productivity of labour. The sheer size of the agricultural sector in most developing countries, accounting for 40 to 80% of total employment, ensures that agricultural growth, through its multiplier effects, will have important macroeconomic implications.

Technological change in agriculture increases the incomes of small landowning farmers. In Asia, these farmers typically spend a large proportion of their new incomes on locally-produced, non-agricultural goods and services such as textile products, transportation and health services, and housing (see Figure 1). Production of these goods tends to be far more labour-intensive than in large-scale industry. As a result of the increased expenditures of landowning farmers, the rural poor gain a wide range of new, non-agricultural employment opportunities.

Accelerated agricultural growth thus leads to increased employment for the poor. As the poor begin to work more steadily, their purchasing power also rises. The resulting increased demand for food and other goods provides strong, indirect multiplier effects which stimulate new rounds of growth in the economy as a whole. Inexpensive food from

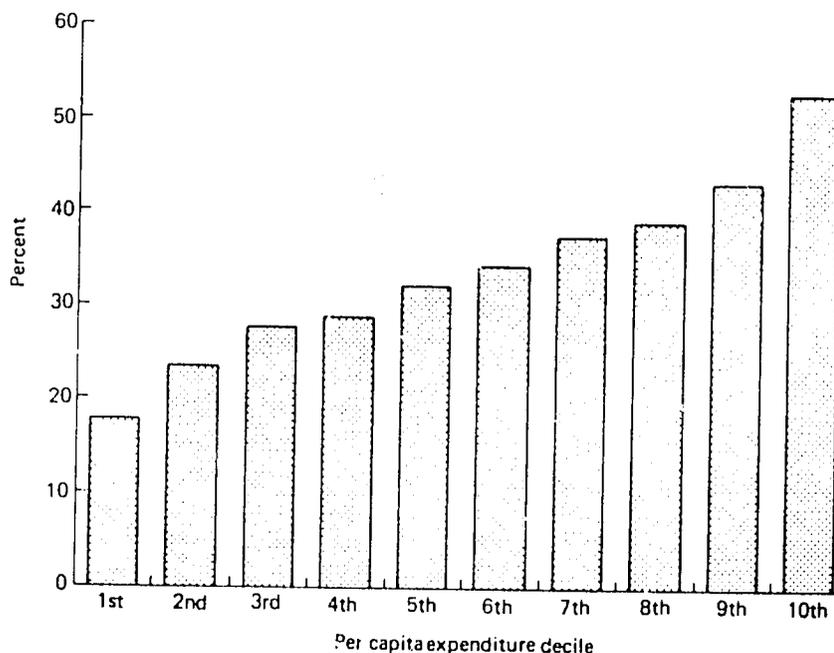


Figure 1. Marginal budget shares for locally produced non-food goods and services by expenditure level, Muda irrigation project area, Malaysia, 1973.

Source: Peter B.R. Hazell and Ailsa Roell, *Rural Growth Linkages: Household Expenditure Patterns in Malaysia and Nigeria*, Research Report 41, International Food Policy Research Institute, Washington, DC, 1983.

increased production helps keep labour costs down and, thus, encourages employment growth in the urban sectors of the economy. The result is a general increase in domestic demand for labour-intensive, consumer goods.

Over time, firms producing such labour-intensive goods for domestic consumption can acquire the experience needed to compete on the world market. This is important inasmuch as any successful strategy of development requires the production of export goods to pay for a wide range of capital-intensive goods – for example, fertilizer and pesticides for agriculture, and steel and petrochemicals for industry. A strategy of technological change in agriculture, which stresses the increased production of primary and consumer goods, is able to contribute to these export needs.

Adjustment programmes can specifically address the needs of an agricultural development strategy. Devalued exchange rates to improve the balance of payments increase purchasing power in the rural areas and improve the export outlook for agricultural production. Removing biases in the provision of credit, eliminating wage differences between urban and rural areas, and bringing domestic prices into parity with international prices all help to improve incentives to agricultural producers. More directly, changes in agricultural policies, such as reduction of export taxes and restructuring of agricultural markets, also provide incentives to agricultural producers.

Because technological change represents the primary engine of sustained agricultural growth, adjustment policies should be designed to promote farmers' adoption of new high-yield seed, fertilizer and water inputs. Price changes can contribute to this process only by providing more efficient market signals. Artificially higher prices promote growth in output at the expense of decreasing factor productivity, resulting in less output for additional levels of inputs. Technological change, on the other hand, increases the productivity of inputs. In this regard, the role of structural adjustments should be to rationalize markets and return prices to proper market levels. Budgetary savings from cutbacks in public expenditure and resources obtained through sectoral reform should then be directed towards investment in rural infrastructure, extension services and agricultural research in order to promote long-term agricultural growth.

Food policy and the poor

Food policies often play an integral role in adjustment programmes. Reduced food subsidies or the reorganization of agricultural commodity marketing programmes can mean substantial budgetary savings. For example, in Sri Lanka, policy reforms reduced food subsidies' share in total government expenditure from 15% in the mid-1970s to 3% in 1984.² Scarce foreign exchange can also be saved by a currency devaluation which discourages agricultural imports and increases the demand for agricultural exports.

However, the radical changes involved in such adjustment programmes have costs that threaten the short-term welfare of the poor. Reductions in food subsidies increase the cost of food to those people who can least afford it: the poor. Similarly, a currency devaluation increases the cost of imported food and domestically produced substitutes. Data from various developing countries suggest that the

²Neville Edirisinghe, *The Food Stamp Scheme in Sri Lanka: Costs, Benefits, and Options for Modification*, Research Report 58, International Food Policy Research Institute, Washington, DC, 1987.

^aPhillip Musgrove, *Consumer Behaviour in Latin America*, The Brookings Institution, Washington, DC, 1978.

^bCheryl W. Gray, *Food Consumption Parameters for Brazil and Their Application to Food Policy*, Research Report 32, International Food Policy Research Institute, Washington, DC, 1982.

^cJohn W. Mellor, *The New Economics of Growth*, Cornell University Press, Ithaca, NY, 1976.

^dDavid Sahn, 'The effect of price and income changes on food energy intake in Sri Lanka', *Economic Development and Cultural Change*, January 1988.

^ePrasarn Trairatvorakul, *The Effects on Income Distribution and Nutrition of Alternative Rice Price Policies in Thailand*, Research Report 46, International Food Policy Research Institute, Washington, DC, 1984.

Source: Per Pinstrup-Anderson, 'Agricultural policy and human nutrition', paper prepared for Agricultural Policy Workshop, Santiago, Dominican Republic, International Food Policy Research Institute, Washington, DC, 1985.

Table 1. Average budget shares spent on food among the poor in selected cities and countries.

City/country	Population group	Budget share	Source
Bogota, Colombia	Lowest 25%	0.62	Musgrove ^a
Barranquilla, Colombia	Lowest 25%	0.65	Musgrove ^a
Calí, Colombia	Lowest 25%	0.68	Musgrove ^a
Maracaibo, Venezuela	Lowest 25%	0.58	Musgrove ^a
Brazil (urban)	Lowest 30%	0.51	Gray ^b
Brazil (rural)	Lowest 30%	0.65	Gray ^b
India	Lowest 20%	0.71	Mellor ^c
Sri Lanka	Lowest 10%	0.79	Sahn ^d
Thailand	Lowest 10%	0.67	Trairatvorakul ^e

poor often spend between 60 and 80% of their income on food (see Table 1). As food prices rise, the poor suffer a much greater reduction in their real purchasing power and, therefore, in their ability to procure food.

For example, data from India indicate that a price increase of 10% for foodgrains reduces foodgrain consumption of the poorest two deciles of the income distribution by 5.9%, but by only 0.2% for consumers in the top half of the most wealthy decile. Lower consumption by the poor is reflected partly by declining quantities of consumption and partly by reduced quality of food consumed, as the poor shift their consumption to food of lower nutritional value. A 10% increase in foodgrain prices creates a 33% decline in the expenditure on milk by the poor compared to only a 9% decline for the wealthy.³

As food prices rise, the wealthier classes also tend to shift their consumption patterns. While the wealthy classes spend a lower proportion of their overall budget on food than the poor, in absolute terms they spend a great deal more. In India the wealthy spend 2.5 times more per capita on foodgrains than the poor. Given this large absolute expenditure on foodgrains, an increase in the price of foodgrains necessarily results in a large, absolute shift in consumption of the wealthy out of other labour-intensive goods. The magnitude of that shift and the high labour content of production combine to reduce seriously the employment of the poor. The result of this secondary effect of increased food prices is an even further reduction in the poor's purchasing power and, therefore, in their consumption of food.

Because the poor spend so much on food, lower prices through subsidies can significantly raise real incomes. Food subsidies account for between 15 and 25% of total income of the poor in a number of countries.⁴ In addition, income in the form of food subsidies improves the nutritional status of special target groups, such as children, more than income in other forms.⁵ Therefore, in spite of the demands on government budgets, food subsidies in some form are often essential in the short run for maintaining the nutritional status of the poor.

Subsidies can be made more efficient through selection of appropriate commodities to subsidize, reorganizing distribution practices and in targeting subsidies towards specific population groups. In Sri Lanka, in the context of economic reforms, attempts to re-target food subsidies under a food stamp scheme restricted transfers to half of all households formerly eligible for subsidies.⁶

However, these changes had a significant negative impact on the consumption of the poor. As a result of these reforms in Sri Lanka, the lowest quintile of the population in terms of food expenditure received only 38% of the total food stamp outlay. After changing to foodstamps,

³John W. Mellor, 'Food price policy and low-income countries', *Economic Development and Cultural Change*, Vol 27, No 1, October 1978.

⁴Per Pinstrup-Anderson, 'The social and economic effects of consumer-oriented food subsidies: a summary of current evidence', in Per Pinstrup-Anderson, ed., *Consumer-Oriented Food Subsidies: Benefits, Costs, and Policy Options*, Johns Hopkins University Press, Baltimore, MD (forthcoming).

⁵Shubh K. Kumar, *Impact of Subsidized Rice on Food Consumption and Nutrition in Kerala*, Research Report 5, International Food Policy Research Institute, Washington, DC, 1979.

⁶Edirisingha, *op cit*, Ref 2.

while nearly 75% of Sri Lankan households maintained or increased per capita caloric consumption, per capita consumption of the most poor declined by 8%.

Food aid and long-term growth

Food aid can be particularly useful as a means of protecting the poor from the adjustment process. It can provide the means to balance the tradeoffs inherent in adjustment policies, such as between continued food subsidies to consumers and improved price incentives to food producers. Furthermore, in the transition to an agricultural strategy, production may lag behind any initial increases in demand for food. In addition, foreign exchange may be unavailable to meet those short-term food needs through increased commercial imports. It may be necessary in the short run to provide assistance in the form of food aid. In the long run, agricultural growth should provide the necessary domestic production and foreign exchange to meet that increasing demand.

It is often argued, however, that food aid represents a poor substitute for financial development assistance. Because financial assistance allows flexibility in market decisions, it is argued that it provides food more efficiently than food aid with its added administrative baggage. Therefore, successful use of food aid depends on the ability to ensure that it is additional to other resource transfers. However, even if food aid is additional to financial aid, it may still not make a net contribution to economic growth. Poorly managed distribution of food aid can suppress incentives to increased domestic agricultural production and can create a dependence on imported commodities.

By segmenting the market for food, charging higher prices to countries with relatively inelastic demand and lower prices to countries with more elastic demand, food aid can be used as an additional form of development assistance. If a certain quantity of a given supply of food can be reserved for low-income people at a low price, their consumption will jump sharply. Food aid from developed countries can then be used as an additional source of low-priced food to meet this increased demand. The remaining supplies can be sold to high-income, demand-inelastic countries at prices that more than compensate producers for the lower prices paid by the poor.

Within developing countries the demand for food by the poor is highly elastic, with a price elasticity of demand of about -0.8 , while the demand of the most wealthy is quite inelastic, with a price elasticity of demand of only -0.1 or less.⁷ Segmented markets allow for low-priced food from food aid to be sold to the poor without depressing incentives to domestic production. Because low prices of food aid create additional demand, domestic farmers can maintain their markets by maintaining high average prices for domestically produced food through the sale of food to more wealthy consumers.

In addition to providing increased supplies of food to poor consumers, food aid can help facilitate growth in agriculture. Through the mechanism of food-for-work programmes, food aid can help meet one of the most pressing agricultural development needs in many African and Asian countries: the lack of rural infrastructure. One of the principal contributions of food-for-work programmes has been the building of better roads, irrigation and drainage systems, and communications networks. In effect, food-for-work programmes to build

⁷Mellor, *op cit*, Ref 3.

rural infrastructure can decrease the cost of food production more than the potential depressing effect of food aid on producer prices. At the same time the very positive impact of these programmes on the rural infrastructure helps pave the way for the multiplier effects of agricultural growth to expand income and employment in other sectors of the economy.

For example, in Bangladesh it is estimated that food-for-work programmes increased the gross value of crop production by 27% in some areas, with increases of 11.9% in the per acre employment of labour and of 41% for fertilizer (see Table 2). These data indicate that food aid in the form of food-for-work programmes can have a significant impact on the adoption of modern agricultural technology.

The capacity of developing countries to absorb increased food aid depends on improvements in distribution channels. These structures are essential not only for ensuring the most efficient use of food aid as long-term development assistance, but also to improve responsiveness to short-term shortages caused by increases in demand from increased employment or fluctuations in domestic production. However, distribution channels can only be built over time and require reasonable assurances of long-term aid. This requirement places a burden on the developed countries. Donor countries should do everything in their power to provide reliable amounts of food aid over a sufficiently long period so that development goals can be achieved.

If used properly, food aid does not contribute to distortions in the agricultural sector. To the extent that current development strategies overemphasize capital goods production at the expense of labour and food, distortions already exist in the allocation of resources to agriculture. In these cases, food aid can be used to support structural improvements designed to return developing countries to a new equilibrium of more labour-intensive production.

Conclusions

Structural adjustments are necessary to eliminate distortions in resource use in many developing economies. However, in pursuing these reforms, developing countries should not lose sight of the long-term goals of economic development. To these ends it is essential that structural adjustment programmes move developing countries towards their comparative advantage in labour-intensive production. Given the requirements for increased employment and the linkages between the markets for food and labour, structural adjustments should provide support for a strategy that emphasizes agricultural growth. This can best be accomplished by policies that facilitate the widespread diffusion of the basic elements of the modern agricultural technology – new seeds, fertilizer and water inputs.

Table 2. Effect of food-for-work projects on labour and fertilizer use, Bangladesh, 1982.

Infrastructure type	Labor (days per acre)		Fertilizer (lb per acre)	
	FFW projects	Other projects	FFW projects	Other projects
Drainage/irrigation canal	58.2	57.0	74	54
Field channel irrigation	91.5	60.4	235	59
Coastal embankment	34.8	41.6	24	3
Flood protection embankment	74.0	92.3	73	409
Flash-flood protection embankment	83.1	89.2	401	471
All types	71.3	63.7	185	131

Source: Md. Abul Qasem and Mohabub Hossain, 'The effect on agricultural production', in Bangladesh Institute of Development Studies (BIDS) and International Food Policy Research Institute (IFPRI), *Technical Papers: Development Impact of the Food-for-Work Program in Bangladesh*, BIDS/IFPRI, 1985.

It is important to realize that the losses incurred by the poor during the course of structural adjustment represent very real setbacks to the development process as a whole. It is, therefore, incumbent on both developing and developed countries to cooperate in the design and implementation of adjustment policies which protect the status of the poor and lead to an equitable pattern of growth. For their part, developing countries should give priority to an agricultural strategy of development. They must then make the hard policy decisions with respect to the allocation of scarce human and financial resources to promote such a policy. Developed countries, on the other hand, should provide reliable supplies of food aid and assistance, both to mitigate the negative impact of adjustments on the poor and to support a long-term pattern of development. From the dynamics of such a partnership between developing and developed countries, the world could conceivably evolve into a place where enough food is an accepted fact for all peoples.