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Food Aid for Food Security and Economic Development

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9 Food Aid for Food Security and Economic Development*

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Food aid plays an important role in the economies of the developing countries of the world. Total food aid to the developing countries currently amounts to about \$2.5 billion a year, and accounts for 9.4 per cent of all official development assistance.¹

The purpose of this paper is to examine food aid's contribution to the dual objectives of food security and economic growth in the developing world. It begins by reviewing the statistical record of food aid since the early 1960s. The paper then analyses the important contribution that food aid can make to food security, economic development, nutrition and employment in the low-income countries of the world. In these sections particular emphasis is placed on the role of food aid in Asia and Africa. The paper concludes that food aid can, and does, help provide the means needed to protect (and raise) the consumption status and labour productivity of the poor.

STATISTICAL RECORD OF FOOD AID

While cereal imports by developing countries have increased dramatically over the last twenty years, food aid has declined, both absolutely and on a per capita basis. According to Table 9.1, total cereal food aid for ninety-nine developing countries dropped from 11.6 million metric tons in 1961-3 to 8.4 million tons in 1981-3. During this period of time, the share of food aid in total imports of cereal dropped from nearly 40 per cent to less than 10 per cent. On a per capita basis, food aid dropped by about 55 per cent (Table 9.2).

It is rather striking to note that since the early 1960s food aid per capita has declined for three of the four major regions of the developing world. This decline has been particularly pronounced in the regions of Asia and Latin America. Since the early 1960s a number

Table 9.1 Volume of commercial cereal imports, total cereal imports, and food aid received by ninety-nine developing countries^a grouped by region, 1961-3, 1976-8 and 1981-3

<i>Region</i>	<i>Year</i>	<i>Commercial cereal imports</i>	<i>Food aid^b</i>	<i>Total cereal imports</i>
		(million metric tons)		
Asia (including China)	1961-3	11.4	5.7	17.1
	1976-8	22.2	4.2	26.4
	1981-3	36.9	2.7	39.6
Latin America	1961-3	3.7	1.9	5.6
	1976-8	14.2	0.4	14.6
	1981-3	21.6	0.9	22.5
North Africa/Middle East	1961-3	1.9	3.9	5.7
	1976-8	14.6	2.5	17.1
	1981-3	27.6	2.7	30.3
Sub-Saharan Africa	1961-3	1.5	0.1	1.6
	1976-8	4.1	0.9	4.9
	1981-3	6.4	2.1	8.5
Total developing countries	1961-3	18.5	11.6	30.0
	1976-8	55.1	8.0	63.0
	1981-3	92.5	8.4	100.9

Sources: 1961-3 and 1976-8 data from Huddleston (1984, p. 22).

1981-3 data from *1983 FAO Trade Yearbook* (1984) and FAO (1985).

Notes

^aThe 99 developing countries include those covered by the Huddleston study (1984). Nineteen of these countries are in Asia, 24 in Latin America, 17 in North Africa/Middle East and 39 in sub-Saharan Africa.

^bFood aid total for 1976-8 does not include approximately 700 000 metric tons reported by FAO, most of which went to Indochina and Portugal.

Table 9.2 Per capita volume of total cereal imports and food aid in ninety-nine developing countries^a grouped by region, 1961-3, 1976-8 and 1981-3

<i>Region</i>	<i>Year</i>	<i>Food aid per capita^b</i>	<i>Total cereal imports</i>
		(kilograms)	
Asia (including China)	1961-3	3.82	11.54
	1976-8	2.06	12.98
	1981-3	1.18	17.14
Latin America	1961-3	8.31	25.00
	1976-8	1.17	43.26
	1981-3	2.30	60.80
North Africa/Middle East	1961-3	24.13	35.81
	1976-8	10.22	70.96
	1981-3	10.19	112.72
Sub-Saharan Africa	1961-3	0.62	7.87
	1976-8	2.89	16.21
	1981-3	5.85	23.29
Total developing countries	1961-3	5.59	14.49
	1976-8	2.74	21.59
	1981-3	2.55	30.50

Sources: 1981-3 population data from World Bank (1984); all other data from sources listed in Table 9.1.

Note: See Table 9.1.

of large-scale recipients in these two regions—such as India and Pakistan in Asia, and Brazil, Chile and Colombia in Latin America—have drastically reduced their receipts. Although some of these countries continue to receive food aid, the volume received by these five countries dropped by 5.0 million metric tons between 1961-3 and 1981-3.

Over the years the geographic distribution of food aid has shifted dramatically to Africa. As the data in Table 9.2 show, sub-Saharan Africa is the only region of the developing world to record an increase in per capita food aid. Between 1961-3 and 1981-3 per capita food aid to sub-Saharan Africa increased from 0.62 kilograms to 5.85 kilograms per person. Much of this increase is due to recurrent food shortages in this area of the world.

Table 9.3 Per capita volume of food aid to thirty-one low-income developing countries,^a 1961-3 and 1981-3

<i>Region</i>	<i>Year</i>	<i>Food aid per capita (kilograms)</i>
Asia	1961-3	3.78
	1981-3	1.04
Latin America	1961-3	7.37
	1981-3	17.52
North Africa/Middle East	1961-3	1.62
	1981-3	4.36
Sub-Saharan Africa	1961-3	0.97
	1981-3	7.50
Total low-income developing countries	1961-3	3.52
	1981-3	1.73

Sources: Same as Tables 9.1 and 9.2.

Notes:

^aAccording to the World Bank (1984), low-income developing countries are those with 1982 gross national product (GNP) per person at less than US \$410. Such a classification yields a total of 34 low-income countries: 11 in Asia; 1 in Latin America; 1 in North Africa/Middle East; and 21 in sub-Saharan Africa. Data on 31 of these 34 low-income countries are included in this table.

The shift in the geographic distribution of food aid becomes even more pronounced when attention is focused on the low-income developing countries of the world.² According to Table 9.3, between 1961-3 and 1981-3 food aid per capita declined for thirty-one low-income developing countries. Yet a closer look at the data in this table shows that food aid per capita actually *increased* in three of the four regions of the developing world. The low-income countries of sub-Saharan Africa, for example, recorded a particularly large increase in food aid per capita during this twenty-year period. Only in Asia did food aid per capita decline, largely because of reductions in the levels of assistance to two very populous countries: India and Pakistan.

In recent years, important changes have also been taking place in the donor community. Whereas the United States once supplied nearly all food aid, it now supplies only about 50 per cent of the total.

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Canada, Australia and the European Economic Community have emerged as other significant suppliers. Moreover, an increasing share of food aid, now about 25 per cent, is being channelled through international agencies like the World Food Programme.³

FOOD AID AND FOOD SECURITY

In the developing countries of the world food aid can play a pivotal role in improving food security. In many of these countries food supplies fluctuate widely, depending on the degree of production variability and the extent to which this variability is compensated by changes in imports and stocks.

It is important to realise that such fluctuations in supply have an immense impact on the poor. Research in India (Mellor, 1978) indicates that the poor spend between 60 to 80 per cent of their increments to income on food. Thus, as food supplies decline and prices rise, it is the poor who must bear the brunt of the burden. The poor suffer in two ways. First, as food prices rise, the poor suffer a reduction in their real purchasing power. Second, as food prices increase, the wealthier classes tend to reduce their consumption of those labour-intensive goods and services that provide employment for the poor. With fewer employment opportunities, the poor suffer a decline in their ability to procure food at any price.

In recent decades the food security problem of the poor has been the product of two important forces: chronic food insecurity in most developing countries, and widespread fluctuations in annual food production in many other developing countries. The first is a long-term problem of aggregate food supply, a problem that focuses attention on the need to use food aid to increase rates of food production growth throughout the Third World. The second problem is a more short-term one that requires the extension of food aid in order to iron out those weather- or price-induced fluctuations in food production that have such a negative impact on the poor.

The pressing nature of these two problems is easily demonstrated. With respect to the first problem, in recent years aggregate food production in the developing world has just barely kept pace with the rate of population growth. Between 1961 and 1980 food production in the Third World increased at an average rate of 2.6 per cent a year (Table 9.4). This was only slightly faster than the average annual population growth rate of 2.4 per cent. On a per capita basis, food

Table 9.4 Population and major food crop production^a in the developing world, 1961–80

<i>Country group</i>	<i>Average annual population growth rate, 1961–80 (per cent)</i>	<i>Average annual major food crop production growth rate, 1961–80 (per cent)</i>
Developing countries ^b	2.4	2.6
Asia (including China)	2.3	2.8
North Africa and Middle East	2.7	2.5
Sub-Saharan Africa	2.8	1.7
Latin America	2.7	2.8

Source: Paulino (forthcoming).

Notes:

^aIncludes cereals, roots and tubers, pulses, groundnuts, bananas and plantains. Rice is in terms of milled form.

^bIncludes a total of 105 Asian, African, Middle Eastern and Latin American countries.

production in the Third World as a whole increased by only 0.2 per cent. However, this aggregate figure covers sharply different rates of food production growth in various regions of the developing world. For example, while per capita food production in Asia increased by a strong 0.5 per cent per year, in sub-Saharan Africa it fell by a shocking 1.2 per cent. In both these areas, as well as throughout the Third World, accelerated rates of food production growth are needed to meet the pressing food needs of the poor.

With respect to the problem of fluctuations, in recent years the modest rate of growth of world food production has been accompanied by a steadily increasing degree of production variability. According to recent research by Hazell (1984), between the periods 1960–1 to 1970–1 and 1971–2 to 1982–3 the coefficient of variation of total world cereal production increased from 2.8 per cent to 3.4 per cent. This represented a net increase in production variability of 21 per cent.

Preliminary analysis suggests that the major source of this increase in production variability lies in increases in yield co-variances between crops and regions. This may well be because of factors associated with the new seed/fertiliser technologies. For example, if all of a country's

production of a crop – such as maize in the United States – has a single parent, that crop might be more vulnerable to pestilence. This is a problem that crop scientists are currently analysing. Yet in the meantime, another problem still remains. In many developing countries policies affecting the availability of fertiliser, electricity and water inputs change from year to year. Such policy changes may have a large, and unfavourable, effect on agricultural production as that production becomes more dependent on the supply of those water and fertiliser inputs that are associated with the new technology.

In recent years, the steady growth in world food production has also been accompanied by a rising degree of price variability. While international grain prices were relatively stable in the 1950s and 1960s, since 1971 they have become highly variable. According to research by Valdes (1984), the coefficient of variation for wheat export prices was more than eight times as high in the 1970s as it was in the 1960s. For rice, the coefficient of variation for export prices more than doubled between the two decades.⁴

What could food aid do to mitigate the impact of these fluctuations in production and price? Most obviously, food aid could be used to meet the more immediate food security needs in the developing world. In general, food aid could represent a more efficient means of meeting temporary food needs than any type of domestic stocking programme. Stocks held at the national level tend to be very large (and expensive) because of the random occurrence of poor crop years and the potential for a sequence of bad years. Reutlinger and Bigman (1981), for example, have estimated that a 6 million metric ton domestic stock would cost between \$59 and \$82 million a year to operate.

Food trade (and hence food aid) between countries represents a far more cost-effective approach to food security than such domestic stocking arrangements. Such use of food aid would allow developing countries to avoid many of the diseconomies associated with stocks and to concentrate more of their scarce resources on the critical goal of increasing domestic food production. We know, of course, that food aid has not typically been used in such a countercyclical manner. Indeed, during the global food crisis of the mid-1970s total food aid declined. The benefits from more attention to a counter cyclical use of food aid would be immense.

Helping developing countries meet their immediate food security needs was the basic principle behind the creation in 1981 of a cereal import facility at the International Monetary Fund.⁵ This facility is designed to provide financing to countries facing short-term problems

of domestic food production shortfalls or high international prices. By loaning the funds needed to ship food to points of immediate need, the IMF cereal facility is supposed to provide food security to countries at rates cheaper than those associated with domestic storage. In concept, the facility is also able to provide low-income countries with the financial means to procure food in times of fluctuating food aid supplies or worldwide food shortages. It can then help make up for the deficiencies of food aid in meeting food security needs.

However, in the five years since its creation, the IMF cereal facility has provided financing for excess cereal imports for only a handful of developing countries.⁶ This suggests that there is a need to broaden and extend the coverage of the facility. On the one hand, there is a need to liberalise the rules regarding drawings from the facility so as to make it accessible to more countries.⁷ At the same time, the coverage of the facility needs to be broadened to include *all* food items – cereal and non-cereal – consumed by low-income people in the developing world. Recent research by Huddleston, Johnson, Reutlinger and Valdes (1984) indicates that non-cereal items account for a considerable percentage of total food imports in many developing countries.

FOOD AID AND ECONOMIC DEVELOPMENT

A large body of literature argues that food aid has no appreciable effect on economic development.⁸ According to this literature, factor proportions are technologically fixed during the development process, and food supplies do not represent a major constraint on growth. In this view, existing food supplies can easily support a labour force that is expanding at a rate consonant with the limited capital stock.

In fact, both the main assumptions of this literature are wrong. On the one hand, factor proportions are not fixed during the development process. Whereas there may be no efficient alternatives to highly capital-intensive processes for making steel or petrochemicals, labour-intensive processes can be used to produce a wide range of consumer goods and simple industrial tools. At the same time, wage goods – particularly food – do place a significant constraint on labour mobilisation. Since the marginal propensity of the poor to spend on food is so high (i.e., 0.6 to 0.8), any growth strategy that leads to a rapid increase in employment will necessarily generate an increased demand for food. In the absence of sufficient food supplies, such increased demand will tend to restrict the mobilisation of labour, as

rising real food prices reduce the demand for labour (Mellor, 1976; Isenman and Singer, 1977).

It is now clear that the process of labour mobilisation for economic growth depends on the working of two interacting markets – the labour market and the food market.⁹ As labour is mobilised and receives a larger share of the total wage pool, it spends most of that increased income on food. Additional supplies of food are therefore needed to prevent the type of increases in food prices and wages that would reduce the demand for labour. In countries where foreign exchange reserves are limited, food aid can play a critical role in relieving the resulting pressure on food supplies.

The dynamics of these relations can be easily seen in food-for-work programmes, which link employment and payment of food directly. Such programmes are attractive to donors because their benefits for the poor are highly visible. These programmes assure that the food will be given where it is needed, and that highly labour-intensive activities will be pursued.

In Asia, south Asia in particular, there is a large stock of labour that can be mobilised readily for growth. The addition of wage goods would pull that labour from agriculture with little or no decline in agricultural production. In Africa, however, the situation is more complex. In most African countries, one can expect a nearly proportionate decline in agricultural output as labour is withdrawn from agriculture. This is because the agroclimatic and technological conditions that dominate African agriculture tend to cause low labour productivity and a scarcity of labour in seasonal peaks. Thus, in the short-run withdrawal of labour from food production causes a much more substantial decline in food production in Africa than in Asia. In such a situation, food aid can be used to support the increased consumption and the decreased production. Of course, one of the effects of such a process should be provision of infrastructure and other investment that will raise food production in the long run.

There is currently a widespread view that food aid is particularly deleterious in Africa. This view tends to overlook the fact that the basic development strategy pursued in much of Africa assigns a very low priority to agriculture. For example, during the period 1978–80 the median annual public expenditure on agriculture in fifteen African countries was only 7.4 per cent of the total government budget (Table 9.5). By comparison, during the early 1960s the central government in India allocated approximately 20 per cent of its budget to agriculture (Leie, 1981).

Table 9.5 Percentage of central government expenditures to agriculture in selected African countries, 1978-80

	1978	1979	1980	<i>Average all years</i>
Ghana	12.2	10.4	12.2	11.6
Rwanda	10.3	12.7		11.5
Madagascar	11.5	11.4	10.2	11.0
Sudan	9.0	11.3	9.4	9.9
Botswana	10.5	9.2	9.7	9.8
Somalia	12.6	10.6	5.6	9.6
Kenya	8.5	8.4	8.3	8.4
Tanzania	9.3	7.0		8.2
Niger	7.1	8.9	6.8	7.6
Liberia	9.0	2.7	3.1	4.9
Cameroon	4.1	4.3	4.2	4.2
Sierra Leone	4.2	4.1		4.2
Upper Volta	4.2	3.9		4.1
Ivory Coast	2.9		3.4	3.2
Nigeria	2.6	1.4	2.5	2.2

Source: International Monetary Fund (1982).

In Africa, the underinvestment of public resources in agriculture has produced a poorly developed rural infrastructure, little research on food crops and a weakly staffed agricultural extension service. All these factors have played a far more important role in curtailing the rate of food production growth in Africa than food aid. Food aid is more the symptom of this underlying malaise than its cause. Correcting these problems goes way beyond the use of food aid to include establishing more reasonable government priorities in the use of public resources and commercially earned foreign exchange. Throughout Africa the need for road, credit, water and agricultural research systems is immense. Given the character of such needs, a far more constructive view of the potential benefits of food aid is sorely needed.

FOOD AID AND NUTRITION

Food aid can have a major impact on nutrition in two ways: first, by reducing the market price of food; and second, by providing the means

to pursue market intervention policies designed to improve the nutritional status of the poor.

According to Indian data (Mellor, 1978), food grains comprise more than half the total consumption expenditure of people in the lowest two income deciles. Thus, while a 10 per cent increase in food grain prices reduces the food grain consumption of the two lowest income deciles by 5.9 per cent, it decreases the food grain consumption of the upper half of the tenth decile by only 0.2 per cent. The absolute real expenditure on food grains is reduced ten times as much for the lowest two income deciles as it is for the upper half of the tenth decile.

As these data show, in a developing economy like India the bulk of the adjustment to reduced supplies of food staples is made by poor people. Thus, food aid that adds to total supplies of food grains has a major effect on the incomes, consumption, and nutritional status of low-income people. Yet an important caveat is in order here.

In India, those in the top 5 per cent of the income distribution spend more than two-and-a-half times as much per capita on food grains as the lowest 20 per cent. Thus, the upper income group experiences twice as large an effect on its overall income from a change in food grain prices as does the lower income group. Whereas food grain consumption varies little in the upper income group in response to changes in food grain prices, consumption of other goods and services varies substantially. Such changes in consumption by the rich may have an important indirect impact on the poor, who find many of their employment opportunities in the production of labour-intensive goods and services.

The need to improve both the nutritional status and the employment opportunities of the poor calls attention to various types of market intervention policies that target the benefits of food aid more directly to the poor. Two basic types of market intervention programmes can be distinguished here: food-for-work programmes and supplementary feeding schemes.¹⁰

Food-for-work programmes were originally designed to provide income-generating employment opportunities and to improve infrastructure in the rural areas. As the name implies, wages in food-for-work projects are paid in part or in full with food, some of which is often supplied by food aid. According to Maxwell (1978), about 16 per cent of all food aid is used for food-for-work programmes.

On the whole, food-for-work programmes have been quite successful in increasing employment. Brundin (1978), for example, reports that the food-for-work programme in Bangladesh has increased the

person-days of work by 45 million, provided employment for 1.5 million people, and used 160 000 metric tons of grain. Similar results have been reported in other countries (World Bank, 1979).

While food-for-work programmes have also contributed significantly to the development of better rural road and drainage systems, much still needs to be done to improve the effectiveness of these programmes in contributing to rural infrastructure development. The food must arrive in a timely manner; the projects planned must have sound engineering and effective local input if they are to be efficiently built; and considerable financial support is needed for complementary materials, such as culverts. All too often these requisites are missing or inadequate, thereby reducing the effectiveness of food-for-work programmes.

Because of the employment provided, food-for-work programmes seem to have a very favourable impact on the income of the poor. In Bangladesh, for instance, it has been estimated that the net income of participant households increased by 10 to 11 per cent of the annual wage income, and by a much larger percentage during the season of their food-for-work employment (BIDS/IFPRI, 1984).

The effect of food-for-work programmes on the consumption and nutritional status of the poor is, however, more complex. Given the significant impact of these programmes on the incomes of those people who tend to spend so much of their income on food, it should follow that food-for-work programmes have a very positive effect on the nutritional status of the poor. However, the actual relationship seems less clear. Some of the food in these programmes is sold by recipients, thereby diffusing the benefits to others through lower prices, but perhaps reducing the direct nutritional benefits to the recipients. The BIDS/IFPRI study in Bangladesh shows a preference of recipients for mixed payments (in kind and in cash) but little support for payment only in cash. This is an important issue with many ramifications that requires further study. In addition, food for work generally provides income for only a short season. While that season is frequently one of particularly low income, the recipients must plan ahead to other seasons. The BIDS/IFPRI study shows a reduction of indebtedness during the food-for-work period, suggesting less improvement in diet in that time, but a better ability to deal with later periods of acute food purchase needs. All this suggests that there are important areas of food-for-work programmes that still require much work and analysis if improved policies are to materialise.

With regards to the use of food aid to support supplementary feeding programmes, it is logical to focus on those programmes catering to pregnant and lactating women and infants. These programmes are among the most common in developing countries.

Recent reviews of more than 200 supplementary feeding projects indicate that such projects have had a positive effect on prenatal and child participants.¹¹ Studies conducted in India, Colombia, Mexico and Canada show that supplementation during pregnancy improves perinatal outcome. In India, for example, birth weights of infants born to women who received a daily protein supplement were significantly higher than those of infants born to a non-supplemented control group (Iyenger, 1967).

Despite the positive effects found in India and elsewhere, the benefits of most supplementary feeding programmes are usually modest. Increments in birth weights attributed to such programmes typically run in the range of 40 to 60 grams. Similarly, the increases in growth observed in preschool children are generally small.

The reasons for these relatively modest growth effects are still not fully understood. However, one reason appears to be that only a part of the food given actually reaches the targeted population. 'Leakages' of the supplemented foods occur when the food is shared by non-target family members, or when the food is substituted for other food. On the one hand, these 'leakages' need not be regarded as inefficiencies in the system, since they are often being used to improve the nutritional status of other malnourished household members. Yet on the other hand, as a result of such 'leakages', supplementary feeding programmes are generally only able to fill 10 to 25 per cent of the apparent energy gap in the target population (Kennedy and Pinstrup-Andersen, 1983). Given this small net increment in energy, it is not surprising that the observed effect on growth is small. It is also notable that the administrative costs of such targeted programmes are quite high, because they require a large component of trained manpower resources.

FOOD AID AND EMPLOYMENT GROWTH

While it is easy to conceive of an increase in the labour intensity of production, to achieve such an increase is much more difficult. Yet in most cases technological change in agriculture can do much to facilitate such an increase in labour intensity. Technological change in

agriculture increases the income of small landowning peasants, who, in Asia, typically spend 40 per cent of their increments to income on locally produced, non-agricultural goods and services (Hazell and Roell, 1983). Since these goods and services are highly labour intensive, their production provides new sources of employment and income growth for the poor.

Past research indicates that the employment and income linkage effects of technological change in agriculture are much weaker in Africa than in Asia (Ibid.). This is partly because incomes of peasant producers in rural Africa are lower than in Asia, partly because the infrastructure in Africa is poorer, and partly because the agroclimatic environment in Africa results in lower average labour productivity and a more even distribution of a low level of income.

While both food aid and domestic agricultural production add to the supply of wage goods, the latter tends to stimulate the creation of new employment and income opportunities. Its contribution to growth is, therefore, far superior to that of food aid. For this reason, it is important that food aid encourages – rather than inhibits – the rate of growth of domestic agriculture.

In the past, discussions on the disincentive effects of food aid on agriculture have usually focused on its impact on local agriculture through the price mechanism. Yet empirical studies now suggest that the disincentive effects of food aid on domestic agriculture tend to be overemphasised.¹² For instance, Maxwell and Singer (1979), in their review of twenty-one studies on the impact of food aid, found only seven cases reporting 'significant' disincentive effects on either prices or production. On this basis the two authors conclude that any disincentive effect of food aid on local agriculture 'can be and has been avoided by an appropriate mix of policy tools' (Ibid., p. 231).

On the whole, policy tools designed to avoid the small, direct disincentive effects of food aid need to meet two conditions. First, employment must be created for low-income people with a high propensity to spend on food. Second, food aid must be tied to other forms of assistance in such a way so as to facilitate long-term agricultural development. An important disincentive effect of food aid occurs when that aid is used to solve short-run problems of food supply, thereby allowing politicians to turn their attention to matters other than those pertaining to agricultural development. Thus, linking food aid positively to other assistance may be more effective than simply attaching conditions to food aid alone.

In any case, food aid can be used directly to 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 developing countries: the lack of rural infrastructure. One of the principal contributions to date 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 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.

CONCLUSION

Food aid can, and has, made an important contribution to food security and economic development in the Third World. In the short run, food aid has provided developing countries with the means to protect the nutritional status of their citizenry during periods of domestic production shortfalls. In the long-term, food aid has also helped a number of countries to pursue the type of employment-oriented agricultural strategy of development that is needed to stimulate domestic food production. By supporting the creation of food-for-work and other programmes in the countryside, food aid has helped lay the administrative and institutional structures for accelerated food production growth. In most cases such increased food production growth represents the only long-term solution to the problem of chronic food insecurity in the Third World.

If food aid is to make its maximum contribution to food security and economic growth, three demands need to be met by the food donor and two by the food aid recipient.

The donor must: (1) provide reliable amounts of food aid so that long-term development programmes can be built; (2) provide large amounts of food aid – a significant effect on employment cannot be expected unless some measurable percentage of the country's existing food supplies is added; and (3) recognise the conditions of effective food aid use so that, for example, efforts can be made to provide other resources needed for the effective use of labour.

The recipient, in turn, must: (1) give priority to agricultural development in order to minimise the disincentive effects of food aid and to ensure the feasibility of a high-employment strategy of growth; and (2) pursue policies that spread capital supplies as evenly as possible over the labour force in order to maximise employment growth. These two demands require attention to investment policies, pricing policies and to the type of technological changes in agriculture needed to stimulate growth.

These requirements for both donor and recipient demand high analytical skills in technical departments developing and administering such a food aid strategy. Given the important role that food aid has played in the past, and the potentially favourable impact of such aid on most developing countries in the future, a commitment to such a strategy should be attractive to donor and recipient alike.

Notes

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It is particularly fitting that this paper be presented in honour of Hans W. Singer, the person who played such a seminal role in the early intellectual articulation of food aid and modern development assistance.

1. These figures represent average figures for the period 1981-3, as recorded in World Food Programme (1985).
2. For a definition of low-income developing countries, see note to Table 9.3.
3. For more on this point, see Wallerstein (1980).
4. The major reason for this sharp increase in price variability lies in the changed character of the agricultural support policies pursued by the United States and Canada. Prior to 1971, these two governments either owned or controlled large stocks of grain, which contributed greatly to international price stability. Since 1971 these two governments have generally been unwilling to hold such large stocks.
5. For an analysis of the functions of the IMF cereal import facility, and an examination of the factors that led to its establishment, see Adams (1983).
6. Between 1981 and 1985 a total of seven developing countries made drawings from the IMF cereal import facility. These drawings totalled 962.5 million special drawing rights (SDRs).
7. For a detailed examination of possible ways in which the rules governing the use of the IMF cereal import facility might be liberalised, see Ezekiel (1985).

8. For a sampling of this literature, see Srinivasan (1965) and Chakravarty (1969). For a more detailed critique of this literature, see Mellor (1974).
9. For more on the way these markets operate, and the implications for employment growth and other variables, see Lele and Mellor (1981).
10. Much of the information in the foregoing paragraphs comes from Kennedy and Pinstrip-Andersen (1983).
11. See Anderson *et al.* (1981) and Beaton and Ghassemi (1979).
12. See, for example, Isenman and Singer (1977) and Islam (1972).

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