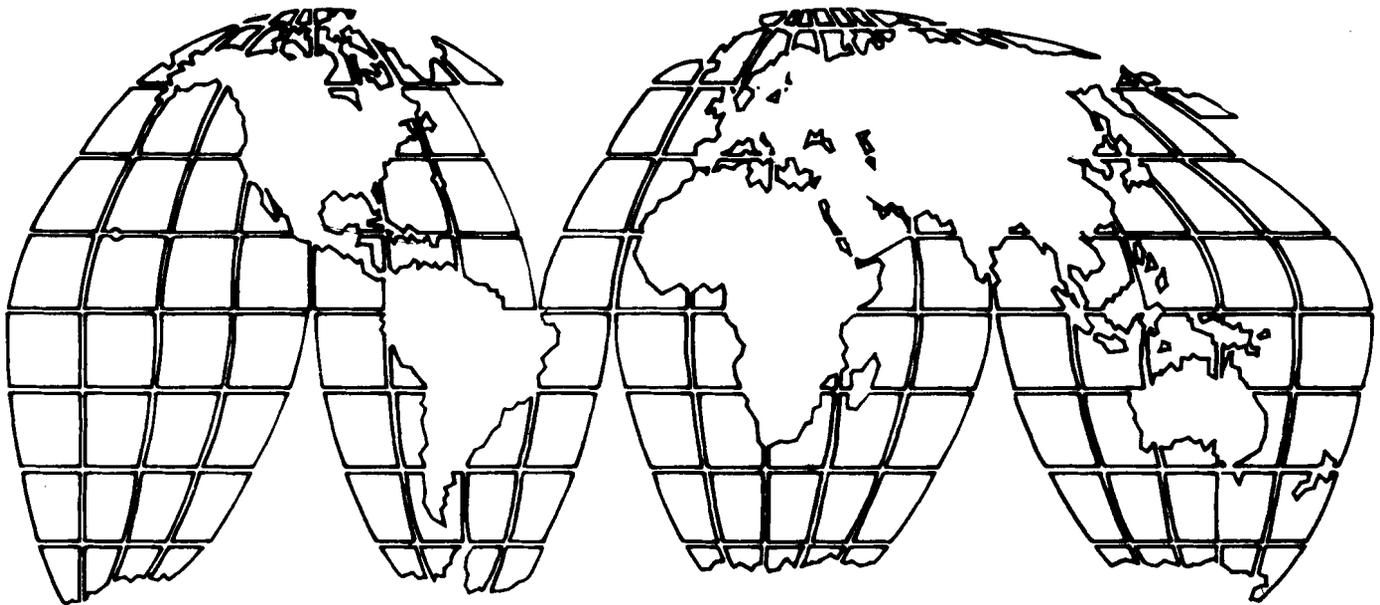


A.I.D. Program Evaluation Discussion Paper No. 15

# **Food Aid and Development: The Impact and Effectiveness of Bilateral PL 480 Title I—Type Assistance**

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FOOD AID AND DEVELOPMENT: THE IMPACT  
AND EFFECTIVENESS OF BILATERAL PL 480  
TITLE I-TYPE ASSISTANCE

A.I.D. Program Evaluation Discussion Paper No. 15

by

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December 1982

The views and interpretations expressed in this report are those of the authors and should not be attributed to the Agency for International Development.

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FOREWORD

The PL 480 Food Assistance Program has been in existence for nearly 30 years. During that time, many studies have been conducted on the impact of food aid on the recipient countries. This paper on the impact of food aid, by Hans Singer and Edward Clay of the University of Sussex, reviews much of the literature and the major policy issues which have been raised over the years. They cogently summarize the findings of these studies and provide guidance on the unresolved issues.

This paper fills a void by providing a clear and concise review of the impact of PL 480 for all AID personnel who will be increasingly involved in integrating PL 480 assistance with other sources of development assistance presently available. It will also serve as a guide to teams involved in conducting country impact evaluations of PL 480 Title I projects. Reports of these evaluations will be available from the Office of Evaluation, Bureau for Program and Policy Coordination.

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PREFACE

What follows is not a treatise on food aid. The purpose of this report is more limited in three main ways. In the first place, it is centrally concerned with the impact of food aid on recipient countries rather than with the U.S. economy, world trade in food, or overall food security and North-South relations. This limitation does not mean that the study does not also contain lessons for donor agencies--after all, the impact and effectiveness of food aid in the recipient country depend on donor policies as well as on what happens in recipient countries. Hence, Section IV of the study considers issues of donor-end programming and operation.

In the second place, this report is concerned with the developmental impact of food aid, not with humanitarian, political, or commercial objectives. This second limitation is less restrictive today than it would have been 10 or 20 years ago; since then, the development objectives in PL 480, and in food aid generally, have become much more central. Concern with surpluses and market protection has receded in the context of a changing situation. Once again, the limitation does not mean that no light is thrown on other, nondevelopmental aspects of food aid, but no explicit discussion of them will be found in this study.

In the third place, the study is limited to program food aid (Title I and Title III type) where the food is injected into the economy of the recipient country for general distribution (although the distribution can be to selected groups or in a specific segment of the general food market or at a special price, possibly even zero). Special project food aid (Title II type) and the use of food aid for reserve building are not explicitly discussed. Admittedly, the line of division between project aid and program aid is not hard and fast, either in financial aid or in food aid; but a valid difference does exist.

As a survey of literature and opinions, the study is selective; it does not aim at anything as extensive as an annotated bibliography or full survey.<sup>1</sup> Even so, the controversial nature of food aid emerges quite clearly from the differing and often inconclusive nature of the empirical evidence reported.

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<sup>1</sup>For something more closely approaching a fuller survey (up to 1977) see the UN World Food Program Study on Food Aid Policies and Programmes: A Survey of Studies of Food Aid, Document WFP/CFA: 5/5-C, March 1978 (prepared by Hans W. Singer, one of the authors of this study).

While the reasons for this can be explained--and are discussed in the study--two main conclusions are drawn here: (1) that food aid creates certain opportunities, and that the policies of a number of actors help to determine whether these opportunities are grasped or wasted--or indeed even converted into negative effects; and (2) that the impact of food aid depends on a variety of factors other than the insertion of the food into the economy of the recipient country, e.g., the linkages with other assistance flows, donor arrangements and conditions, and above all the orientation and effectiveness of the policies and institutions of the recipient governments.

The study also hopes to provide some guidelines for the future. The context in which food aid is given now is quite different from what it was, for example, 10 to 20 years ago when food aid was at its peak. Among the more salient changes are (1) the shift in objectives towards developmental impact, which has already been mentioned; (2) the shift towards the relatively poorest (least developed) countries, and an associated shift towards sub-Saharan Africa, which deeply affects the impact and desirable arrangements and conditions for food aid; (3) the reduced role of food aid in total food trade and in the overall economic picture for other countries, which raises new problems of linkage, programming, and measurement of impact; and (4) the heightened concern for income distribution, which gives added emphasis to problems of reaching target groups. These are but some of the changes that call out for intensified research and policy attention. If the present study is read with this need in mind, it may be found to provide material for such a future reorientation.

## I. FOOD AID AND DEVELOPMENT IN A CHANGING CONTEXT

### A. The Changing Context

Increasing the developmental effectiveness of PL 480 is not a new theme. What makes a return to these issues worthwhile at this time is the need to continually incorporate what has been learned in adapting the programming and operation of U.S. food aid and other commodity assistance to a changing context. We wish to draw attention to five important elements of this changing context.

#### 1. Priority for the Relatively Least Developed Countries

First, the differentiation among developing countries has left a residual group of Relatively Least Developed Countries (RLDCs), where the number in absolute poverty may even be increasing. These countries are typically largely agricultural and have few development options and little flexibility to adjust to a difficult international economic environment.<sup>1</sup> In some of these countries the prospects for development are also more in question because of resource endowments and the quality and organization of human resources. An aspect of the economic problems of low-income countries is growing deficits of food staples, defined in terms of need or levels of commercial and concessional imports. In this context, the concessional supply of food staples is both an important means of permitting countries to cope with short-term balance of payments problems and, potentially, an important resource for development. As most RLDC development will be dependent on performance of the agricultural sector, it will be especially important to use food

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<sup>1</sup>In his foreword to the World Bank's World Development Report 1981, R. W. McNamara wrote, "Even under the relatively optimistic assumptions of this Report's high-case projections, the income gap between the richest and poorest countries will continue to increase; under the low-case, even the number of individuals living in absolute poverty will rise ... but for the low-income countries, prospective aid levels are inadequate....[O]nce again, the low-income countries emerge as having fewer options and little flexibility. They will continue to require substantial amounts of aid for decades to come....[H]uman development is threatened during the adjustment period, and the potential consequences in unnecessary human suffering are grave. Failure to deal with these problems will have serious consequences internationally in the longer term."

aid carefully so as to be consistent with national strategies for agricultural development.

The growing concern to foster development in the RLDCs has brought a change of focus in development assistance. This is reflected formally in the legislative requirement that 75 percent of Title I be allocated to RLDCs (see Table 1).<sup>2</sup> This has resulted already in a significant shift of emphasis within the Title I program from Southeast Asia to sub-Saharan Africa (see Table 2). The developmental effectiveness of Title I, therefore, becomes more an issue for concern, given the serious problems of development facing these countries. The effectiveness of food aid transfers in providing balance of payments support should not be taken as a given, but deserves closer scrutiny.

Table 1. Sub-Saharan Africa: PL 480 Program Levels  
(million U.S.\$)

PL 480 Program	Fiscal Year					
	1975	1976 <sup>1</sup>	1977	1978	1979	1980 <sup>2</sup>
Title I	16.2	27.6	42.3	57.3	82.7	120.7
Title II <sup>3</sup>	91.4	87.1	72.1	85.2	87.1	105.1
Total	107.6	114.7	114.4	142.5	169.8	225.8

<sup>1</sup>Includes transitional quarter.

<sup>2</sup>Estimated.

<sup>3</sup>Includes World Food Program (WFP).

Source: USAID, U.S. Overseas Loans and Grants.

## 2. From Surplus Disposal to a Whole-Costed Resource

Second, the markets for cereals for direct human consumption and the associated complex of animal feeds are

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<sup>2</sup>U.S. Congress, 1954. Agricultural Trade Development and Assistance Act (PL 480), 83rd Congress (as amended 1979), Washington, D.C.

Table 2. Title I Agreements in Sub-Saharan Africa (millions U.S.\$)

Country	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980 <sup>1</sup>
Ethiopia	-	-	-	-	-	-	3.6	-	-	-	-
Ghana	13.4	10.5	-	-	-	-	-	-	-	10.0	10.0
Guinea	4.3	5.0	.5	4.6	6.3	9.1	7.9	3.0	5.5	6.0	6.0
Liberia	1.0	-	1.6	-	-	-	-	-	-	-	-
Madagascar	-	-	-	-	-	-	-	-	-	1.4	1.4
Mauritius	-	-	-	-	-	-	-	-	-	2.8	2.8
Mozambique	-	-	-	-	-	-	-	-	-	5.0	-
Sierra Leone	-	.8	-	-	-	-	-	1.3	1.3	1.2	1.2
Somalia	-	-	-	-	-	-	-	-	7.0	10.7	11.7
Sudan	-	-	-	2.5	3.2	-	-	4.8	10.3	20.0	20.0
Tanzania	-	-	-	-	-	8.0	4.5	7.6	6.5	-	-
Zaire	2.2	-	-	2.9	-	-	13.0	13.5	18.0	17.0	15.7
Zambia	-	-	-	-	-	-	1.6	4.6	8.5	10.0	10.0
Total	18.7	18.5	2.1	10.0	9.5	17.1	30.6	34.8	57.1	78.8	84.1
World-Wide Total Title I	732.1	875.7	1077.7	757.1	494.3	972.2	1,032.8	762.5	814.0	785.0	785.0
Africa Percentage of Total	2.5	2.1	.019	1.3	1.9	1.8	3.2	4.6	7.0	10.0	10.7

<sup>1</sup>Estimated.

Source: USAID, Office of Development Resources, Africa Bureau, Food for Development in Sub-Saharan Africa.

increasingly tight, and in the medium and longer term show little prospect of softening. This is in striking contrast to the 1950s and 1960s during which the massive program of concessional supply of cereals and other commodities under PL 480 developed explicitly as a program for surplus disposal and market creation. These objectives are stated in the preamble to the legislation along with other foreign policy, humanitarian, and (later incorporated) developmental objectives.<sup>3</sup> There are, of course, short-term relative changes in market conditions that may cloud the significance of the long-term change, e.g., the current concern for the development of an overhang of commodities in 1981/1982. But broadly, no one foresees a return to the large structural surpluses of the 1950s and early 1960s which were contained only by set-aside and concessional sales on a much larger scale than the current Food for Peace (FFP) program. The relatively tighter market situation has a number of important implications for the way one should view concessional credit sales under PL 480 Title I and, indeed, other components of U.S. and other food aid programs.

First, the objectives of market creation and surplus disposal need not be considered as important in the policy formation and programming of Title I.<sup>4</sup> Food for Peace is now of relatively minor importance in relation to total world trade in the cereals and animal feed complex of commodities, and the presumption is that surpluses are only likely to overhang the market for short periods and not hamper the development of market growth. By implication, this gives greater importance

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<sup>3</sup>The preamble to the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480, 83rd Congress) explicitly identifies as the objectives of the legislation:

- "1. To expand international trade;
2. To develop and expand export markets for the United States agricultural commodities;
3. To combat hunger and malnutrition;
4. To encourage economic development in the developing countries;
5. To promote in other ways the foreign policy of the United States."

See Wallerstein, 1980 for a discussion of the evolution of U.S. food aid policies.

<sup>4</sup>See U.S. Senate, 1978, Appendix B, Table 1. Responses to a circular letter sent to selected experts and opinion leaders in government, academic institutions, private foundations, and business indicated that emergency relief, economic development, and nutritional needs were seen as major objectives of food aid.

to the developmental and foreign policy implications of the allocation of what has become a relatively more scarce resource--concessional supplies of food staples. The procedures for policy formation and programming of FFP, and in particular Title I, have not adjusted to reflect this important structural shift in market conditions.

Second, relatively tighter (in the medium and longer term) markets imply that the commodity costs of the resource transfer are now approximating the traded values of the commodities being supplied on a concessional, credit, or grant basis. Clearly, the issue of the cost effectiveness of the resource transfer in terms of its developmental and foreign policy usage has to be taken more seriously.

A third issue raised in viewing food aid as a whole-costed resource in tighter commodity markets is whether external assistance should take the form of a tied commodity transfer, a direct financial transfer, or commodity-related credits. As the interests and concerns that promoted food aid for other purposes--surplus disposal and market development--adjust their thinking and expectation to relatively tighter markets, the level of total development assistance may cease to be significantly higher because it is in the form of food aid. In evaluating the developmental effectiveness of the major component of the FFP program, the question at least needs to be considered at a program or country-specific level: whether food aid is better than or at least not significantly inferior to (because there may not be significant additionality) some other form of financial transfer or assistance.

### 3. Many Donors

The third important change in the context of Food For Peace, and in particular Title I operations, is the increasing importance of other food aid donors in contributing to the total flow of development assistance. PL 480's share of Development Assistance Committee (DAC) food aid has declined from over 90 percent in the late 1960s to 53 to 55 percent of total value in net terms in the late 1970s (Table 3), and has declined further with the relatively higher actual commitments of cereals by other donors following the 1980 Food Aid Convention (Table 4). If triangular transactions involving the financing of exports from a third country (probably a developing country) were to become an established and significant element of food aid, this would add a further complexity to the multidonor,

Table 3. U.S. Food Aid Flows Compared With Total Development Assistance Committee (DAC) Food Aid Flows, 1967-1979  
(net at current prices)

Year	U.S.A. (U.S.\$ million)	Total DAC (U.S.\$ million)	U.S.A. as % of DAC Food Aid
1967	1,07.0	1,124.8	90.0
1968	1,060.0	1,159.2	91.0
1969	907.0	1,174.0	77.0
1970	888.0	1,257.3	70.6
1971	805.0	1,140.2	70.6
1972	1,052.0	1,350.0	77.9
1973	618.0	1,129.7	54.6
1974	728.0	1,530.8	47.6
1975	1,266.0	2,129.3	59.5
1976	1,210.0	1,790.2	67.6
1977	1,210.0	1,811.5	66.8
1978	1,083.0	2,020.3	53.6
1979	1,219.0	2,209.6	55.2

Sources: OECD Development Cooperation Review; Wallerstein, M.B., 1980, Food for War--Food for Peace: United States Food Aid in a Global Context, MIT Press, Cambridge, Mass.

Table 4. Food Aid in Cereals by Donor Countries and Commitments Under 1980 Food Aid Convention (FAC):  
Annual Commitments

Donor Countries	FAC Commitments 1980	Thousand Tonnes		1980/1981 Commitments or Allocations	1980/1981 Commitments as % of FAC Commitments	1980/1981 Commitments as % of 5-Year Average
		5-Year Average 1970/71-1974/75	5-Year Average 1975/76-1979/80 <sup>1</sup>			
Argentina	35	11	24	48	137	200
Australia	400	244	273	400	100	147
Austria	20	-	4	20	100	500
Canada	600	830	906	600	100	66
China	-	-	34	(25)	-	74
EEC <sup>2</sup>	1,650 <sup>2</sup>	1,087	1,157 <sup>2</sup>	1,650 <sup>2</sup>	100 <sup>2</sup>	143 <sup>2</sup>
Finland	20	14	26	20	100	77
India	-	-	95	50	-	53
Japan	300	549	251	567	189	226
Norway	30	3	15	40	133	267
Saudi Arabia	-	-	11	(10)	-	91
Spain	20	-	-	20	100	-
Sweden	40	87	95	90	225	95
Switzerland	27	31	33	27	100	82
Turkey	-	-	9	10	-	111
United States	4,470	6,437	5,616	5,262 <sup>3</sup>	118	94
WFP Purchases	-	-	47	(50)	-	106
Others	-	310	131	(165)	-	126
<b>Total</b>	<b>7,612</b>	<b>9,603</b>	<b>8,727</b>	<b>9,054</b>	<b>119</b>	<b>104</b>

<sup>1</sup> Figures relate to shipments between July 1975 and June 1980.

<sup>2</sup> EEC: European Economic Community. Includes shipments in wheat equivalent by member nations, "national action," as well as "Community action."

<sup>3</sup> Includes the grain equivalent of the budgetary allocation for fiscal year 1981 (October 1980-September 1981), as well as the estimated grain equivalent of the supplemental allocations of U.S.\$142 million for fiscal year 1980, approved by the Congress in July 1980.

Source: Food and Agriculture Organization (FAO) Food Aid Bulletin, No. 2, 1981, Food Aid Convention, 1980.

many-recipient set of relationships.<sup>5</sup> This changing pattern of supply has implications for the programming of food aid, especially to sub-Saharan Africa and many other smaller recipient countries. Programming is further complicated by the varying proportions of specific commodity flows accounted for by the United States and other donors.<sup>6</sup> The complexities of a multi-donor, multiproduct set of food aid flows has advantages as well as the obvious disadvantage of programming such assistance. At least the smaller, marginal recipients are provided with a freedom to maneuver that often seems to have been implicitly assumed away by both proponents and opponents of the exercise of "leverage" through bilateral food aid. The multi-donor context raises issues in the programming of balance of payments support and for the operational aspect of food aid (see Sections II and IV below).

#### 4. Restrictive Financial Regimes in Developed Countries

A fourth element in the changing context is the pressure to restrict public expenditure in most developed industrial countries. This may be a short-term phenomenon of recession or reflect longer term relative shifts in the pattern of availability of financial resources for transfer. A consequence of these budgetary pressures is that some donor countries, including the United States and the United Kingdom, have been cutting back on their development assistance in real terms. Food aid, which had been of decreasing significance in relation to total official development assistance (ODA) from DAC countries, may therefore increase in significance, particularly within total ODA or the residual allocation of bilateral ODA, for individual donor countries, given the relative inflexibility of multilateral ODA commitments and total ODA allocations that are

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<sup>5</sup>See World Food Program (WFP), 1981, for a description of the Zimbabwe Maize Train Operations, a first significant multidonor experiment in triangular food aid.

<sup>6</sup>Most donors have historically been willing to supply, or finance the supply, of wheat. There are three significant sources of concessional supply of rice: the United States, Japan, and Italy (and therefore the EEC). The United States is the only significant source of coarse grain (maize and sorghum), and the major source of vegetable oil. Structural surpluses of dairy products make the EEC the dominant and only predictable source of dried skimmed milk and butterfat. Other donors, e.g., Canada, make varying quantities of milk products available only periodically.

declining or not expanding in real terms.<sup>7</sup> Again, such a trend would serve to highlight the developmental role of food aid and, in particular, the question of the links between food aid and other forms of development assistance.

##### 5. Changing Attitudes to Food Aid

Fifth, there has been a paradoxical and divergent shift in attitudes towards food aid within the professional development community: a wider public concern with Third World development and humanitarian issues, and a change in developed, industrial-country policies towards the Third World. The professional community of administrators and social scientists has come to take an increasingly complex and, in some respects, more positive view of food aid.<sup>8</sup> Recognition of its negative possibilities has been combined with greater attention to increasing its developmental effectiveness. Recognition of the complexity of the issue is reflected in economic analysis of food system and food policy problems in low-income countries, and of the role of food aid within this context.

At the same time, there has been increasing criticism of food aid as part of the questioning of the whole focus and implication of developed-country aid policies.<sup>9</sup> A closer reading of much of the critical literature on food aid suggests that the divergence of views arises in part because critics are dealing with a different, if overlapping, set of issues. Much detailed evidence in the critical literature is concerned with the problems of implementation of project food aid and emergency relief rather than larger scale Title I program food

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<sup>7</sup>The share of ODA food aid in DAC fell from 13.4 percent in 1976 to 10.9 percent in 1979. For the United States, however, food aid's share increased slightly from 29.5 percent to 30.5 percent over the same period.

<sup>8</sup>The evolution of thinking on the developmental impact of food aid is considered more fully in Section III. Among recent examples of more complex, constructive views of food aid that predominate in the professional community are the Agricultural Development Council 1979 and 1981 Seminar reports, and the survey articles by Maxwell and Singer, 1979; Mellor, 1980; Schuh, 1981; Stepanek, 1979a; USAID, 1981; Stevens, 1979; and Williams, 1981.

<sup>9</sup>See Lappe and others, 1980; George, 1976; Tudge, 1977; Jackson, 1980; Fryer, 1981; and Schultz, 1981 as examples of the increasingly critical attitude to food aid among development lobbyists.

aid. Discussion of Title I-type flows is largely restricted to a restatement of qualitative assessments of disincentive and dependency effects (see Section III).

The widespread sense of concern about the developmental and human impact of food aid is reflected in the view, now embodied in the Food For Peace legislation, especially Title III, that food should be a resource for agricultural and rural development in low-income countries. If the development profession is edging towards a more complex view of the possibilities and problems associated with food aid, a discussion of the developmental effectiveness of PL 480 Title I needs to consider the fears about its negative possibilities.

These questions receive close attention in Section III, which deals with the developmental impact of food aid. However, it is useful at this stage to list the positive and negative ways in which food aid is seen as potentially contributing to development.

#### B. Food Aid and Development<sup>10</sup>

Food aid is almost invariably a tied commodity transfer. As such, the resource transfer may represent some partial or whole element of additionality to the recipient country. It may provide balance of payments support by replacing commercial imports and so freeing foreign exchange to finance other imports, or conceivably by reducing requirements for other more costly sources of finance for food imports.<sup>11</sup> Again, the transfer may involve some element of additionality in allowing a higher level of food imports. But first, the immediate balance of payments needs of low-income countries as well as the choices implied by food aid (at least the commodities available under Title I that are scarce resources costing close to their world market price), raise questions about the type and scale of transfer that can be organized and what this is worth to the recipient country. These issues are considered in Section II, which is concerned with the resource transfer and the balance of payments implications of Title I-type commodity assistance.

Food aid provides an additional resource within the recipient economy and the positive or negative developmental

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<sup>10</sup>For a taxonomy of the positive and negative effects of food aid see Maxwell and Singer, 1979.

<sup>11</sup>See Nelson, 1981, for a simple diagrammatic exposition of the macroeconomic effects of food aid on a recipient economy.

impact results from the way in which that resource can be or is used within recipient countries. One set of issues concerns the way food aid may augment the supply of commodities or substitute for domestically produced commodities (disincentive impact). Title I commodities can be sold to generate local currencies, a source of finance for the developmental or other activities of recipient governments.<sup>12</sup> The resource may be used directly as a wage good or used as a nutrition investment. The commodities may be used for food security purposes, adding to reserves rather than being directly sold or used.

Two areas of possibility or concern relate to production technologies and consumption technology (changes in eating habits brought about by food aid; see Section III). The distributional impact of food aid is another important issue, given the wide interpersonal disparities of income as well as rural/urban and regional inequalities existing in low-income countries with significant numbers of poor and malnourished people. The fiscal implications of sizable food aid transfers have given rise to concern about problems of dependency, as well as being seen as offering constructive opportunities. Without attempting a comprehensive review of the rapidly expanding literature on this subject, Section III considers the analytic and policy issues raised by a large, inconclusive, and often contradictory body of empirical findings.

Section IV reviews donor-end issues of programming and operation. Previous research and the more limited "managerial" literature on food aid also raise questions about the effectiveness of procedures, programming, and actual implementation in relation to objectives (which may also be changing). These are issues to be placed high on the agenda of any evaluation aimed at improving the developmental effectiveness of food aid.

## II. THE DIRECT IMPACT OF TITLE I PROGRAMS: RESOURCE TRANSFER AND BALANCE OF PAYMENTS ISSUES

### A. Why Food Aid Can Be an Inferior Form of Resource Transfer

Professional and wider discussions of food aid have tended to focus on its direct effects--distributional, nutritional, and developmental--in terms of incentives and disincentives.

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<sup>12</sup>This is not a necessary consequence of food aid. Depending on the fiscal and monetary policies adopted--e.g., under an International Monetary Fund (IMF) stand-by agreement--there may not be any additionality.

It is all too easy, therefore, to hurry on into a consideration of these questions, noting in passing that balance of payments support provides the stock justification for Title I support. The "concern" to safeguard the usual marketings of the United States and to assure that sales under this Title will not unduly disrupt world prices of agricultural commodities or normal patterns of commercial trade with friendly countries<sup>13</sup> introduces ambiguity into discussions about providing balance of payments support. Food aid is not supposed to substitute for commercial trade.

Discussion of the developmental impact of a Title I-type program begins by considering what resources are being transferred and the direct balance of payments implications of such transfers. Recognizing that most U.S. food aid is not a whole-costed resource, the effectiveness of Title I as an instrument of balance of payments support, with its direct developmental implication, needs to be considered seriously. "Effectiveness" must be a comparative notion, and there are potentially alternative bilateral mechanisms for providing noncommodity financial assistance for balance of payments problems. Now that the IMF can also provide balance of payments support in selected circumstances to countries having difficulties financing food imports, there are other implications, including different opportunities for bilateral donors. There is also the question of the relative effectiveness of Title I as compared with Title III and Section 206 or with the procedures of other food aid donors.

Food aid supplied under Title I is a highly complex and circumscribed transaction with a distinct set of characteristics, compared with transfers under other titles of PL 480 or a simple financial transfer. Title I is, in effect, a program of credit sales with a high degree of concessionality. The restrictions attached to such a transfer lead many economists to consider food aid as an inferior form of developmental assistance compared with a financial transfer.<sup>14</sup> The purchaser is required to make an initial contribution and repayments, albeit with an extended grace period and highly concessional interest rates, in an inflationary context. The value of the

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<sup>13</sup>U.S. Congress, 1954, Section 103C.

<sup>14</sup>Schuh, G.E., 1981. "Food Aid as a Component of General Economic and Development Policy," paper for USAID-RTN Seminar on Improving the Developmental Effectiveness of Food Aid in Africa, Abidjan, August 24-26. Abbot, P.C. and F.D. McCarthy, 1981. The Welfare Costs of Tied Food Aid, Collaborative Paper (CP-81-8), International Institute for Applied Systems Analysis, Laxenburg, Austria.

aid transfer element is therefore less than the market value of the commodities sold.

The transaction is also circumscribed in a number of other important respects. It is a tied commodity transfer limited to the commodities currently available under the program (Section 401A). Therefore, depending on the commodities available from year to year, the value of the resource transfer to individual potential recipient countries may vary. This is bound up with the related issue of the extent to which the transfer is providing balance of payments support. For example, a consignment of gray cotton cloth, raw cotton, or wheat may substitute directly for commercial imports that would have been made otherwise. However, a consignment of vegetable oil is additional and may not substitute directly for other imports because scarce foreign exchange would not have been allocated to import vegetable oil. The transfer may represent in the latter case a valuable additional developmental resource, but at the margin a dollar of assistance would not be worth as much as a dollar of commercial imports in a low-income country with severe balance of payments problems. Where the commodity being made available is largely a whole-costed resource, then, in relation to individual countries or the total program, the question of commodity flexibility could be important in increasing the value to recipient countries of each dollar of U.S. assistance. An interesting issue to explore in evaluating the impact of individual country Title I programs is whether commodity mixes have different values to recipients and costs to the donor.

There are other important conditions and restrictions associated with a Title I program that may reduce the value to the recipient. Title I sales are on a freight on board (f.o.b.) basis. Some recipients could import commercially at lower transport costs from other sources of supply. The recent and continuing shift of focus in U.S. and other food aid programs towards the RLDCs may therefore restrict the usefulness of Title I as compared with Title III or Section 206 programs when considered only in terms of immediate balance of payments assistance. Many of these low-income countries have intractable debt service problems that will be aggravated by credit sales. The requirement that 50 percent of commodities should be shipped in U.S. flag vessels is a further restriction.

Usual Marketing Requirements (UMRs) are a set of additional conditions which reflect concerns about orderly commercial trade involving the United States and other exporting countries as well as the market development objectives of the legislation. Finally, standard negotiation procedures reflect concerns to ensure a positive developmental impact of each Title I country program Self-Help (Section 109A) and Bellmon (Section 401B) provisions. Such procedures involve time and

imply administrative overhead costs. These costs are invisible when requirements are legislated, but could reduce the effectiveness of the program as a balance of payments support mechanism. Furthermore, Title I programs are only on an annual basis.

Several of the questions raised concern the effectiveness of Title I operations in their objective of providing balance of payments support to recipient countries. Two questions are implied which are considered further in this section: first, whether there is justification for regarding balance of payments support as one, if not the most, important reason for a Title I type of development assistance program; and second, whether the broad structure of the program is an effective instrument for providing balance of payments support to low-income countries.

#### B. The Food Import Problem of Low-Income Countries

A brief review of the food staple import problem of low-income countries makes it clear why discussion of increasing the developmental effectiveness of Title I has to begin with the issue of balance of payments support. In reviewing short-term food import trends of 68 low-income countries, the U.S. Department of Agriculture concluded that these countries would:

need to import 35 million tons of cereals and other food staples in 1981/1982 in order to keep their per capita food intake levels from dropping below the average of the past 4 years. [But] the weak financial position of most of the low-income countries complicates the situation further by limiting [their] capacity to import food commercially. The financial data available to date suggest that the low-income countries' commercial food purchases in 1981/1982 will be limited to about the 1980/1981 level of 22 million tons. This would leave 13 million tons of import requirements to be acquired via donation, purchased concessionally or foregone.<sup>15</sup>

The implication is that the level of concessional supplies that low-income countries would be willing to accept (demand) is likely to be considerably in excess of the level of food aid

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<sup>15</sup>U.S. Department of Agriculture, 1981. "World Food Aid Needs and Availabilities for 1981," Foreign Agricultural Economic Report, No. 168, International Economics Division, Economic Research Service, Washington, D.C., p. 111.

available (less than 10 million tons) in 1981 and 1982. These projections also indicate a continuation of a pattern of staple food imports by low-income countries, organized largely on a commercial basis. Food aid has accounted for a high proportion, for example, more than 50 percent of total recorded cereal imports, for only a small number of low-income countries. Table 5 shows that among the countries defined as Food Priority (FP) or Most Seriously Affected (MSA) by the Food and Agriculture Organization (FAO), only 10 were able to obtain 50 percent or more of cereal imports on a concessional basis, and approximately one-third of food staple imports of all MSA/FP countries were accounted for by food aid during the late 1970s.

The few published detailed studies of the food import policy of low-income countries suggest that, at least for those countries with levels of imports that are high in relation to total supply of cereals or total food staples, these levels of imports in the short term are relatively unresponsive to changes in the available level of foreign exchange or food aid.<sup>16</sup> Food staple imports are then, with energy, the relatively inflexible, priority components of the import bill of a low-income country. Adjustment pressures, resulting from factors such as upward movements in world energy or food staple prices, shortfalls in domestic food production, reductions in export earnings, will therefore squeeze other categories of imports including raw materials, agricultural inputs, tools, and capital equipment with negative direct short-term and longer term consequences for incomes and growth.<sup>17</sup> Cereal

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<sup>16</sup>One of the most fully developed analyses of food import policy is that for Egypt by Scobie and Valdes, 1981. Food imports have been relatively insensitive to food aid levels in Sri Lanka, another low-income large-scale food importer (Clay, 1981b). Studies of earlier PL 480 Title I countries that have graduated to become commercial importers, Brazil (Hall, 1980) and Tunisia (Stevens, 1979), also indicate that domestic consumer prices and food import levels were determined independently of the availability of PL 480 Title I commodities. The major exception appears to have been India (Blandford and Plocki, 1977).

<sup>17</sup>For example, Bangladesh, a country that has been highly dependent on concessional supplies of cereals (96 percent of imports over the period 1976/1977-1978/1979--see Table 3), exemplifies the inelasticity of food imports with respect to total foreign exchange availabilities in the context of a structurally different pattern of cereal imports. Thus, in each of a sequence of domestic food system crises, 1974, 1977, and 1978/1979, additional food imports were programmed on a priority basis crowding out other imports (Clay 1981a).

Table 5. Cereal Imports and Food Aid of Most Seriously Affected (MSA) and Food Priority (FP) Countries, 1976/1977-1978/1979 (3-year average)

Country	Total Imports of Cereals (000 t)	Cereals Food Aid (000 t)	Food Aid as a % of Total	
<u>Africa (excl. Egypt)</u>				
	Angola	164.9 <sup>1</sup>	9.7 <sup>1</sup>	5.9
MSA/FP	Benin P.R.	69.7	6.6	9.4
MSA	Burundi	16.4	10.3	62.8
MSA/FP	Cameroon	107.8	4.8	4.4
MSA/FP	Cap Verde	53.5	40.4	75.5
MSA/FP	Cent. Afr. Rep.	9.3	2.1	22.5
MSA/FP	Chad	37.3	37.1	99.4
	Comoros	23.0 <sup>1</sup>	4.5 <sup>1</sup>	19.5
	Djibouti	19.8 <sup>1</sup>	4.5 <sup>1</sup>	22.7
MSA/FP	Ethiopia	239.6	112.3	46.8
MSA/FP	Gambia	39.0	10.7	27.4
MSA	Ghana	306.5	76.4	24.9
MSA/FP	Guinea	72.2	32.0	44.3
MSA/FP	Guinea-Bissau	33.5	22.7	67.7
MSA	Ivory Coast	300.0	0.1	-- <sup>2</sup>
MSA/FP	Kenya	48.2	9.3	19.2
MSA/FP	Lesotho	144.4	15.9	11.0
MSA/FP	Madagascar	234.3	8.3	3.5
FP	Malawi	16.6	0.1	0.6
MSA/FP	Mali	55.5	34.2	61.6
MSA/FP	Mauritania	110.0	44.2	40.1
MSA/FP	Mozambique	301.6	168.4	55.8
MSA/FP	Niger	63.2	30.1	47.6
MSA/FP	Rwanda	14.6	11.8	80.8
	Sao Tome	6.5 <sup>1</sup>	4.2 <sup>1</sup>	64.6
MSA/FP	Senegal	376.0	90.2	23.9
MSA/FP	Sierra Leone	69.7	9.6	13.7

Table 5. Cereal Imports and Food Aid of Most Seriously Affected (MSA) and Food Priority (FP) Countries 1976/1977-1978/1979 (cont.) (3-year average)

Country	Total Imports of Cereals (000 t)	Cereals Food Aid (000 t)	Food Aid as a % of Total
<u>Africa (excl. Egypt)</u>			
<u>(cont.)</u>			
MSA/FP Somalia	149.3	94.6	63.3
MSA/FP Sudan	209.2	80.4	38.4
MSA/FP Tanzania	117.8	95.4	80.9
MSA/FP Uganda	6.6	0.0	0.0
MSA/FP Upper Volta	68.1	41.1	60.3
Zambia	111.8 <sup>1</sup>	42.3 <sup>1</sup>	37.8
Africa Total	3,595.9	1,154.3	32.1
" MSA	3,253.3	1,089.0	33.4
" FP	2,647.0	1,002.3	37.8
"	326.0 <sup>1</sup>	65.2 <sup>1</sup>	20.0
<u>Asia, S &amp; SE and Egypt</u>			
MSA/FP Afghanistan	113.9	105.5	92.6
MSA/FP Bangladesh	1,207.6	1,161.6	96.1
MSA/FP Burma	12.8	9.3	72.6
MSA/FP Egypt	5,328.1	2,001.1	37.5
MSA/FP India	1,524.2	493.9	32.4
FP Indonesia	2,827.8	702.6	24.8
MSA/FP Kampuchea	101.6	85.0	83.6
MSA/FP Laos	87.6	43.4	49.5
MSA/FP Nepal	4.6	4.6	100.0
MSA/FP Pakistan	1,086.8	287.0	26.4
FP Philippines	951.2	80.1	8.4
MSA/FP Sri Lanka	999.7	329.6	32.9
MSA Vietnam	1,594.1	621.5	38.9
Asia Total	15,840.0	5,925.2	37.4
" MSA	12,061.0	5,142.5	42.6
" FP	14,245.9	5,303.7	37.2
"	-	-	-

Table 5. Cereal Imports and Food Aid of Most Seriously Affected (MSA) and Food Priority (FP) Countries 1976/1977-1978/1979 (cont.) (3-year average)

Country	Total Imports of Cereals (000 t)	Cereals Food Aid (000 t)	Food Aid as a % of Total	
<u>Other</u>				
	Cyprus	281.1 <sup>1</sup>	13.9 <sup>1</sup>	4.9
MSA/FP	El Salvador	191.2	3.8	1.9
	Grenada	1.0 <sup>2</sup>	0.1	10.0
MSA	Guatemala	132.2	8.3	6.2
MSA/FP	Guyana	65.7	0.7	1.0
MSA/FP	Haiti	150.3	50.8	33.7
MSA/FP	Honduras	104.2	18.0	17.2
MSA	Samoa	7.9	0.5	6.3
MSA/FP	Yemen A.R.	437.0	19.2	4.3
MSA/FP	Yemen PDR	130.1	14.0	10.7
Other Total	1,500.7	129.3	8.6	
" MSA	1,218.6	115.3	9.4	
" FP	1,078.5	106.5	9.8	
"	282.1 <sup>3</sup>	14.0 <sup>3</sup>	4.9	
Total MSA	16,532.9	6,346.8	38.3	
Total FP	17,971.4	6,412.5	35.6	
Total	608.1	79.2	13.0	
Total (MSA/FP/ recommended MSA)	20,936.6	7,208.8	34.4	

<sup>1</sup>Two-year average.

<sup>2</sup>Less than .05 percent.

<sup>3</sup>Not yet formally included in list of MSAs, but recommended to be given similar benefits.

Source: Food and Agriculture Organization.

imports are relatively insignificant in terms of their contribution to total staple supply for many sub-Saharan countries (see Table 6). However, the technology of consumption and marketing structure still implies short-term rigidities and, in relation to cereal imports, a policy sensitivity that would ensure high priority in the allocation of foreign exchange to maintain import levels. Thus, it is likely that further empirical analyses will show that cereal imports are similarly insensitive to the foreign exchange position in the many African countries where cereal imports are only a small proportion of total food staple supply.

The scale of food imports by low-income countries (and also by many nonpetroleum exporting middle-income countries that also benefit from concessional supplies) and the relative insensitivity of import levels to both foreign exchange positions and availability of food aid imply a freedom of maneuver that could be used by the donor in increasing the effectiveness of food aid programming.<sup>18</sup>

Since there is an excess demand for food aid, concessional supplies are allocated on a basis of suppliers' preferences. One issue, therefore, is the extent to which there will be any change in the balance of developmental considerations and other priorities that will lead to the following:

1. Additional or reduced supply to individual low-income countries and, therefore,
2. Reallocations between countries, or
3. Changes in the level of concessionality generally, or in relation to individual country programs.

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<sup>18</sup>It should be noted that a nonmarginal reallocation of food aid towards the least developed countries could also have an impact, however slight, on the commercial cereals markets. The elasticity of substitution between commercial and concessional supplies is, on an individual country basis, likely to be less than one (e.g., Sri Lanka, Clay, 1981b). The aggregation of the effects of reallocations of food aid, e.g., towards the group of 20 to 30 RLDCs, is uncertain because of price effects of the implied increase in overall level of demand for commodities among low-income countries. However, the overall impact in a tight market situation would plausibly be in the direction of higher prices for producers and exporters. This result is obtained where a food-financing facility increases the purchasing power of low-income beneficiary countries (see Castillo and others). The presumption in this case is that the elasticity of substitution would be lower for poorer countries.

Table 6. Most Seriously Affected and Food Priority Countries in Sub-Saharan Africa: Percentage Contribution to Gross Incremental Supply (GIS) of Major Staples to Domestic Production of Food Staples and Cereal Imports, 1976/1977 to 1978/1979 (calorie equivalent)

Country	Percentage of Total Staple Production <sup>2</sup>				Total Staple Production	Cereal Imports & Contribution to GIS
	Cereals	Cassava	Other Roots	Bananas & Plantains		
Angola	31	57	5	7	100	11
Benin	41	35	24	1	100	7
Burundi	20	30	27	23	100	1
Cameroon	42	19	22	17	100	5
Cape Verde	28	18	34	20	100	79
CAR	14	67	12	7	100	1
Chad	81	11	8	-	100	5
Comoros	17	42	5	36	100	20
Djibouti	-	-	-	-	-	100
Ethiopia	90	-	9	1	100	5
Gambia	96	4	-	-	100	35
Ghana	27	33	25	15	100	11
Guinea	66	20	5	9	100	6
Guinea-Bissau	67	-	20	13	100	35
Ivory Coast	37	15	33	15	100	12
Kenya	82	8	6	3	100	1
Lesotho	99	-	1	-	100	38
Madagascar	79	15	4	2	100	5
Malawi	95	2	2	1	100	1
Mali	97	2	1	-	100	5
Mauritania	94	-	6	-	100	73
Mozambique	34	63	1	1	100	14
Niger	94	6	1	-	100	4
Rwanda	17	14	23	47	100	1
Sao Tome etc.	-	33	60	7	100	59
Senegal	91	8	-- <sup>3</sup>	-- <sup>3</sup>	100	33
Sierra Leone	87	10	2	1	100	14
Somalia	80	5	-- <sup>3</sup>	15	100	34
Sudan	95	2	2	1	100	6
Tanzania	39	46	3	12	100	3
Uganda	43	15	9	33	100	-- <sup>3</sup>
Upper Volta	96	2	2	-	100	5
Zambia	91	8	1	-- <sup>3</sup>	100	10
Total	63	19	9	9	100	7

<sup>1</sup>GIS: Gross Incremental Supply = Production + Imports. In the absence of reliable estimates of opening or closing (year-end) levels of public or private stocks of basic staples, and also unrecorded private trade (smuggling), production plus imports provide a crude measure of the annual level of supply. This is defined as gross incremental supply to distinguish it from an estimate of supply including opening stocks and unrecorded trade.

<sup>2</sup>Due to rounding, percentages may not add to exactly 100.

<sup>3</sup>Less than 0.5 percent.

Source: Food and Agriculture Organization.

A significant part of the direct effect of such changes is in terms of the balance of payments of recipient countries. Additionality, in the sense of an increase (or decrease) in the inflow of food staples, cannot be presumed, and is likely to be only a fraction of the volume of commodities covered by a country program.<sup>19</sup>

Discussing the developmental effectiveness in the actual context of existing programs and patterns of concessional flows to developing countries also helps to avoid unrealistic approaches and oversimplification when considering the possibilities for improvement. In one sense, providing balance of payments support could be seen as sufficient justification for a Title I program. The problem is that many programs historically have been mounted for other reasons.<sup>20</sup> The PL 480 Title I has not been limited in this way to balance of payments support for countries whose overall development strategy and current development policies provide sufficient justification for support. This, therefore, leads to a tie between what is being, or is to be, done (conditionality) in relation to specific macropolicies or even particular sectors or projects when the overall economic development strategy in a particular country is problematic. This theme is developed in Section IV.

### C. Food Aid and Food Security

The probable short-term insensitivity of food imports to the balance of payments situation, including the availability of concessional supplies, suggests that it is important in developmental impact studies to look at the potentially procyclical or countercyclical implications of the way individual country food aid programs (or the total Title I or indeed the

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<sup>19</sup>This is an interesting question for evaluation--an assessment of the balance of payments and additionality effects of changes in the volume or value of a country program or level of concessionality.

<sup>20</sup>Wallerstein, 1980, in Chapter 6 provides the fullest and most balanced account of the evolution of American food aid policy in its wider foreign and trade policy context, with documented case studies of the diplomatic uses of food aid.

whole Food For Peace program) are structured.<sup>21</sup> The current Food For Peace program and also Title I are procyclical in relation to recipient countries viewed as a whole.

The current food aid program is procyclical: food aid is least available when world food prices are rising and countries need it most and vice versa. The reason for this is that food aid is budgeted on a dollar basis. As a result, when food prices rise during a budget year the volume of food aid must decline. Moreover, a substantial increase in food prices in the U.S. tends to result in political pressure for a smaller annual food aid budget.<sup>22</sup>

When priority is accorded to some countries and programs, then the procyclical effects of FFP programming will impact more severely on the residual group of low-income countries. Commitments on a volume basis such as those to Egypt prior to fiscal year 1982 and those to Title II within the overall FFP budget, as well as the implied priority to be accorded to Title III programs, imply that price increases would be absorbed by decreasing the dollars available for the remainder of the program and "the impact of price increases (and decreases) on the rest of the program is leveraged out of all proportion."<sup>23</sup> The potentially procyclical nature of PL 480 indicates an important issue for evaluation at the individual country level where a program has existed over a sufficient period to allow examination of the budgetary and balance of payments implications of the sequence of annual commitments.

Short-term insensitivity of food staple imports to the balance of payments position implies that there is a need to link the discussions of increasing the developmental effectiveness of food aid programs and food security. Food insecurity can, through the balance of payments, have immediate and severely disruptive effects on the rest of the economy, with costs also to be measured in terms of loss of potential income

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<sup>21</sup>A policy intervention is procyclical when it amplifies rather than dampens cyclical fluctuations in prices and quantities produced or consumed. Food security interventions are normally intended to be countercyclical in relation to the food consumption and real incomes of a vulnerable group, region, country, or even the worldwide community.

<sup>22</sup>Lancaster, 1979. "IDCA's Role in PL 480," Memorandum, November 19.

<sup>23</sup>Lancaster, 1979.

growth. Lancaster (1979) identifies various mechanisms for reducing the procyclical nature of existing Title I programs:

1. Establish a grain reserve to be used to maintain or increase the volume of food aid when prices rise.
2. Establish a dollar reserve or contingency fund to enable governments to buy additional grain when prices rise.
3. Budget the Title I program according to a volume rather than dollar level.<sup>24</sup>

These major proposals to give a countercyclical rather than procyclical character to the programming of FFP are to be seen as a response to the adjustment problems created by international price movements or periods of global food crisis. Such far-reaching proposals would find much support in the work that has been undertaken on food security problems of low-income countries<sup>25</sup> and are echoed in some proposals to increase global food security.<sup>26</sup>

A related issue is the extent to which PL 480 Title I has been programmed (or could be programmed) at an individual country level to respond to the balance of payments consequences of food insecurity problems as these arise. Problems of food insecurity at the individual country level also result from domestic production instability. Such crises arise perhaps in three or four countries or particular regions in any year.

In this discussion of food aid and food security, something can be learned from the behavior of those food-importing countries that are able to meet their import requirements on a wholly commercial basis. Countries that are nonmarginal in relation to world trade have tended to go for multiannual, medium-term, bilateral, contractual arrangements that provide some reduction of uncertainty of supply (e.g., China, Japan, USSR). This would suggest that there may be a need to

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<sup>24</sup>See, for example, the European food aid program 1975-1980, where the level of commodities programmed was constant for a period of 5 to 6 years at a level of 720,000 tonnes of cereals food aid through community action.

<sup>25</sup>See, for example, Valdes, A. (ed.), 1981. Food Security for Developing Countries, Westview Press, Boulder, Colorado.

<sup>26</sup>See, for example, Williams, M.J., 1981. "Proposals To Achieve Greater Food Security for Nations and Peoples," Paper for North-South Food Round Table, Washington, D.C., June 24-25.

differentiate between the small number of countries that are nonmarginal in relation to Title I (and Title III) and the total availability of food aid (e.g., Bangladesh, Egypt) and the many smaller, marginal (with reference to the total flow of commodities) recipients of food aid. Giving priority in making multiannual commitments to the nonmarginal recipients could be extremely damaging for the residual group of recipient countries. However, the individual food security problems of nonmarginal recipients must be an ever-present concern in managing and budgeting the total program. Food security problems of the many small recipients are, in contrast, rather a problem of individual country programming. A broader issue affects the overall program only where the wider problems of food insecurity are concerned, since sizable fluctuations in supply to individual marginal recipient countries would have negligible impact on the total program.

These are questions that become more complex and may perhaps require a fresh appraisal as the large number of relatively small recipients, including the whole sub-Saharan African group of countries, become more important in relation to the total flow of U.S. and other food aid.<sup>27</sup> U.S. food aid to sub-Saharan Africa has more than doubled over a relatively short period (Table 2). Do the food security concerns already discussed suggest the need for an explicitly regional approach to programming food aid? Can country evaluations contribute to this discussion?

#### D. Food Aid for Balance of Payments Support

Where food aid is supplied to ease a balance of payments problem, the other obvious priority area is in supporting adjustment policies. Most low-income countries are running deficits on their current accounts and are confronted with adjustment problems due to a deteriorating balance of payments situation as well as internal inflationary pressures.<sup>28</sup> Most

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<sup>27</sup>This is because even if the food import and balance of payments problems of a small number of nonmarginal recipients are large in scale, the administration of the response to their needs is made easy by the small number of countries concerned. The overhead costs of the response to a large number of smaller countries become greater and raise the question of the need to automate the mechanisms for dealing with these problems.

<sup>28</sup>World Bank, 1981. World Development Report 1981, Washington, D.C.

low-income countries already have sizable or at least structural food import bills and receive food aid (Table 5).<sup>29</sup>

Continuation or additional supply of food aid to support countries engaged in stabilization would appear to be, therefore, a developmental priority in the overall allocation of Title I-type resources. The discussion, therefore, shifts from an emphasis on positive or negative effects of food aid in a very broad and long-run sense, to an examination of circumstances in which the food supply can realistically contribute to reducing the costs and increasing the potential for success of policies to improve the short-run economic circumstances of a country. Such improvements are arguably a necessary condition for longer term development. These are, however, typically circumstances in which a U.S. food aid program may itself represent only a small fraction of total development assistance, and possibly even a small proportion of concessional food aid to the country concerned.<sup>30</sup> These are also circumstances that would appear particularly appropriate for a Title III type of agreement with a government undertaking stabilization measures. Multiannual commitments could provide greater assurance of balance of payments support, potential additionality in the flow of resources, and a great degree of concessionality in relation to specific conditions about uses of local currencies and monitoring. However, it also needs to be recognized that this is more likely to be the set of circumstances in which stabilization is associated with an IMF standby agreement and a broader package of support from the consortium of donors. There may, therefore, be a substantial element of reiteration in the self-help conditions associated with a Title I or Title III agreement. Where recipient countries and aid agencies have very limited professional expertise, one must be concerned that the set of agreements, including a U.S. bilateral food aid program, is not resulting in additional and unnecessary burdens of reporting and administration beyond those implied by the IMF standby agreement. This presumes that the latter agreement is the central element in the understanding between the recipient country and the donor consortium.

There could also be a further problem in terms of the explicit additionality of agricultural or rural development effort required by a Title III agreement and implied in a

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<sup>29</sup>See also the individual country discussions in USDA's (1981) report on food aid needs and availability.

<sup>30</sup>This is particularly likely to be the case in a sub-Saharan African context where a number of donors are contributing concessional supplies in relation to a relatively small volume of imports. See, for example, Clay 1981, Table 2.

Title I agreement. There may well not be any additionality of development effort in terms of new projects or programs that can be backed up against the volume of local currencies generated by sales of food aid commodities or alternative uses of freed-up foreign exchange, for the probable rationale of a stabilization exercise is to shift the program of public expenditure, recurrent and developmental, onto a sounder footing. The real aspect of additionality may lie in extra commodity assistance easing the balance of payments position, even increasing the volume of imports (and locally available commodities). This, of course, can be less attractive for donors than activities with some element of novelty. This raises the issue of the extent to which the provisions of existing legislation and administrative procedures for Title III and Section 206 as well as Title I permit or hamper the use of food aid in such a constructive way. The limited impact of Title III with its considerable built-in additional administrative demands, as well as the requirements for additionality of development effort, may in part reflect the restricted view of the potential positive developmental uses of food resources implied by the legislation.

The failure of most low-income countries to work out a coherent, medium-term food policy framework for the developmental use of food resources also effectively precluded many Title III multiyear programs. However, the recent and widespread acceptance of the need for national food strategies is being followed by efforts to provide the missing medium-term and longer term policy framework. Such food strategies, often prepared with assistance from bilateral and multilateral agencies, may provide the opportunity, probably and desirably in a donor consortium context, for multiyear Title III commitments by the United States and other donors.<sup>31</sup>

The international rules of surplus disposal<sup>32</sup> and the associated usual marketing requirements (UMR), also reflected in the usual marketing concerns of PL 480, need to be considered carefully in the context of this emphasis on the positive

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<sup>31</sup>The recent agreement between a World Bank-chaired consortium and the Government of Mali is an example of such a consistent set of multiyear commitments by donors. Consistent sets of commitments might also achieve a more convincing link between the transfer of additional resources and conditionality (see also Section IV of this report).

<sup>32</sup>Food and Agriculture Organization, 1980. Principles of Surplus Disposal and Consultative Obligations of Member Nations, Rome.

uses of aid in providing balance of payments support.<sup>33</sup> In theory, food aid should be entirely additional to commercial imports--at least that is the basis of the provisions for UMRs in the rules on surplus disposal. These procedures, institutionalized in an era of surplus disposal problems for cereals, could impede the constructive use of food aid in relation to the food import and balance of payments problems of the RLDCs.

Of course, even in the framework of UMR procedures, scope exists for food aid for countries in difficulty, (difficulty that would otherwise lead to additional commercial imports of food beyond the "usual requirements"), at least to the extent permitted by the balance of payments situation. In special cases, UMRs have not been set even though the country concerned has maintained significant levels of commercial imports (e.g., Bangladesh; see Table 5).<sup>34</sup> It could be argued, therefore, that this flexibility obviates the need for any change.

The UMRs are in another sense not a particularly tight constraint on balance of payments support through food aid. A UMR based on an average of commercial imports during the preceding 5 years is likely to be lagging behind a rising trend in food imports affecting most developing countries during the last 20 years or so. Thus, they still permit maneuvering space for some substitution of food aid for commercial imports. The problem of "abnormal" levels of imports resulting from a short-term food crisis can also lead to some flexibility in application. For example, an analysis of wheat flour imports for Sri Lanka shows a negative correlation between food aid and commercial imports.<sup>35</sup> However, as in the case of Sri Lanka, a strict application of the UMR rules could easily penalize a

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<sup>33</sup>The UMR is the quantity of a specific commodity that a country is required to import commercially in a particular year as a condition of receiving food aid. The UMR is a general requirement in relation to food aid from all donors. It is notionally based on the average level of commercial imports over the past 5 years. The rules are designed to prevent competitive dumping and consequent damage to established markets by exporting countries.

<sup>34</sup>Clay, E. J., 1981d. "Food Aid To Bangladesh: The European Community 1978 Programme," Paper for the Institute of Development Studies, University of Sussex--CEAS, Wye College, University of London, Food Aid Consultancy.

<sup>35</sup>Clay, E. J., 1981b. "Food Aid to Sri Lanka: The European Community 1978 Programme," Paper for the Institute of Development Studies, University of Sussex--CEAS, Wye College, University of London, Food Aid Consultancy.

country that successfully raises domestic production and its self-sufficiency ratio, since reduction in imports might have to be taken from food aid rather than commercial imports. Paradoxically, in this case it is potentially not the food aid that provides a disincentive but the limitation of food aid through UMR regulations.

The problem is not that particular cases could not be dealt with, but that by implication the UMR rules require coordination of food aid policies by food aid donors in order to make this possible. This coordination can be achieved, as in the recent case of Mali, which was already mentioned. However, in the absence of such a consortium understanding, the burden of initiative is clearly placed on individual agency country missions. There are problems of time and other potential costs because the UMRs require consultation with other donors, and the process is institutionalized within a different agency.<sup>36</sup> These problems could discourage the use of, for example, bilateral U.S. food resources as part of a constructive total package of support.<sup>37</sup>

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<sup>36</sup>For example, within the European Communities Commission, UMRs are the responsibility of DG VI (Agriculture), but negotiation of food aid programs lies with DG VIII (Development). Third-country consultations by the U.S. Government are the responsibility of the State Department. However, prior interagency discussions are necessary, in which economic development, foreign policy, and market development considerations have to be balanced.

<sup>37</sup>This view of the UMR procedures as potentially flexible, but, in practice, possibly inflexible in programming development assistance, is supported by at least one of the responses to "Food Aid and Development," the USAID policy discussion paper from Guyana (USAID 1981): "Usual marketing requirements (UMR) regulations may often serve to discourage host government policy initiatives to reduce food imports. For example, wheat flour for many years has been subsidized on the local market by the Government of Guyana (Guyana does not and cannot grow wheat). Several years ago the GOG removed the subsidy, thus raising the cost of wheat flour and products made with it. The net effect was a reduction in overall demand. This reduction in demand has made it very difficult for the GOG to meet its established 5-year average UMR for commercial wheat imports, thus jeopardizing the country's future participation in a Title I program .... Thus, in this and other circumstances of which we are aware, rigid UMRs may be counterproductive to the rational food policy directions we would like to see pursued by recipient countries."

One way in which the potentially counterproductive effects of rigid UMRs or the problems created by working within the rules could be reduced is through a shift in the focus of the planning of food aid to a consortium-level discussion of total levels and contributions to food aid and other commodity assistance. However, to a considerable degree, commodity assistance, including food aid, is often a "given" outside the process of formulation of multilateral development assistance.

Another alternative would be a modification or relaxation of UMR procedures whereby UMRs were automatically waived for some commodities, e.g., wheat, in relation to a subcategory of RLDCs or food-priority countries. Clearly, the notification aspects of the UMR procedures are valuable in ensuring exchanges of information about food aid flows, and they should continue. However, the exemption of a group of countries would make possible the planning and programming of bilateral resources in a total way where a multilateral approach may be less appropriate.

### III. THE DEVELOPMENTAL IMPACT OF FOOD AID

#### A. Disincentive Effects: An Inconclusive Debate

Among the criticisms of food aid are five major strands:

1. That it has direct price disincentive effects for local farmers and producers
2. That it may cause a change in eating habits, shifting demand from local to imported goods
3. That it encourages or enables the recipient government to neglect agricultural production and investment
4. That it creates economic and political dependency
5. That it fails to reach those most in need nutritionally

All these criticisms, if correct, would mean that the larger food aid recipients would be no better and possibly worse off in economic and nutritional terms for the mass of their population than those receiving little or no food aid. The debate on the accuracy of the criticism has ranged back and forth with inconclusive results. Hopkins and Puchala, who have studied and surveyed the available literature, write:

We recognize that food aid can and probably has had subtle, serious, and complex disincentive effects with respect to rural modernisation. However, with appropriate policies in recipient countries, we see no reason why, on balance, the multiple effects of concessionary food transfers targeted for nutritional and development purposes cannot be positive--both for farmers and government.<sup>38</sup>

The following factors contribute to the inconclusive outcome of the debate:

1. Authors look at different countries: India, Bangladesh, Colombia. Few African countries have featured in the discussion.
2. Authors have looked at different time periods.
3. Authors have looked at different types of food aid: bulk sale and project food aid.
4. In some cases, food aid has formed a high proportion of total supply, in some cases a low proportion.
5. In some cases, food aid has formed a high proportion of total imports, in some cases a low proportion.
6. Authors have applied different criteria to measure the impact of food aid.
7. Authors have used different models with different characteristics to estimate the impact of food aid.
8. Authors have formed different judgments on what would have happened in the absence of food aid.

The last point is particularly important. Any study, including a formal quantitative analysis, must be hypothetical. What would happen in the absence of food aid depends on whether we assume that everything else would have remained the same or whether the absence of food aid would have created forces affecting the determinants of the model, explicit or implicit, on which the author bases the discussion.

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<sup>38</sup>Hopkins and Puchala, 1978. This judgment then refers to Isenman and Singer, 1977, which considered the evidence for a harmful effect of food aid in India and found the case not proved.

## B. Shifts in the Disincentive Debate

In the analysis of food aid problems, a broad gradual shift can be discerned from an unqualified criticism of food aid, at least in respect to disincentive effects on local farmers in recipient countries, toward a more positive analysis of conditions that must be met to avoid disincentives or replace them with positive incentives. This has been related to a shift from "disreputable" donor motives, such as surplus disposal, dumping, market development, use as a political tool, maneuvering for more domestic support programs, etc., towards more "developmental" as well as "humanitarian" and "human capital" uses of food aid.<sup>39</sup> If there was concern in those earlier days for foreign agricultural producers, it was not for those in the recipient countries but for commercial exporters in other countries, as evidenced by the omission of producers in recipient countries from the evolution of the UMRs.<sup>40</sup>

There has been a discernible change of emphasis from avoiding disincentives in recipient countries, as reflected in the legislation, towards explicitly developmental forms of aid, as evidenced by the self-help provisions of Title I, the provisions of Title III, and the development of project-focused food aid under Title II of Public Law 480. This is partly a result of the changing, i.e., tighter, food supply situation and the evolution of U.S. domestic agricultural policies, partly of earlier disincentive experiences and criticisms of food aid, and partly of shifting concerns in development thinking generally, with greater emphasis on the reduction of poverty, income distribution, and rural development. "This new emphasis has helped to bring food aid back to respectability from the depths of skepticism that resulted from the academics' criticism of disincentive effects."<sup>41</sup>

The concern with disincentive effects on commercial food exports (whether from the donor country itself or other competitive exporters) has been greatly reduced, again partly as a result of tighter supply and partly in the light of evidence that the developing countries, in spite of food aid, were also experiencing a rapidly rising need for commercial food imports. Criticism of food aid for displacing commercial exports and

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<sup>39</sup>Schuh, 1981, p. 27.

<sup>40</sup>Schuh, 1981, p. 11, footnote.

<sup>41</sup>One may add that this also resulted from a more detailed and sophisticated analysis of the impact of food aid, no longer confined to static and short-term analysis based on a simple partial equilibrium approach. As an example of this "new" approach, see Isenman and Singer, 1977.

local production in recipient countries is clearly inconsistent (although in specific circumstances it would be quite possible for food aid to show a mixture of both these effects). Today, the point more emphasized is that, insofar as food aid displaces commercial imports, its value to the recipient is heightened, since much food aid is equivalent to freely disposable foreign exchange (subject, of course, to possible tying of the food aid itself). Moreover, an initial displacement effect on commercial imports may well be compensated for or reversed once the more dynamic secondary and longer term developmental potentialities of food aid are taken into account.<sup>42</sup>

### C. Food Aid and Changes in Taste

The most serious criticism of food aid in the sense of long-run or permanent disincentive effects is that it may result in a change in tastes, shifting demand from local to imported food products. This is the dangerous aspect of "market development" as an objective and criterion. If "market development" is defined as creating additional demand from higher incomes, it need not conflict with local production; nor need it do so if it is achieved at the expense of other exporters (although in that case it would conflict with the principles of surplus disposal, monitored by the FAO Committee on Surplus Disposal). But where food aid results in the introduction to the recipients of unfamiliar foods not capable of being competitively produced at home (e.g., wheat instead of millet) the charge of disincentive effects may be valid.<sup>43</sup>

It should also be pointed out that although the shifts in taste away from traditional staple foods may go hand in hand with food aid, they are not necessarily causally connected. These changes are also found in countries that have not been significant recipients of food aid, e.g., the Ivory Coast and Nigeria. Many of the changes are due to urbanization and gradual "modernization," and the association of traditional foods with a low-level or "obsolete" lifestyle. In fact, such changes in taste often began with the higher income groups that do not directly benefit from food aid. A broad judgment would not suggest any relationship between the speed of displacement of traditional food and food aid.

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<sup>42</sup>South Korea could serve as a classic example.

<sup>43</sup>Lane, S., 1980. "The Contribution of Food Aid to Nutrition," American Journal of Agricultural Economics, Vol. 62 (5), December, p. 984.

In some cases, e.g., baby foods, the multinational corporations (MNC) have been held responsible for changes (although on occasion food aid has been accused of serving as "market development" for the MNCs). No doubt changes in taste are often harmful to a country in terms of disincentives to local farmers, increased dependency, and pressure on foreign exchange; and they are quite often even nutritionally harmful. However, the line of causation is far from clear. Changes in taste that have other explanations may be followed by a buildup of food aid in periods of economic difficulty, e.g., Gambia and Senegal. Many detailed country or even comparative regional studies, e.g., for sub-Saharan Africa, are required. The widespread prevalence of deficits, especially of small grains, wheat, and rice, in developing countries should lead to caution in ascribing blame.

Even when local products are displaced, the overall effect need not necessarily be harmful to the recipient country. It would depend on whether the local resources set free by the induced shift in demand can be used advantageously in alternative production, possibly of more remunerative or nutritionally valuable food or of export crops earning essential foreign exchange (provided this foreign exchange is used in developmentally useful ways). Cases quoted include shifts to cotton production in Pakistan<sup>44</sup> or to barley in Colombia.<sup>45</sup>

Criticism of food aid is especially severe when the displacement of local production leads to a shift towards export cropping, which is said to result in neglect of domestic basic needs, increased instability, and greater dependency, while the foreign exchange earnings are often squandered without benefit to the actual producers. The possibility of exchange earnings being squandered is dealt with below (Section III), and leads us back to the proposition that food aid provides opportunities, but no guarantee that they will not be wasted. A recent authoritative survey has countered the criticism of export cropping and has argued that more detailed and empirical country work would show the advantages rather than disadvantages of exchange cropping.<sup>46</sup>

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<sup>44</sup>Mason, E.S., 1966. "Economic Development in India and Pakistan," Occasional Paper in International Affairs, No. 13, Harvard University, September.

<sup>45</sup>Dudley L. and R.J. Sandilands, 1975. "The Side Effects of Foreign Aid: the Case of PL 480 Wheat in Colombia," Economic Development and Cultural Change, Vol. 23 (2), January.

<sup>46</sup>Hillman, J.S., 1981. "The Role of Export Cropping in Less Developed Countries," American Journal of Agricultural Economics, Vol. 63 (2), May.

#### D. Impact on Government Policies

The concern with disincentives has broadened from the simple market effect on the local producer to the wider effect on government policies and priorities--agricultural and fiscal (as discussed in more detail below). This leads to a more complex political/administrative type of analysis, away from market equilibrium analysis. But even within the narrower framework of the latter, government intervention can rarely be disregarded, and the introduction of administrative realities can easily reverse findings based on supply/demand analysis. Government procurement policies are a good example: food aid may make it unnecessary for a recipient government to resort to compulsory procurement of food at low prices for the urban markets, and local producers may thus be able to sell more at the higher free- or world-market prices.<sup>47</sup>

For those who go beyond market analysis, it becomes necessary to understand such factors as the reality behind policy discussions, the nature of the decision-making process, the thinking of the actors and the working of the institutions involved, and the standards by which project and program performance are judged. A paradigm is needed in which the assumption of rationality is not limited to the working of a market with demand and supply and their respective elasticities. This is more explicitly stated and deliberately attempted in some of the recent literature.<sup>48</sup>

The shift from the neoclassical market model to a new framework has not been easy for economists,<sup>49</sup> and suspicion of the disincentive effects of food aid is still widespread. Yet, in the words of the Brandt Report, "The economic criticisms are now less often heard; food aid need not be a disincentive to agricultural production provided that effective demand for food

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<sup>47</sup>Various examples of this are given in the literature. See Schuh, 1981, p. 12.

<sup>48</sup>A good example is the paper by John W. Thomas, 1981. The nature and functioning of parastatal institutions, such as Marketing Boards in East Africa, clearly emerge from this paper as crucial factors in determining the impact of food aid and the optimal way of handling it in the East African countries.

<sup>49</sup>Keynes' words from the Preface of his General Theory spring to mind: "The difficulty lies, not in the new ideas, but in escaping from the old ones, which ramify, for those of us brought up as most of us have been, into every corner of our minds."

is raised to clear the market at a price which rewards domestic producers."<sup>50</sup> This statement represents an intermediate position; the shift is within the market paradigm, but the demand factor is now treated not as a static datum, but as a dynamic factor capable of being influenced by the food aid itself. Furthermore, analysis has gone beyond the market paradigm and treated food aid in a broader setting by means of macroeconomic, political, and administrative analyses. This has been a fruitful extension, resulting in a better understanding of both the potential benefits and potential pitfalls of food aid. Above all, it has shown that the real objectives of food aid can only be reached by food aid plus, for instance, food aid combined with positive forces released by the food aid itself.

The shift from market analysis with a focus on disincentives to a broader analysis with a focus on effectiveness also means a shift from features assumed to be common to all countries operating a market economy (supply/demand) to an emphasis on diversity in institutions and the nature of decision-making in different countries. Thus, Schuh<sup>51</sup> formulates one of his recommendations as follows: "Recognize the diversity in level of development and in institutional arrangements among countries. This means that simple-minded panaceas and fads should be avoided since, in general, different programmes and policies will be required for different countries. It also means that adequate knowledge of the economy and system in the recipient country is required as a basis for sound policy." This diversity among countries also largely explains the divergent results and judgments in the empirical literature on the actual impact of food aid.

The third criticism of food aid mentioned earlier (the disincentive effect on the recipient government) has also been the subject of much discussion. The results are as diverse and inconclusive as those concerning disincentives to local farmers. This subject lends itself less to quantification, and hence the debate has been conducted less in terms of quantitative models and their products and more in terms of broad judgments on the performance of particular governments.

Five broad positions may be distinguished, ranging from sharp criticism of food aid to the opposite conclusion:

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<sup>50</sup>Brandt, W., and others, 1980. North-South: a Programme for Survival, Pan Books, London and Sidney, p. 101.

<sup>51</sup>Schuh, 1981, p. 21.

1. Food aid causes neglect of agricultural production and rural development by Third World governments. The availability of food aid creates urban bias. If food aid had not been available in the postwar period, the developing countries would have given much higher priority to agriculture, and might not have become net food importers.
2. While food aid does not cause urban bias, for which there are many other and more fundamental reasons (desire for modernization, political weight of urban areas, bias towards capital-intensive technology, or higher status for industrialization), food aid has been at least a facilitating factor. Without food aid, governments of Third World countries would not have been able to indulge their urban bias to the extent they actually did.<sup>52</sup>
3. Food aid makes no difference to urban bias. Food prices are set by governments on administrative or political grounds. The existence and extent of urban bias are determined by political and social forces, in which food aid plays no part.
4. Food aid actually reduces the severity of the impact of urban bias on the rural and agricultural sector. Because of food aid, less food has to be squeezed out of the rural sector by repressive or penalizing methods. This means that farmers can retain more food for their own consumption or dispose of it at better prices in free markets instead of having to surrender it on a compulsory basis at low prices to state marketing boards or similar government organs.
5. Food aid gives governments additional revenue from the sale of food and offers the opportunity to direct these resources into rural and agricultural development, thus reducing urban bias. As previously discussed, this opportunity will be realized only if the government has a commitment to rural and agricultural development, and perhaps where the availability of food aid induces the government to pursue such a policy with the help of the increased revenues.

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<sup>52</sup>The "classical" text for the analysis of urban bias is Lipton, 1977. Michael Lipton discusses a large number of fundamental factors, and in his context the existence of food aid plays a subsidiary role.

Examples of all five arguments can be found in the existing literature, based more on ideological views and broad economic analysis than on direct country experiences. However, they are also reflected in descriptions of direct experiences in the field.

The third argument deserves much sympathy except when evaluations of performance that reach different conclusions are based on informed and developed analyses of country-specific situations. Urban food subsidies are often deeply institutionalized and politically sensitive, and would be maintained, in the absence of food aid, by other measures--partly by strengthened quotas and supplies from rural areas (argument 4) and partly by tightening general taxation. The latter could fall hard on poor people, in the case of indirect taxes on essentials, or mainly on the more affluent, depending on the overall fiscal and general policy of the government. This latter issue, thus, appears again as a major determining factor.

The fiscal aspect leads to another possible disincentive effect. It has been said that revenue from the sale of food aid provides the government with an easy alternative to raising local taxes and developing an efficient tax system. A classic example would be in Bangladesh, where income from food aid has at times formed a high proportion of total government revenue. This has been called a disincentive effect and a disadvantage of food aid; but on the other hand, lightening the tax burden could also stimulate the economy and create incentives for local, including agricultural, producers.

There is an impressive and consistently critical body of analysis of food policy in postindependence Bangladesh.<sup>53</sup> However, it should be noted that the fiscal disincentive argument does not necessarily work in the same direction as the urban bias argument.<sup>54</sup>

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<sup>53</sup>Stepanek, J.R., 1979b. Bangladesh--Equitable Growth? Pergamon, New York; World Bank, 1977. Bangladesh: Food Policy Review, Report No. 1764-BD, South Asia Programs Department, Washington, D.C., December 1979; World Bank, 1979. Bangladesh: Food Policy Issues, Report No. 2761-BD, South Asia Programs Department, Washington, D.C., December.

<sup>54</sup>Hopkins (1980, p. 102) describes the creation of a relatively efficient and inexpensive tax system (based on large-scale food distribution to urban consumers) as one of the benefits of food aid, on the grounds that the attempt to create an alternative tax structure is often practically impossible, puts a burden on the government, and increases the risks of corruption.

One beneficial effect noted in the literature, which may work against urban bias, is that food aid can enable governments to maintain greater stability of food prices than would otherwise be possible. The problem is prices for whom? Where food aid is used to supply a public distribution system, it can lead to the establishment of dual markets, e.g., through selective ration entitlements. The effects on the residual, though not necessarily the smaller, market for the commodities of local producers may be procyclical. It is for this reason that some economists have argued strongly for the major use of large-scale food aid in supporting open market operations to prevent the establishment of a dual market structure.<sup>55</sup> To the extent that unstable food prices, and specifically high food prices in times of food scarcity, have a particularly strong impact on poor consumers who spend a higher proportion of income on food, the stabilization of food prices made possible by food aid would have a beneficial effect in the direction of greater equality in income distribution.<sup>56</sup>

The third criticism of food aid mentioned above was that it can fail to reach those in particular need. There is no doubt that food aid could be, and on occasion has been, accompanied by leakages through corruption, theft, and so on. However, this risk is not necessarily greater with food aid than with some forms of commodity assistance and financial aid.

In the case of financial aid, there are two occasions for corruption and diversion--when the financial aid is allocated and then when goods are obtained with it--whereas in the case of food aid there is only a single stage. Financial assistance is less visible, and so leakages and corruption are less apparent. The problem with food and other basic commodities is that they are readily retraded, and leakage and black market operations are highly visible.

Disincentives for recipient governments are notoriously difficult to monitor, considering that we deal here with "what

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<sup>55</sup>With reference to Bangladesh, see Stepanek, J.R., 1976. "Open Market Foodgrain Sales--Mechanics and Related Aspects of an Integrated Food System," USAID, Dacca (unpublished). See also Stepanek, 1979, and World Bank, 1979.

<sup>56</sup>Again, it is important to specify clearly the circumstances in which such beneficial effects may or may not occur. Where there is a dual market structure, the distributional effects may be against the poorest consumers, if, as in many low-income countries, middle-income households and government sector employees have prior access to food at guaranteed prices (Clay, 1981).

if" questions.<sup>57</sup> Another difficulty is that even if the finding should be that food aid or the resources realized from the sale of food aid are not effectively used for development purposes, it is still possible that the avoidance of inflation, greater budgetary stability, reduced pressure for higher money wages, or prevention of social unrest--all of which could result from food aid--may promote development more indirectly. For example, as suggested later in this section, food aid may allow a shift in investment to more labor-intensive technology. In this last respect, food aid clearly has an advantage over some other forms of financial assistance. Additional employment will also normally be accompanied by a high propensity for increased expenditure on food, counteracting any disincentive effects. But the relevant point to emphasize here is that unemployment is a source of political, social, and economic instability; hence, any increased employment resulting from food aid will mean new opportunities and greater effectiveness of government policies derived from improved political and social stability.

The criticism that food aid creates or fosters dependency relationships between the donor and recipient economy arises in two distinct ways. First, "dependency" has become a key concept for a school (or schools) of political economy that is concerned with the totality of relationships between developed (core, metropolitan) and developing (periphery) economies.<sup>58</sup> It is not clear that testable hypotheses about food aid could be derived from such theories, which are distinct from the other four criticisms already noted above. A second, more specific concern is that food aid has not proved to be self-terminating, implying that many developing countries are economically dependent on the continuation of food aid.

The volume of food aid has declined since the late 1960s, but this is not due to the disappearance of need (or demand). On the contrary, estimates of needed food aid for the coming years are well in excess of current amounts and up to the volumes of the 1960s. (This, of course, does not exclude examples of countries--among which India is prominent--where food aid has had self-terminating features, at least as far as Title I-type deliveries are concerned.) The failure of food aid to be self-terminating is taken as evidence of its overall

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<sup>57</sup>This term is used by Tarrant, 1980, to describe the hypothetical nature of much of the analysis of the impact of food aid on government policies.

<sup>58</sup>See, for example, the various contributions to Seers, 1982, which reflect the diversity of theoretical positions within the "dependency" school of thought.



it is not the only way. If food aid helps to generate overall development including new export lines, the recipient country might, without being self-sufficient in food, increasingly replace food aid imports with commercial ones. That indeed is the broader rationale of "market development" and, provided it is not necessarily limited to the specific commercial market of the food aid donor, this is perfectly compatible--in fact it merges with--the development objectives of food aid. Something like this can be said to have happened in South Korea and Taiwan, both major food aid recipients at one time.

#### E. Importance of Government Policies and Commitment

The developmental value of food aid that frees foreign exchange for other imports will depend on what the other imports are; they can either be goods of developmental value--essential capital equipment or raw materials, including essential inputs for local agricultural production, such as fertilizers or pesticides--or they can be inessential goods or armaments. The funds may even serve to build up the foreign bank accounts of the local elite. To what extent one or the other happens depends partly on the degree of developmental commitment of the recipient government itself, and partly on the conditionality and distributive priorities of the food aid donor.

Again and again in the preceding discussion, we have reached the conclusion that the developmental value of food aid depends crucially on the policies of the recipient government. This is of course equally true of the impact of all aid, of trade concessions, transfer of technology, and any other means of international cooperation. The kind of government that makes good use of food aid is also likely to make good use of the other opportunities, and vice versa. Food aid provides an opportunity for accelerated development, which may be used or wasted. When it is wasted, the essential blame should be laid not on the food aid, but on the policies of the recipient government.

This last statement does not disregard the possibility that the right kind of conditionality (and packaging of food aid in the context of other development assistance) can contribute to motivating the government towards more effective development policies. It also underlines the crucial importance of the developmental commitment of the government as a criterion for the allocation of food aid. Where such a commitment exists, conditionality may be unnecessary, while at the same time it can be made effective. Where the commitment does not exist, conditionality may have to be tight; this then raises problems of enforcement and may lead to political

friction, destroying the objective of food aid to improve relations. In such cases, the alternatives to strict conditionality would be project aid under Title II, targeted directly to poorer regions or poverty groups.

#### F. The Nutritional Impact of Food Aid

Attempts to assess the nutritional impact of food aid have looked almost entirely at mother and child health, school feeding, Food for Work, and emergency projects with inconclusive, but no negative, results.<sup>63</sup>

There has been little attempt to assess the national level or distributional effects of PL 480 Title I programs, apart from the literature on disincentives for agriculture (see above, Section III). The broad implication of this literature is that where food aid has resulted in additional imports of cereals (not just balance of payments support), the net effect is to increase total food availability. Any negative effects would arise, therefore, through relative distributional impact, e.g., lower incomes for rural producers. The likelihood of such negative effects would also depend on the structure of the rural economy.<sup>64</sup>

The findings of the first attempt to measure the nutritional impact of food aid through intercountry comparison<sup>65</sup> are certainly inconsistent with the contention that disincentive effects lead to a worsening of nutritional status:

those nations that received higher amounts of United States food aid relative to the size of their population through the 1960s and early 1970s, showed significantly greater improvement in their food supply and the nutritional status of their population than did

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<sup>63</sup>See, for example, the comprehensive survey on supplementary feeding projects by Beaton and Ghassemi, 1979, and the African case studies by Stevens, 1979, and Gilmore, 1980.

<sup>64</sup>For example, whereas in India or Bangladesh the poorest rural households are landless, the overall impact depends on the balance of effects on food prices (for the poor are not purchasers of food) and employment and wages (for agricultural labor). See Clay, 1981a.

<sup>65</sup>Schubert, J.N., 1981. "The Impact of Food Aid on World Malnutrition," International Organization, Vol. 35 (2), Spring.

nations receiving less or no food aid under the PL 480 program.<sup>66</sup>

In the absence of further, more comprehensive or more up-to-date studies, or studies based on improved data, one must attach some weight to these and the author's other findings on comparative country performance: the rate of growth of food production among the high food-aid recipients in the 1970s compared with the 1960s declined by 0.3 percent per year as against a decline of 0.4 percent per year for the low food-aid recipients. The initial rate of growth of food production in the 1960s among the high food-aid recipients was distinctly lower than among the low-aid recipients (2.2 percent per year below the rate of population growth as compared with 2.8 percent per year above the rate of population growth). This could be considered evidence that food aid was in fact concentrated, to some extent, on countries with more sharply increasing food deficits.<sup>67</sup> The high food aid recipients were also some 20 percent poorer in terms of per capita Gross Domestic Product (GDP) than the low-aid recipients. Furthermore, the impact of food aid on overall development (growth in GDP) appeared to be neutral.<sup>68</sup>

To summarize, it should be recognized that the evidence, with its limitations, does not support the view that the overall impact of food aid on recipient economies has been negative. There would appear to have been positive effects working to counteract the negative effect. A review of these potential incentive effects follows.

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<sup>66</sup>The limitations of this study (some pointed out by the author) are that (1) it reflects only the PL 480 food aid, 1963-1975, an advantage from the viewpoint of the study; (2) not all nutritional indicators yield statistically significant differences between high and low food-aid recipients; (3) statistical relationships do not indicate causation--good performance may enable governments to obtain more food aid; (4) improvements in overall, average nutritional status as noted above tell nothing about income distribution.

<sup>67</sup>However, the high levels of food aid to Indo-China, where the war was resulting in urbanization of refugee populations, make this an ambiguous result. More generally, it would be interesting to consider the results of analysis after excluding those major controversial recipients of food aid and including food aid from other donors.

<sup>68</sup>The GDP growth of the high-aid group speeded up, from the 1960s to the 1970s, by 0.43 percent per year compared with 0.42 percent for the low-aid group.

G. Incentive Effects: Use of Counterpart Funds

The increased government revenue generated by the sale of food aid (counterpart funds) can be used to offset any price disincentive effect or to convert it into an incentive effect. It is possible simultaneously to lower the food price for consumers, either generally or selectively, and to increase the prices paid to producers. The government revenue will then be used to finance the increasing gap between producer and consumer prices. The clearest case of this is Brazil, where the revenue from PL 480 wheat was used to create incentives for domestic producers, with resulting increases in production.<sup>69</sup> The incentives to producers need not take the form of higher prices. They could be subsidies on fertilizer and other inputs, accelerated irrigation, improved agricultural extension services, etc. Once again, however, the actual developmental impact still depends on overall government policy. Subsidies could still go mainly to better-off urban consumers, to large farmers or plantations, or possibly to multinational corporations.

The emphasis by Isenman and Singer,<sup>70</sup> Lewis,<sup>71</sup> and Mellor,<sup>72</sup> that the additional income streams generated by food aid give a broader framework for the discussion of disincentive effects, could help us to explain the apparent inconsistency between the findings of Schubert (a positive nutritional effect of food aid), and the empirical findings of Blandford and von Plocki and others (who in specific cases found disincentive effects or leakage). The nutritional improvements found by Schubert may be due not so much to the direct nutritional effect of the additional food as to the overall developmental impact of the increased income streams generated. In spite of the apparently confusing and contradictory results of empirical studies of the impact of food aid in specific cases and for

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<sup>69</sup>Hall, Lana L., 1980. "Evaluating the Effects of PL 480 Wheat Imports on Brazil's Grain Sector," American Journal of Agricultural Economics, Vol. 62 (1), February.

<sup>70</sup>Isenman, P.J. and H.W. Singer, 1977. "Food Aid: Disincentive Effects and Their Policy Implications," Economic Development and Cultural Change, Vol. 25 (2), January.

<sup>71</sup>Lewis, A.W., 1954. "Economic Development With Unlimited Supplies of Labour," The Manchester School, Vol. 22 (2), May.

<sup>72</sup>Mellor, J.W., 1978. "Food Price Policy and Income-Distribution in Low-Income Countries," Economic Development and Cultural Change, Vol. 27 (1).

specific periods, this general statement emerges fairly clearly and provides a reconciliation of apparently contradictory findings.

In the specific case of India, where many of the disincentives and leakages were found and quantified, subsequent developments are at least consistent with this overall reconciliation. India has experienced considerable positive development in domestic agricultural production, enabling it to dispense with large-scale bilateral food aid of the Title I type in cereals. The role played by earlier food aid in these favorable developments will be a matter of judgment: in terms of food aid per capita, India was never such a large recipient as the absolute figures suggest (see Appendix A).

#### H. Incentive Effects: Building Human Capital

There has been a shift in development thinking towards greater emphasis on the role of "human capital" contrasted with a sole emphasis on physical capital in the earlier (Harrod-Domar) capital/output models.<sup>73</sup> The fact that food aid is directed at "consumption" rather than "investment" is no longer considered proof that it is developmentally inferior to financial or capital aid. Of course, to what extent it serves to build up essential "human capital" rather than inessential consumption depends strongly on who benefits and on institutional channels of distribution, just as does its impact on income distribution. Moreover, the contribution of food aid can be negated by a<sup>74</sup> destruction of human capital through disincentive effects.

#### I. Impact of Food Aid on Income Distribution

Concern with the impact of food aid on income distribution in recipient countries has also contributed to a more sophisticated and complex analysis than a simple partial equilibrium demand/supply market model would permit. This impact can range

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<sup>73</sup>Singer, H.W., 1979. "Poverty, Income Distribution and Levels of Living: Thirty Years of Changing Thought on Development Problems," in Reflections on Economic Development and Social Change, edited by C.H.H. Rao and P.C. Joshi, Delhi.

<sup>74</sup>Thus, one of the pioneers of the "human capital" approach, Theodore W. Schultz, has also been one of the earliest and strongest critics of the disincentive effects of food aid.

all the way from extremely favorable (with lower food prices benefiting the poor while small farmers are benefited by higher producer prices, subsidies, or other developmental expenditures out of the government revenue from food aid), to strongly unfavorable effects (with food aid benefiting mainly well-to-do urban buyers and "leaking away" in corruption or other advantages to those with privileged access to the food, while small farmers suffer as a result of lower prices and loss of markets). Obviously, everything depends on exactly how the food aid is handled and administered, what the relevant institutions and channels of distribution are, and how exactly the revenue accruing to the government from food aid is used. The variety of possible outcomes is infinite, and simple demand/supply analysis becomes largely irrelevant. This is clearly reflected in the food aid literature, with a shift of discussion from "disincentives" to "efficiency."

It has often been observed that food aid, at least of the Title I type, normally benefits urban rather than rural consumers. Apart from the criticism that food aid lowers the rural/urban terms of trade, it has also been said that this limits the developmental impact of food aid since urban incomes are typically higher than rural incomes. On the other side, however, is the general finding that for given income levels, especially among the poorer groups, urban nutrition is worse than rural nutrition. As far as the formation of "human capital" is concerned, therefore, it does not follow that urban distribution of Title I food is necessarily anti-egalitarian, provided it can be made to benefit the poorer urban groups. Admittedly, this raises difficult administrative as well as political questions and reinforces the already strong arguments for channeling the additional income streams that arise into rural development and other egalitarian policies to compensate for any pro-urban bias.

#### J. Targeting on Poorer Sections

Kumar found that food subsidies had been the most effective way to improve the nutritional status of children in Kerala, more effective than either incomes from farm production or cash income.<sup>75</sup> This finding is, however, contested by

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<sup>75</sup>Kumar, S.K., 1979. Impact of Subsidised Rice on Food Consumption and Nutrition in Kerala, Research Report No. 5, IFPRI, Washington, D.C.

Mencher.<sup>76</sup> Food subsidies are, of course, not coincidental with food aid; a country can have food subsidies without food aid or food aid without subsidies. In actual fact, however, food subsidies are often linked with the receipt of food aid, and insofar as food aid leads to lower food prices all around, this could also be described as a general subsidy.

The technique of targeting on poor and nutritionally needy groups is difficult, and much of the criticism of food aid is directed at failures in this field. However, on reflection, this turns out to be less a criticism of food aid as such and more a comment on the overall policy orientation and administrative efficiency of the recipient government. The same criticism can be and is made of financial aid, commercial borrowing, use of foreign exchange, domestic social services, agricultural extension services, and so on.

The discussion of food aid has created tools to assist in targeting on poorer groups, e.g., the use of "self-targeting" products; selective rationing; distribution through social institutions and mechanisms, such as maternal and child health (MCH) services; concentration on poor regions or on groups that are discriminated against, such as refugees. Successful targeting at poor sections will also reduce disincentive effects and ensure additional demand for food without much leakage into other imports.

Targeting can be improved and simplified by concentrating subsidized distribution on "self-targeting" foods that are dominant only in the diets of low-income people, e.g., cassava, sorghum, millet, or corn rather than wheat or rice.<sup>77</sup> Where food aid only supplies the superior food, this could be sold at full market price and the proceeds used to buy the inferior, self-targeting foods at full price from local producers for subsidized or free distribution to poorer people, with minimum risk of leakages.<sup>78</sup> This proposal illustrates the dual role of food aid under Title I (and III), i.e., in the first instance using food aid to raise revenue and directing the increased revenue into simultaneous income incentives for local producers

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<sup>76</sup>Mencher, J.P., 1980. "The Lessons and Non-Lessons of Kerala: Agricultural Labourers and Poverty," Economic and Political Weekly, Vol. XV (41, 42, 43), Special Number, October.

<sup>77</sup>USAID, 1981. "Food Aid and Development," A Policy Discussion Paper, Washington, D.C., July, p. 19.

<sup>78</sup>USAID, 1981, p. 20. This attractive proposal is attributed to Timmer, 1980, pp. 188-99.

and improved real income and nutrition for the poor and malnourished. At the same time, even this desirable scheme will depend for its operation on local circumstances and government pricing policies. It also presumes that the self-targeted foods are domestically produced.

Any attempt at targeting by means other than self-targeting foods will raise formidable administrative difficulties. Where administrative capacity is scarce, its concentration on food stamps or other forms of subsidized distribution may be at the expense of effort directed at increasing food production. To avoid such negative effects it may be necessary to combine food aid with the necessary technical and administrative assistance that is now increasingly advocated in the literature.

Reutlinger and Selowsky are the main source for the concept of the importance of the effective targeting of food aid.<sup>79</sup> They find that the cost-effectiveness of properly targeted programs is a high multiple of general food subsidy programs, in the region of 5-10:1; and among the targeted programs, food stamps appear to be more cost-effective than price subsidies. However, the notion of "cost-effectiveness" needs to be extended to take account of administrative costs and the problems of implementability, which are likely to be intervention specific. For example, in the case of the current Sri Lankan food stamp program, the latest survey estimates that 30 percent of the beneficiaries are "unintended," and that 12 percent of the intended beneficiaries did not receive stamps. In assessing the effectiveness of this restricted intervention, one wants to know whether the excluded beneficiaries are those who can do without food stamps (perhaps because they have other support or produce their own food) or whether they are among the poorest of the poor, too ignorant or too afraid to register.<sup>80</sup>

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<sup>79</sup>Reutlinger, S. and M. Selowsky, 1976. Malnutrition and Poverty: Magnitude and Policy Options, Johns Hopkins University Press.

<sup>80</sup>Plantation labor, identified as a group with exceptionally high levels of malnutrition, child mortality, and total mortality (Government of Sri Lanka, 1980) are effectively excluded by eligibility based on the minimum wage and the time of revalidation. A small survey of households of mothers bringing children suffering from malnutrition to Colombo Hospital showed a higher proportion of excluded beneficiaries in the lowest income group. Over 40 percent of the households with malnourished children were ineligible due to higher money incomes. The targeted entitlements may not be an effective intervention to cope with child malnutrition.

It is also pointed out in the literature that although target-group intervention is more cost-effective than more general attempts to raise food consumption and improve nutrition by raising incomes or employment, in the long run it will be ineffective and die out unless it is set in the context of overall basic needs-oriented policies in the recipient country.<sup>81</sup> The dilemma is that where the overall policy is basic-needs oriented, targeting--given its difficulties--may be unnecessary, while without such policies targeting may be ineffective. The value of food entitlements in Sri Lanka have been largely eroded during 2 years of rapid inflation, whereas an entitlement in kind would have been a continuing priority commitment by the public sector (and a charge upon public expenditure). As this example illustrates, alternative entitlement mechanisms are multifaceted interventions, implying a balance of advantages and disadvantages that is not easy to incorporate in a formal analysis.

#### K. Food Aid and Production Technology

One criticism of financial assistance, particularly in the form of tied financial aid and project aid, is that it leads to capital-intensive technologies and operates against employment, and thus may result in more unequal distribution. It has been correctly described as a "paradox" that while aid donors are in favor of poverty-oriented policies, an analysis of aided projects shows that the criterion of choice of technology is in the opposite direction.<sup>82</sup> In this respect, food aid can have a clear advantage over financial aid. By removing food constraints to increase employment, food aid makes possible more employment and development. By lowering food prices, it may reduce wage pressures, and thus not only shift the balance of advantage towards more labor-intensive sectors and projects, but also reduce inflationary pressures, thus enabling governments to be more expansive in their general economic strategies. There are, however, two serious qualifications. First,

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<sup>81</sup>Timmer, C. P., 1978. "Food Aid and Malnutrition," paper for the Conference on International Food Policies Issues, Washington, D.C., April 28-29, published in International Food Policy Issues, Proceedings, USDA (Foreign Agricultural Economic Report, No. 143), January.

<sup>82</sup>Fluitman, F. and J. White, 1981. "External Development Finance and Choice of Technology," Working Paper for Technology and Employment Programme, International Labor Organization, Geneva, July.

such employment need not be productive. Food aid can facilitate the growth of a bloated tertiary sector. Second, the perception of food aid as a wage good facilitating labor-intensive employment must be qualified where the commodities transferred are not basic staples in the consumption of low-income households (see Section III, above).

A related advantage of large-scale Title I-type food aid and other commodity assistance over much financial aid, which is in practice project assistance, is that it requires fewer foreign technical assistance personnel who receive high incomes (including high cost to the recipient government) and may as a result also exert negative "demonstration effects" in the country.<sup>83</sup> With proper administration, financial aid can, of course, also be directed toward the alleviation of poverty and the creation of additional employment, but it is still worth noting that in this respect, food aid can have certain built-in advantages, while it is generally regarded as inferior to financial assistance.

The literature, however, does not give food aid unadulterated credit for this. While the bulk of the technology literature associates capital-intensive technology with unequal income distribution (and hence would credit food aid with more equal income distribution insofar as it leads to more labor-intensive technologies), some of the development literature has the opposite implication. For example, the famous development model of Arthur Lewis<sup>84</sup> associates the low wages arising from unlimited labor supplies with a shift to profits, and hence, unequal income distribution; by implication, a reduction in wages due to "unlimited supplies of food" would have unequalizing effects. Put in those terms, this would clearly be a no-win situation for food aid. The resolution of the apparent paradox once again lies in the timeframe adopted: lower food prices initially lead to higher profits, but the resulting incentive to invest these profits in additional employment and the change in technology towards greater employment intensity are bound to result in greater equality and income distribution for any period beyond that of the initial impact. More generally, John Mellor has pointed out that a "leakage" of benefits

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<sup>83</sup>Hopkins, R.F., 1980. "Food Aid: The Political Economy of International Policy Formation," Report to USAID, October. However, project uses of food aid could equally come to require large-scale foreign technical assistance. Even volunteers, who to Western eyes have a "low profile," are on motorcycles or in jeeps and are highly visible and affluent to most rural people in developing countries.

<sup>84</sup>Lewis, 1954.

of food aid to those who are better off, with a higher absolute expenditure on food, may "trickle down" to poorer people through increased employment.<sup>85</sup>

Two additional proposals in the food aid literature aimed directly at creating positive incentives rather than avoiding negative effects should be noted in discussing the production technology issue. One is to concentrate food aid as much as possible on agricultural inputs, such as feed grains, equipment for producing nutrient-dense food, fertilizer, grains for milling, or dried milk for reconstitution. In a broader sense, food aid directed toward building up the human capital of food producers can also be described as "input" aid.<sup>86</sup> Food aid given as input aid would have a favorable effect on the lowering of prices rather than a disincentive effect on producers, since it would affect costs rather than receipts.

The other proposal is that food aid should be used as much as possible as a risk reducer. This could apply to individual producers--supportive measures for land settlement, land reform, the introduction of new varieties, etc.--but also to recipient governments. For example, by using food aid to build reserves and stocks, governments could be encouraged to adopt expansive policies, introduce land reforms, and so on, with less risk of inflation or food shortages.<sup>87</sup> This use of food aid depends particularly on multiyear programming, secure supplies, and dependable food aid reserves.

#### L. An Overall Summary of Empirical Findings

The inconclusiveness, or rather the contradictory results, of empirical research on the impact of food aid in different countries or for different periods in the same country are not surprising when two factors are taken into account:

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<sup>85</sup>Mellor, J.W., 1980. "Food Aid and Nutrition," American Journal of Agricultural Economics, Vol. 62 (5), December; Mellor, J.W., 1978.

<sup>86</sup>This point is made by Schneider, H., 1981. Issues in Improving Linkages Between Food Aid and the Development of Agricultural Production in Recipient Countries, Paper for DAC meeting on strengthening Developing Country Food Production, OECD Development Centre, Paris.

<sup>87</sup>Both these approaches are advocated, for example, by Austin, 1981. See pp. 64-66 for food aid in terms of inputs, and p. 71 for use of food aid as a "risk-reducer."

1. Food aid is only part of a total "package" of external support for a developing country. Its impact will depend on how it is combined with other parts of the package--financial aid, technical assistance, private investment, bank lending, trade policy, transfers of technology, and so on. Food aid in isolation and not as part of a package is likely to be less effective, and any positive impact can be easily negated by adverse developments in other parts of the package. The main conclusion to be drawn is that food aid should become increasingly part of a deliberate and harmoniously constructed package of support measures.<sup>88</sup> Of special importance are other measures, within the package, that are directly related to food security: promotion of agricultural production, food distribution, food loss avoidance programs, and so on.
2. Each country situation represents a unique blend of domestic conditions and policies. It is not surprising that the impact of food aid should be different in different country conditions. The only lesson one can draw is that food aid determination--both in terms of total quantity and of modes of application--should be based on detailed country assessments.<sup>89</sup>

Opinions range from an unqualified negative view at one extreme, that food aid inevitably acts as a disincentive for farmers or governments or both, to the optimistic view at the other extreme, that food aid is a valuable instrument of development policy, in some ways more effective and better targeted than financial aid. All participants in the controversy have produced some empirical evidence to support their view.

Some of the differences may be due to different conceptions of the purposes of food aid. If this is defined as increasing food availability in poorer and undernourished countries, then a finding that food aid replaces commercial imports

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<sup>88</sup>This is explicitly recommended by the Special Task Force on the Operation of Public Law 480 (U.S. Senate, 1978, p. 101). "The task force recommends that U.S. food assistance be treated as a part of a coordinated total country package approach to maximize the effective use of limited development resources."

<sup>89</sup>This conclusion is also drawn by the Special Task Force (U.S. Senate, 1978, p. 100). "The economic effect of food aid on the economy of a recipient country is directly related to the economic, political, and cultural characteristics of each specific country."

would be a negative finding. However, if the purpose of food aid is defined as promoting overall development and Gross National Product growth in recipient countries, then the fact that food aid replaces commercial imports and releases foreign exchange for other development uses would be considered a strongly positive factor. This difference is important in view of frequent findings that food aid has in fact replaced commercial imports.

The criticisms of food aid are also not always consistent. For example, if food aid is given in the form of staple products actually consumed by the mass of the population, it is criticized for directly competing with local production. If different commodities are supplied (say, wheat in place of traditional maize, millet, or sorghum), then it is said that food aid weans people away from traditional home-produced foods and creates a demand for recurrent imports in the future. The supply of milk powder has come in for special criticism for undermining breast-feeding and introducing health hazards, but also for special praise as a basis for local dairy industry developments (e.g., Operation Flood). On the other hand, the advocacy of food aid, especially by donors, has not been free from similar (or rather reverse) inconsistencies.

Even what would superficially appear as the strongest case against food aid--i.e., a finding that food aid replaced domestic production--is not necessarily conclusive from an overall development perspective. If domestic farmers use the unused land and other resources to produce export cash crops, this will add to foreign exchange availabilities and hence may promote overall development (very similar to the case of food aid saving foreign exchange for commercial imports). A shift from agriculture to industrial production may in any case be in line with the general development trends and requirements of the country.

Where the impact can be negative is in fostering "pre-mature urban migration,"<sup>90</sup> and the growth of a parasitic and unstable tertiary sector that can only sustain itself by shifting the terms of trade against agriculture and through external assistance. This is a serious risk against which to guard, as food aid is increasingly targeted at the low-income countries where there are fewer prospects of growth through trade or import-substituting industrialization in the 1980s.<sup>91</sup>

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<sup>90</sup>Schuh, 1981.

<sup>91</sup>See World Bank, 1981, on prospects for growth in low-income countries during the 1980s.

Judgments on impact will also differ according to the relative emphasis among the intended purposes of food aid. If food aid is intended to reduce poverty and malnutrition, then clearly its failure to reach those in greatest need (for which there is much evidence) will weigh more heavily than if the purpose is simply to contribute to overall development, when in fact the benefits for workers and other economically active groups (normally not identical with those in greatest need) may be very important.

Again, if the effect of food aid is to discourage the production of marketed surpluses of local food and their being channeled to the towns, and instead leads to increased consumption in rural areas, this can be treated as either a good or bad effect, depending on the perspective of analysis. A lot would obviously depend on whether the marketed surpluses were produced by small farmers or by large commercial or plantation-type producers.

Without going into more detail, it is clear that the number of possible combinations of outcome is very large. A further complicating factor is that many of the criticisms of food aid also apply to aid in general and to commercial imports of food. It is not always clear whether the criticism is specifically directed at food aid, to aid in general, or to food policies in recipient countries that permit food imports.

The discussion of disincentive effects on government policy often alleges urban bias or antisocial bias in government policy; it is by no means clear whether the criticism is of the impact of food aid as such, or the fact that food aid is used in the framework of overall antirural or antisocial policies.

To complicate matters further, much depends on whether the discussion is of the immediate or "first round" effects of food aid, or whether we are also trying to determine long-run effects (which are potentially more favorable, as argued above). When added to the difficulties of distinguishing between food aid as cause and effect (e.g., where increased food aid is associated with a fall in domestic production) and the general difficulty in dealing with hypothetical situations (e.g., what would have happened if there had been no food aid or if food aid had been much larger than it was), the controversy that surrounds food aid is understandable.

Finally, it should be recognized that many of these questions are in fact about the role of aid in general. On these broader questions, too, there is a diversity of views, with those who surveyed the empirical literature reporting only strongly qualified findings (see Appendix A). Confident generalizations about the negative or positive impact of aid and,

more narrowly, of food aid, are hard to sustain, and this would appear to justify our emphasis on individual country circumstances and the role of government policy.

In stressing both negative and positive potentials of food aid, there is the implication that donor policies and the administration of food aid programs (the subject of Section IV) can be important in determining impact and effectiveness.

#### IV. ISSUES OF PROGRAMMING AND OPERATION

##### A. The Increasing Importance of Donor-End Effectiveness

The authors of this report have not been directly concerned with the programming and operation of U.S. food assistance and would therefore be reluctant to enter into a detailed discussion of these issues. Nevertheless, they feel that the earlier discussion of the changing context of U.S. food assistance raises a number of questions concerning the donor-end effectiveness of Food For Peace in relation to the objectives of providing balance of payments support in the short term and fostering long-term development. They also feel it appropriate to draw attention to some of the issues raised by others who have been more directly concerned with U.S. food assistance policy and programming.<sup>92</sup>

The modalities of programming and operating U.S. food assistance have evolved over a long period. Some of these procedures are explicitly incorporated into the enabling legislation, while others have evolved as interagency and intra-agency rules and practices. It has been suggested above that there has been a major shift during the 1970s in the circumstances in which Food for Peace is being administered as well as some important related changes in the structure of the program. For example, the requirement that 75 percent of commodity assistance under PL 480 Title I should go to RLDCs has resulted in a relative shift within a program of broadly constant magnitude away from Southeast Asia to sub-Saharan Africa (Table 1). This shift of emphasis has important implications for other aspects of the operation of Title I, such as a need for a higher level of concessionality and probably more grant-type assistance than was appropriate when a high portion of Title I commodities were supplied to middle-income countries.

Recent discussion of issues of programming and operation, in particular the U.S. Senate 1978 report, New Directions for

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<sup>92</sup>For example, USAID, 1981; Stepanek, 1979a; Lancaster, 1979; and U.S. Senate, 1978.

U.S. Food Assistance, as well as the informal views of a number of economists and administrators with experience in U.S. food assistance, have highlighted a number of questions that deserve further consideration in evaluating the effectiveness of Title I operations.

1. The problem of determining country allocations, particularly intercountry allocations, within a fixed budgetary limit. Guidelines such as the 75-25 percent rule have to some extent already determined major allocation choices. Where there is "excess demand" for PL 480 Title I food aid and every indication that the total food assistance may be inadequate to maintain even current aggregate levels of staple consumption in low-income countries,<sup>93</sup> there are very difficult choices to be made and tradeoffs between the different concerns that influence intercountry allocations. This issue is closely related to the second area of concern.

2. The interagency process of determining food aid for each potential recipient country on a consensual basis within the Development Coordination Committee (DCC) Subcommittee on Food Aid. This process raises various concerns--foreign policy, market development, nutrition, and economic development--that play a part in determining allocations. Such a system is potentially time-consuming and increases uncertainties about allocations and availabilities, especially when conducted on an annual basis.<sup>94</sup>

3. Time required in programming and operation. The existing procedures are such that in practice, preparatory work may begin almost 2 years ahead for an annual allocation.<sup>95</sup> In such circumstances, the notion of an annual allocation is highly qualified because for most recipient countries a longer term relationship is implied but in no way assured.

4. Current procedures involving a financial allocation. These procedures often result in uncertainties about availability of commodities both in total and in the content of a country package of assistance.

5. The extent to which existing procedures result in problems of untimely arrivals and deliveries as compared with the organization of food imports on a commercial basis or from other food aid donors. At the individual country level, one would be concerned to establish the extent to which the

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<sup>93</sup>U.S. Department of Agriculture, 1981.

<sup>94</sup>See U.S. Senate, 1978.

<sup>95</sup>See U.S. Senate, 1978.

required tendering procedures, rules providing for the organization of shipping as well as determining what commodities are available, result in problems of programming food imports by recipient countries. Again, convincing answers can only be established by a country-by-country analysis of the actual programming of food imports by the recipient country. In considering the effectiveness of the organization of shipping, we would wish to make six points:

- a. There has been a relative increase in the noncommodity, oil-price related costs of food aid. In a tight budgetary situation, there are grounds for wishing to ensure overall cost effectiveness. This point is related to
- b. The shift within the program to low-income countries whose balance of payments situation makes it difficult for them to meet shipping costs. This is particularly so in relation to land-locked countries of sub-Saharan Africa, and
- c. A shift to a larger number of recipient countries to which smaller total flows are being programmed. The problem of effectiveness in programming becomes far more serious when only one or two shipments within the financial year are envisaged.
- d. A related question concerns the implications of the trend to larger sizes of bulk dry cargo vessels.
- e. To what extent would operational effectiveness (e.g., in reducing losses) be enhanced by technical regulations that exclude antiquated and inefficient vessels, or vessels not suited to particular bulk cargoes and to the loading and unloading facilities in question? For example, the European Communities Commission has recently laid down regulations with the intention of ensuring technical standards<sup>96</sup> in vessels used to ship community food assistance.
- f. It is possible that the cost associated with the Cargo Preference Act provisions are not restricted to the additional direct costs met by the DCC but can extend to a reduction in the value of the overall resource

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<sup>96</sup>European Communities Commission, 1980. "Commission Regulation (EEC) No. 1974/80 of 22 July 1980, laying down general implementation rules in respect of certain food-aid operations involving cereals and rice," Official Journal L 192/11.

transfer, now a fully costed resource, through program delays.<sup>97</sup>

6. Terms of U.S. food assistance currently offer overlapping possibilities in the programming of food aid. Broadly, the choices are a Title I highly concessional loan; a Title III loan, which can be converted into a grant on an f.o.b. (free on board) basis and even, with a case-by-case decision, on a cif (cargo, insurance, freight) basis; or a Section 206 government-to-government program of wholly grant aid. These different food aid windows of Food for Peace also involve differences in procedure. Some recipient countries have received only Title I support, whereas others have been beneficiaries under Section 206, and others may even have experienced systems under two or more of these alternative channels of food assistance.

The evaluation of any one channel of assistance cannot be entirely satisfactory unless it is made with reference to the experiences of countries where other channels of food aid assistance have been considered to be more appropriate. Title I evolved over a period of time in relation to experiences of providing food assistance to middle-income as well as low-income countries. There have been significant changes in terms and conditions. For example, experience with loans repayable in local currencies led to the phasing down of this type of assistance. Now that Title I is targeted largely at RLDCs, a question arises concerning the extent to which other terms and conditions, e.g., the element of concessionality and the provision of assistance on an f.o.b. basis, restrict the possibilities for use of this channel of assistance to a limited number of low-income countries. For example, the balance of payments and debt positions of low-income countries raise questions about the appropriateness of assistance on a loan basis. These concerns in terms of a specific country are

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<sup>97</sup>"Efforts to enforce the act have resulted in regulations and practices which in turn have caused substantial program delays, including bid rejections, and created problems of timely deliveries to the recipient country. The task force is convinced that timely deliveries of food commodities must remain the overriding priority in arranging for ocean shipping ...." (U.S. Senate, 1978, page 93).

implied in an economic analysis of the question of loans versus grants.<sup>98</sup>

B. Linkage: Food Aid and Other Development Assistance

The notion of "linkage" is employed frequently to cover two distinct sets of concerns. The first is with the relationships between food aid and other development assistance, as clearly articulated, for example, by the U.S. Senate Committee on Agriculture, Nutrition, and Forestry:

Food aid is only one segment of a large complex set of linkages in the development process and should be treated in a coordinated "country package" approach to maximize effective use of limited development resources.<sup>99</sup>

This is a view that the authors would strongly endorse, noting that this linkage involves other bilateral development assistance by the food aid donor and also other multilateral and bilateral donors. In addition, the question of linkage arises in relation to financial assistance for capital investment and, to a limited extent, technical cooperation; for sector loans and other forms of budgetary support; and for other commodity assistance including food aid and balance of payments support such as that available under the various IMF facilities.

The second concept of linkage concerns conditionality and the desire to associate the assistance with meaningful development measures on the part of the recipient country. This notion of linkage (considered later in this section) is perhaps better replaced by the alternative concept of conditionality, which indicates that the focus of attention is upon the actions of the recipient country.

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<sup>98</sup>Schmidt, 1964, in analyzing this question, concludes: "In the absence of uncertainty over repayment and terms of trade effects, grants are cheaper when the yield on capital in a recipient economy is less than in the benefactor nation. The presence of uncertainty may oblige the benefactor, where he would otherwise have provided loans because these are cheaper, to shift to grants to ensure the intended allocation of his largesse or in order to provide benefits to recipients with low yields on capital investment. The question of loans versus grants or the level of concessionality is not so much one of ethics as one of cost effectiveness."

<sup>99</sup>U.S. Senate, 1978, p. ix.

The evolution of the food aid policies of the United States and other donors as an adjunct to agricultural trade as well as the evolution of development assistance policies is reflected in the institutionalization of programs.<sup>100</sup> Food aid is typically organized in a separate office or division within agencies or ministries concerned with development assistance. The programming of food aid, including determination of total programs and even country allocations, is formally or informally decided on an interagency basis because of the multiplicity of objectives and interests involved. Even multilateral food assistance is organized in a separate agency, the World Food Program (WFP). Links between the WFP and bilateral assistance agencies that support its activities are again typically intermediated in the Committee on Food Aid (CFA) by officials from the food aid agencies of the respective donors. There is, therefore, an explicit problem of linkage. Other development assistance is programmed on a country basis, again within a total program that is administered through parallel structures but usually without the interagency involvement that characterizes food aid programming.

The impact of different components of a total package of assistance can be more or less effective depending on other elements in that package. For example, the programming of food aid as balance of payments support needs to be linked to other bilateral support, e.g., in the U.S. case the Economic Support Fund (ESF), as well as other commodity and fast-dispersing forms of financial assistance. The programming of all fast-dispersing funds needs to be considered simultaneously. Typically, the United States is only one of a consortium, and therefore linkage and integration imply thinking in terms of the total package of commodity and other fast-dispersing assistance from the consortium group. A review of countries and their adjustment experiences in the early mid-1970s, when there were sizable and rapid changes in the availabilities of food aid, and again during the period of pressure from 1979, will indicate the extent to which such integration is being achieved.

Another inescapable set of linkages is between food aid received as a development resource and other support for longer term development. The effective programming of imported food commodities within the economy as well as the development of domestic agriculture calls for an infrastructure investment that requires complementary development assistance in the case of most low-income countries. Likely areas of support are transport, storage, and marketing.

In most low-income countries, a critical aspect of development is the strengthening of institutional capacity. In such

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<sup>100</sup>Wallerstein, 1980.

circumstances, technical cooperation or other forms of support in the food policy area may be of equal importance to, if not greater than, support for infrastructure development. Paradoxically, Title III assistance, intended to focus food resources on development, implies the existence of and makes demands on institutional capacity in the food policy area. This is perhaps one of the reasons why so few low-income countries have been drawn to this channel of support in spite of the additional element of concessionality which it offers.

It would be naive to pretend that there are simple solutions to the linkage problem. As we have argued already, the shifting of the balance of resources to low-income countries with highly problematic development prospects perhaps places a greater burden of responsibility on the donors to ensure that food assistance is organized as a development resource within a broader package of assistance. The major part of the case in favor of food aid is that it results in an additional resource transfer beyond that which would be available as a direct financial transfer. Part of the cost of these additional resources lies in the complex of objectives and interests that result in the concessional export of agricultural commodities and are reflected in the multiagency involvement in programming and operation. Again, the practical reality is that donors are programming food aid in toto, and, for most countries, on an annual rather than multiannual basis. At the margin, there are uncertainties over levels of assistance, the commodities that will be available, and constraints on the timing of commodity flows. A major challenge in attempting to evaluate the impact effectiveness of food aid is to cost the effects of particular constraints in terms of the loss of development effectiveness. To the extent that this is possible, a focus would be provided on the constrained aspects of programming and operation, where increased effectiveness could be achieved through specific modification of procedures.

The level, commodity composition, and timing of food aid are usually determined in a series of bilateral negotiations for each recipient country. Such bilateralism is partly a consequence of donors having potentially inconsistent market development or surplus disposal concerns. The multiparty nature of the aid-donor relationships adds, therefore, additional elements of complexity to the problem of linkage between U.S. and other food assistance as well as other forms of development assistance. The existence of donor consortia for virtually all the recipients of PL 480 Title I underscores the importance of thinking of increasing the developmental effectiveness of food aid within a constructive dialogue of many donors for each recipient country.

### C. Linkage: Problem of Conditionality

There appear to be cycles as well as trends in current issues of concern about development assistance. In the case of food aid, such cycles seem to owe much to the direct and immediate impact of experiences that lead to changes in both legislation and working rules of aid programming. Thus, the experiences of the 1950s and 1960s led, in the case of PL 480 Title I, to a relatively flexible interpretation of the self-help requirements of the legislation. The establishment of accounts to be fed by local currency generated by the sale of commodities and to be strictly applied to particular agreed uses was not required. Rather, the emphasis seems to have been on general commitments to broad self-help measures in the agricultural and food sectors or even the general development of the economy.<sup>101</sup> The concern to ensure that food aid should be a resource for development has resulted in much more explicit conditionality being built into the procedures for Title III.

The increased attention being given to conditionality can be viewed as two-ended. First, these requirements, as with the Bellmon amendment provisions on disincentives to production and markets, have donor-end implications. Where a demonstrable commitment to development on the part of the recipient is required, such conditionality underscores the need to give priority to development considerations in the allocation of food assistance. This is an implication of the legislation which will find support among all those concerned to ensure that the food aid is used effectively as a development resource. Such provisions are, however, not without problems. For example, in the absence of guidelines, it is not clear what forms of evidence and analysis are implied in establishing whether self-help or disincentive provisions are being satisfied.<sup>102</sup> Again, if in-depth reviews are to be undertaken, it is less clear that full, costly analyses are required annually. It also seems unlikely that the findings will be clear-cut and entirely conclusive, as the extensive research into the impact of food aid on the Indian economy indicates (see Appendix A). An issue in assessing country reviews and evaluations is the

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<sup>101</sup>See, for example, recent PL 480 Title I agreements with Sri Lanka which included quite general commitments in the area of food policy.

<sup>102</sup>Bellmon, 1977. Section 401 (b) of PL 480 requires that information be provided to the Secretary of Agriculture certifying that adequate storage facilities are available in the recipient country to prevent waste or spoilage of the commodities to be imported and that local distribution of the commodity will not result in a substantial disincentive to or interference with domestic production or marketing.

extent to which such exercises can narrow the area of uncertainty and controversy over the effects of development assistance.

The recipient-end implications of such conditionality are frequently considered not merely in terms of a set of "take it or leave it" conditions, but as a complex way of exercising influence or leverage over development policy through negotiations and the day-to-day dialogue over the programming of Titles I and III. This is a much-discussed and politically sensitive aspect of development assistance policy. Without attempting to be comprehensive, we would like to draw attention to a number of points that flow from our theme of the changing context of U.S. food assistance.

First, U.S. food aid now comprises only approximately 50 percent of total food aid by value, and Title I- and Title III-type assistance only approximately one-third of total food aid. In many of the smaller recipient countries, the United States is therefore no longer the major food aid donor, and where the United States is currently the most important source of supply, alternative arrangements are possible. In the case of the small number of nonmarginal food aid recipients, the negotiation of U.S. bilateral food assistance is not necessarily the most appropriate context for a constructive discussion of development policy. This is linked to the second point, that food aid is only a small fraction of total development assistance to most low-income countries, in the range of 10 to 20 percent. Food aid is, however, a fast-dispersing resource with significant balance of payments and budgetary implications that make it a valuable resource from the point of view of recipient governments. Third, there is the issue of fungibility, which arises where, for example, the local currencies generated from the sale of food aid commodities are associated with bankable, high-priority elements of development effort. It is plausible to infer that these are the activities that would have commanded resources in the absence of food assistance.

Two further points arise in relation to the issue of fungibility. First, the notion of linkage, which seeks to support food aid with particular development projects or sectoral activities, is problematic, as was discussed above in Section II. In terms of the realistic context of most development assistance negotiations, additionality of development effect may be impossible to assess and may be undesirable in the context of structural adjustment.

Second, one of the major conclusions to be derived from the review of the evidence on the development impact of food aid is that positive development effects depend largely on the nature and policies of the recipient government. These broader aspects of policy are more likely to be the context than the

subject of food aid negotiations. Conditionality is satisfied where it is not really required, given the positive orientation of recipient government policies. Where conditionality is focused on sectoral or project activities because the broad macroeconomic and sectoral policies of the government are not conducive to development, then high expectations of conditionality in respect to one element of development assistance in isolation would seem to be misplaced.<sup>103</sup>

#### D. An Overall Assessment

Recognition of significant but far from simple-to-resolve donor-end problems in the programming and operation of food aid is an important part of a balanced perspective on food aid. Donor-end problems also help explain the great diversity of findings and views on the impact and development potential of food aid.

This diversity can basically be attributed to two effects of food aid pulling in opposite directions. First, food aid reduces the immediate pressures on the recipient country economy; second, food aid increases the resources of the country for development in general and increased domestic food production (or improved storage and distribution) in particular, which can lead to reduced dependency and greater self-help. Which of the two effects prevails will depend, primarily, on the nature and policies of the recipient government, and secondarily, on the policies of food aid donors, including the extent to which the balance of resources and concessionality can move the overall impact of food aid from a negative to a positive outcome. It is not surprising that a recent (1979) seminar on food aid found that

The description of experiences and the reports of available research which were reviewed in this two-day seminar give little support for any sweeping generalizations about the impact of past food aid programs. Variations in country setting have been great, food aid has been programmed in a variety of

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<sup>103</sup>Such expectations can even be counterproductive where a formal emphasis on conditionality has led to what Williams (1981) has characterized as one of the five myths or fallacies in approaches to food and agricultural development: "A third myth adversely affecting efforts to resolve food problems is that food aid to help developing countries subsidize urban food policies can assist food and agricultural development if the proceeds of food aid are attributed to rural programs." (p.7).

ways, and there has been great diversity in the quality of research aimed at analyzing these programs.<sup>104</sup>

The same seminar report also makes the significant point that some of the criticism of food aid as a development tool has been part of the very shift away from the principal Title I recipients in the early days of PL 480 which "made effective use of U.S. commodities to feed people and put them to work," resulting in "encouraging success stories" in the less and least developed countries of Asia and Africa which "do not appear to have as strong a capacity, in either their governmental or private sectors, to use food aid resources effectively for development goals." Greater obstacles and complexities in effective use of food aid must be accepted as inherent in the shift of PL 480 Title I towards the poorer countries, as expressed in the 75-percent rule for minimum allocations to poorer countries.

The link with income distribution and concentration on the reduction of poverty--food aid as an instrument in a basic needs strategy--has also created new problems in the targeting of food aid (and also in the use of counterpart funds and Title III agreements). Even within the framework of project approaches--but even more so in program approaches--targeting on the poor is notoriously difficult since the really poor are handicapped, almost by definition, in access to such projects and programs, and often also the political weight of better-off groups prevents their own exclusion. Meeting the nutritional needs of the poor, of course, is not identical with promoting overall poverty-oriented development.

To quote the above-mentioned Seminar Report once again: "There is still no satisfactory body of knowledge about how to structure programs to enhance the productivity of the poor."<sup>105</sup> Moreover, any assessment is made difficult by the fact that food aid is only one of many factors in a complex structure that determine rural-urban terms of trade and income distribution. Food aid is difficult to identify as a separate factor, and its relationship to other factors is often indirect and disputable. No food aid agreement, however detailed, can cover all these complex factors and interrelations. At best, it can create a presumption that the direct and indirect impact of food aid is in reducing poverty, especially rural poverty, and strengthening self-reliance and the forces making for sustained development.

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<sup>104</sup>Agricultural Development Council, 1979. Seminar Report: Implementation of U.S. Food Aid--Title III (Princeton, January 15-16), ADC, New York.

<sup>105</sup>Agricultural Development Council, 1979, p. 5.

APPENDIX A

LONG-RUN POSITIVE IMPACT FACTORS: THE INDIAN DEBATE

## I. LONG-RUN POSITIVE IMPACT FACTORS: THE INDIAN DEBATE

Much of the quantitative research on disincentive "leakages" has been based on India, partly because of the availability of data and sophisticated research facilities, and partly because of the importance of India as a food aid recipient in the 1960s. This has lent itself to the study of food aid impact on the basis of various models embodying different assumptions. The most recent and most sophisticated model is that of Blandford and von Plocki.<sup>1</sup> Their findings can be summarized in von Plocki's own words (1979):

The insufficiencies of these models (i.e., the above quoted models by Mann, etc.) lead to the construction of a new econometric model, aimed at a more realistic reflection of the Indian market. This was primarily achieved by splitting the supply function into an area and a yield function, and by including price and quantity of concessionally distributed food items into the demand function for the non-concessional market. It is shown that in this way a complete and logically consistent explanation can be obtained, evidenced by the high statistical significance of the estimated coefficients. Simulations for the period under study (1952-68) reveal that the results of the model come very close to the empiric values.

From the reduced structural form of the model, multipliers are computed showing the effect of PL 480 imports on the domestic food production for different time intervals. According to these results, an increase of PL 480 imports by one unit leads to a fall of domestic production by 0.167 units, an over-reaction followed by an expansion by 0.021 units in the next period. After fluctuations over six periods the cumulative multiplier comes to 0.14587, i.e., each additional unit imported under PL 480 entails a loss of domestic production of 0.14587 units.

In spite of their high statistical significance, the results of the econometric model need to be interpreted with some caution since the estimation

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<sup>1</sup>This study builds upon previous work by Mann, Rodgers, Srivastava, and Heady, and by Barnum, considered in more detail in Blandford and von Plocki, 1978, and Isenman and Singer, 1977.

results of the elasticity of supply vary considerably with the period of observation.

The study ends with disaggregated (product-wise and region-wise) descriptive analysis of the effects of PL 480 shipments, showing the cereal market of India to be extremely heterogeneous. The disaggregated analysis suggests that the results of any global model of the Indian market should not be "over-interpreted."

As Isenman and Singer have argued,<sup>2</sup> this leakage found by the Blandford/von Plocki model, under which the total benefit of food aid is reduced by some 15 percent as the result of loss of domestic production, is likely to overstate the actual loss or even to conceal an actual gain, because there are other disincentive and incentive factors that cannot be easily quantified. Among countervailing incentive factors are:

1. The long-run effects on productivity and demand.
2. The benefits from alternative expenditure of those receiving subsidized or cheaper food.
3. The impact of the additional resource placed at the disposal of the government (this last item assumes that food aid is additional to, and not in place of, financial aid).

The same criticism would apply to other models quantifying disincentive effects.

It is not easy to quantify longer term effects in relation to the more readily quantifiable, shorter run disincentive effects. General economic analysis would lead one to assume that incentive effects could outweigh the impact of an initial 15-percent leakage. Whether, and to what degree, this is the case will of course depend on three factors corresponding to the three effects just distinguished, i.e.:

1. The degree to which the nutritional improvement is concentrated on groups where it makes a contribution in terms of increased productivity, improved health, etc. In general, this will require concentration on nutritionally needy groups.
2. The nature of the additional expenditure induced by the increase in real incomes of the recipients of cheaper

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<sup>2</sup>Isenman and Singer, 1977.

food, i.e., to what extent it is directed towards (a) demand for more food, (b) demand for other developmentally improved goods, (c) developmentally wasteful or useless expenditure.

3. The use that the government makes of the additional resources, i.e., whether for truly developmental purposes (including action directly targeted to offset any disincentive effects on local agricultural producers) or for developmentally wasteful or useless expenditure (bureaucratic inflation, armaments, ill-conceived projects, etc.). There is a link between this last item (3) and the previous item (2) insofar as the increase in real income of food aid recipients may result in additional savings that could also either lead to developmentally useful additional investment or else could be developmentally wasted.

## II. SURVEYS OF THE IMPACTS OF AID

In his major review of this literature, Papanek (1972) accepts the existence of a negative correlation between foreign inflows and domestic savings, "but sets forth several arguments against a conclusion that foreign assistance causes savings to decline."<sup>3</sup> Papanek makes four points that also apply directly to food aid:

1. Some foreign assistance is explicitly directed towards consumption.
2. Some of the sectors conventionally classified as consumption are in fact "human capital" and may be as effective instruments as activities conventionally classified as investment--or even more so.
3. The negative impact on recorded domestic savings is partly a statistical delusion, arising from the measurement of domestic savings as the difference between gross investment and the current account deficit.
4. Insofar as aid is countercyclical and arises at times of economic troubles, higher aid is likely to be

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<sup>3</sup>This is quoted from Leipziger, D. M., 1981, Basic Needs and Development, Oelgeschlager Gunn and Hain, Cambridge, Mass., pp. 204-205. The summary in the text is based on this source.

statistically correlated with lower savings, without any real causal connection.

When investigating the relative effects of domestic savings, foreign assistance, private foreign investment, and other foreign flows on the growth of GDP of recipient countries (for 85 countries and also separately for 31 Asian countries), Papanek in fact finds that aid has a greater growth impact than domestic savings, foreign investment, or other flows. No similar study has been made specifically for food aid,<sup>4</sup> so it must remain a matter of speculation whether a similar favorable finding would apply.

Papanek's conclusion can equally serve as a general conclusion of the food aid literature, substituting food aid for "foreign inflows" and impact on local production for "impact on local savings":

There are no good answers to the question, "What would have happened with less or more foreign resource inflows?" In some circumstances, foreign inflows undoubtedly stimulated savings, so that each dollar of inflows led to more than a dollar of investment, while in other cases they discouraged savings and a dollar of inflows may have led to much less than a dollar of investment. However, as long as both savings and inflows are substantially affected by third factors, the negative correlation between the two found in many studies sheds little or no light on their causal relationships.<sup>5</sup>

Less favorable conclusions on the impact of aid on domestic growth and investment are reached by Bornschier, Chase-Dunn, and Rubinson in another survey of the literature.<sup>6</sup> They list a number of studies that are more or less evenly divided between those showing a positive impact and

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<sup>4</sup>This is probably because of the difficulties of disentangling the effects of different elements in the flow of resources, as there is typically a considerable element of multicollinearity.

<sup>5</sup>Papanek, G.F., 1972. "The Effect of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries," Economic Journal, Vol. 82 (327), September.

<sup>6</sup>Bornschier, V., C. Chase-Dunn and R. Rubinson, 1978. "Effects of Foreign Investment on Economic Growth and Inequality," American Journal of Sociology, Vol. 84 (3), November.

others showing a negative impact (Table 3).<sup>7</sup> Once again, their conclusion is worth quoting since it also could well serve as a summary of the food aid literature:

We conclude: (1) The effect of direct foreign investment and aid has been to increase economic inequality within countries. (2) Flows of direct foreign investment and aid have had a short-term effect of increasing the relative rate of economic growth of countries. (3) Stocks of direct foreign investment and aid have had the cumulative, long-term effect of decreasing the relative rate of economic growth of countries. (4) This relationship has been conditional on the level of development of countries. The stocks of foreign investment and aid have had negative effects in both richer and poorer developing countries, but the effect is much stronger within the richer than the poorer ones. (5) These relationships hold independently of geographical area.<sup>8</sup>

It will be noted that his conclusion is more pessimistic about the long-run than about the short-run effects of aid, a view which is opposite the trend of the food aid literature. However, it should be noted that the negative long-run conclusion relates to the stock of aid and foreign investment, rather than the current flow--a concept that is perhaps less relevant for food aid than for other forms of aid.

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<sup>7</sup>Bornschier and others, 1978.

<sup>8</sup>Bornschier and others, 1978, p. 651.

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