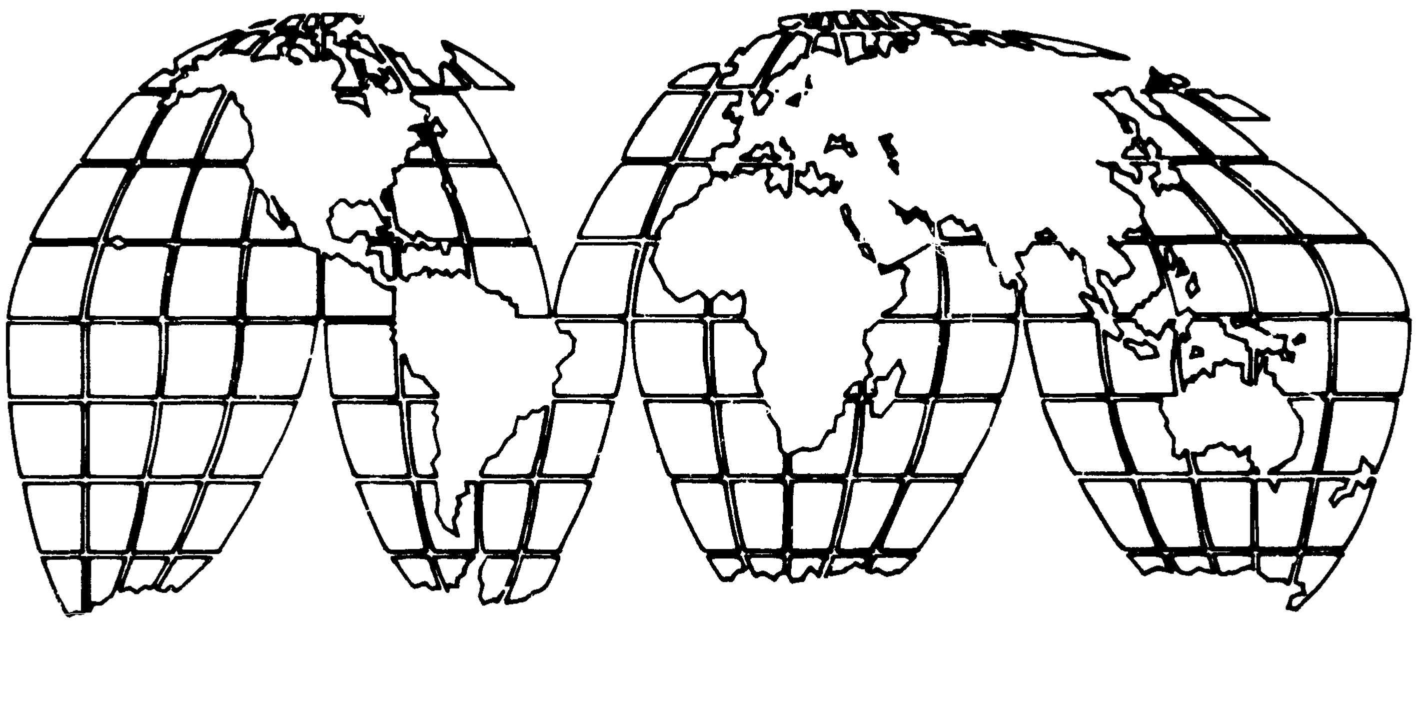
A.I.D. Program Evaluation Discussion Paper No. 19

A Comparative Analysis of Five PL 480 Title I Impact Evaluation Studies



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A COMPARATIVE ANALYSIS OF FIVE PL 480 TITLE I IMPACT EVALUATION STUDIES

A.I.D. Program Evaluation Discussion Paper No. 19

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SUMMARY

INTRODUCTION

Since the enactment of PL 480 in 1954, the Food for Peace Program has used over $22 billion to fund the purchase of food and other agricultural commodities by Third World countries on a concessional basis. The act as passed in 1954 and amended a number of times since has sought to achieve several objectives, including (a) expanding U.S. agricultural markets, (b) facilitating U.S. foreign policy goals, (c) providing humanitarian assistance when calamitous circumstances arise, and (d) assisting in the economic development of poor countries.

Ever since the program was established a number of U.S. Government agencies have been involved in developing program policy and administering the program. The Agency for International Development (AID), in collaboration with the U.S. Department of Agriculture (USDA), has primary responsibility for the day-to-day administration of the country-specific programs. AID, in coordination with the Department of State, is responsible for negotiating the annual agreements with recipient countries and for coordination among the recipient countries, Washington, and the various U.S. agencies that have policy jurisdiction over the objectives of the Act. AID has also been the agency responsible for developing and monitoring activities which utilize the PL 480 resource and for assessing the program's contribution to the goal of socioeconomic development.

Because nearly 70 percent of the funds available for implementing PL 480 are expended under the provisions of Title I of the Act, in 1981 AID senior staff requested the Studies Division of the Office of Evaluation, Bureau for Program and Policy Coordination to conduct a series of impact evaluation studies to learn from past activities how future programming of this resource might be improved. A comprehensive review of existing literature was summarized in an "issues paper" by Drs. Edward Clay and Hans Singer of the University of Sussex. This paper provided the background necessary for developing a generic scope of work for case studies in five countries. The country case studies were conducted in Bangladesh, Egypt, Jamaica, Peru, and Sri Lanka. These countries were selected to provide (a) geographic representativeness; (b) broad diversity in size of programs; (c) program uniqueness, e.g., combined work under Title I and Title III, jointly administered local currency sales proceeds accounts, and experimental planning of self-help agreements; and (d) diversity of country-specific socioeconomic conditions.

PURPOSE

This paper presents a comparative analysis of the country case study findings with respect to impact of the PL 480 Title I program and attempts to distill common lessons learned from AID's PL 480 evaluations. The paper is organized into eight sections. The first two sections provide a historical and administrative context for the PL 480 Title I program. The succeeding two sections present a comparative analysis of the five case study countries in terms of (a) the socioeconomic development progress which have occurred since 1960, and (b) trends in the PL 480 Title I program. In the next three sections, the impact or results of PL 480 Title I programs in the five case study countries are presented and reviewed. The last sections summarize the lessons learned from the five studies and present recommendations for more careful monitoring of the impact of future Title I programs.

CONTEXT

The first two sections of the paper emphasize the importance of the changes in American agriculture and U.S. political forces since 1954, and how these changes affect the programming of the PL 480 resource to achieve economic development goals. The next two sections describe the recipient country context and its evolution since the Title I program was initiated in 1954. The review of the history of the Title I program in each country studied uncovered at least two instances (in Egypt and Peru) of significant interruptions in receipt of Title I assistance. Thus, it was possible to monitor a comparative national experiment within these two countries. The historical data also appear to support the argument that a link exists between the duration of continuous programming and the extent to which AID can directly influence the programming of sales proceeds. In countries where the program has existed for a long time, such as Egypt and Sri Lanka, AID efforts to influence the countries' use of sales proceeds appeared to be low, whereas in countries where PL 480 implementation was more recent, AID has generally been more visible in its influence over the use of these funds.

The comparative review of socioeconomic development highlights the differences among countries in terms of the potential for PL 480 programs to achieve an impact. For example, the difference in food availability without food aid is substantial between Egypt and Bangladesh. Until the decline in oil prices and the slowdown in the economic growth of the Gulf States, Egypt had significant sources of foreign exchange earnings which it used in part to finance food imports. It is now more dependent on food aid assistance not only for these financial reasons, but also because its average per capita caloric intake without food aid is precarious at best. Thus, it is not surprising to find different nutritional and health impacts occurring in Egypt and Bangladesh, and policy changes to improve agriculture taking place in Bangladesh but not in Egypt.

The macroeconomic impact of PL 480 Title I in the areas of balance of payments support and, potentially, structural adjustment is also more discernible in those countries where the economic context is more constraining. Thus, the Title I and Title III programs in Bangladesh and Jamaica have been more vital to their short-run economic well-being than is the case for Egypt, Sri Lanka, and Peru.

IMPACTS ON DEVELOPING COUNTRIES

All five country studies indicated that the PL 480 Title I program had contributed to balance of payments support. In Egypt, the program provided significant foreign exchange during periods of high economic growth. In Jamaica, the program was linked to a coordinated donor effort, which included the IMF, to promote structural adjustments which produced limited results during the 1975-1980 period.

In Egypt and Sri Lanka, the program directly contributed to the well-being of the poorest segments of the population. Egypt accomplished this by setting up a Government-operated and/or -controlled modern wheat importing, storage, milling, and distribution system which has virtually eliminated small-scale traders, millers, and bakers. In Sri Lanka, the poor have benefited from the imported wheat because the more affluent prefer to eat rice. In Bangladesh, food availability to the poor, particularly in rural areas, has been improved through increased domestic production, reductions in food price fluctuations as a result of the Open-Market Sales program, and several food ration programs that subsidize food prices. In Jamaica and Peru, the direct beneficiaries of the program have been the more affluent, although the poor may receive some benefit from the availability of a larger supply of domestic foodstuffs.

A production disincentive effect of PL 480 Title I has been reported on since the early 1960s. The study teams generally concluded that PL 480 Title I contributed directly or indirectly to local production disincentives with respect to one or several food crops. The program often provided a host government with sufficient food stocks to withstand pressures to alter its food procurement price policy or continue to subsidize consumer prices (e.g., Egypt). The exact magnitude of the production disincentive effect was not easily ascertained by any study group, in part because the extent of such an impact cannot be clearly identified when other changes are occurring simultaneously and when the site and commodity mix of the program do not remain constant. Furthermore, in some cases, such as in Sri Lanka, the disincentive effect is not detected as a direct substitution betwee domestic and imported commodities but rather is observed indirectly in the pattern of grain production. Finally, the Jamaican study emphasized the importance of viewing the impact of the program in light of its contribution to the entire food impact policy of a country and not solely in terms of its disincentive effect on one commodity. If, as part of a larger reform program, it contributes to an overall food import policy which provides appropriate incentives in general, the net impact may be beneficial.

In two countries, Egypt and Peru, the PL 480 Title I program affected the long-run development of the food processing, storage, and distribution industries. As was mentioned above, these industries in Egypt were transformed from an informal set of small-scale, low-technology firms and traders to a very modern, highly integrated system. Increasing employment and building interindustry linkages were traded for improved distributional equity and, possibly, efficiency, given present levels of total wheat imports. In Peru, the early PL 480 Title I program in wheat contributed to a lack of incentive to fully integrate two regions of the country. (Only since the discovery of oil in the Amazon Basin has there been a sufficient change in incentives to alter tranportation infrastructure investment decisions.) The importance of intra-industry linkages to long-run economic development cannot be overemphasized. When over 50 percent of all income in most poor countries is spent on food, it is important to analyze the impact which the importation of PL 480 Title I commodities has on the long-run development of these linkages.

The PL 480 Title I program affected the nutritional status and dietary patterns of the recipient countries' populations in varying ways. In the case of Egypt, most of the population has 3,000 calories per day available from all food sources, up from about 2,750 calories per person per day in 1977. The proportion of the diet composed of wheat and related products has increased over the last two decades, due in part to the continued consumer subsidies placed on bread. In some parts of the population, chronic diseases such as obesity and juvenile diabetes are becoming more prevalent.

In the case of Bangladesh and, to a lesser extent Sri Lanka, food aid has assisted in providing a floor on caloric intake. While Bangladesh has made progress in increasing food grain production, it has a serious long-run problem in closing the gap between the present low levels of consumption and production. Sri Lanka has made significant progress in increasing rice production to the point of self-sufficiency; wheat imported through PL 480 Title I is generally used as a convenience food in urban areas. Thus, there is evidence of certain changes in dietary patterns due to shifts in total costs (time plus money) of consuming wheat relative to rice.

There was little specific impact evidence about the developmental use of local currency sales proceeds. With the exception of Peru, the other countries' self-help agreements were very generally specified, wording was left unchanged for years, and the funded activities could not be evaluated because of the lack of specified objectives. Specific program focus was available despite the general wording concerning rural and agricultural objectives. Again, with the exception of Peru, it was generally impossible to trace the use of local currency sales proceeds once they were comingled with the general revenue of each national government.

The program's impact on policy dialogue and change was generally imperceptible, with the possible exception of Bangladesh, where multiyear funding was sought to improve food security. This has facilitated changes in several important agricultural policies, particularly regarding procurement prices and the establishment of a mechanism (open-market sales) to minimize consumer price fluctuations. The only other case of policy change was noted in Jamaica where several donors, including the IMF, coordinated their activities. Thus, without consistent indications from donors of their policy preferences, it is unlikely that significant policy change will be forthcoming as a result of PL 480 Title I's contributions to improved food security. The Egyptians are aware of the gap between their food production and consumption, and have sought to guarantee a quantity rather than a monetary value for their Title I wheat imports. However, given that the program employs monetary values rather than quantities in determining commodity shipments, PL 480 Title I's contribution to food security is perceived as unreliable, particularly in programs of a modest size, i.e., less than $20 million. Bangladesh has achieved a greater measure of food security as a result of its Title III multiyear commitment. However, its agreement is still denominated in dollars rather than in tonnage, which leaves it vulnerable to international market price fluctuations.

IMPACTS ON THE UNITED STATES

The PL 480 Title I program has been used to develop and maintain international markets for U.S. agriculture. It has also been used to achieve certain U.S. foreign policy goals.

With respect to the latter, the Camp David accords and the Middle East peace process are in part guaranteed by PL 480 Title I wheat. The PL 480 Title I program to Sri Lanka was maintained throughout the 1970s despite Sri Lanka's leftist nonaligned position, in part the result of its proximity to the Indian Ocean's shipping lanes (Japan's oil). The United States was also able to foster political change in Sri Lanka through the elective process during the general elections in 1977. In Peru and Jamaica too, PL 480 Title I contributed to stability prior to the elections in 1978 and 1980, respectively. The outcome of the two elections enhanced the geopolitical perspective of the United States. The foreign policy interests of the United States were also enhanced by providing PL 480 Title I and now Title III assistance to Bangladesh where improved domestic food security contributed to greater political stability.

In addition to PL 480 Title I's role in assisting in the achievement of these foreign policy objectives, the program is among the most flexible and quick dispersing of all forms of support available to foreign policy advisors. Thus, it can serve a useful function as a foreign policy carrot or stick. One example of this usage in the case study countries occurred during the implementation of the Title I program in Jamaica, when bilateral discussions were being held on the future of U.S.-owned bauxite deposits there.

The country studies do not provide support for the view that PL 480 Title I assists in the development or maintenance of international markets for U.S. agriculture. The Sri Lanka and Jamaica studies indicate that market development objectives were virtually nonexistent during the planning and development of these programs. Peru is trying to achieve self-sufficiency in rice and would like to shift its Title I commodity mix to wheat. Egypt buys 75 percent of its imported wheat on the international market on competitive commercial terms. If the U.S. providers cannot meet that competition when Egyptian bids are out, the Egyptians buy elsewhere.

CONCLUSIONS

Several recurring themes emerged from the country studies. First, all of the studies except that on Egypt concluded that significant programming improvements and policy changes could be forthcoming if the multiyear option of Title I or perhaps a modified Title III were more heavily used. The experience of Peru provides guidance about how sales proceeds can be effectively programmed, particularly if forward funding and longer planning horizons are considered. Bangladesh's experience under Title III lends support to the argument that significant policy dialogues and resulting changes are possible, especially if donors complement one another. The Jamaica experience reinforces the importance of donor collaboration. Since the Title I multiyear option has apparently not been used, particularly in recent years, there is little evidence concerning what might happen if it were applied. A little risk capital is probably worth the cost.

Second, with the exception of Peru, the other country studies were critical of the self-help agreements. These were commonly too vague and not amenable to implementation or evaluation. Recipient countries which have had long program histories are resistant to reductions in the flexibility they now enjoy. An indicative rolling five-year planning exercise may be one way to make progress in this potentially difficult area. Peru can serve as a model.

Third, improved coordination between food and nonfood aid donors, especially the IMF, can increase the likelihood that desired policy changes will be put into effect and can also minimize the many management problems confronting recipient government officials in unloading, storing, processing, and distributing the resource.

Finally, several basic knowledge gaps concerning the impact of PL 480 were identified. These include, but are not limited to, the need to provide more precise measurements of the short- and long-run disincentive effects of PL 480 Title I in large and marginal programs, and the more careful documentation of nutritional and dietary pattern impacts of food aid programs, particularly Title I. Finally, the studies reinforce the importance of continuous monitoring of AID programs through evaluation studies such as those on which this paper is based. AID can continue to learn much from its own experience.

I. INTRODUCTION

Since the enactment of the Food for Peace law in 1954, over $22 billion has been allocated to fund the purchase with concessional financing of food and other agricultural commodities by Third World countries. In FY 1983, Congress funded the program at $859 million, which represents about 30 percent of the total U.S. bilateral assistance.

PI 480 authorized the use, with the agreement of the recipient government, of foreign currencies earned from the sale of U.S. agricultural commodities for several different purposes: disposal of surplus U.S. agricultural commodities, economic development of lesser developed countries (LDCs), U.S. agricultural market development, payment of U.S. obligations, international educational exchange, procurement of military supplies, carrying out programs of U.S. Government agencies, purchase of goods and services from other countries, and purchase of strategic materials. Given this multiplicity of objectives, it is understandable that many U.S. Government agencies are involved in establishing policy for this program and its administration. Further, many private voluntary organizations (PVOs) and foreign government agencies are involved in the administration of the program. The Agency for International Development (AID), in conjunction with the U.S. Department of Agriculture (USDA), has been given primary responsibility for the day-to-day administration of the country-specific programs. USDA is in charge of the agricultural sales and shipping from the United States. AID, in coordination with the Department of State, is responsible for negotiating the annual agreements with recipient countries and for coordinating among the countries, Washington, and the various U.S. agencies that have policy jurisdiction over the objectives of the Act. AID also has been the agency responsible for monitoring programs toward the objective of using the PL 480 resource for improving the progress made toward socioeconomic development.

In 1979, AID initiated a special series of evaluation studies known as "Impact Evaluations." These studies have become an important mechanism to the agency for assessing development progress. In July 1981, the senior staff of the agency requested that such a series of studies be conducted by the Bureau for Program and Policy Coordination's Office of Evaluation on the Title I component of PL 480. This request is significant because about 70 percent of the funds available for the implementation of this Act are spent through Title I.

Since the early 1960s, the impact of Title I has been studied by several scholars and other interested parties. These studies have concluded that there are many potential, if not actual, effects of this program. To implement the above-mentioned request from the agency's senior staff, the findings of this extensive literature had to be summarized before the scope of work for the envisioned country-specific case studies could be developed. The "issues" paper by Drs. Edward Clay and Hans Singer of the University of Sussex is a summary of the literature and has provided the background necessary for developing a generic scope of work. (See Appendix A for the generic scope of work used to guide the development of the country studies.)

As in all impact evaluation sector studies, several criteria were established for choosing the programs that would be studied. In the case of the PL 480 Title I country studies, four criteria were used: (1) geographic representativeness; (2) broad diversity in size of programs, from large to small; (3) uniqueness of programming, e.g., switching from Title I to Title III, jointly administered local currency sales proceeds accounts, and experimental planning of self-help agreements; and (4) diversity in socioeconomic conditions. These criteria were met in the selection of Jamaica, Egypt, Sri Lanka, Peru, and Bangladesh, where evaluations ultimately were conducted with USAID Mission approval. The characteristics of each country's PL 480 Title I program and its socioeconomic conditions are reported in subsequent sections.

All country case studies have now been completed and the specific findings and conclusions of each are separately reported. In addition, however, the Office of Evaluation has found it useful to analyze comparatively the findings of country case studies and to distill common lessons learned for improving the program design and implementation of future project activities in each sector studied. That is what this paper strives to do.

To accomplish these objectives, the analysis has been organized into nine parts. Following this introduction, the second section is a brief historical overview of PL 480 Title I. The primary purpose of this review is to express the importance of the evolving U.S. political context of the Act, which has led over time to changes in the relative importance of its multiple objectives.

The third section reviews the interagency administrative structure for the PL 480 Title I program, which has evolved to accommodate the multiple objectives and administrative requirements for program implementation. It also reviews the specifics of the AID responsibility in negotiating agreements and addressing the administrative responsibilities of recipient countries in program implementation.

The fourth section provides a brief comparative analysis of the PL 480 Title I program in each of the five countries in which impact evaluation studies were conducted. This section also reviews trends in funding and country support provided under Title I of the Act.

The fifth section presents the economic and social development since 1960 of the five case study countries in comparison with the experience of all low- and middle-income countries. This review provides the background for the sixth section of the paper, which comparatively analyzes the macroeconomic and distributional impacts of the PL 480 Title I program in the five countries studied. In this section, the extent to which balance of payments and structural readjustment are facilitated via PL 480 Title I is highlighted.

The seventh section reviews the studies' findings on microimpacts of PL 480 Title I on food production, nutrition, dietary patterns, agricultural and other policies, and the use of local currencies generated under PL 480 sales. Findings on how to improve PL 480 Title I programming with respect to the above areas of impact are highlighted.

Given that the Act has other objectives which establish the context of the above-described development impacts, section eight reviews the studies' findings with respect to foreign policy, food security, and agricultural market development. Section nine concludes the paper with a summary of the country-specific studies' findings and lessons learned.

II. A HISTORICAL ANALYSIS OF PL 480 TITLE I SINCE 1954

A. The Early Period up to 1959

During the 1940s, American agriculture rapidly expanded its output, not only to satisfy domestic requirements but also to guarantee satisfactory food supplies for the European nations which were engaged in the Second World War and later in the rehabilitation necessary to restore domestic production, including agriculture. An international agricultural commodity and raw materials shortage also was triggered at the end of the 1940s and early 1950s with the Berlin blockade in 1948 and the Korean War of 1950-1953. However, as the Korean War was winding down, exports of U.S. agricultural goods declined, world prices fell, and reserve stocks increased. U.S. officials were faced with an agricultural surplus and declining U.S. export earnings. A change in agricultural policy was in order.[1]

During congressional floor debates over solutions to the dilemma, the following concerns were repeatedly voiced: the need to dispose of surplus commodities which were expensive to store, ways to expand commercial export markets, and the desire to help friendly nations stop the spread of Communism.[2]

As enacted into law on July 10, 1954, PL 480 included three titles. The Act authorized sale of U.S. farm commodities for foreign currencies and donation of surplus goods for emergency relief abroad and in the United States, and allowed for the barter of agricultural commodities for strategic materials. The Act restricted sales to "friendly nations," but permitted donations to needy people regardless of the friendliness of their country's government. "Friendly nation" was defined as any country other than the Soviet Union or any nation or area controlled by the forces of the World Communist Movement.

Operation of the new Act began in 1955 with shipments totaling 3.4 million metric tons valued at $3,840,000 during that year. Two years later shipments were valued at $1.5 billion.[3] These exports that helped stabilize U.S. farm income throughout the remaining 1950s.

U.S. political priorities during the enactment of PL 480 reflected the burgeoning assistance and ideological perspective of the era. The Food for Peace program was perceived as a tool to complement and buttress U.S. foreign assistance efforts.[4]

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[1]Mitchel B. Wallerstein, Food for War-Food for Peace--United States Food Aid in a Global Context (Cambridge: MIT Press, 1980), p.5.

[2]U.S. Congress, Senate Committee on Agriculture, Nutrition, and Forestry, Subcommittee on Foreign Agriculture Policy, Food for Peace, 1954-1978, Major Changes in Legislation, by Janice E. Baker, Library of Congress, Congressional Research Service (Washington, D.C.: Library of Congress, January 4, 1979), p.2.

[3]Ibid., p.5.

[4]Jeanne E. Fink, "The U.S. Food Aid Program: The Rhetoric and Reality of Multiple Objectives," report prepared for Vanderbilt University coursework, Washington, D.C., February 21, 1977, p.2, (typewritten).

The food deficit nations were offered a type of resource transfer via attractive financing terms on the purchase of U.S. Title I commodities, which could also be used for developmental purposes. In particular, the countries saved scarce foreign exchange, which could be used for purposes other than importing food. In addition, the local currency generated by the food sales would assist in financing the countries' own programs designed to improve economic development and would support U.S.-sponsored uses.[5]

B. <u>The 1959 Amendments</u>

In 1959, a new title was added to the Agricultural Trade Development and Assistance Act. Title IV provided 10-year supply contracts to friendly nations. The terms required dollar repayment over a 20-year period at interest rates well below commercial terms. Congress hoped this provision would open new markets for commodities by permitting sales to nations unable to qualify for barter or Title I local currency sales. In addition, Congress anticipated that Title IV would reduce the rate of growth in the holding of local currency by the United States.[6]

It was at this time that PL 480 became known as the Food for Peace program.

C. <u>The Decade of the 1960s</u>

Up to this point U.S. food aid policy had been primarily focused on the ever-increasing <u>domestic</u> agricultural surpluses, with little or no thought toward the American response to global food needs. American policymakers had not yet realized that in addition to the simple aim of disposing of surplus U.S. commodities, the commodities could serve as a powerful development resource.[7]

In 1961, President Kennedy was confronted with the largest wheat and feed grains surplus in history. The resource potential of the surplus was finally recognized when Kennedy became

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[5]Ibid., p.2.

[6]Baker, <u>Food for Peace, 1954-1978, Major Changes in Legislation</u>, p.9.

[7]Wallerstein, <u>Food for War-Food for Peace</u>, p.7.

the farmer of a new foreign assistance policy in which PL 480 played an important role. The new policies represented an actual agenda: to expand demand for U.S. agricultural goods and to meet the domestic and overseas responsibilities of the United States in the alleviation of hunger and malnutrition.[8]

Kennedy's policies of expanding demand and limiting production were showing progress by the time of his death. During this same period, commercial export sales and PL 480 assistance programs were growing. PL 480 was slowly evolving to include the objectives of humanitarianism, development, and foreign policy.[9]

Promoting economic development in recipient countries through PL 480 became even more prevalent during President Lyndon Johnson's term.[10] In 1966, PL 480 was revised. None of the Act's original goals was dropped, but further emphasis was given to meeting the humanitarian food needs of developing countries. The basic structure of the program was also revised in this set of amendments. The focus of the program was redirected away from surplus disposal and toward planned export production and humanitarian world food requirements. The revised Act called for a new Title I program. The sale of commodities for local currencies was stipulated to end by 1971 with all future sales to be repaid in U.S. dollars. The new Title I required "self-help agreements" in every part of the contract to facilitate improvements in recipient countries' agricultural practices and food production.[11]

D. The 1970s

The 1970s were characterized by global economic turmoil. Many discontinuities were created by the worldwide periodic shortages of food, as in the Sahel region of Africa, and the rapid increases in energy prices precipitated by the first OPEC oil price increase in 1973.

As food reserves declined and commodity prices rose, food aid shipments were reduced. The United States was hesitant to

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[8]Wallerstein, Food for War-Food for Peace, p. 8.

[9]Ibid., p.8.

[10]Ibid., p.9.

[11]Baker, Food for Peace, 1954-1978, Major Changes in Legislation, p.15.

maintain, and particularly to increase, food aid levels when domestic food prices were increasing rapidly. Under President Nixon, domestic agricultural policy was revised from the management of farm surpluses to the management of food scarcity. Nixon's policies were intended to raise the price of food and make it a major foreign exchange earner to offset the balance of payments deficit and "rescue the shaky U.S. dollar."[12] The purchase of U.S. wheat by the Soviet Union placed unprecedented demands on commercial agricultural exports and put U.S. food aid in even greater jeopardy.[13]

Comparing the food aid and trade figures for 1972 and 1975 provides an indication of the magnitude of the problem facing U.S. agriculture. In 1972, PL 480-financed agricultural exports were worth $1.1 billion, while commercial food exports were valued at $6.9 billion; but in 1975, while PL 480-financed commodity exports remained at the same level, commercial food exports had nearly quadrupled to $21.8 billion. During this period, available supplies of food commodities were insufficient to meet aggregate demand.[14]

This drastic revision in agricultural policy has had serious implications for foreign trade, agriculture, the U.S. economy, and diplomatic relations. It was at this juncture that food aid assumed a lower status in terms of agricultural export priority. Agricultural exports have increased 20 percent since the policy was instated, with PL 480 exports declining during the same period.

The Foreign Assistance Act of 1974 again focused on and strengthened the humanitarian aspects of the Food for Peace program. Congressional members were apprehensive about the predominance of foreign policy objectives, (including the military presence in Vietnam) over humanitarian and development goals of PL 480 programs.

These concerns were reflected in the 1974 revisions of the Act. These revisions stipulated that not more than 30 percent of concessional food aid be allotted to countries other than those deemed by the United Nations as "most seriously affected" by food shortages, unless the President proved to Congress that the use of such aid was for humanitarian purposes.

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[12]"Food as a Weapon in Foreign Policy." Quoted in Jeanne E. Fink, The U.S. Food Aid Program: the Rhetoric and Reality of Multiple Objectives (Cambridge: Harris Gluckman, 1975), p.2.

[13]Wallerstein, Food for War-Food for Peace, p. 46.

[14]Ibid., p. 47.

As passed in 1975, the International Development and Food Assistance Act contained three important provisions. The first dealt with international disaster assistance and reaffirmed the U.S. obligation to victims of natural and manmade disasters. The second section reemphasized the U.S. food aid commitment to needy nations by stipulating that 75 percent of concessional sales under Title I be designated to the most needy nations with per capita gross national products of $300 or less, regardless of political policies, and not more than 25 percent to countries above the $300 level (75/25 split). The Act guaranteed that the quantity of agricultural commodities distributed annually through the Food for Peace donation program be set at $1.3 million tons; 1.0 million of the 1.3 million tons were pledged to voluntary agencies and the World Food Program.[15] The bill also authorized poor nations to use locally generated currency from concessional food sales to provide incentives to small farmers by facilitating the acquisition of farm equipment, expanding the availability of credit, and improving marketing facilities, and to provide access for the rural poor to a nutritious food supply. The third section of the resolution established that the main emphasis of all development aid would be on improving agriculture, rural development, nutrition, population planning, and human resource development.

The Senate amendment called for an increase in aid concentration in countries making maximum efforts towards implementing land reforms, increasing food production, reducing infant mortality, and implementing population control programs. In addition, the House version of the bill prohibited aid to governments engaging in gross violations of internationally recognized human rights.[16]

E. 1977 Amendments

The Food for Peace program was shaped by the 1977 International Development and Food Assistance Act of 1977. The 95th Congress operated in a context that was much changed from the early 1970s. Food commodity stockpiles again were growing due to bountiful harvests throughout the world. Foreign policy concerns dealt with human rights. U.S. aid was to be increasingly allocated to the development of the poorer nations. Finally, programs were being designed to meet basic human needs.

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[15]Baker, Food for Peace, 1954-1978, Major Changes in Legislation, p. 27.

[16]Ibid., p.28.

G. Title III

The Food for Development Program's (Title III) overall goal is to increase the access of the poor in the recipient country to a growing and improving food supply.

To be eligible for a Title III program a country must (1) need external resources to improve its food production, marketing, distribution, and storage systems; (2) meet the per capita income criterion (a maximum of $730 in 1982) necessary to qualify for development loans from the International Development Association of the International Bank for Reconstruction and Development (IRBD); (3) be able to use effectively the resources made available by the resale of the food commodities; (4) indicate a willingness to take measures to improve its food production, marketing, distribution, and storage systems.

The funds that accrue from the local sale of the U.S. commodities, or the dollar sales value of the commodities themselves, will then be applied against the repayment obligation of the recipient government receiving this concessional financing.

Two types of documents must be prepared by Title I and Title III recipient countries. The first is a multiyear proposal describing the size and nature of the Food for Development Program that the recipient government proposes to undertake. The proposal must include the value or amount of commodities to be financed, as well as an outline for its use, or the funds generated by the local resale of those commodities. The proposal must specify the nature and magnitude of problems to be affected by the program; identify in quantitative terms (as much as possible) the targets or goals of the program; and explain how the Title III assistance will be integrated into the country's overall development plans, as well as complement other bilateral and multilateral development assistance. The second document requires that Title III recipient countries issue an annual report on the activities and progress achieved under the program to date.

III. AN INTRODUCTION TO THE INTERAGENCY ADMINISTRATION OF TITLE I

Seven agencies share in the task of implementing PL 480: the Agency for International Development (AID), the Department of State, the Department of Agriculture (USDA), the Office of Management and Budget (OMB), the Department of the Treasury, the Department of Commerce, and the National Security Council (NSC). Each of the agencies is represented on the working group of the Food Aid Subcommittee of the Development Coordination Committee (DCC/FA), which serves as the PL 480 coordinating committee. Food aid decisions are reached by a DCC/FA consensus (see Figure 1).

Today's political environment, bureaucratic constraints, constituency groups, and current political trends dictate priorities for the PL 480 decisionmakers. This makes decision by consensus a complex, sometimes difficult process. Each agency brings to the table a unique perception of the appropriate basis for allocation decisions. At the same time, the committee members are aware that the most difficult decisions will involve compromise.

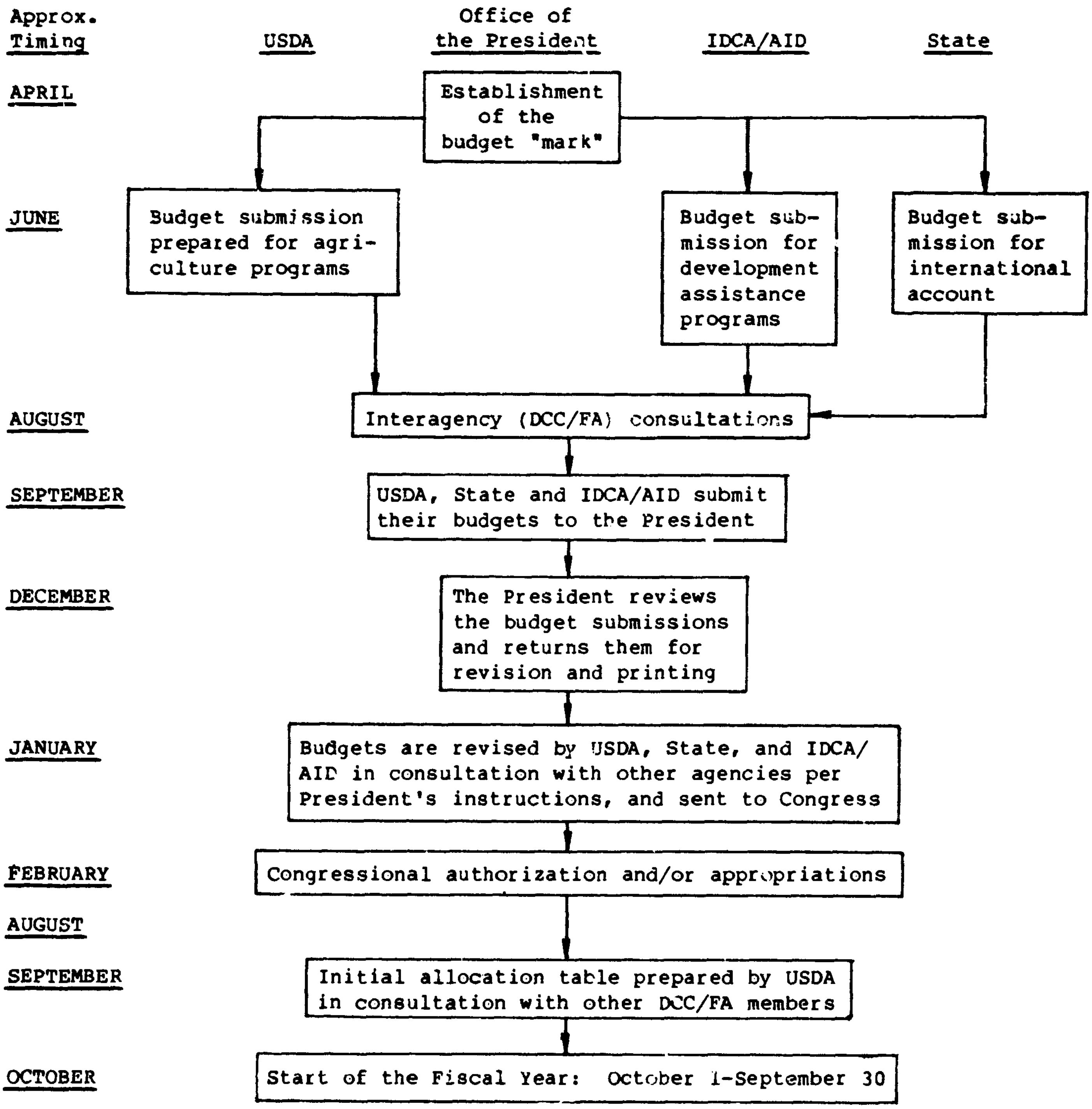
AID's participation is influenced by its role as the implementor of the U.S. foreign economic development assistance program. AID's priorities for program allocations tend to be primarily determined by how technical and programming aspects of food aid assistance can aid the importing country to achieve economic growth. As noted above, however, AID's viewpoint toward a program also must consider foreign policy and market development/commodity objectives. Once allocations are determined, AID is responsible for securing interagency clearance of the agreement negotiating instructions and transmitting them to the field.

The Department of State's participation is influenced by foreign policy and strategic objectives. Individual Title I country program allocations are considered in conjunction with other forms of U.S. economic and military assistance to develop an appropriate overall level of U.S. assistance to meet our objectives. The State Department is responsible for consulting with other food-exporting countries regarding proposed food aid programs so as not to disrupt normal commercial sales.

The development of international markets and the promotion of agricultural exports abroad are goals of USDA. Although total PL 480 commodity exports are a small percentage of total U.S. agricultural exports, for certain commodities PL 480 exports are very important. The concept of assisting our domestic farm situation by exporting commodities enjoys strong congressional support. Thus, USDA considers itself a major actor in the interagency decisionmaking process. USDA is responsible for determining commodity availability and drafting agreement negotiating instructions as well as administering the financing, purchasing, and shipping of the commodities.

OMB has a unique role in the committee, being an equal with regard to allocation decisions, yet exercising final approval of the administration's program-level budget requests.

Figure 1. PL 480 Program Planning Process



Source: Lawrence D. Fuell, The PL 480 (Food for Peace) Program: Titles I/III Terms and Conditions; Planning and Implementation Procedures (Washington, D.C.: USDA/FAS/EC, April 1982 Draft), p. 10.

Treasury's criteria for program allocation will be influenced by the impact of the credit provided under PL 480 on both the importing country's economic conditions and needs and on the U.S. Treasury. Both OMB and Treasury clear agreement negotiating instructions.

IV. PL 480 TITLE I IN THE CASE STUDY COUNTRIES

The five countries in which case studies were conducted provide an illustrative cross-section of PL 480 Title I programs presently in operation. Table 1 and Figure 2 present some country-specific program information. For example, all the countries have had a PL 480 Title I program for at least 10 years of the nearly 30 years of its existence. All the countries except Bangladesh have experienced at least 1 year of program interruption since the initiation of the program. However, all countries have had an annual program for at least 5 consecutive years. Peru and Egypt both had programs in the late 1950s and early 1960s that were terminated (for different reasons) and then renewed again in the 1970s. (See the trends on annual programming under PL 480 Title I in Figure 2.)

The size of the programs, in terms of dollar allocations in FY 1981, vary greatly from between $17 and $20 million to over $250 million (Egypt). On a per capita basis the FY 1981 allocations varied across these five countries as follows:

Bangladesh	$0.57
Egypt	6.66
Jamaica	7.77
Peru	1.15
Sri Lanka	1.24

The total amount allocated to PL 480 Title I in these countries in FY 1981 amounted to over $370 million, or one-third of the total Title I program in that year.

The total Title I resource flow over all program years since 1954, expressed in dollar amounts (unadjusted for inflation) for the five countries shows that Egypt has clearly received the largest amount. The combined PL 480 Title I sum for the five countries over all program years is nearly $3.65 billion, or more than 10 percent of the total PL 480 program expenditures.

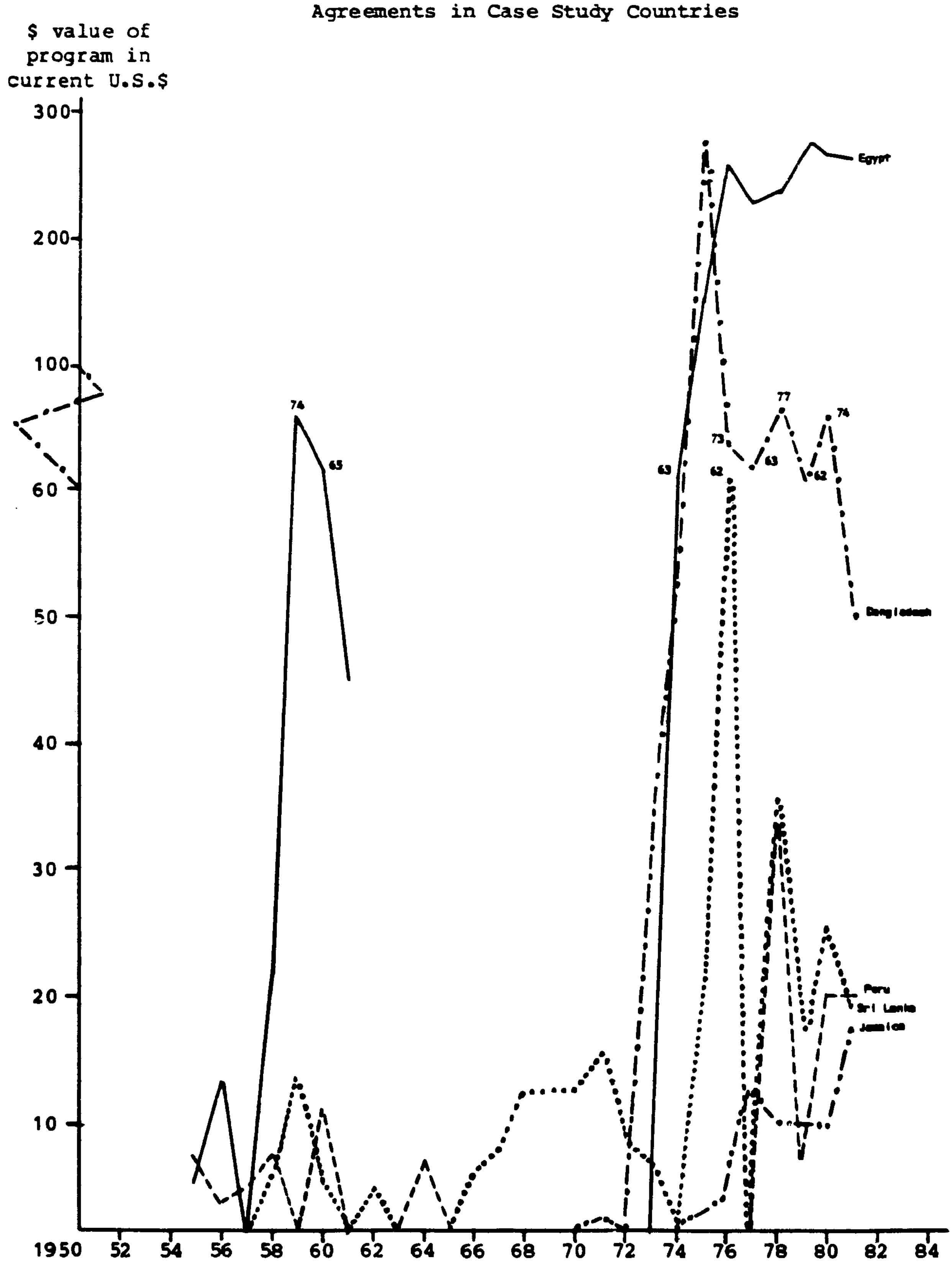
Table 1. Characteristics of the PL 480 Title I Program in Case Study Countries

Country	Number of Program Years Since 1954 (through FY 1981)	Size of Program FY 1981 ($ million)	Total Resource Flow Since 1954 ($ million)	Commodity Mix: Primary	Commodity Mix: Others
Bangladesh[1]	9, Annual Since 1973	$50.5	$753.590	Wheat & Flour	Rice, Fats & Oils
Egypt	18, Annual Since 1974	265.0	2,481.247	Wheat & Flour	Minor: Feed grain, Fats & Oils, Tobacco
Jamaica	8, Annual Since 1975	17.1	63.850	Feed Grains	Wheat & Flour, Fats & Oils
Peru	10, Annual Since 1978	20.0	118.305	Rice	Minor: Wheat & Flour, Fats & Oils
Sri Lanka	19, Annual Since 1978	18.2	282.400	Wheat & Flour[2]	Minor: Rice, Feed Grains

[1]Excludes any food aid received while part of Pakistan prior to independence in 1972.
[2]Prior to Prima Mill construction in 1980.

Source: USDA, PL 480 Concessional Sales Agreements Signed Through 31 December 1981, (Washington, D.C.: USDA/FAS, March 1982), p.1.

Figure 2. Trends in Annual PL 480 Title I Agreements in Case Study Countries



Source: USDA, PL 480 Concessional Sales Agreements Signed Through 31 December 1981, (Washington, D.C., USDA/FAS, March 1982), p.1.

Wheat and wheat flour represent the most important commodities sold via the Title I program. Rice, other feed grains such as corn, and fats and oils constitute the other principal commodities supplied.

Figure 2 presents the fluctuations in PL 480 Title I programming for the five countries since 1954. To some extent, the significant fluctuations in the size of annual programming are related to expected poor domestic food harvests in recipient countries, e.g., 1975, 1976, and 1978 in Sri Lanka and 1975 in Bangladesh, despite the procyclical arguments made about the program.[18] The size of Egypt's program generally reflects the U.S. political commitment to Middle East peace and stability.

V. A COMPARATIVE ANALYSIS OF THE SOCIOECONOMIC DEVELOPMENT OF THE CASE STUDY COUNTRIES

Each PL 480 recipient country is undergoing a process of development. This section reviews the trends in the development process of the five countries since 1960, comparing them with the experience of all low- and middle-income countries. This review provides further background contextual information to use in assessing the development impact of PL 480 Title I assistance.

A. Macroeconomic, Demographic, and Social Indicators

Table 2 presents data on selected macroeconomic, demographic, and social indicators of development progress for the five countries in which PL 480 Title I impact evaluation studies were conducted--Bangladesh, Sri Lanka, Egypt, Peru, and Jamaica--and for low- and middle-income countries. The macroeconomic indicator, GNP per capita, suggests that the five countries have had a lower GNP per capita than those in all low- and/or middle-income countries. In addition, with the exception of Sri Lanka, they have had a lower rate of economic growth than the average recorded for all low- and middle-income countries. (Review the data presented in Rows 1 and 2, Table 2.) Egypt was the only other country whose economic growth approximated the average for all middle-income countries. Bangladesh is one of the most impoverished countries in the world, with a

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[18]See Edward Clay and Hans Singer, Food Aid and Development: The Impacts and Effectiveness of Bilateral PL 480 Title I-Type Assistance, AID Program Evaluation, Discussion Paper No. 15 (Washington, D.C.: AID, December 1982).

Table 2. Macroeconomic, Demographic, and Social Indicators for the Five Countries Studied and for All Low- and Middle-Income Countries, 1980

	Bangladesh	Sri Lanka	All Low-Income Countries	Egypt	Peru	Jamaica	All Middle-Income Countries
Macroeconomic							
1. GNP per capita 1980 dollars	130	270	260	580	930	1,040	1,400
2. Average Annual Rate of Growth in GNP per capita, 1960-1980	0	2.4	1.2	3.4	1.1	0.6	3.8
Demographic							
3. Population (millions) mid-1980s	88.5	14.7	2,160.9	39.8	17.4	2.2	1,138.8
4. Pop. Growth Rate							
1960-1970	2.4	2.4	2.1	2.2	2.8	1.4	2.5
1970-1980	2.6	1.6	2.1	2.1	2.6	1.5	2.4
5. Total Fertility Rate, 1980	6.0	3.6	4.2	4.9	5.0	3.9	4.8
6. Percentage Urban Pop. 1980	11	27	17	45	67	41	45
Social-PQLI							
7. Life Expectancy Years, 1980	46	66	57	57	58	71	60
8. Adult Literacy (1977)	26	85	50	44	80	90	65
9. Pop. Percentage With Access to Safe Water (1975)	53	20	31	66	48	86	50
10. Per Capita Caloric Supply (1977)	NA[1]	2,126	2,238	2,760	2,274	2,660	2,561

[1]Bangladesh is the only low- or middle-income country for which the World Bank and FAO do not estimate per capita caloric supply availability. In the 1981 World Development Report, the World Bank estimated 1977 per capita caloric supplies to be 2,100. The Bangladesh Country Study reports an average daily caloric intake figure which is 20 percent below this estimate. Blaine Richardson et al., Bangladesh: Food Aid: PL 480 Title I and Title III Impact Evaluation (Washington, D.C. AID, March 1983), p. 20. See page 176, Table 22, World Development Report, 1981.

Source: World Bank, World Development Report, 1982 (Washington, D.C.: World Bank) per capita income of about $140 (1980 dollars); its rate of per capita income growth has stagnated over the last two decades. The country only began to demonstrate significant positive performance in 1976.[19] Jamaica and Peru are also representative of many middle-income developing countries that have been plagued by a poor economic climate in recent years, with a low rate of per capita economic growth recorded since 1960. In both countries, per capita incomes have actually declined (using official exchange rates) in recent years, particularly if inflation is considered.[20]

Demographic data show that the five countries together compose about 5 percent of the total population in low- and middle-income countries. The rate of growth in population varies from a high of 2.6 percent for both Bangladesh and Peru during the 1970-1980 decade, to a low of 1.6 percent in Sri Lanka and 1.5 percent in Jamaica. The total fertility rates in Bangladesh and Peru also are above the average recorded for their respective income groups and reflect the underlying fertility and mortality structure in those societies. Bangladesh is the only significantly rural country of the five countries studied, whereas Peru and Sri Lanka have become urbanized to a greater extent than the average for their respective income groups.

Social and quality of life indicators show that Jamaica and Sri Lanka generally record values significantly above the average for their respective income groups. Both record life expectancy figures approximating those recorded in high-income industrialized countries. The adult literacy figures for both countries are also significantly above the averages recorded for all countries in each income group. It is significant to note that the high life expectancy figures for both countries were recorded along with (a) modest, average food availabilities, as measured by the per capita supply of calories; and (b) a low level of safe water supply access, for example, in Sri Lanka.[21]

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[19]Richardson et al., Bangladesh: Food Aid, p. 3.

[20]Compare figures for Jamaica and Peru obtained from Table 1 in the 1981 and 1982 World Development Reports of the World Bank.

[21]It will be important to continually monitor Sri Lanka's social indicators as the new "liberal" economic policy continues and previous concerns for social equity and social programs are changed. Jamaica also will merit watching on similar grounds. Particularly sensitive measures to monitor are infant mortality on an income-group-specific basis and primary school enrollment rates.

Only Bangladesh has social and quality of life indicators reflecting significant deprivation. Its indicators are on a par with many sub-Saharan African countries where life expectancy in 1979 was 46 years, adult literacy in 1976 was 25 percent, the percentage of the population with access to safe water in 1975 was 24 percent, and daily per capita caloric supply in 1977 was slightly below 2,100 calories.[22]

While income distribution data must be treated with caution due to incomplete reporting and definitional discrepancies,[23] available data on the distribution of income for the five countries under review are presented in Table 3. The data generally confirm the notion that middle-income countries tend to have more skewed income distributions than low-income countries.[24] The data also support the view that when countries have tended to consistently discriminate against small-scale agricultural development, as in the case of Peru despite land reform, the distribution of income remains very skewed.[25]

Finally, the data indicate that there was a significant shift in the distribution of income in Sri Lanka between 1970 and 1978/1979. Apparently, most of this shift is related to the economic liberalization program, which was initiated in 1977 after the elections of that same year. Most significantly, the government eliminated price controls on all items except bread and pharmaceuticals. In addition, the liberalization program significantly altered entitlement to the health

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[22]Compare these figures with those shown for Bangladesh in Table 2. Only for safe water supply availability is Bangladesh's record significantly better. See Annex Tables to the World Bank, Accelerated Development in Sub-Saharan Africa: An Agenda for Action (Washington, D.C.: World Bank, 1981).

[23]For a discussion of these data problems, see S. Jain, Size Distribution of Income: A Compilation of Income (Washington, D.C.: World Bank, 1975).

[24]See Felix Parkert, "Income Distribution at Different Levels of Development: A Survey of Evidence," International Labor Review, 108, 2/3 (August/September 1972) pp. 97-127. See also a more complete study of these patterns by Hollis Chenery et al., ed., Redistribution with Growth (London: Oxford University Press, 1974).

[25]See James Kocher, Rural Development, Income Distribution and Fertility Decline (New York: Population Council, 1973).

Table 3. Income Distribution: Percentage Share of Household Income[1] (by percentile groups of households)

Category	Bangladesh 1973/1974	Sri Lanka 1969/1970	Sri Lanka 1978/1979	Egypt 1975	Peru 1972	Jamaica 1958
Lowest 20%	6.9	7.5	3.8	5.1	1.9	2.2
Second Quintile	11.3	11.7	8.4	9.7	5.1	6.0
Third Quintile	16.1	15.7	13.2	NA	11.0	10.8
Fourth Quintile	23.5	21.7	20.4	NA	21.0	19.5
Highest 20%	42.2	43.4	54.3	49.2	61.0	61.5
Highest 10%	27.4	28.2	39.0	NA	42.9	NA
Highest 5%	NA	NA	NA	22.0	NA	30.2

[1]These data should be treated with caution.

Sources: Bangladesh, Sri Lanka 1969/1970, and Peru: World Bank, World Development Report, 1982, Table 25, pp. 158 and 159.

Sri Lanka 1978/1979: World Bank, Document No. 3901-CE, p. 159.

Egypt: AID, All Data Currently Available on Egypt, 1982, derived from IBRD sources.

Jamaica: Felix Paukert, "Income Distribution at Different Levels of Development: A Survey of the Evidence," International Labor Review 108, 2-3 (August-September, 1973), pp. 97-126, and Table 6, p. 115.

and nutrition programs initially launched by the Sri Lanka Government during World War II.[26]

B. Trends in the Economic Structure of Production

Table 4 presents data that show the changing structure of economic production which has occurred since 1960 in the five countries studied. The pattern depicted in the table for each country shows that the shift from agriculture to industry and services is consistent with the pattern for the other low- and middle-income countries.

The Bangladesh economy remains more agriculturally based than any of the other countries studied and has not undergone the transition that has occurred in the other low-income countries. On the other hand, during the same period the industrial sector of the country nearly doubled its share from 7 to 13 percent from 1960 to 1980. In addition, during the decade of the 1970s, the rate of industry growth accelerated to 9.5 per year, which was unusual in comparison to the experience of other low- and middle-income countries and the other countries studied over the same period (see Row 5, Table 4).

The only other country whose structural transformation warrants comment is Peru, where the share of production from agriculture has declined precipitously from 18 percent of GDP in 1960 to 8 percent in 1980. This change is due largely to a significant decline in the fishing industry and stagnant agricultural growth throughout the 1970s, a period when the country experienced a change in land tenure.[27]

Besides the changes in the structure of production that have occurred over the two-decade period since 1960 in the countries studied, it is also instructive to review the data presented in the lower portion of Table 4, which show a general decline in the rate of economic growth during the 1970s in comparison with the 1960s (see Row 4). The decline is particularly noticeable in the rates of growth for the industrial sector which was adversely affected by the decade's two large oil

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[26]See Appendixes C, D, and E of David Steinberg et al., Sri Lanka: The Impact of PL 480 Title I Food Assistance, AID Project Impact Evaluation No. 39 (Washington, D.C.: AID, October 1982).

[27]See Linn Hammergren et al., The Impact of PL 480, Title I in Peru: Food Aid as an Effective Development Resource, AID Project Impact Evaluation (Washington, D.C.: AID, 1983).

Table 4. Changes in the Economic Structure of Production, 1960-1980

Item	Bangladesh		Sri Lanka		All Low-Income Countries[1]		Egypt		Peru		Jamaica		All Middle-Income Countries	
	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980
1. Agriculture as % of GDP	58	54	32	28	50	36	30	23	18	8	10	8	24	15
2. Industry as % of GDP	7	13	20	30	18	35	24	35	33	45	36	37	30	40
3. Services as % of GDP	35	33	48	42	32	29	46	42	49	47	54	55	46	45
Years:	60-70	70-80	60-70	70-80	60-70	70-80	60-70	70-80	60-70	70-80	60-70	70-80	60-70	70-80
4. Rate of Growth in GDP	3.7	3.9	4.6	4.1	4.4	4.6	4.3	7.4	4.9	3.0	4.4	-1.1	5.9	5.6
5. Rate of Growth in Agriculture	2.7	2.2	3.0	2.8	2.2	2.2	2.9	2.7	3.7	0	1.5	0.7	3.5	2.9
6. Rate of Growth in Industry	8.0	9.5	6.6	4.0	7.0	3.6	5.4	6.8	5.0	3.7	4.8	-3.5	7.4	6.6
7. Rate of Growth in Services	4.2	4.9	4.6	4.8	4.2	4.5	4.7	11.0	5.3	3.5	4.7	0.1	5.4	5.9

[1]Includes China and India.

Source: World Bank, World Development Report, 1982, Annex Tables 2 and 3.

price increases and resulting dislocations. The most significant economic decline occurred in Jamaica, which experienced a negative rate of growth over the decade.

Finally, it is instructive to compare the country- and decade-specific rates of growth in the agricultural sector (Row 5, Table 4). In all cases, growth in agricultural production declined during the 1970s relative to the 1960s, with Jamaica and Peru recording significant declines. In the case of Peru, the production stagnation was spread across both food and nonfood items, whereas in Jamaica the domestic production of food expanded at over 5 percent per year during the 1970s, in comparison with a decline in the production of export-oriented crops. In those countries where food production did not grow as rapidly as population, e.g., Egypt, Peru, and possibly Bangladesh (particularly in the early half of the 1970s), it is not particularly surprising that increasing food imports would result in the maintenance of food supplies.

C. The Structure of the Labor Force

Table 5 presents data that show the changing structure of economic production; comparable sectoral data show changes in the structure of the labor force over the same 1960-1980 period. While both the country-specific and the grouped data show the continuing decline in the share of the labor force in the agricultural sector over the two-decade period, which is consistent with the decline in agriculture's share of production, there are several other important relationships to be noted.

First, the share of labor in agriculture is greater than agriculture's share in GDP. Second, for most countries the ratio of these shares has tended to decline since 1960. The exceptions, Bangladesh and Jamaica, tend to reflect changes in the domestic political environment in each country, e.g., Bangladesh obtaining independence from Pakistan, and Jamaica having a "leftist"-leaning government during the 1970s. Third, the changes over time in the ratio of the sectoral share of GDP to the sectoral share of the labor force reflect at least two economic forces: (1) changes in labor productivity, and (2) changes in the structure of sectoral production.

In addition to these findings, the data specific to the industrial sector are of interest. These figures show that the share of production from the industrial sector relative to the share of the labor force in the industrial sector has increased in low-income countries during the 1960-1980 period (1.80 to 2.33), whereas this ratio has declined in the middle-income

Table 5. Changes in the Structure of the Labor Force, 1960 and 1980

Item	Bangladesh		Sri Lanka		All Low-Income Countries		Egypt		Peru		Jamaica		All Middle-Income Countries	
	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980
I. Distribution of Labor Force														
1. Percent of Labor Force in Agriculture	87	74	56	54	77	71	58	50	52	40	39	21	61	44
2. Percent of Labor Force in Industry	3	11	14	14	10	15	12	30	20	19	25	25	15	22
3. Percent of Labor Force in Services	10	15	30	32	14	15	30	20	28	41	36	54	24	34
II. Ratios of Production to Labor Force (LF)														
1. % Ag of GDP / % LF in Avg	0.67	0.73	0.57	0.52	0.65	0.51	0.52	0.46	0.35	0.20	0.26	0.38	0.39	0.34
2. % Ind of GDP / % LF in Ind	2.33	1.18	1.43	2.14	1.80	2.33	2.00	1.77	1.65	2.37	1.44	1.48	2.00	1.82
3. % Serv of GDP / % LF in Serv	3.50	2.20	1.60	1.31	2.29	1.93	1.53	2.10	1.75	1.15	1.50	1.02	1.[illegible]	1.32

Source: World Bank, World Development Report, 1982, Annex Table 19.

countries (2.00 to 1.82) (see Row II.2, Table 5). Among the five countries studied, Bangladesh and Peru show trends counter to those just indicated. Bangladesh shows a significant fall in the ratio of GDP from industrial production to the percentage of the labor force in industry, which likely reflects a significant migration of the labor force into small-scale industrial production activities. The opposite is true in Peru, where the share of labor engaged in industrial production fell over the two-decade period despite an increase in the industrial sector's share of GDP of over 35 percent during the same period. The increased concentration of industrial production in large-scale, urban-based units undoubtedly contributed to this increase.

Finally, the reduction in ratio of service production, as a percentage of GDP, to the share of the labor force in services provides further evidence to support many microeconomic studies which show that small-scale retail service activities are continually used by new rural immigrants as the point of entry into urban economies.[28] The only country among the five countries studied where this trend did not occur was Egypt, where the rate of growth in industrial production was high enough to absorb large numbers of workers entering the labor force during the 1970s.

D. The Structure of Demand

The data presented in Table 6 highlight several important issues related to the impact of PL 480 Title I. First, with the exception of Sri Lanka (for reasons related to the 1977 elections), for all the countries studied the group trends show that government or public consumption as a share of total demand has increased over the two-decade period. This tendency is more marked among the middle- rather than low-income countries. Jamaica represents an extreme case. To the extent that public consumption substitutes for investment, future economic growth is reduced.

Second, in the three countries where the investment share has increased over the two-decade period, i.e., Bangladesh, Sri Lanka, and Egypt, and for all low- and middle-income countries, economic growth rates have remained relatively high and stable over the two-decade period (recall Row 4, Table 4).

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[28]For an elaboration of this point specifically to Africa, see Derek Byerlee, "Rural-Urban Migration in Africa; Theory, Policy and Research Implications," International Migration Review, 8, (1974), pp. 543-66.

Table 6. Changes in the Structure of Demand, 1960 and 1980

Item	Bangladesh		Sri Lanka		All Low-Income Countries		Egypt		Peru		Jamaica		All Middle-Income Countries	
	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980
% Distribution of GDP														
1. Consumption														
a. Private	86	91	78	78	79	68	71	65	64	68	67	67	70	64
b. Public	6	7	13	8	8	11	17	19	9	13	7	21	11	14
2. Gross Domestic Investment	7	17	14	36	19	25	13	31	25	16	30	16	20	27
3. Gross Domestic Savings	8	2	9	14	17	22	12	16	27	19	26	12	19	25
4. Exports of Goods and Nonfactor Services	10	8	44	31	7	9	20	32	20	24	34	50	16	25
5. Resource Balance	1	-15	-5	-22	-2	-3	-1	-15	2	3	-4	-4	-1	-2

Source: World Bank, World Development Report, 1982.

However, where the investment share has declined, e.g., Peru and Jamaica, economic growth has declined significantly; thus, the provision of incentives to maintain or increase investment share remains an important goal of economic policy.

Third, to maintain or increase investment, either domestic savings must increase or net inflows of international resources must rise. PL 480 Title I represents but one of the options available in the latter case. The domestic savings share increased in only two countries under study, Sri Lanka (since 1977) and Egypt. However, in all countries except Peru, net resource flows reflect the increased deficit in domestic saving relative to investment. To maintain government programs (and fund their recurrent costs), private consumption, and investment for future growth, the domestic supply of resources must be augmented from external sources. Thus, the importance of resource transfers, in part in the form of PL 480 Title I, cannot be underestimated. Resource inflows have been significant in Egypt and Bangladesh and have become more so recently in Sri Lanka. It is puzzling to find that Peru is a net resource exporter when such a large proportion of the rural population remains so poor and when income distribution is so skewed.

E. Sources of Central Government Revenues

Since development programs, including PL 480 Title I, often have government budget implications, particularly with respect to revenue, it is instructive to review the structure of government revenues.[29] The data presented in Table 7 show significant variation in the structure of taxes from one country to another. For example, there is substantial variation across the five countries in the extent to which the countries rely on import and export duties, from a high of 50 percent in Sri Lanka to a low of 4 percent in Jamaica, even though both countries have highly open economies where exports constitute around 40 percent of GDP (see Row 4, Table 6). Table 7 also reflects variations in the structure of resource ownership, such as government ownership of certain producing units which provide revenue to the government via profits or surpluses (e.g., in Egypt), rather than by the taxing of such profits (e.g., Peru).

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[29]Often "policy dialogues" become mired in disagreements about how the government can overcome the structural constraints on revenue.

Several other variations in government tax structure warrant comment. First, individual income taxes vary from a low of 1.6 percent of central government revenue in Peru to nearly 17.5 percent in Jamaica. At the same time, corporate income and profits have a similar degree of variation, from 1 percent in Bangladesh to nearly 25 percent in Peru. Social security taxes exist only in Egypt and Jamaica. Finally, sales taxes vary from zero in Egypt to about 28 percent of all receipts in Peru.

F. International Trade, Reserves, and Public Finances

Food aid commonly is included in a donor aid package when a country is experiencing balance of payments current account deficits, internal inflation, and structural readjustments designed in part to improve domestic food supplies in food-importing countries.[30] Table 8 presents country-specific trends in international trade current account balances, international reserves, and government budget deficits (one indication of potential internal inflation) for one to two decades prior to 1980. These data provide some indication of the relative gravity of these problems and thus guidance as to whether they provide a rationale for receipt of food-aid support via Title I.

With the exception of Peru, the other four countries had increased their deficits on current account over the 1970s (see Table 8, Row 1). The two most impoverished countries, Bangladesh and Sri Lanka, suffered the greatest reduction in their terms of trade (over 50 percent) over the two decades since 1960 and had limited prospects of reversing their export earnings by altering their export commodity mix or tapping previously unexploited mineral or energy resources. Their capacity to expand imports is constrained by foreign exchange holdings, which equal about 1.5 months at current import levels. On the basis of this indicator, Jamaica also faces a significant constraint of only 0.7 import months of foreign exchange holdings (1980 data).

One way to relieve the current account deficits and to expand the resources available for investment purposes is to obtain resources from external sources in the form of aid or private loans. However, most external loans eventually must be repaid at some positive rate of interest. Thus, an additional consideration is the extent to which export earnings must go to repay outstanding loans or to their servicing, rather than to

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[30]Clay and Singer, Food Aid and Development, pp. 24 and 27.

Table 8. Trends in International Trade, International Reserves, and Public Finances, 1960, 1970 and 1980

Item	Bangladesh		Sri Lanka		All Low-Income Countries		Egypt		Peru		Jamaica		All Middle-Income Countries	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
1. Current Account Balance, Before Interest Payments on External Public Debt, in $ Million	-60	-755	-59	-664	-	-	-154	-489	240	618	-153	-174	-	-
2. Debt Service as Percentage of														
a. GNP	-	0.7	2.0	2.0	1.1	1.1	4.1	6.9	2.1	8.1	1.1	7.9	1.6	2.9
b. Exports of Goods and Services	-	5.6	10.3	6.0	13.8	9.2	28.7	18.9	11.6	31.3	2.5	12.8	9.9	13.0
Year:	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980	1960	1980
3. Terms of Trade	201	84	203	93	111	89	92	79	89	87	85	83	100	94
Percentage Change	-58.2		-54.2		-19.8		-14.1		-2.2		-2.4		-6.0	
Year:	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
4. Flow of External Capital, in $ Million														
a. Net from Public Sources	-	557	34	247	-	-	55	1,736	47	277	9	118	-	-
b. Net Private Investment	-	-	≈0	43	-	-	-	541	-70	70	161	-12	-	-
5. Gross Int'l Reserves In Months of Coverage	-	1.4	-	1.5	-	5.3	-	3.0	-	6.9	-	0.7	-	4.1
6. Gov't Budget (Deficit)/ Surplus as % of Total Expense & Lending Minus Repayments	24.6		-43.1		-		-29.5		-3.7		-40.4		-	
(Year)	(1978)		(1980)		-		(1979)		(1980)		(1977)		-	

Sources: IMF, Government Finance Statistics Yearbook, 1982; World Bank, World Development Report, 1982.

importing new goods and services for investment or consumption. Table 8 Row 2 indicates the degree of country "indebtedness," showing that low-income countries have reduced their indebtedness over the 1970s, whereas middle-income countries have become more indebted. Certainly, Jamaica, Peru, and Egypt all face increasingly heavy, debt-servicing burdens, and Jamaica has had to undergo significant refinancing of its debt portfolio to maintain financial solvency. Its international reserves coverage reflects the seriousness of the situation as does the fact that there was a $12 million net outflow of private investment resources (the only country of the five under study with such an outward flow in private investment resources).[31]

Finally, the data on the size of the government deficits (-) or surplus (Table 8, Row 6) provide one indication of the extent to which inflation pressures may exist. Except for Bangladesh and, to a lesser extent, Peru, the other three countries are running significant government deficits which can exacerbate domestic inflation since governments often finance the deficits by expanding the domestic money supply. Some development programs that rely on recurrent expenditures by government can be jeopardized when governments attempt to reduce the deficit and reduce inflation.[32]

In summary, the use of food aid as one component of an external assistance package is warranted on balance of payments grounds in at least four of the five countries, with Peru being the possible exception. Given the lack of agricultural growth during the 1970s, however, it is conceivable to justify food assistance to Peru to minimize inflation in the principal wage good, i.e., food, and use the recycled currency to rebuild the country's agricultural sector, given appropriate price and other agricultural policies.

On the basis of this comparative review of the five countries' economic and social progress during the 1960-1980 period, the socioeconomic context in which the set of PL 480 Title I impact evaluations was conducted varies considerably. Many of the differences in developmental impact are due to one or more factors reviewed in this section.

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[31]The time structure of the debt, i.e., the proportion of short- to long-term debt, the structure of interest rates, and other factors assist in describing the full degree of financial stringency. These data are available from IMF sources if relevant to the decision.

[32]See Jerry Wolgin, <u>AID Recurrent Cost: Policy Paper</u> (Washington, D.C.: AID, 1982), for a more complete treatment of the implications of this and related issues.

VI. A COMPARATIVE ANALYSIS OF MACRODEVELOPMENTAL IMPACTS OF PL 480 TITLE I

In the paper's next three sections (VI, VII, VIII), the multiple impacts of PL 480 Title I on recipient countries and U.S. objectives are comparatively presented. All country study teams found that the impacts of this program extended beyond the development goals of AID's programming. These "extra-developmental impacts" are reviewed comparatively in Section VIII of this paper. In this and the next section, the developmental impacts are analyzed. They are divided into two sections, primarily for convenience of presentation. In this first section, the analysis reviews the country-specific findings on PL 480 Title I's impact on (a) macroeconomic performance, particularly in terms of overcoming foreign exchange and balance of payments constraints, and (b) the equitable availability of food supplies.

A. Balance of Payments and Macroeconomic Performance

All five country studies reported that the PL 480 Title I program had contributed to balance of payments support (see Table 9). In Peru, the program financed about 15 percent of all food imports during the 1978-1981 period. It was also a factor in enabling the country to refinance its external debt with a longer maturity than it would have otherwise received. In Bangladesh, it was even more significant. Between 1976 and 1981, PL 480 was financing about 45 percent of all food imports, and other donor food aid financed the remaining amount.

In Egypt and Jamaica, the program also was linked to improved macroeconomic performance. In Egypt, the program provided significant foreign exchange support to Egypt during the periods when economic growth rates over the last 30 years were the highest. In Jamaica, the program became part of a coordinated donor effort, which included the IMF, to promote structural adjustment. This effort briefly contributed to economic stabilization in the late 1970s. At the same time, the country also significantly increased its foreign debt. Also, the country study team concluded that, at least during the period under analysis (1975-1980), little progress was made to improve the structure of production and demand.[33]

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[33]For a more complete analysis of this issue, see Appendix H by Michael Crosswell, in Barry Sidman et al., Jamaica: The Impact and Effectiveness of the PL 480 Title I Program, AID Impact Evaluation Report (Washington, D.C.: AID, 1983).

Table 9. Macroeconomic Performance, Balance of Payments Support, and Related Impacts

Country	Macroeconomic Performance	Balance of Payments	Other Impacts
Bangladesh	The impressive economic growth rate in the second half of the 1970s (1976-1981) of 4.7 percent was largely attributable to the vast inflows of foreign aid. During the period from 71/72 to 75/76 food aid comprised 41 percent of all aid provided. Between 1976 and 1981 food aid comprised about 26 percent of aid provided, with the U.S. contributing about 44 percent of all food aid.	In most years since independence, food aid has met the import requirements for food. The U.S. assistance is provided on about a 65-percent grant basis. In FY 1981 food grain imports totaled about 1.1 million tons.	
Egypt	High levels of food aid are positively associated with periods of high levels of economic growth. Confounding this association is the fact that periods of low growth have been when wars or other political disturbances have existed.	Contributes to current account BOP support. However, the country would be as well off, from a foreign exchange point of view, if it had received a direct monetary allocation equaling 35 percent of the market value of the grain.	Contributed to a government policy to subsidize bread prices.
Jamaica	1. Food aid was a part of a donor package, with IMF participation, designed to promote structural adjustment. Over the period of analysis the adjustment was not forthcoming due to (a) ineffective import rationing, (b) inefficient import-substitution industries which remained protected, and (c) government inability to prevent wage and price increases. 2. Did contribute to short-run stabilization in late 1970s, but not to a restructuring; thus, foreign exchange holdings fell and foreign debt increased.	Primarily contributed to availability of foreign exchange. Therefore imports could be expanded.	
Peru	Found little association between measures of food aid and macroeconomic performance.	1. Contributed to the improved foreign exchange position of country between 1977 and 1981 by about 5 percent. 2. Financed about 15 percent of all food imports. 3. Contributed to Peru's obtaining extended external debt financing with longer maturity.	Very little association between government expenditure and total imports and food aid.
Sri Lanka	No analytical linkage found to macroindicators of performance.	Food aid a significant part of foreign assistance, but Title I was not a particularly reliable source of assistance. It was more important in periods prior to 1978. Penalized by UMR.	1. Government support to food subsidy program diminished after 1978 from 24 to 12 percent of government expenditures. 2. Agricultural production a major priority sector for investment.

Source: PL 480 Title I Impact Evaluations: Individual Country Reports.

In Egypt and Sri Lanka, the program was linked to government policies of subsidizing food prices. After the 1977 elections in Sri Lanka, the policy dialogue between the new government and a coordinated donor community led to a reformulation of the food subsidy program, from a ration to a food stamp system. A significant reduction in government outlays was facilitated by the coordinated tone behind all donor support, including that provided via PL 480 Title I (see Table 9).

An issue of concern raised by the Clay-Singer review[34] was the potentially adverse impact the PL 480 Title I program might have on agricultural progress, since a country, via the usual marketing requirements (UMR) of a PL 480 program, would lose the balance of payments support it would have otherwise received and, thus, there would be a disincentive to countries to pursue vigorous agricultural development programs. Since none of the countries studied has reported significant production increases in the commodities imported via PL 480 Title I assistance, the potential for this disincentive to affect the decisionmaking in these countries is nonexistent. However, if the PL 480 Title I program in Sri Lanka consisted primarily of rice, a problem could exist, given the significant rice production increases that have occurred since the mid-1970s. The rate of adjustment of UMRs is critical if this problem is to be avoided.

B. Distributional Equity

Table 10 summarizes the distributional impacts of the PL 480 Title I programs in the five countries studied. The findings suggest that in two of the five countries, Egypt and Sri Lanka, either the government (as in the case of Egypt) or the marketplace (by virtue of food tastes and preferences and individual household time and income constraints, as in the case of Sri Lanka), has tended to shift the direct principal beneficiaries of the program to the poorest segments of the population. In the case of Egypt, the country has developed a modern wheat importing, storage, milling, and distribution system which widely distributes subsidized wheat flour. This efficient system has tended to eliminate small-scale traders, millers, and bakeries. On the other hand, it was found that the distribution of wheat is more equitable than the distribution of income in Egypt.

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[34] Clay and Singer, Food Aid and Development, pp. 26-27.

Table 10. Distributional Equity of PL 480 Title I Food Aid

Country	Impact
Bangladesh	Total food availability has improved in country, especially since 1975. The Open Market Sales program (OMS) is designed to minimize the fluctuations in food grain prices over the crop year. Early evidence suggests that where fully implemented, fluctuations have declined. The coverage of the ration system, designed to supplement food availability to the rural poor, appears to be declining in more recent years. The size of the subsidy embodied in the ration system has also declined from 25 percent of the free market price in 1979 to 10 percent in 1983. Other modified ration programs are operating to provide for the needs of those not covered under other programs. However, the program is the last to receive its allotment, is under the control of village union council chairmen, and much of this rice is reportedly diverted to the open market.
Egypt	The government via the Ministry of Supply has developed a distribution system which provides for a relatively equitable distribution of wheat throughout the country. In 1980, the most disadvantaged 40 percent received 30 percent of the wheat, and the most advantaged 10 percent received only 15 percent of the wheat. Urban dwellers, primarily in Alexandria, tend to receive more than rural dwellers, but this differential is partially offset by unreported rural production.
Jamaica	The distributional aspects of the program were not addressed. At least 50 percent of the program resources are used to manufacture chicken feed for three large chicken producers. More affluent urban dwellers are the primary consumers of these chickens.
Peru	Total caloric consumption is similar in urban and rural areas. However, dietary composition is not. Rice is consumed almost entirely in urban areas. PL 480 Title I rice is privately consumed by the more affluent urban dweller.
Sri Lanka	The primary beneficiary of the imported wheat and/or wheat flour is the urban working poor. The more affluent urban dweller and the rural dweller primarily consume domestically produced rice.

Source: The five country impact evaluation studies.

In Bangladesh, food availability to the poor, particularly in rural areas, has been improved through increased domestic production, reduced price fluctuations via the open market sales program, and several food ration programs through which food prices are subsidized. Nevertheless, considerable deficiencies remain.

In the case of the other two countries, Jamaica and Peru, the direct beneficiaries of the program have tended to be the more affluent segments of the population. The primary beneficiaries in the Jamaica program are (a) those who obtained import licenses and thus could use the foreign exchange obtained via the program and (b) the three commercial producers of chickens on the island. The country study did not provide evidence about diet composition of different segments of Jamaica's population, but if the diets of similarly situated countries provide any guidance, the more affluent urban dwellers and tourists represent the primary market for the chickens. In Peru, the direct beneficiaries are primarily affluent urban dwellers who can pay the higher prices for the higher quality rice imported via PL 480 Title I.

In both the Peru and Jamaica cases, it may be said that by expanding the supply of food available to the more affluent, the poor also benefit by having a larger supply of domestic foodstuffs available. However, since dietary patterns vary by income, it is unclear if domestic food supply response is as large as it would otherwise be.

VII. OTHER MICROECONOMIC AND DEVELOPMENT IMPACTS

In this section, the evidence from the country case studies are comparatively reviewed with respect to PL 480 Title I's impact on (a) agricultural production disincentives; (b) the development of the local storage, milling, and baking industries; (c) nutritional status; (d) dietary patterns; (e) government expenditures for developmental purposes, e.g., the use of local currency sales proceeds; and (f) government policy with respect to agricultural development. This analysis highlights those underlying factors revealed in the country studies that contribute to the impact ascribed to the PL 480 Title I program.

A. The Production Disincentive Impact

As authors such as Gordon,[35] Clay and Singer,[36] and Isenman and Singer[37] have commented in recent years, the potential if not actual production disincentive impacts of food aid have received a disproportionate share of attention. They contend that the multiplicity of other potential, if not actual, positive effects of a PL 480 Title I-type program have been overlooked. This set of country studies conducted on the PL 480 Title I program, in part, has attempted to rectify the disproportionate attention given to the production disincentive issues. Nevertheless, it remains an important practical as well as theoretical issue in the field of development since the net benefits accruing from a food-aid program rest partially on minimizing such an impact, if indeed it exists. It also remains an important issue because of its potential long-run consequences on agricultural development, and thus the entire economic development of affected countries, via the distribution of long-run investment decisions across sectors. Presumably, with appropriate agricultural price, research, marketing, storage and other policies, agricultural development objectives need not be undermined.[38] The issue is to what extent are such complementary policies programmed and implemented, and the desired positive results in food and cash crop production and distributional equity considerations obtained, so that disincentive impacts may be overcome.

As with most unresolved issues, the empirical findings in the country studies are mixed with respect to a production disincentive impact of the PL 480 Title I program. For ease of review, the country-specific findings are summarized in Table 11.

These findings tend to support the following points. First, the study teams generally concluded that PL 480 Title I contributed directly or indirectly to a disincentive to the local production of one or several food crops.

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[35] Gordon O. Nelson, "Macroeconomic Dimensions of Food Aid," pp. 31-48, in Gordon Nelson et al., Food Aid and Development, (New York: Agricultural Development Council, 1981).

[36] Clay and Singer, Food Aid and Development, pp. 29-32.

[37] Paul Isenman and Hans Singer, "Food Aid: Disincentive Effects and Their Policy Implications," Economic Development and Cultural Change, 25, 2 (January 1977), pp. 205-237.

[38] Ibid., p. 240

Table 11. PL 480 Title I Impact on Domestic Production

Country	Direct Impact	Indirect Effects	Other Comments	Principal PL 480 Title I Commodity	Principal Domestically Produced Food Crop
Bangladesh	No direct disincentive effect reported. Title III program has facilitated policy change to guarantee production incentives to producers, particularly those who adapt high-yielding variety technology. Food production has increased.	High-yielding varieties have been increasingly adopted.	1. Increased food security in the short run via multi-year Title III-enhanced potential for policy changes necessary for expanded domestic production. 2. Price incentives prior to introduction of Title III were not discussed. 3. Government procurement of food grains strengthens the minimum price guaranteed to farmers.	Wheat	Rice and Wheat
Egypt	A clear disincentive effect is demonstrated by data. A low domestic producer price occurred in years when PL 480 Title I wheat was available and vice versa, when PL 480 was unavailable.	Wheat is now primarily grown to produce straw for brick making, floor covering, and animal fodder in summer.	1. PL 480 Title I program has been very large. Presently it is the largest and still comprises 25 percent of wheat imports. 2. Consumption has been heavily subsidized. It is estimated that consumption of wheat-related calories has increased 24 percent from 1978 to 1982.	Wheat	Wheat
Jamaica	At one level of analysis the issue of direct disincentive effects of food aid on domestic production does not arise when PL 480 does not augment the import of food. However, corn-specific production data indicate a decline in production after the introduction of the PL 480 Title I program.	Food imports dropped by 55 percent after 1975, providing a sharp stimulus to domestic food production, which increased by 5 percent per year over the 1976-1980 period.	1. No specific food production or price data are reported in the study. Aggregate food production data are presented in Appendix H of Jamaica Impact Evaluation Report.	Corn Wheat (minor)	Yams, coco, cassava, etc.

Table 11. PL 480 Title I Impact on Domestic Production (cont.)

Country	Direct Impact	Indirect Effects	Other Comments	Principal PL 480 Title I Commodity	Principal Domestically Produced Food Crop
Peru Period I 1955-1964	The data indicate a disincentive effect on domestic wheat production. Team concluded that the possibility of disincentive effect existed in part due to Title I wheat imports.	The long-run development of wheat production or research to increase wheat production has not occurred. Transport investments to stimulate internal wheat trade have also been minimal.	1. Wheat is single largest import of country. Market development and maintenance objective of PL 480 has been very successful.	Wheat	Wheat, Corn, Potatoes, etc.
Period II 1978- Present	Changes in rice production in the country tend to lag behind producer price changes by about 1 year. Team concluded that PL 480 Title I program does not have a measurable impact.		1. Team reported that producer price of rice was not raised during the first years of the drought; only after IMF negotiating began in 1980 were producer prices increased. IMF wanted to reduce long-run foreign exchange drains via food imports.	Rice	Rice, Wheat, Corn
Sri Lanka	No clear, direct disincentive effect observed on rice production.	The domestic production of coarse grains, e.g., sorghum and finger millet, which increased rapidly in the early 1970s, was likely adversely affected by the increasing availability of PL 480 Title I wheat which was provided on a subsidized basis to consumers via the government ration and now the food stamp program.	1. Title I program has contributed to the government's food ration subsidy program, particularly through the early 1970s until it was changed in 1978. 2. Bread has become the convenience food in the country. 3. The poor benefit most given tastes and preferences for rice.	Wheat	Rice

Sources: Country-specific reports.

In Peru, the study team concluded that the PL 480 program, which has included rice since 1978, did not have a measurable disincentive impact. The evidence of a significant disincentive impact certainly was not discernible. At the same time, it would have been useful for the team to have conducted a careful analysis of the trends in the production of rice and other crops grown in the costa (coastal) area, taking into consideration feasible cropping pattern choices, changes in relative prices between crops that potentially can be grown on rice land in drought and nondrought years, crop yields (taking into consideration the drought of the early 1980s), relative labor time input requirements, and the importance of policy changes leveraged by external donor agencies, e.g., the IMF. Such an analysis would have provided a more in-depth understanding of the domestic production disincentive effect and would facilitate improved programming of the PL 480 resource.

While the evidence in Peru regarding a disincentive effect on domestic rice production was inconclusive, the team, after reviewing the evidence from the earlier period (1955-1964) PL 480 program in wheat, concluded that the PL 480 program did contribute to a "possible disincentive effect" on local wheat production. The trends in domestic procurement prices, production, and imports of wheat also suggest that the 1978 PL 480 wheat procurement continued to reinforce the earlier disincentive impact. (See also the section above on the impact on the food distribution system for additional factors affecting domestic wheat production.)

Sri Lanka provides an excellent example of a PL 480 program in which the primary commodity imported--wheat--was not a direct substitute for the local staple food produced--rice. In that country, there was no direct disincentive effect observed for rice production. However, the possibility of a disincentive effect was observed in the mid-1970s for local production of sorghum and finger millet due in part to the increased availability of PL 480 Title I wheat. Thus, while a direct production disincentive was not observed for rice, the substitution from locally produced, unsubsidized coarse grains to a subsidized imported commodity--wheat--led to the gradual decline in the production of such commodities. This impact was further attenuated by the fact that the subsidized wheat was included in the Sri Lankan food ration (subsidy) program through 1977, and in the food stamp program subsequent to that time, whereas these domestically produced grains were not included. Thus, the impact of altering relative consumer prices via a subsidy program in favor of the imported commodity (wheat in the case of Sri Lanka) on the long-run production of certain domestically available commodities cannot be overlooked.

After reviewing annual wheat procurement price and production data in conjunction with the availability of PL 480 Title I wheat and the timing of government policy toward changes in wheat procurement prices, the Egypt study team concluded that there is strong evidence that a production disincentive effect has occurred. Since the size of the program was large, such an impact is not unexpected. Further, this finding does not address the issue of whether Egypt would necessarily be better off from a comparative advantage perspective if more wheat were grown domestically, particularly given the recent agricultural research advances, which have the potential to increase wheat production by at least 50 percent.[39] Of more importance for the future is determining what are the beneficial effects of the program and to what extent the disincentive effect can be ameliorated.

For Jamaica, the study team argued that PL 480 Title I essentially contributed to increased availability of foreign exchange rather than to increased imports of food. Thus, the team concluded that there was no perceived issue of direct disincentive effects to agricultural production through increased imports of food resulting from PL 480 Title I. The study went on to investigate the important issue of disincentives posed by Jamaica's overall food import policies. Comparing the 1971-1975 and 1976-1980 periods, average annual food imports declined from $140 million to $64 million (constant 1974 U.S. dollars). The trend rate of growth in food production was 0.5 percent per year over the first period, and 5 percent per year over the 1976-1980 period.[40] On the basis of these data, the study asserts that food import policy in Jamaica during the latter half of the 1970s provides a compelling example of the incentive effects of reduced food imports.

The study does not present disaggregated data on production and prices of individual commodities to substantiate this conclusion. However, unpublished reports by the IMF, IBRD, and the AID mission all attest to the stimulus to domestic agriculture provided by reduced imports during the latter half of the 1970s. While the above-reported stimulus to domestic agricultural production is undoubtedly true, analysis of the commodity-specific production impact of PL 480 Title I reveals a significant decline of about 50 percent in domestic corn production

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[39]Such results have been obtained since 1981 in large-scale field trials. Ironically, this research has been funded by recycled currencies generated from sales of PL 480 Title I wheat. See Richard Blue et al. PL 480 Title I: The Egyptian Case, AID Impact Evaluation (Washington, D.C.: AID, 1983).

[40]Based on IBRD data for production of domestic agriculture.

between the initiation[41] of the PL 480 Title I program in 1975 and 1980, the last year for which data are available. Thus, while the general effect of reducing food imports into Jamaica had the general domestic production effect reported above, the commodity-specific evidence differs from the general trend. It is entirely speculative to conclude on present evidence that the country is better or worse off due to a decline in domestic corn production.

In the case of Bangladesh, the team reported that the PL 480 program's most direct impact on food grain production has been to alter government policy on producer prices such that an incentive support pri has been established and maintained throughout the year. By providing the incentive price, the government has encouraged adoption of the technology surrounding the high-yielding varieties of wheat and rice. This incentive price, in conjunction with a government procurement program, has enabled the adopting farmer to receive a "fair" rate of return on the investment. It must be noted that the above-defined policy changes occurred after the shift from a Title I to a Title III program, which guaranteed a modicum of food security over several years to the government. That the government has procured an ever-increasing share of domestically produced food grains since 1975 has provided further guarantees to farmers that the floor incentive price will be maintained.

Since domestic prices on average would have undoubtedly gone higher, it is difficult to say whether the same or greater domestic food production would have occurred in Bangladesh without the additional food grain support obtained via PL 480 and related donor programs, particularly since food security is vital to internal and possibly external political stability. Thus, while there is evidence to suggest that there is a positively sloped supply curve for both major food grains in Bangladesh,[42] such that domestic food grain production has increased during periods of higher prices, holding other factors constant, the shift to the Title III program contributed

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41See Table 7.1, p. 225, IBRD, Jamaica Economic Memorandum, 1981 (Washington, D.C., World Bank, 1981). To more conclusively determine the full effect of PL 480 Title I imports of corn on the decline in domestic corn production, commercial corn import data, farmgate procurement price data for corn and other potentially substitutable commodities, and data on changes in consumption patterns are required.

42See the evidence presented by Gordon Nelson in Chapter 3, The Impact of Food Aid on The Bangladesh Economy, Ph.D. Dissertation in Progress.

to the long-run development of domestic food production by contributing to the policy changes which occurred to facilitate the rate of adoption of high-yielding varieties of wheat and rice.

Second, the direct disincentive effect on a specific, locally produced food is often more easily discernible than indirect substitution effects. In Sri Lanka, if the imported PL 480 wheat had not been distributed via the government's food ration program and coarse grains had been, the indirect effect would not have been observed.

Third, in Egypt, the disincentive effect could potentially be ameliorated by not only increasing domestic procurement prices such that the increased yields obtained from PL 480-financed agricultural research could be realized but also by the government altering its policy of nonprocurement from local sources. Because the government has found ready supplies available for import, often on an attractive price basis, it sees no reason for altering its procurement policy. If wheat production increased, construction price increases also could be contained since wheat straw is used in bricks and floor coverings.

Finally, as discussed above and illustrated by the Jamaica program, it is important to understand the impact of a PL 480 program in light of its contribution to the entire food import policy of the country. In Jamaica, the PL 480 Title I program was tied to a structural adjustment policy reform program, which led to a significant reduction in food imports and thus created a positive environment for local food production. It is small consolation to find that PL 480 had no disincentive effects but that food import policies in the aggregate posed a severe disincentive to agricultural production. Similarly, if PL 480 increases imports of food and tends to depress domestic prices of specific commodities and thus reduce their production while also contributing to an overall food import policy providing appropriate incentives in general, the net impact may be beneficial.

B. Impact on the Food Distribution, Storage, Milling, and Baking Industries

While not all country studies addressed this issue, the evidence from Egypt and Peru should be considered. In Egypt, before the first major PL 480 Title I period, after the 1958 Suez crisis and before the 1967 War, when over 80 percent of all imported wheat was obtained via PL 480 Title I, the government procured wheat from local producers. It was distributed, stored, milled, and baked via many small-scale, owner-operated firms--local private sector industry. After that, the government established public corporations or agencies to import, store, distribute (via rail, barge, or truck), mill, and bake the increasing import share of wheat consumption, particularly that share consumed in urban areas. Increasingly, the government controlled wheat prices, e.g., the transport prices, the input prices to mills, the output price to mills, and baking margins on all wheat products. Today the government's distribution system is the sole marketer of wheat, 75 percent of which is imported. There are eight large flour mills, three or four primary storage points, and relatively few bakeries, with many smaller cities and towns not having more than one per urban area.[43] The employment and income distribution effects of such a shift in the industrial production of food is obviously substantial.

In Peru, a slightly similar story can be recounted. The primary wheat-growing areas in the country are in the sierra and the north-south mountain valleys, whereas the principal markets for surplus wheat production have increasingly been in the coastal urban areas, particularly Lima. The wheat-milling industry has developed along the coast, particularly in Lima, since the early 1900s. By 1940 it had developed into a highly concentrated industry (three main firms) with excess installed capacity and strong ties to major importers. Thus, it is not surprising that little investment of recycled currencies was made during the first PL 480 Title I period (1955-1964) to (a) improve transport from the sierra to the costa, (b) expand storage facilities for domestic production, or (c) improve wheat yields via agricultural research. It was less costly to the government to develop and regulate a set of institutions oriented to the storage, distribution, milling, and baking of imported wheat than to obtain larger surpluses from domestic producers, particularly when a significant share of the imported wheat was obtained at a subsidized price via PL 480 Title I. The development of infrastructural linkages between geographical regions of the country even today lags behind "other priorities." Only recent oil discoveries in the Amazon basin have started to change the situation.

The long-run implications for the structures of a food industry based on imported versus locally produced inputs, controlled or regulated by government, is obviously pervasive. In 1958, A. O. Hirshman analyzed the developmental importance of

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[43] Harold Alderman et al., Egypt's Food Subsidy and Rationing System: A Description, IFPRI No. 34 (Washington, D.C., IFPRI, October 1982).

the expansion of backward- and forward-linked industries.[44] As was mentioned in an earlier section, when an important industry such as food processing, storage, and distribution is gradually uncoupled from the agricultural sector as in Egypt, Peru, and probably Jamaica, these backward and forward development linkages do not grow. Since over 50 percent of all income in most poor countries is spent on food, the potential development linkage represented by that demand to the agricultural sector is increasingly threatened, in part due to PL 480 Title I imports.

C. Impact on Nutritional Status

Table 12 summarizes the country-specific findings concerning the impact of PL 480 Title I on nutritional status to the extent that the studies reported them. These findings are summarized according to impact on (a) food distribution (also discussed above in Section VI); (b) overall per capita caloric intake; (c) child nutritional status; (d) infant mortality; (e) geographic variations in nutritional status; and (f) general conclusions.

As Table 12 shows, Egypt appears to be achieving its nutritional and food distribution goals. Its population has had an increasingly ample supply of wheat and wheat products easily available to all. As of early 1982, the people had over 3,000 calories per person per day available to them from all food sources. This average has continuously increased in recent years from about 2,750 calories in 1977 (see Table 2). The distribution of food is relatively equitable throughout the country, although the rural south has received less on average than other areas. Alexandria and other urban centers in the delta were more favored.

For Sri Lanka, the distribution of food through 1977 was generally equitable, largely because of the food-ration system. Underconsumption was concentrated among the urban poor and the rural landless or near landless. These rural people tend to be located in the poorer, northeastern dry zones and among the tea estate workers in the highlands. The actual per capita, daily caloric supply generally has remained stable around the low level of 2,100 calories. It is doubtful that the recently implemented food stamp program has maintained relatively equitable food consumption in the face of rapid inflation and increasingly inequitable income distribution (see Table 3).

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[44]Albert O. Hirshman, The Strategy of Economic Development (New Haven, Connecticut: Yale University Press, 1958).

Table 12. PL 480 Title I Impact on .'.trition Status

Country	General	Food Distribution	Total Caloric Intake	Nutrition of Children	Infant Mortality	Nutritional Status Across Geographic Areas	Conclusions
Bangladesh	A large pa.t of population is undernourished or malnourished. Available evidence suggests nutritional status of poor has worsened in past 18 years.	Country has many programs to provide food to all, including several food-ration programs, Food for Work, open market sales to minimize price fluctuations, etc. Still there are many who remain deprived, in large part due to the extreme poverty of the country.	Rural poor food consumption was on average 20 percent below internationally accepted daily minimum standards.	From 1975/1976 survey, about 75 percent chronically undernourished, 12 percent of children below age 12 are acutely as well as chronically undernourished. The 2-3 year olds show the greatest proportion of acute and chronic undernourishment (24.5 percent).	Approximates about 160 per 1,000 live births. About 20 percent of children do not live beyond the age of 5. Many cases of infant and child death are related to malnutrition.	Nutrition status tends to be better in cities but still low.	A dismaying finding of the 1975/1976 survey is that every family owning less than three acres (83 percent of the population) was deficient in the intake of calories, calcium, and vitamins A, B2, and C. Food production trends since the survey, however, have been encouraging, and figures from the 1981/1982 survey should show some improvements. Since food aid provides a large share of total consumption, it provides a minimum floor on nutrition.
Egypt	Government fulfilling goal of wheat bread requirements.	Food distribution is quite equitable. Most disadvantaged (40 percent of population) receive 30 percent of wheat.	Over 3,000 per capita per annum.	1-5 percent severely malnourished. More than 3 percent are overweight.	When disruption of wheat, for any reason, infant mortality rate increased in subsequent year. (Study Hoda Rashad, 1981.)	Most favorable in Alexandria, small cities, large villages. Least favorable in rural areas, especially in south.	Nutritional status - improved. Increasing percent of population overweight.
Jamaica	No information is available from country study.	No information is available from country study.	No information is available from country study. See Table 2.	No information is available from country study.	No information is available from country study.	No information is available from country study.	No information is available from country study.
Peru	Many serious nutritional deficiencies.	Programs probably not consistently reaching those most in need.	No information is available from country study. See Table 2.	Up to 5 percent malnourished or undernourished.	1976 - Deaths of children under 5 accounted for nearly 1/2 of all mortality--primarily attributed to malnutrition and poor sanitation.	Generally poorer in rural areas than in cities.	Title I has not affected food consumption and nutrition on a macrolevel. However, it supports and allows for the expansion of Title II direct feeding programs.
Sri Lanka	Underconsumption serious problem for certain groups: urban poor, rural landless, and near landless laborers.	General food distribution is equitable, particularly under rations program. PL 480 Title I is consumed primarily by urban poor.	No information is available from country study. See Table 2.	Some evidence supporting slightly improved status. 1976 - 35 percent chronically malnourished. 1980 - 27 percent.	37 per 1,000 live births.	Poor in dry zones (north and eastern regions) and the highlands (estate workers).	Overall, no evidence that PL 480 Title I commodities have directly improved food consumption of any nutritionally at-risk groups.

Source: Country-specific studies, [illegible] 1983.

In Peru, the distribution of food, like the distribution of income, is very unequal. Many serious nutritional deficiencies were reported by the study team. Food availability in 1977, as measured by average per capita calorie supplies, was low compared to countries with similar per capita income levels, with the estimated average daily per capita intake being about 2,275 calories. Limited evidence reviewed by the study team indicated a worsening nutritional situation during the 1970s. Given both the small size and the commodity mix of the PL 480 Title I program, which has emphasized high-quality rice consumed primarily by the more affluent urban dwellers, the direct nutrition impact has been minor. To the extent that currency proceeds from the sale of Title I commodities help finance Title II feeding programs, it contributes to the nutritional status of the program's beneficiaries.

In Bangladesh, the limited evidence on nutritional status suggests that much of the population is undernourished or malnourished, with the poor being worse off than 18 years ago. The problem is primarily related to the poverty in which they live. Without food aid many people in the country would not be able to eat. Even with the substantial food production improvements of recent years, Bangladesh only produced two-thirds of its targeted self-sufficiency food grain requirements in 1982. This self-sufficiency level of food grains would provide an average of slightly more than 1,500 calories per person per day in 1985, which is at least 30 percent below minimum daily requirements, assuming the population will continue to consume most of its calories in the form of food grains.

The nutritional status of a population is often mirrored in the nutritional status of the children. Data presented in the country studies suggest that the nutritional status of children in Egypt, and, to a lesser extent in Sri Lanka, is good and perhaps has improved over time. In fact, the evidence from Egypt suggests that a problem is emerging with increasing overweight, with certain chronic diseases such as diabetes becoming more common. In Peru, on the other hand, infant deaths constitute nearly one-half of all mortality. This mortality is said to be strongly associated with malnutrition and poor sanitation. The children of Bangladesh face serious malnutrition during their first years of life. A survey conducted in the mid-1970s showed that nearly one-fourth of the 2- to 3-year-olds were acutely or chronically undernourished. An infant mortality rate of about 100 per 1,000 live births reflects the results of such malnutrition.

D. Impact on Dietary Patterns

Clay and Singer suggest that long-lasting disincentive effects can be introduced by altering consumer tastes and preferences for specific foods away from traditional grains to PL 480-supplied wheat and rice.[45] An important distinction must be made between changes in diet associated with rising incomes or modernization and those which are primarily associated with changes in relative prices. If the dietary changes which occur, and which are associated in part with the implementation of PL 480 Title I programs, are primarily due to relative price changes, perhaps partially controlled by the government, then alternative policies can be used to modify their long-run agricultural development implications. On the other hand, if these dietary changes are income and/or prestige related, then it is more difficult for changes to occur from modification of the commodity mix or other aspects of PL 480 program implementation.

Table 13 summarizes the evidence about changes in dietary patterns from the country-specific studies. From the three studies reporting on the dietary-pattern impact, the evidence suggests that the primary dietary-change impact results from changes in relative prices. For example, in Egypt over the 1970-1977 period, cereal prices, primarily wheat, have declined by as much as 50 percent relative to other food items. It is not surprising to find that the Egyptian diet in 1982 contained more wheat-extracted calories than previously.

The limited evidence on the reduction in coarse grain production, given the introduction of a "cheaper" alternative to consumers in Sri Lanka, represents another example of relative price changes affecting dietary patterns. In the Sri Lanka case, the evidence also suggests that relative time savings in food preparation in favor of wheat over rice and ease of handling have led to increases in wheat consumption in a country which for many cultural and culinary reasons would otherwise prefer to eat only rice.

Data are not currently available to permit full understanding of food consumption behavior in Peru and the role that PL 480 Title I has or may have had in the past (1955-1964) in influencing dietary patterns. Because the urban and rural economies of the country are not well linked, particularly between the coast and the interior regions, and because the diets and food markets are distinct, the impact of PL 480 Title I on dietary patterns can only be found in the urban sector.

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[45] Clay and Singer, Food Aid and Development, p. 32.

Table 13. Changes in Dietary Patterns

Country/Report	General	Differences in Dietary Patterns of Rural and Urban Dwellers	Explanations for Change	Effects
Clay-Singer Paper	Change of taste - most serious criticism in sense of long-run or permanent disincentive effects.		Aid itself - where it results in the introduction of unfamiliar foods not capable of being competitively produced in recipient country. However, aid not necessarily causally connected with change. Also, modernization, urbanization. (Such changes often begin with higher income groups that do not directly benefit from aid.)	Shifts demand from local to imported food products.
Bangladesh	PL 480 Title III primarily provides wheat, with small quantities of rice and fats and oils. Between 1964 and 1975 wheat consumption increased from 3 to 6 percent of total ingested calories. Rice consumption remained stable and animal products fell.	No information is available from country study.	Food aid contributed to increased wheat consumption. Domestic wheat production has also increased significantly, especially since independence. Domestic rice production fell in the first years after independence but has increased in recent years.	Food aid maintained a precarious, if not declining, caloric intake. No information about relative price changes.
Egypt	Since 1978, wheat consumption increased nearly 24 percent. As such, greater ingestion of wheat carbohydrates in a highly refined form.	No significant difference.	Cereal prices fell heavily (20-50 percent) relative to all food and consumer items between 1970-1979.	Increased per capita caloric diabetes (and possibly other chronic diseases as well). Increasing proportion of population overweight.
Jamaica	Corn made up bulk of commodities supplied.	No information is available from country study.	No information is available from country study.	No information is available from country study.
Peru	Title I helps the GOP to assure supplies of traditional and basic foodstuffs.	Urban (Lima) - high proportion of imported products such as bread, spaghetti, evaporated milk, chicken, vegetable oil. Rural - depends almost exclusively on domestic products, principally tubers, corn, cassava, and locally grown wheat and barley. Therefore, effect greater on urban population.		Food consumption on a macro-level not affected.
Sri Lanka	Wheat, the principal commodity imported under Title I, not produced within Sri Lanka to any significant extent.	Wheat consumption by nutritionally at-risk groups is low, except for tea estate workers.	Due to temporary scarcity, since World War II, wheat flour and bread played important but secondary role in diet.	Close substitution between rice and flour depending on the price differential between the two. Rice still generally remains the preferred and major source of food.

Source: Country-specific reports, 1982, 1983.

In Bangladesh, wheat consumption as a proportion of the diet doubled from 3 to 6 percent between the early 1960s and the mid-1970s, while rice consumption has remained stable. The recently completed institutional survey (1981-1982) will provide additional information on the extent to which this dietary shift has continued. In addition, domestic wheat production has increased significantly, especially since independence. It appears that rice production has also increased, especially since 1975. Information about changes in relative prices remains limited, so a full understanding of the apparent shift in dietary patterns is unavailable.

Finally, there is a present lack of information about dietary patterns and how they change in at least two of the five countries. It is particularly important to learn more about the impact of changes in relative prices on such patterns, to improve the understanding of the short- and long-run impacts of these potential effects and thus to improve the programming of PL 480.

E. The Developmental Use of Local Currency Sales Proceeds

Despite the possibility that PL 480 Title I food aid may have certain costs associated with it in the form of disincentive impacts and/or changes in dietary patterns which can affect the long-run development of the agricultural sector, if the country judiciously uses the financial resources acquired from the sale of the food aid, long-run development objectives may be enhanced. To achieve such development objectives, PL 480 Title I programming has been "strengthened" over the years via legislative amendments to require that "local currency sales proceeds" be used in "developmentally sound," self-help activities.

Table 14 presents a comparative analysis of the country-specific evidence from the case studies to ascertain the extent to which developmentally sound uses of local currency sales proceeds via self-help agreements have been implemented. With the exception of Peru, the other countries' self-help agreements were very generally specified, wording was left unchanged for years, and evaluation of activities funded could not be accomplished because of lack of specificity in objectives. Most agreements emphasized rural and agricultural development but, until the most recent period, were not precise in terms of program focus.

Table 14. Self-Help Agreements and the Use of Recycled Currencies

Country	Sector Emphasis in Self-Help Agreements	Tracing of Local Currency Sales Proceeds	Other Comments
Bangladesh	1. General focus under Title I, but since last Title III in 1979, there has been agreement on specific policy reforms. The establishment of price incentives in production, OMS in food grain marketing, consumer subsidy reduction, and reform in ration programs represent important examples.	1. Not traceable in past. 2. AID considered entering in dialogue to more carefully monitor the programming of local currency proceeds.	1. Agriculture and rural development are the cornerstones of Bangladesh development policy. The pressure of the next meal imposes it.
Egypt	1. Since 1977 focus had been on improving agricultural development including nutrition and rural development. 2. There were changes in specific data collection, and agricultural research important throughout. Agricultural policy analysis more important in recent years along with role of private sector. 3. Increased specificity occurred over time.	1. Resources could not be traced into budget. Currency goes into general revenue. 2. Agricultural sector proportion of total recurrent and capital budgets declined over 1974-1982 period.	1. Increasing program specificity would reduce flexibility of programming and increase administration costs to GOE and USAID.
Jamaica	1. Covered several sectors, e.g., agriculture, health, housing, education, and nutrition. 2. Evaluation of these was not feasible since accomplishment could not be assessed.	1. Local currencies were targeted to self-help sectors. 2. Used as counterpart guaranties for other AID projects. Thus, government financial obligations were met in a timely manner.	1. Self-help reports submitted by GOJ not useful in trying to assess impact.
Peru	1. Agriculture, irrigation, development of jungle land, little roads, rural development in general. 2. A specific list of projects was contained in the Memorandum of Agreement.	1. Were jointly programmed with even greater specificity. 2. Used for counterpart purposes. 3. Used to guarantee GOP forward funding of programs. 4. The 1977 period and after were based on the earlier precedent of careful U.S. control and disbursements to Peru development projects.	1. Used to fund Title II operating costs of Food for Work projects. Thus, expanded impact of that program. 2. Started projects that became successful and were then handled by government.
Sri Lanka	1. Most self-help agreements were very general. 2. The few with specific targets were out of date since target had already been met, e.g., paddy production.	1. Currency goes into government general fund. No tracing is possible. Government budget priorities are sound from a developmental perspective.	1. The government has always emphasized rural development and distribution equity in development programs. Thus, agreements were superfluous.

In Egypt and Sri Lanka, in part due to the long history of their respective programs (e.g., nearly 20 years compared to 10 or fewer years in the other countries), the local currency proceeds could not be traced to the funding of specific government programs or activities. In Sri Lanka, it was believed that the local currency was used wisely because of the government's commitment to an equitable rural development strategy. In Egypt this was unclear. Certain activities were funded and identified in the budget (e.g., agricultural research), but sectoral priorities of self-help agreements were not revealed in trends in the sectoral proportion of government budgets or expenditures. In both countries, efforts to further specify agreements and programming would be met with vigorous bureaucratic opposition.

In Bangladesh, local currency sales proceeds basically cannot be traced. However, with the shift of the program from Title I to III in 1979, several policy changes occurred, e.g., production price incentives, OMS foodgrain marketing, reductions in consumer subsidies, and ration program reform. Further, there is increased interest in more careful monitoring of the local currency sales proceeds and an effort to develop more specific projects to be funded by these currencies. Since the country is continually faced with the realities of low food supplies, it is not surprising to find government priorities focusing on agriculture and rural development.

In Jamaica and Peru, the AID missions engaged in more precise joint programming of the local currency proceeds, and the respective USAID mission carefully considered using these currencies for counterpart funding. In Peru, USAID maintained even more control, de facto projectized the self-help agreements, and established a development committee of senior government officials to plan the use of Title I sales proceeds. With the knowledge that these proceeds would eventually be forthcoming, they were used as a guarantee by the Peruvian Government to disburse their own financial resources to forward fund projects identified as development activities.

While it was virtually impossible to evaluate the self-help agreement activities in Jamaica given their vagueness, the evaluation team reviewed in detail the projects identified as composing the list of self-help activities in Peru, some being given on-site review. Both teams concluded that implementation was variable.

Finally, in Peru some local currency proceeds were used to fund a part of the operating costs of the PL 480 Title II Food for Work program, which enabled the program to extend its impact. While the program use of local currency proceeds in Peru was generally developmentally appropriate, the actual implementation of said activities warrants separate careful study to determine their full development impact.

F. Policy Dialogue[46]

It is generally assumed that all forms of U.S. aid including food aid will be used to leverage economic and agricultural policy changes where necessary. An investigation of the leverage effect of PL 480 Title I on each country's economic and agricultural policy is difficult. In all studies, little if any specific policy could be identified as having been altered in a desired direction via the policy dialogue process, particularly as a direct consequence of PL 480 Title I programming. In Egypt, there has been a longstanding desire to change the agricultural procurement process and reduce consumption subsidies on bread and other items; however, little progress can be ascribed to the presumed leverage potential of AID's large Title I program. Nor was much specific progress noted in the other country case studies, although it is possible that the unique manner of program implementation in Peru, which requires joint U.S. and Peruvian programming, has provided a mechanism for policy dialogue and possible policy change. In the case of Jamaica, the PL 480 program was integrated with an IMF standby agreement which had incorporated several policy reform conditions which the program helped to reinforce.

In Bangladesh, the PL 480 program was shifted from a Title I to a Title III program in 1978. This decision was made given the extreme poverty of the country and its obvious difficulties in generating significant balance of payments earnings to repay the modest nongrant element in a Title I program, and given the importance of altering key agricultural and other policies designed to increase domestic production, stabilize consumer prices, create a national foodgrain security system, and, more recently in 1982, to expand private sector involvement in food processing, storage, and distribution, and in other agricultural activities. It is noteworthy that the bargain struck in 1978 and strengthened in 1982 has been agreed to by both the United States and Bangladesh, with the latter following through on its policy reforms and its willingness to further address existing policy issues. A similar suggestion has been made by Eicher to enhance policy reform in a number of African countries.[47] Also important to mention is that the IMF and the World Bank are in full agreement with these policy reform efforts and have eased the way in this regard.

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[46]For an in-depth analysis of AID's policy pursuant to the policy dialogue process, see AID, Approaches to Policy Dialogue, Policy Paper (Washington, D.C.: AID, 1982).

[47]Eicher, Carl K., "Facing up to Africa's Food Crisis," Journal of Foreign Affairs, 61 (Fall 1982), pp. 151-174.

VIII. OTHER PL 480 TITLE I IMPACTS

Given the numerous purposes, implementation actors, and potential beneficiaries and cost bearers in both recipient countries and the United States, each country impact study found that it was important to analyze the extent to which the impacts of the program extended beyond the developmental goals of AID programming. Perhaps Mitchel Wallerstein has best captured and distilled the extent to which the PL 480 program not only has multiple objectives, but also social, political, and economic impacts.[48] (In Figure 3 Wallerstein's framework is reproduced to show these impacts as well as the articulation between objectives and impacts.)

In conducting the country studies, the authors identified three other sets of impacts which warranted analysis. These were the impact of PL 480 Title I on (a) food security, (b) foreign policy objectives, and (c) agricultural market development.

A. Food Security

With the exception of Bangladesh, none of the other country case studies explicitly referred to the role of the PL 480 Title I program in relation to a country's food security concern, i.e., "the assurance of a minimally adequate level of food consumption."[49] The data presented in the Egyptian study, however, clearly reflect the ever-growing awareness by the Egyptians of the importance of the PL 480 Title I program in light of the country's wheat production and consumption gap. The country's price and procurement policies implemented since the mid-1950s reflect the availability of PL 480 Title I. Further, the Egyptian desire in recent years to obtain a guaranteed supply of wheat rather than a guaranteed dollar value reflects the country's concern for food security.

Similarly the Sri Lanka country study concluded that the country's food shortage of 1974 and 1975 was not satisfactorily addressed by the U.S. PL 480 Title I program. Most of the food obtained during the shortage crisis was provided by other donors.

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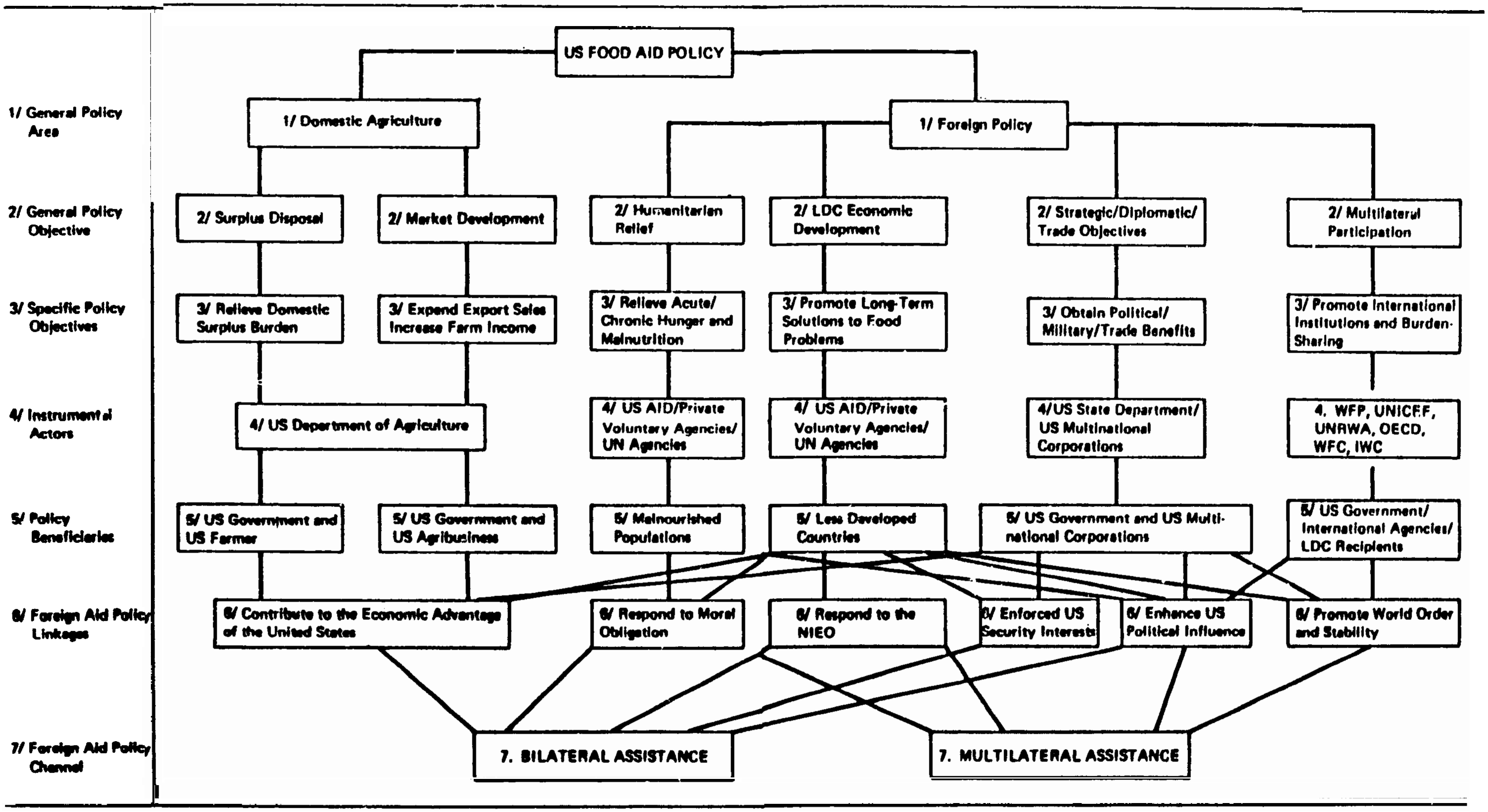
[48] Wallerstein, Food for War-Food for Peace. See Introduction.

[49] Shlomo Reutilinger and Keith Knapp, Food Security in Food Deficit Countries, World Bank Staff Working Paper No. 393, (Washington, D.C.: World Bank, June 1980), p. 1.

Figure 3. The Multiple Objectives and Policy Impacts of PL 480 Title I



A conceptual model of US food aid policy.

Source: Mitchel Wallerstein, Food for War-Food for Peace, (Cambridge, Mass.: The MIT Press, 1980).

This lack of response by the United States during this crisis period, however, was in part due to the lack of significant USAID program support between 1971 and 1977 when the AID Mission was closed.[50]

In Bangladesh the issue of food security is a primary concern of the political leadership. By changing to a multiyear Title III agreement in 1978, and by improving its management procedures and policies concerning its food reserve holdings, the country has made significant improvements in addressing its food security problem. Additionally, it has made important strides in reducing the acute nature of the food security problem by providing the farmer with incentives to expand domestic foodgrain production, and progress has been made toward reducing the gap between minimal consumption requirements and domestic production. An agricultural policy and planning unit has been established in the National Planning Commission to develop and furnish data and analyses to key government officials for decisionmaking purposes.

Given the procyclical nature of the way in which the PL 480 program is funded, i.e., on a dollar rather than on a guaranteed tonnage basis, it is understandable how this program can be perceived as being unreliable (particularly to those countries whose program is modest, e.g., less than $20 million) for addressing country-specific food security concerns.[51] Whether food security concerns should become a significant objective of Title I, given the multiplicity of other objectives, remains an issue for further deliberation. Certainly, improved multiyear funding guarantees within Title I may provide countries with greater certainty about the extent of subsidized food imports so that they can better plan for the potential food security problems they may face in the future.

B. Foreign Policy Objectives

As Wallerstein emphasizes in Figure 2, the achievement of foreign policy objectives is one of two dominating themes underlying the PL 480 Title I program. While the country studies were not requested to specifically address the impact of the PL 480 Title I program in attaining this multifaceted objective, it was given attention in at least four country studies.

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[50] Steinberg et al., Sri Lanka: The Impact of PL 480 Title I, pp. 6, 7.

[51] For further treatment of the procyclical nature of the PL 480 Title I program, see Clay and Singer, Food Aid and Develoment, pp. 21-24.

Egypt's and Sri Lanka's strategic locations have provided them with leverage to obtain extra foreign policy attention. Egypt, because of the Suez Canal and its traditional Middle Eastern leadership position, has received obvious attention. More recently, by facilitating the Middle East peace process under the guidelines of Camp David, Egypt has accentuated this attention. By providing rapid-dispersing assistance via PL 480 Title I, the United States continues to invest in a friendly relationship with an important geopolitical ally. Similarly, Sri Lanka lies in proximity to important merchant shipping lanes for oil from the Middle East to Japan and is close to U.S. naval and air facilities in the western Indian ocean. Thus, even though the Sri Lanka Government of the early 1970s took a leftist, nonaligned position, the PL 480 Title I program continued throughout the period.

In Peru, Sri Lanka, and Jamaica, the PL 480 Title I program was either renewed or significantly increased when it became possible not only to maintain democratically elected governments, but also to foster change via the election process toward a government with a more sympathetic view toward the United States. The renewal of PL 480 Title I assistance to Peru in 1978 helped stabilize the economy enough to permit national elections in 1980. The new president, Fernando Belaunde, has contributed to an improved relationship between the United States and Peru. In 1980 an election was held in Jamaica, which led to a government that was more sympathetic to the United States. Finally, by maintaining support for democratically elected governments in Sri Lanka, even though generally unfriendly to the United States during the 1970s (up to 1977), the United States was able to benefit politically when the elections held in 1977 brought into power a more politically conservative government.

The principal foreign policy motivation underlying the entire development assistance program to Bangladesh, including the PL 480 program, is to be viewed internationally as responsive to the impoverished human condition of the people of that country. It is also in our self-interest to have an independent and politically stable Bangladesh in that part of the world. Given that food shortages can destabilize the country and region, the PL 480 Title III program is eminently sensible from a foreign policy perspective.

Finally, PL 480 Title I was used to obtain certain foreign policy or other political objectives. In the case of Egypt, the reintroduction of the PL 480 Title I program in 1974 was used by Henry Kissinger as part of an interim Middle East peace agreement, and in 1978 was incorporated into a larger Camp David peace agreement between Israel and Egypt. The continuance of a high level of commitment has also enabled the government to maintain internal political stability after the assassination of Sadat, when any significant food price movements undoubtedly would have led to increased political instability.

The implementation of the PL 480 Title I program in 1975 in Jamaica conveniently coincided with the bilateral talks which focused on the future of U.S.-owned bauxite deposits in that country. Sri Lanka's influential role in the nonaligned countries and the Group of 77, which has continued to restate the importance of the North-South dialogue, has also facilitated its obtaining continued PL 480 Title I support.

The fact that the resource has quick-dispersing capabilities relative to other forms of support has meant that the PL 480 program has given foreign policymakers a greater degree of flexibility than would be the case without such a program. The five country PL 480 Title I impact evaluations provide the empirical data which highlight the program's importance and impact in the foreign policy area.

C. Agricultural Market Development

It has long been maintained that since a number of PL 480 program "graduate" countries have become large commercial customers for products formerly provided on a concessional credit basis via the PL 480 Title I program, the program has proved to be an important long-term market development mechanism.[52] While this objective, in conjunction with surplus disposal, has been one of the primary, motivating domestic political reasons for enacting and continuing this program, the evidence provided in the country impact evaluation case studies does not support this commonly held view; rather, the term "market maintenance" may better describe the usefulness of the program than the term "market development."

In Sri Lanka and Jamaica, it was acknowledged that market development objectives were only a minor consideration in program planning and development. In Jamaica, however, the team also concluded that the Title I commodity shipments served as a means of maintaining market access during the severe balance of payments difficulties encountered in the 1977-1979 period. Confirmation of this conclusion was provided by the team when it observed that a resumption of normal commercial sales levels had occurred after the severe balance of payments difficulties had eased.

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[52]See Department of State, Bureau of Public Affairs, "Agriculture in U.S. Foreign Economic Policy," G.I.S.T., January 1983.

According to the Peru report, the country is actively striving to achieve self-sufficiency in rice. In years when they do, they will not want to import rice even on concessional terms. They have implemented a policy to take effect in 1983 to eliminate rice subsidies to reduce demand and, thus, to reduce rice import requirements. With respect to the earlier wheat program in the late 1950s and early 1960s, the PL 480 Title I program was important to U.S. commercial sales interests, since after the early 1950s there was increasing competition for Peru's commercial purchases of wheat from Australia, Canada, and Argentina. The Title I program effectively reduced the price of U.S. wheat relative to other competition.

In Egypt, even though total commercial purchases of wheat have increased since 1975, commercial purchases of wheat from the United States have declined. However, USDA carefully reviewed the situation in early 1980 and reiterated the domestic (U.S.) importance of such sales to the government of Egypt. The level of U.S. sales between 1980 and 1981 increased dramatically as a consequence. Egyptians, however, have taken the view that economic considerations (i.e., price, given quality) will dictate their international commercial purchasing decisions. The United States must realize that it faces many other actual and potential donors which, for their own domestic reasons, are after a greater share of international agricultural markets, particularly those that are in physical proximity, e.g., France to Egypt.

IX. SUMMARY AND LESSONS LEARNED

Many specific findings, recommendations, and lessons are contained in each of the country studies. In this section, the recurring themes are highlighted. In addition, other salient points resulting from this summary analysis are presented.

There are two principal recurring themes which emerge from the country studies. First, in all studies except Egypt, there is discussion about the need to fund Title I on a multiyear basis. It is ironic that, for political reasons, the United States has de facto provided Egypt with such a program, with the only major issue being the level of support. All the other programs emphasize the importance of guaranteeing the availability of counterpart funding, which is used to support other USAID project implementation. Without a long-term commitment, project development from AID's perspective, as well as general government planning, is conducted less efficiently. One option worthy of further investigation is to explore the implementation of a little-used provision in the Title I legislation, Section 413, which provides for multiyear funding. Creative implementation of this provision can be established for the benefit of both the United States and Title I food aid recipient countries.

Another option available for multiyear funding of food assistance is via Title III. However, both potential recipient countries and USAID missions generally view Title III with skepticism, given the high administrative burdens placed on both AID and the recipient country. However, the experience of the Title III program in Bangladesh should allay any serious fears in this regard. The country and the mission have worked out the necessary administrative mechanisms and reporting requirements in part by developing a food policy planning and monitoring unit in the National Planning Commission. Further, Bangladesh is unique in the sense that all the domestic incentives are operating in the right direction to facilitate the agricultural sector policy changes necessary to use the food resources provided via Title III in a developmentally responsible manner.[53] To the extent that other countries are equally serious about implementing and then administering such policy reform, the evidence from Bangladesh suggests that Title III is a viable option.

Second, with the exception of Peru, the country studies are highly critical of self-help agreements (refer to Table 14). They were too vague, or not implementable or amenable to evaluation. The Gilman-Solarz amendment, which requires more measurable outcomes to the specific self-help agreements, may improve programming. However, administrative resistance encountered from recipient countries may make these requirements difficult to implement, particularly in countries that have enjoyed relatively flexible use of the local currency sales proceeds, e.g., Egypt and Sri Lanka. One way to get around these difficulties is to initiate a rolling 5-year indicative planning exercise with the recipient government. A similar exercise has begun in Peru. The continually revised plan would provide a multiyear planning horizon for prioritizing project sectors and identifying and implementing specific activities as new sales proceeds become available to the government. The Sri Lanka team has proposed the development of such a strategy to improve the self-help component of present agreements.

Third, the studies emphasized that Title I programming must be coordinated with the recipient country's budgeting cycle. In addition, the Title I agreement must be signed earlier in the annual cycle to provide greater flexibility to

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[53]For further information about this aspect of the Title III program in Bangladesh, see Richardson et al., Bangladesh: Food Aid.

ensure appropriate commodity mix, improved shipping arrangements, and adequate storage provision. Improving these details would save PL 480 resources and lead to fewer market disruptions in the recipient country.

It was also recommended that improvements could be made in coordinating all donor food aid so that shipping constraints, port facilities, storage, and distribution could be improved. Further, when food aid was considered as a part of an entire donor package designed to improve and restructure a country's economy, it was considered important that more explicit provisions be negotiated with such institutions as the IMF to ensure progress toward these more general objectives prior to PL 480 disbursements and shipments.

The Bangladesh study highlighted the importance of government commitment to agricultural policy change. The continual food deficit in the country daily reinforces the food security issue and the importance of providing all food producers in the country with the incentives to maximize their production. The multiyear commitment of the Title III program provides a certain short-run security to the government, and it has implemented many of the necessary policy changes to increase local production, including increased procurement prices to farmers and reductions in commercial price fluctuations over the year.

The studies have helped to highlight much progress which has been made toward understanding the multifaceted sets of impacts of PL 480 and how the various countries and USAID missions have worked to resolve their negative developmental aspects. But the collective experience of these evaluations reinforces the fact that many knowledge gaps remain. These gaps reiterate the importance of conducting additional research to more precisely identify the nature and extent of short- and long-run disincentive effects and the contribution of policies, in part reinforced by PL 480 Title I programs, to these impacts. The accumulating Bangladesh experience with a multiyear Title III program which has facilitated policy change may demonstrate how to ameliorate the negative disincentive effects. It also was considered necessary to know more about the relative importance of disincentive effects in marginal programs compared to large programs, and where substitution between local versus imported commodities is not the primary issue. Finally, since production disincentive effects are in part shaped by changes in dietary patterns, which in some countries appear to have been altered by the existence of subsidized imported food items, it is important to develop additional knowledge from all sources about changes in food consumption and the role of food aid in contributing to these changes.

In conclusion, these five country case studies reinforce the importance of continued monitoring of AID programming via evaluation studies. The range of program experience embodied in only five countries is great, as is the degree of impact on various developmental indicators. To suggest that this exercise has now reached a point of diminishing returns is unrealistic. AID can continue to improve its programming of this resource for increased developmental impact by learning from its own experience.

APPENDIX A

SCOPE OF WORK: PL 480 TITLE I IMPACT EVALUATIONS

There are at least three sets of impacts requiring investigation. If the analysis suggests that linkages may exist between the sets of effects either as causal factors or as background constraints, it is important that the analysis carefully document them.

I. The first set of impacts occurs via the direct infusion of food commodities into a country. The relevant questions to be answered include:

A. Impacts on the food production and distribution system

1. Where does the food go?

    a. What are the characteristics of the final recipients of each type of food aid and at what price?
    b. How many middlemen handle each commodity at each level of the distribution system (i) between the port of entry and final consumption (what is the competitive structure of the distribution system at each point in it, including the transport services employed at each point?) and (ii) what is the price of the product at each point?

2. What was the food production and distribution system like before the PL 480 Title I program in rural and urban areas?

    a. How has it changed to the present?
    b. What new infrastructure was required to handle PL 480?
    c. Who made the infrastructure investments and in what part of the system? (i) Did AID, or was AID involved and if so how (e.g., new port facilities, storage, milling facilities, transport, investments, and marketing); (ii) was the private sector of the country involved and if so how; and (iii) what was the role of the government?

3. What were the trends in food prices in rural and urban areas before PL 480 Title I and after its initiation?

    a. Has there been food aid assistance during this period other than PL 480 Title I by AID, e.g., Title II, or from other donors?
    b. How does this additional aid affect supplies and prices?

B. Impacts on nutritional status

1. How should the target population be determined?

2. How should impact be measured (records of malnutrition in hospital statistics)?

C. Impacts on dietary patterns

1. What are the implications for continued food impact dependency via changes in consumer preferences?

2. What imported food can be grown in the country if PL 480 Title I program ends?

3. What are the long-range economic effects of dietary patterns?

    a. On domestic food production?
    b. On balance of payments?
    c. On opportunity cost vis-a-vis other investment alternatives?

D. Agricultural sector effects

1. What domestic food production trends are due to changes in domestic food prices resulting from PL 480 Title I imports?

2. What changes have occurred in agricultural land use patterns or land tax structures, such as changes in the distribution of land for alternative uses?

3. What are the land ownership effects, e.g., which population group sells land when disincentives exist (disaggregate analysis across commodity groups)?

E. Macroeconomic effects

1. What are the balance of payments trends?

2. What are the trends in inflation, particularly in food prices?

3. What are the effects for currency stability vis-a-vis hard currencies and SDRs?

4. What are the GNP or GDP growth rate differentials before and after program?

II. The political impact of food aid

A. Impacts on internal stability, i.e., number of coup attempts before and after PL 480 Title I; relate to trends in food prices and wage increases

B. Were key defense pacts or U.S. military bases retained or developed with PL 480 as part of quid pro quo (monitor ambassador cable traffic for information on such "impacts")?

C. Other political alliance or strategy effects; enumerate, e.g., food security goals

D. Policy leverage: delineate policy changes affected by sector and what the impact on policy has been

III. Indirect effects, i.e., effects related to the use of domestic currency generated from sale of food

A. What was the currency used for by year and sector?

B. How has it been accounted for?

C. What has been the pattern of growth of new activities initiated by domestic currency?

D. What has been the effect on the development of new economic enterprises?

1. If economic enterprises were started, what has been their history of economic growth, employment, and market penetration?

2. What is the competitive nature of that sector of the economy?

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3. How many enterprises have gone bankrupt (disaggregate by sector)?

E. Did individuals receive special training or education?

1. Did the individuals remain in the country or migrate?

2. If the people migrated, what has been their pattern of remittances from abroad?

3. Did the people remain in the field of initial education?

F. Other? Enumerate!

APPENDIX B

PL 480 TITLE I
IMPACT EVALUATION TEAMS

BANGLADESH

BANGLEDESH FOOD AID: PL 480 TITLE I AND TITLE III

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EGYPT

PL 480 TITLE I: THE EGYPTIAN CASE

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JAMAICA

JAMAICA: THE IMPACT AND EFFECTIVENESS OF THE PL 480 TITLE I PROGRAM

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JAMAICA (cont.)

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PERU

THE IMPACT OF PL 480, TITLE I IN PERU:
FOOD AID AS AN EFFECTIVE DEVELOPMENT RESOURCE

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SRI LANKA: THE IMPACT OF PL 480 TITLE I FOOD ASSISTANCE

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