

# Background Paper and Guide to Addressing Bellmon Amendment Concerns on Potential Food Aid Disincentives and Storage

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## I. Summary

This paper provides a background discussion of the potential disincentive effects of food aid on the recipient country's domestic production and marketing. It also presents guidelines to strengthen country Team analyses

supporting the "Bellmon determination" made by the Secretary of Agriculture. This determination must conclude that, at the time of export of PL 480 commodities, local facilities will be adequate to store the commodities and no substantial disincentive to domestic production and marketing will result. The determination is required for all food aid programs - Titles I, II and III.

The purpose of this paper is to insure that there is sufficient information for the Secretary of Agriculture to make a "Bellmon" determination. It's anticipated that substantial disincentive issues will be found in only a few countries. Thus, for most countries, analyses should include only enough information and data to show that substantial disincentives aren't likely to occur. As many missions already submit sufficient analyses, little if any additional analysis beyond what is now being done will be required.

Present Bellmon reporting procedures will continue. However, Missions requesting PL 480 programs will also report annually in their "Action Plan" submissions if the volume of food aid or any other factors lead the Country Team to suspect the possibility of substantial disincentive effects attributable to food aid. If disincentive effects are suspected, the Country Team should indicate that the detailed analysis will be completed prior to the fiscal year the commodities will be shipped. This will allow time to complete the analysis and identify appropriate self-help measures or other corrective actions without unduly delaying PL 480 negotiations.

If a country has been identified as needing more detailed analysis because of possible disincentive issues, country Teams are encouraged to undertake the analysis in conjunction with the CDSS/CDSS Update preparation when possible. If PL 480 negotiations are to be used to encourage policy changes, these should be fully discussed in the CDSS/CDSS Update.

The paper is organized as follows: Research findings are first discussed which indicate the conditions characteristic of disincentive situations. Next, the paper outlines analytical requirements and describes the information to be included in the analysis. Ways are then suggested for designing food aid programs to produce "incentive effects" and minimize disincentive effects on local agricultural production and marketing. The paper concludes with a listing of specific criteria for judging the adequacy of storage and handling facilities.

The analysis required depends upon the relative share of PL 480 food aid to total staple food consumption. As the proportion rises, the potential for possible disincentive effects rises and the level of analysis should increase. Where the proportion approaches 10 percent or more over the past five years, a thorough examination may be required. Statement in the annual Action Plan Regarding the disincentive question should include reference to this percentage.

It's recognized that other variables in addition to the volume of food aid bear on whether PL 480 food aid will have a positive or negative impact on local agricultural production. Such variables might include the extent to which food consumption is commercialized, the timeliness of food aid (and commercial import) arrivals, the price elasticities of demand and supply, the ability of low income households to acquire food, and the degree of substitution among different food commodities. Thus, there may be situations where even though the PL 480 food aid is minor, disincentive effects may still occur. In such cases, more detailed analysis is encouraged.

In addition to strengthening the Bellmon Determination, the analysis should be useful in preparing the Mission's country development strategy, assessing the host country's agriculture sector, developing a policy dialogue, defining self-help measures and identifying local currency uses. The increasing integration of food aid with non-food aid broadens the relevance and importance of the analysis, especially for those country programs where increased food and agricultural production are primary objectives.

## **II. Background**

Since the early 1960's, considerable controversy has arisen over the potential disincentive effects of food aid on local agricultural production and marketing. Congressional concern about disincentives resulted in the 1977 Bellmon Amendment, Section 401(b), to Public Law 480. Congress' special concern over the adequacy of food storage and handling facilities in PL 480 recipient countries was also addressed in this amendment.

Section 401(b) of PL 480 requires that before PL 480 food aid can be supplied, the Secretary of Agriculture must determine that:

1. adequate storage facilities are available in the recipient country at the time of exportation of the commodity to prevent the spoilage or waste of the commodity, and
2. The distribution of the commodities in the recipient country will not result in a substantial disincentive or interference with domestic production of marketing in that country.

Posts have complied with the amendment by submitting data, analyses and findings based on examinations of these concerns prior to PL 480 food shipments.

Although the Bellmon Determination has been a feature of food aid programming since 1977, analyses supporting the Bellmon Determinations have varied in quality and content. This guidance responds to the need for specific criteria to judge potential disincentive effects and the adequacy of storage facilities. It is also consistent the USG's priority for increasing the developmental impact of PL 480.<sup>2/</sup>

### III. The Disincentive Issue

Critics concerned over the potential disincentive effects of food aid argue that the increase in food supplies provided by food aid:

- 1) depresses prices received by host country farmers, and
- 2) causes inadequate host government agricultural policies.

Together these lead to decreases in food production from what otherwise would have occurred.

In addition to this basic argument, critics charge that food aid may cause a change in eating habits that creates a permanent dependency on food imports. This occurs by shifting demand from domestic to imported foods which can't be competitively produced at home.

Lastly, critics are concerned that food aid may act as a disincentive when it fails to reach those most in need. It's pointed out that low income groups spend a high proportion of any incremental income or other resource transfer on food. Therefore, when food aid is targeted to these groups, its potential price depressing effect is offset by the demand of the poor for food. If, instead, the food ends up in the hands of more well-to-do consumers, the freed income is usually spent on non-food consumptions. In this case, critics argue that a disincentive effect results because additional demand for food is not created to offset the potential price depressing effect of the additional food supply.

A review of the development literature suggests that food aid has had far less disincentive effects upon food production than critics claim.<sup>3/</sup> On the price disincentive issue, empirical studies show that in a number of countries, including some of the larger recipients in the 1960's, food aid either had no disincentive effect or the disincentive effect was offset by incentive effects on other crops. In some cases, the food aid was only partly additional to normal commercial levels,<sup>4/</sup> and the effect on market prices for locally produced grain was not significant. In other cases, the potential disincentive effect was offset by policy interventions which created additional demand for food among low-income groups or supported incentive prices for producers with sales proceeds of the food aid.<sup>5/</sup>

The literature does not reflect a consistent, rigorous definition of what constitutes an adverse "policy effect" attributed to food aid. Broadly defined, this effect occurs when food aid encourages or enables the recipient government to neglect agricultural production and investment. More specifically, this neglect is often reflected in the relatively low share of government investment going to agriculture. In other cases, the effect is the lack of thoughtful sector planning and programming, inefficient regulations of grain marketing, insufficient technical assistance to producers, an unwillingness to permit secure land tenure, or failure to shift the terms of trade in favor of agriculture when unfavorable and inappropriate terms exist.

Studies find that while food aid has at times been associated with inappropriate policies, it is not a cause of

them.<sup>6/</sup> Rather, a government's decision not to support food and agricultural development is primarily affected by political and economic factors that are more influential than the availability of food aid (e.g., national security, comparative advantage and national development philosophy.)

The causal link is similarly not clear as regard the effects of food aid on taste preference changes. Such changes are found in countries which have not been significant recipients of food aid; e.g., the Ivory Coast and Nigeria. Many of the changes are due to urbanization and gradual modernization, changes in the relative terms of trade between basic food commodities, and the association of traditional foods with a low level or "obsolete" lifestyle. Such taste changes often began with the higher income groups which did not directly benefit from food aid. Finally, displacement of local production may not be harmful if the freed local resources are used more advantageously in alternative production that promotes growth, employment, and a more equitable income distribution.<sup>7/</sup>

Attempts to assess the effectiveness of targeted food aid programs have focused mainly on their nutritional impact. Little attention has been given to measuring the extent to which they increase the demand for local foods through indirect income effects.<sup>8/</sup> However, in recent years, there has been a considerable increase in research to assess how low-income households adjust food acquisition to changes in household incomes and prices.<sup>9/</sup> These studies show large variations in the marginal propensity to consume calories. Some show that the proportion of additional income spent on more calories is high. Others show that in addition to the expanding calorie consumption, a considerable portion of additional income is spent on upgrading the diet; that is, substituting toward more expensive calories or to protein. Generally, additional income is spent on more cereals for groups where calorie intake is seriously substandard. For low-income groups whose basic food needs are being met, the additional income is more likely to be spent on upgrading their diet.<sup>10/</sup>

Thus, the available evidence suggests that the disincentive effect linked to food aid has occurred in relatively few countries. However, the possibility for disincentive effects always exists and sometimes they do occur. Greater assurance against such occurrences can be best achieved by designing PL 480 programs which minimize disincentive effects or offset them with positive incentives.

## IV. Analytical Requirements

### A. Submission of Analysis

Missions requesting PL 480 programs will report annually in their "Action Plan" if the volume of food aid or any other factors (see Section IV C) lead the Country Team to suspect the possibility of substantial disincentive effects attributable to food aid. These statements should include reference to the average share of PL 480 food aid to total staple food consumption over the past five years. There is no need to examine the country's storage and handling capacity at this time.

If the disincentive effects are suspected, the Country Team should indicate in the Action Plan that a detailed analysis will be completed prior to the fiscal year the commodities will be shipped. This will allow time to complete the analysis and identify appropriate self-help measures or other corrective actions without unduly delaying PL 480 negotiations.

If a country has been identified as needing more detailed analysis because of possible disincentive issues, Country Teams are encouraged to undertake the analysis in conjunction with the CDSS/CDSS Update preparation when possible. This would be beneficial to both efforts by shedding light on important aspects of agricultural sector policy. If PL 480 negotiations are to be used to encourage policy changes, these should be fully discussed in the CDSS/CDSS update.

Present reporting procedures will continue whereby the analysis regarding both the disincentives and storage and handling considerations is submitted closer to shipment and arrival dates. These procedures by program type are as follows:

-- Title I Programs: The analysis should be sent with the Country Team's recommendations on the recipient country's program request.

-- Title III and Title II Section 206: The analysis will be included with the Project Paper (PP).

-- Title II Programs: The analysis is submitted with the call forward.

-- Emergency Programs: The analysis, which should be tailored to the dimension of the particular program, will be submitted with the post's emergency program request. Emergency situations may not allow time to address the disincentive question in depth. Therefore, even after the request is approved, country Teams are encouraged to give further consideration as to whether immediate or longer term disincentive effects are likely, and if so how they might be avoided.

Country Teams must complete a Bellmon determination analysis before each PL 480 agreement, or amendment adding commodities, is signed. In addition, the analysis for multi-year agreements and amendments must be updated annually. Supporting data and analysis (See Section IV D) should be sent as an annex to PPs or as attachments to Title I requests, Title II call forwards and emergency requests.

## **B. Determination Recommendation**

If a positive disincentive determination is recommended and approved, it will continue to apply to the current fiscal year. However, the analysis assessing the adequacy of storage and port handling facilities must be updated for each purchase authorization or periodic call forward issued under the agreement.

The Secretary of Agriculture is responsible for making the determination and has delegated the authority for reviewing the supporting analysis and recommending the determination to the General Sales Manager of the Exports Credit Program Area of USDA's Foreign Agricultural Service. Comments and issues may be raised through the interagency review process by other members of the DCC Subcommittee on Food Aid (AID, State, OMB, Treasury and Commerce) and presented to USDA for consideration. On the basis of the Country Team's analysis and the USDA/EC review, a recommendation for a formal determination is made to the General Sales Manager. If the General Sales Manager concurs in the findings, a standard reporting letter is sent to Congress. The letter includes the General Sales Manager's determination and indicates the basis of the determination.

If changed circumstances suggest the possibility of an unfavorable determination at any time after an agreement is signed, the analysis should be updated and revised. Such changed circumstances might include congested port conditions, an unexpected drop in local prices due to a better than forecast harvest, or the sudden imposition of unwarranted government price controls.

If a negative determination is recommended because substantial disincentive effects are likely to result, the program can't proceed until appropriate actions are taken to preclude these effects from occurring. Similarly, if inadequate storage facilities are the basis for a negative determination, the storage problem must be addressed before food shipments can begin.

If consultation with the recipient government doesn't result in adequate corrective action, termination of PL 480 assistance would be considered. If a purchase authorization (PA) has already been signed, shipments under the PA will be honored. However, before signing another PA or a new agreement, satisfactory changes to eliminate or offset any storage or disincentive effects must be negotiated.

Monitoring for possible disincentive effects after an agreement is signed is particularly important for the Title III and Title II, Section 206 programs. These programs can span several years under one agreement. Country Teams should therefore update the analysis each year in conjunction with the annual program review.

## **C. Level of Analysis**

The specific criteria outlined in Section V below provide a framework for assessing the potential disincentive effects of proposed food aid programs. A standard narrative report format may be used with sections addressing the disincentive areas outlined below. Alternatively, a question-answer format may be used. In either case, narrative responses as opposed to yes-and- no type answers are required.

The depth of analysis needed will depend upon the relative significance of PL 480 food aid as measured by the

proportion of PL 480 food aid to total staple food consumption. Although the Bellmon Amendment relates directly to PL 480 food aid, Country Teams must keep in mind the possible impact of total food aid flows in undertaking the disincentive analysis.

Where the PL 480 proportion is minor, the potential for disincentive effects is slight. In these cases, findings and conclusions regarding each disincentive are can be briefly discussed. Sufficient data and analysis should be included in the responses to show that substantial disincentives aren't likely to occur.

As the proportion rises, the potential for possible disincentive effects rises and the level of analysis should increase. If the proportion has been above 2 percent over the past 5 years, Country Teams should be alert to the possibility of disincentive effects. Where the proportion approaches 10 percent or more, a more thorough examination may be required.

The analysis should follow the outline of the guidance presented in Section V below and be supported by rigorous economic analysis to the extent possible. Where it's found that PL 480 food aid isn't a cause of disincentives but is nevertheless associated with existing policies<sup>11/</sup>, Country Teams are encouraged to consider self-help measures which help alleviate or offset the disincentives.

It's recognized that other variables in addition to the volume of food aid influence whether PL 480 food aid will have a positive or negative impact on local food production. Such variables include the extent to which food consumption is commercialized, the price elasticities of demand and supply, the ability of low income households to acquire food, and the degree of substitution among different food commodities.

Thus, there may be situations where even though the PL 480 food aid is minor and the policy climate is appropriate, disincentive effects may still occur. For example, food aid may arrive at a period of unexpected surplus or food aid may have an unusually strong effect on prices because only a small proportion of production is commercially marketed. In such cases, more detailed analysis is encouraged.

Country Teams without technical staff to undertake the more detailed analyses can request such assistance through AID/W and USDA.

A recent survey of 99 developing countries found that in 1977-78, cereal food aid (from all sources) as a percent of total staple food consumption was as follows:

Percent	No. of Countries
0-2%	58
2-5%	23
6-10%	10
more than 10%	7
data unavailable	1
Total:	99

These figures show that the volume of cereal food aid as a proportion of total cereal consumption is relatively small in most developing countries (Huddleston, 1982). Countries with food aid comprising more than 10% of total staple food consumption included Sri Lanka, Egypt, Jordan, Sudan, Mauritania, Guinea-Bissau, and Somalia. Countries in the 6% to 10% category included South Korea, Bangladesh, Jamaica, Haiti, Lebanon, Tunisia, Gambia, Lesotho, Fiji, and Mauritius.

#### **D. Supporting Data**

Attachment A provides an example of data format that may be useful to Country Teams in preparing their analysis. At a minimum, Country Teams should include a summary price data table such as the one included

as Attachment B. commodity data should be included for each PL 480 commodity provided and its close substitutes. When a cereal commodity is being provided, data for all major locally produced and imported cereal staples should be examined.

With the exception of the price statistics, much of the data will likely have already been compiled by the Country Team in the preparation of other documentation such as the CDSS, ABS, agricultural attaché reports, sector analyses, PL 480 agreements and project papers. Data may also be found in local government reports, World Bank and other donor studies, and other secondary sources in the country.

If price data are unavailable and/or unreliable, posts should consider ways in which PL 480 resources and possibly Development Assistance resources can be used to strengthen the recipient country's food data collection and reporting capacity. 12/ Under such data constraints, Country Teams should still make their best efforts, using estimates, to undertake the price analysis.

## **V. Disincentive/Incentive Analysis**

The suggested disincentive/incentive analysis begins with a brief description of the economy and the agricultural sector. Special attention is given to identifying the country's comparative advantage in the agricultural sector. The following aspects of disincentive effects are then examined, taking into account the influence of other donor food aid and commercial imports: prices, government policies, taste preferences and targeting of distribution. Lastly, the analysis examines the extent to which PL 480 incentive measures might offset any possible disincentive effects.

The intent of the analysis is to insure there is sufficient information for the Secretary of Agriculture to make a "Bellmon" determination. A negative determination should be made when the Country Team concludes that the PL 480 food aid is a major contributor to agricultural disincentive effects and it isn't possible to negotiate self-help measures that alleviate the disincentives sufficiently to permit a positive determination. IF a negative determination is believed warranted, Country Teams should follow the procedures outlined in Section IV B.

An outline of the suggested analysis would appear as follows:

Outline: Suggested Disincentive/Incentive Effects Analysis

- Agricultural Sector Overview
- Price Effects
- Government Policy Effects
- Administered Prices
- Marketing
- Agricultural Development and Investment Policies
- Changes in Food Consumption Patterns
- Distribution Effects
- Food Aid Incentive Measures
- Attachments: Supporting Data Worksheets

### **A. Agricultural Sector Overview**

An understanding of the country's economic structure and development potential enables the analyst to better judge government policy and resource allocation decisions, and their relevance to possible disincentive effects.

A basic consideration is whether or not the country produces what it's best suited to produce in terms of its comparative advantage. This bears significantly on the disincentive/ incentive question as to whether food aid has a disincentive effect.

In some cases a food self-sufficiency approach may be warranted. In others, the potential for food production may be limited but should be developed with an appropriate balance struck between dependence on food imports and locally produced foods. In still others, extensive production of a food crop may not make good

economic sense; indeed it may be appropriate to increase food imports and reduce dependence on domestic food production. The overview should indicate the appropriateness of the strategy taken with respect to the near term (1-5 years) and the long term.

If the country has a comparative advantage in the production of the same or closely substitutable commodity as that supplied as food aid, the potential for disincentive effects on the locally produced commodity is greater. On the other hand, if the country doesn't have a comparative advantage in these commodities, the potential for disincentive effects is much less. The country should produce those commodities which offer greater production and income potential to the nation and the farmer. Where an alternative commodity is encouraged, food aid should have a net neutral or net positive effect on agricultural production and farmer welfare.

Even where the country produces cash as opposed to food crops, consideration should be given to the impact on food availability and consumption. In these cases, food aid programs can include self-help measures to strengthen the country's food security system, improve food access, and support nutrition programs.

## **B. Food Needs and Price Effects**

Price depressing effects attributed to food aid can occur either through an excess of supply in an uncontrolled price system or through the support of low producer prices in an administered price system. This section examines food needs and the possibility of food aid price disincentive effects due to excess supply. The following section, "Government Economic Policy," considers price disincentive effects in terms of government-administered price systems.

Food aid can depress domestic food prices if it adds to normal supplies rather than meets a shortfall. This may occur if there are serious miscalculations in production shortfalls; food aid is provided even though it is not justified in some years; or because the arrival of food aid may be out of phase with the recipient's production cycle.

To determine if food aid imports are excessive, the analyst should examine past trends as well as current and projected differences between domestic production and consumption of the locally affected commodity. Supply and demand data should be presented as follows:

- actual data for each of the past five years for which actual data are available;
- estimated data for the current year and for earlier years for which actual data are unavailable; and
- projected data for years beyond the current year that food aid will be requested.

Use of historical time-series data extending beyond five years is encouraged to establish more reliable bases for projecting trends.

The following considerations should be taken into account in determining which local commodities will be affected by the PL 480 commodities:

- First, consider the impact the food aid commodity may have on close substitutes produced and marketed locally. For example, if wheat/wheat flour is being supplied, other common food grains such as corn, sorghum, rice, etc., which are seen by consumers as substitutes for wheat/wheat flour should be included in the analysis. Similarly, the local incentives for all oilseeds must be examined if PL 480 soybean oil is to be supplied.
- Second, consider product differentiation. For example, certain types of U.S. sorghum or corn may be less desirable than the local variety with the latter commanding a price premium in the market. Such price differences should be recognized in comparing the food aid commodity and the local product.
- Lastly, consider alternative uses the PL 480 commodity may have. For example, it may be used for food and non-food purposes or solely for non-food consumption; e.g., for livestock feed or for industrial uses. In these instances, the analysis should indicate the extent to which the commodity is used for food as opposed to such other purposes. The supply and demand analysis and the disincentive effects analysis should take into

account both food and non-food uses.

The analysis of variations in production and consumption trends should indicate past maximum food import needs and suggest projected needs. To determine the influence of food imports on prices, production costs and deflated domestic prices of the locally affected commodity should be compared with import levels and import prices (valued at realistic exchange rates). Correlations between high food import levels and low domestic prices can suggest excessive import levels.

The share of PL 480 food aid to total domestic consumption is important in indicating the potential food aid has for causing price disincentive effects. The analyst should calculate the percent of each PL 480 food aid commodity provided to total domestic consumption of the same or substitutable commodity for each of the past five years. If this proportion has been 2% or more over the past five years, have there been any unusual movements in inflation-adjusted price trends that would indicate U.S. food aid has led to substantial declines in food prices? On the other hand, without U.S. food aid, would domestic food prices tend to rise above normal levels suggested by the trend analysis?

To comply with Section 103(c) of PL 480 and the FAO Principles of Surplus Disposal, the analysis should show that the U.S. food aid will fill an unmet need and will not displace usual commercial imports or disrupt normal trade patterns.

### **C. Government Policy Effects**

Section III above described ways in which policy effects can adversely affect food and agricultural production. These effects can be divided into three main areas: pricing, marketing, and agricultural development and investment policies. When disincentive effects are found, Country Teams should consider further the extent to which these are the result of poor government or PL 480 food aid.

#### Administered Prices

To promote local food production, the farmer must receive a price which covers production costs and provides an incentive profit. When host governments price and distribute substantial quantities of food below this level, disincentive price effects on locally produced food will likely result.

If administered prices are a major concern, identify the key actors and agencies involved in establishing prices.

- Are pricing decisions based on reliable data and sound technical analysis of the costs of production, producer returns, regional prices and landed cost prices of imports (CIF, most competitive commercial source, plus duties and unloading charges)? If the foreign exchange rate is over or under-valued, local currency prices should be shadow-priced to reflect the disequilibrium. Is there evidence that any significant difference between landed cost price of imports and domestic prices has affected local production?
- Are producer prices announced sufficiently in advance of the planting season to affect farmers' planting decisions?
- Will PL 480 food aid provide significant support to an administered price system having disincentive effects on local production and marketing? Conversely, will PL 480 food aid support an administered price system having incentive effects or help move the pricing system toward greater use of market forces to determine prices?

#### Marketing

Substantial government interference with marketing occurs when food aid is sold and distributed through public marketing institutions which cause excessive curtailment of private sector trade. That is, para-statal operating margins are set and subsidized at levels below those at which private traders can compete. Official margins should be set to permit private trade and at the same time maintain price stability. The analysis should indicate if substantial quantities of commodities are distributed through a public marketing agency.

- If so, is the institution efficiently managed and operated on a financial self-sustaining

basis? How do official wholesale prices for food compare with free market wholesale prices for comparable, locally produced foods and with the landed cost of commercial imports?

- If publicly marketed food imports are subsidized, is there evidence that these have caused or may cause substantial interference with private sector trade? If yes, roughly how much?
- Will PL 480 food aid strengthen monopolistic/monopolistic official food organizations to the detriment of private marketing?

#### Agricultural Development and Investment Policies

A government receiving substantial food aid may give lower development and investment priority to its agricultural sector if food is readily available at relatively little cost from the donor community. In some countries, a major development thrust to increase food production may not be warranted if comparative advantage suggests that self-reliance through trade is a better strategy. However, whatever limited potential there is to improve food productions should be developed if it's economically and technically realistic to do so. The following questions should be considered in assessing development and investment policy efforts:

- Does the government have a development objective of largely domestic food self-sufficiency or of reliance on trade?
- If so, is this objective reflected reasonably in macro-economic policies such as realistically valued foreign exchange rates, domestic terms of trade which are neutral toward or favor agriculture, and development policies which include infrastructure and research support for agriculture? If a self-sufficiency approach is being pursued, does it deserve support and have any chance of success?
- If a food through trade approach is being pursued, to what extent does potential for the country to produce its own food suffer? Is this potential being insufficiently exploited because of the trade dependence?
- What proportion of government recurrent and capital budget expenditures have been allocated to agriculture in each of the past three years? Are the level and trend of these expenditures consistent with stated government food and agricultural policies?
- If the agricultural sector offers reasonably good development potential, but budget expenditures to agriculture for the past 3 years have been low and food aid has constituted a significant proportion of total domestic consumption, is there any evidence that the availability of food aid has weakened the government's commitment to agricultural development?
- Will the provision of PL 480 food aid, including its self-help provisions, lead to a lower or higher allocation of domestic budget resources for agricultural development?

#### Food Aid and Disincentives - Cause or Association?

Disincentive situations may occur because of government development philosophy and policies which would likely prevail even in the absence of food aid. It's therefore important to determine whether PL 480 food aid is a cause of significant production and marketing disincentives or is associated with them because of strongly subscribed government policies.

- If the analysis finds that production and marketing disincentives exist, to what extent can they be attributed to government policies as opposed to the availability of PL 480 food aid?
- Would the policies prevail and with the same commitment if food import needs were met on a commercial basis only?
- Over the longer run, are poor policies likely to lead to a dependence on PL 480 food aid?
- If PL 480 food aid is associated with – rather than a cause of disincentives – how can the PL 480 program (and DA/ESF programs) be designed to alleviate or offset disincentive effects?

#### **D. Changes in Food Consumption Patterns**

Local food production may be adversely affected by food aid when it contributes to changes in taste preferences for foods which cannot be produced locally and which cannot be imported at costs lower than those of producing and marketing them locally. On the other hand, where the recipient country does not have a comparative advantage in food production, the commodity may provide a less expensive substitute for the locally produced commodity. In these cases, food aid is a legitimate means for developing markets for U.S. agricultural products.

- Is the commodity supplied by U.S. food aid produced locally and part of the normal diet?
- Does accommodating the taste preference through food aid lie within the country's food strategy and comparative advantage?
- Will the food aid be distributed to groups that heretofore have not established a preference for the commodity supplied? If so, will this be an addition to or a substitute for locally produced foods?
- If taste preferences are changing, why are they changing? To what extent are other donor food aid shipments and commercial imports influential in promoting these changes?

### **E. Distribution Effects (Title II Programs)**

The need to target the distribution of food aid to the poor is most easily met through Title II programs. These programs distribute food free or at subsidized prices to vulnerable population groups and permit the consumption of food that would not otherwise occur because of the poor's lack of purchasing power. In this instance, available evidence suggests that there won't be any substantial disincentive effects on local food prices and production because additional demand is created to offset the additional supply.

On the other hand, when more affluent consumers are the recipients of food aid they may spend freed income on non-food items and/or more costly imported foods. In this instance, even though the food provided is additional, it is less likely to be offset by additional food demand and price depressing effects can occur.

The analysis should address the following questions in assessing the possibility for adverse distribution effects:

- Does the host government have a distribution plan which targets PL 480 food aid or uses sales proceeds to target local foods to the poor? Does the host government have the capability to transport and distribute food to the poor?
- Is the PL 480 food aid consumed in disproportionately greater quantities by the poor and is it therefore "self-targeting"?
- If not, is the food aid sold at a non-subsidized price and are the counterpart funds used to support policies favorable to agriculture?

### **VI. Food Aid Incentive Measures**

If examination of the above criteria indicates possible disincentives to agricultural production or marketing, it may be possible to include incentive measures in the PL 480 agreement to change or offset bad policies and still justify a positive determination. In general, the nature and significance of incentive measures should be determined by the policy environment and the Country Mission's capability to promote policy change.

Incentive features can be structured as self-help measures, projects financed with sales proceeds, components of Food for Development programs, issues to be discussed through policy dialogue, and the programming of food aid itself (e.g., as wages, security stocks, etc.).<sup>13</sup> Such measures linked specifically to increasing local food production might include the following:

- Improve food sector data collection and reporting capacity;
- Strengthen agricultural sector policy analysis, planning and implementation capacity;
- Establish incentive prices for locally produced food based on landed cost of imports and production costs;
- Assure timely announcement of price adjustments to affect farmers' planting decisions where prices are controlled or at least floor prices maintained;

- Support maximum private sector trade and access to international markets consistent with government goals for marketing and stabilization efforts;
- Improve management and financial viability of food marketing agencies; reduce or eliminate food subsidy programs except for those most in need;
- Upgrade efficiency and effectiveness of food production and marketing functions including research, extension, cooperatives, management, transportation, physical infrastructure, and access to inputs;
- Promote development of private sector food processing capability which improves nutritional content and eases preparation of indigenous foods;
- Support development activities and targeted food subsidy programs (e.g., food-for-work programs) which generate income and improve the ability of the poor to acquire food;
- Encourage greater production of low-cost nutritionally acceptable local foods if they can be grown economically in order to increase nutritional quality to low-income groups;
- Increase allocation of recurrent and capital budget expenditures to agriculture where warranted by sufficient food production potential.

## VII. Food Storage Facilities and Handling Capabilities

U.S. concern over food storage and handling in LDCs was raised in the March 1977 hearings of the House Committee on International Relations. Concern was expressed in particular about food storage conditions in Bangladesh. Substantial amounts of food had spoiled because Bangladesh had inadequate storage facilities. This concern over food storage and handling was concurrent with that over disincentive effects. Consequently, both are addressed in the Bellmon Amendment.

In response to these concerns, posts must include, with the disincentive analysis, a statement attesting to the adequacy of food storage, handling and distribution capabilities. The assessment should include three sections reporting on port, storage and transport capabilities as follows:

### A. Port

Facilities - briefly describe adequacy of port physical facilities in terms of the wharf, warehousing, equipment (particularly offloading capacity) and maintenance.

Operations - comment upon the efficiency of port operations and management.

Projected Arrivals - note to what extent port congestion might be a problem at the time of projected PL 480 food aid arrival. Are imports, commercial and concessional, coordinated and planned to arrive at low points in domestic supply, but in a smooth fashion?

### B. Storage

Describe the adequacy of port, central and regional storage facilities in terms of structure, capacity and management. Note specifically the expected adequacy of storage at the time of projected PL 480 food aid arrival.

### C. Transport

Describe the adequacy of transport capabilities - road, railway and waterway as applicable - with respect to equipment, operational status and maintenance facilities. Comment in particular on transport availability at the projected time of PL 480 food aid arrival.

#### Footnotes

<sup>1</sup>--Although this paper focuses mainly on the potential disincentive effects of food aid, this is not meant to suggest that food aid storage and handling concerns are relatively less important. Rather, attention is given

to the disincentives question because it is a more complex matter warranting further explanation and specific guidance.

2--U.S.G. approaches for increasing PL 480's developmental effectiveness are outlined in the recent U.S. International Development Cooperation Agency *Report to Congress on the Developmental Impact of Public Law 480*, March 30, 1982.

3--Two recent articles which provide particularly comprehensive examinations of food aid and development issues are Maxwell and Singer (1979) and Clay and Singer (1982); see selected references attached.

4--See Abbott (1976, 1979), Abbott and McCarthy (1982), and Hall (1980).

5--See Dudley and Sandilands (1975) and Mason (1966).

6--Maxwell and Singer (1979) note that ". . . The weight of evidence seems to favor those who argue that in many countries food aid is sucked in by poor agricultural policy rather than itself being responsible for the vacuum which it fills." This conclusion is reached *inter alia* by Witt (1964); Isenman and Singer (1977), and Merrill (1977).

7--Cases quoted are shifts to cotton production in Pakistan (Mason, 1966) or to barley in Columbia (Dudley and Sandilands, 1975).

8--See, for example, the comprehensive survey on supplementary feeding projects by Beaton and Ghassemi (1979) and the African case studies by Stevens (1979). From a national perspective, Title II levels are usually so insignificant relative to the total food supply that disincentive effects are not likely to occur. Moreover, because Title II programs - MCH, school feeding and food-for-work - distribute food to those with low incomes who would not otherwise be purchasing sufficient food, there will be little likelihood that disincentive effects would occur even at the community level.

9--See, for example, Williamson Gray (1982), Timmer and Adelman (1979), Pinstруп-Anderson (1976), and Strauss (1983).

10--See Huddleson (1984), Kennedy and Pinstруп-Anderson (1983) and Beaton and Ghassemi (1979).

11--The distinction between "cause" and "association" is discussed on pages 7-8 and 30-31.

13--Technical assistance from the U.S. Bureau of the Census can be requested through AID/S&T/DIU to support the establishment or strengthening of the recipient country's data collection and analysis capability. Other donors should also be encouraged to provide technical assistance, training, etc., as appropriate.

14--The Bellmon Amendment does not require that PL 480 food aid programs include measures to induce incentive effects. However, their inclusion is consistent with the developmental thrust of PL 480 and they add a further measure of assurance that disincentive effects will not occur. Thus, incorporating incentive effects in the design of PL 480 programs is encouraged.

## Attachment A

### Local Production and Marketing Disincentives Analysis

#### Supporting Data

#### I. Food Supply and Consumption 19XX

(000 MT)

Total Annual Domestic Needs  
Beginning Stocks  
(Of which security stock)  
Local Production  
Imports  
a. Commercial Imports  
b. Food Aid  
c. (Of which U.S. food aid)  
Exports  
Total Supply  
Consumption (food, feed, industrial use, seed and waste)  
Ending Stocks  
(Of which security stock)

19XX

II. Food Prices (per kg.)

(xx per kg)

Private Sector  
Local Production  
a. Farm gate price  
b. Internal transport and handling costs from main producing area to main consuming area  
c. Wholesaler costs x, and profit margins  
d. Wholesale price  
e. Retail price  
Commercial imports  
a. CIF (from most competitive commercial source)  
b. Duties  
c. Internal transport and handling to main deficit consuming area, usually the principal cities  
d. Wholesaler costs and profit margins  
e. Wholesale price  
f. (Foreign exchange shadow price)  
g. Retail price  
h. (Foreign exchange shadow price)  
Public Sector  
Local Production  
a. Official farm gate price  
b. Internal transport and handling costs from main producing area to main deficit consuming area, usually the principal cities  
c. Operating margins  
d. total costs (a, b, & c)  
e. Wholesale price  
f. Retail price  
PL 480 Food Aid  
a. CIF (from U.S. port)  
b. Duties  
c. Internal transport and handling  
d. Operating margins  
e. Total costs (a, b, & c)  
f. Wholesale price  
g. (Foreign exchange shadow price)  
h. Retail price  
i. (Foreign exchange shadow price)  
Price Differentials  
Free market farm gate price and official farm gate price (II A 1a and II B 1a)  
CIF price from most competitive commercial source including duties and internal transport and handling charges and equivalent official farm gate price (II a, b & c)

and II B 1a & 1b)  
Commercial import wholesale price and official wholesale price for local production  
(II A 2f and II B 1e)  
Commercial import wholesale price and food aid wholesale price (II A 2f and II B  
2g)  
Official subsidies a. Local production (II B 1d - II B 1f)  
b. Food aid (II B 2e - II B 2i)

19XX

III. Balance of Payments

(X-Million)

- A. Exports
- Imports Food a. Commercial
- b. Food aid

Net Services and Unrequited Transfers Current Account Balance Capital Account Balance Overall Balance

IV. Exchange Rate

A. Official  
Unofficial Shadow Price Rate

X Data for all categories - IIA 1 & 2, IIB 1 & 2 - should also reflect processing costs  
at stage at which processing is performed.

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**Attachment C**

Selected References

Abbott, P. C., "Developing Countries and International Grain Trade," Ph.D. thesis,  
June (Massachusetts Institute of Technology, Cambridge, MA), 1976.

Abbott, P. C., "Modeling International Grain Trade with Government Controlled  
Markets," *American Journal of Agricultural Economics*, Vol. 61, 22-31, 1979.

Abbott, P. C. and McCarthy, F. D., "Welfare Effects of Food Aid," *Journal of  
Development Economics*, Vol. 11, pp. 63-79, 1982.

Beaton, G. H. and Ghassemi. "Supplementary Feeding Programme for Young  
Children in Developing Countries." Report prepared for UNICEF and the ACC Sub-  
committee on Nutrition of the United Nations, 1979.

Clay, Edward J. and Singer, H. W. "Food Aid and Development: The Impact and  
Effectiveness of Bilateral PL 480 Title I Type Assistance." Institute of Development  
Studies, University of Sussex, UK, December 1982.

Dudley, L. and R. J. Sandilands. "The Side Effects of Foreign Aid: The Case of PL  
480 Wheat in Columbia." *Economic Development and Cultural Change*, Vol. 23, No.  
2, January 1975.

FAO, "national Food Reserve Policies in Underdeveloped Countries," Commodity  
Policy Studies No. 11, Rome, 1958.

- Hall, L. L., "Evaluating the Effects of PL 480 Wheat Imports on Brazil's Grain Sector," *American Journal of Agricultural Economics*, 62, 19-37, 1980.
- Huddleston, Barbara. "Closing the Cereals Gap with Trade and Food Aid," International Food Policy Research Institute, Washington, D. C., January 1984.
- Isenman, P. J. and Singer, H.W. "Food Aid: Disincentive Effects and Their Policy Implications." *Economic Development and Cultural Change*. Vol. 25, No. 2, January 1977.
- Mason, E. S. *Economic Development in India and Pakistan*. Harvard University Occasional Papers in International Affairs, No. 13, September 1966.
- Kennedy, Eileen T. and Pinstrip-Anderson, Per; "Nutrition-Related Policies and Programs: Past Performances and Research Needs," International Food Policy Research Institute, Washington, D. C., 1983.
- Maxwell, J. J. and Singer, H. W. "Food Aid to Developing Countries: A Survey," *World Development*, Vol. 7, pp. 225-247, 1979.
- Merrill, A. K. *PL 480 and Economic Development in Recipient Countries* (Washington: National Security and International Affairs Division.) Congressional Budget Office, Mimeo, 1977.
- Pinstrip-Anderson, Per; de Londono, Norha Ruiz; Hoover, Edward (1976), "The Impact of Increasing Food Supply on Human Nutrition: Implications for Commodity Priorities on Agricultural Research and Policy," *American Journal of Agricultural Economics*, Vol. 58, No. 2, May, pp. 131-142.
- Schuh, G. E. "Food Aid as a Component of General Economic and Development Policy," Paper for USAID-RTN Seminar Improving the Developmental Effectiveness of Food Aid in Africa, Abidjan, August 24-26, 1981.
- Stevens, C. *Food Aid and the Developing World: Four African Case Studies*, Croom Helm, London (1979).
- Strauss, John (1983), *Socio-Economic Determinants of Food Consumption and Production in Rural Sierra Leone: Application of an Agricultural Household Model with Several Commodities*, East Lansing, Michigan: Michigan State University, paper No. 5.
- Timmer, C. Peter and Alderman, Harold (1979), "Estimating Consumption Parameters for Food Policy Analysis," *American Journal of Agricultural Economics*, Vol. 61, No. 5, pp. 982-987.
- U.S. Department of Agriculture. Economics, Statistics and Cooperatives Service. "P.L. 480 Concessional Sales: History, Procedures, Negotiating and Implementing Agreements," Foreign Agricultural Economic Report No. 142, December 1977.
- U.S. International Development Cooperation Agency, Report to Congress on the Development Impact of Public Law 480, March 30, 1982.
- Williamson Gray, Cheryl (1982), *Food Consumption Parameters for Brazil and Their Application to Food Policy*, Research Report No. 32, Washington, D. C.: International Food Policy Research Institute, September.

Witt, L. W. "Development Through Food Grants and Concessional Sales" in C. Eicher and L. Witt *Agriculture in Economic Development* (New York: McGraw-Hill, 1964).