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PREFACE

A contract to develop a Research Map (a program of research) on Food For Peace was awarded by the Agency for International Development to the Economic and Agricultural Development Center of Michigan State University in June 1964. The scope of the Plan of Work covered most phases of the complex P.L. 480 program. Under one part of this Plan of Work an Annotated Bibliography was prepared. And in each specific proposed project, a brief review of past and current research is being presented.

The Food For Peace Policy Committee, in reviewing progress under this research contract, requested that these research reviews be brought together and evaluated for use in considering near term decisions on Food For Peace policies. Our Scientific Monitor in AID and members of the inter-agency FFP Advisory Committee urged the Michigan State team to take on this assignment even before completing the Research Map, and advised on procedure.

This Research Review is organized by subject matter and issues as they will be identified in the forthcoming Research Map. For those major issues - mainly policy issues - identified in the Table of Contents, there is an arraying of the more relevant evidence, an evaluation of this evidence, and conclusions. It should be emphasized that we have drawn on part, but only part of the Bibliography - some 80 items out of over 500 - but we believe that these items are the more relevant to major policy issues.

I have drawn heavily on the work of my colleagues for this material, but the responsibility for the selection of issues, and the summary statements must be mine alone. The names of co-workers, consultants and advisors are provided in the Third Progress Report.

Lawrence Witt
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Economics

TABLE OF CONTENTS

MAJOR FOOD FOR PEACE ISSUES

Economic and Financial

1. The Place of Food Aid in U.S. Foreign Aid Programs
2. Alternative Mechanisms for Commodity Transfer
3. The Local Currency Problem
4. Expanding the Range of Available U.S. Commodities
5. Possible Disincentives to Agricultural Development in Host Countries.
6. Effects on International Trade
7. Other Issues -- Listed Only

Political Policy

8. U.S. Image Formation About FFP Operations
9. Relation of FFP to Foreign Policy
10. Relation of FFP to Other Aid Programs
11. Other Issues -- Listed Only

Social and Humanitarian

12. Role of Voluntary Agencies
13. Influence of FFP Upon the Individual's Competence for Social and Economic Development
14. Influence of FFP Upon Recipient Country Institutions and Communities
15. Other Issues -- Listed Only

Population and Food Supply

16. Relation Between Population and Food Supply
17. Other Issues -- Listed Only

Health and Nutrition

18. Increasing Knowledge of Human Nutrition -- The Pre-School Child
19. Expanding the Production and Processing for Foods of High Nutrient Value
20. Other Issues -- Listed Only

Program Operation

21. The Consistency and Relations Among FFP Objectives
22. Possible Future Changes in Program Size, Emphasis and Their Implications
23. Statutory Changes That Would Expedite the Administrative Processes
24. Other Issues -- Listed Only

References

MAJOR FOOD FOR PEACE ISSUES

ECONOMIC AND FINANCIAL

1. The Place of Food Aid in U.S. Foreign Aid Programs

The Issue

P.L. 480 food aid now represents a substantial part of our total foreign economic assistance. Some economists argue that economic aid through the P.L. 480 mechanism is inefficient and reduces the overall effectiveness of the U.S. aid program. The counter argument states that about this amount of aid in the form of food is needed, and that the P.L. 480 procedure is about as efficient as other mechanisms in distributing aid. Also food aid has desirable domestic and international political dimensions. Comparison of the economic impact on receiving countries and the U.S. of alternate roles and magnitudes for the P.L. 480 program would resolve this issue. Alternatives to P.L. 480 which could be included are: all aid in unrestricted dollars, aid in dollars tied to purchases in the U.S., and aid in dollars with a certain sum specified for certain types of U.S. commodities. One of the important questions relates to how many U.S. agricultural commodities would be used under the different alternatives.

Relevant Research Evidence

The more important research bearing on this issue ranges from a number of specific country studies to global estimates of the amount of aid that can be provided as food to estimates of the real value of food aid.

Kahn (45) concludes that under the circumstances of the 1950's Title I P.L. 480 assistance was as good as dollar aid.

...the macro effects of a Title I program may well differ very little from those of direct dollar aid, and that seems to have been the case in Israel. (p. 587) ...from the standpoint of Israel, the aid it provides has been almost as good as free dollars. (p. 591)

There is reason to argue, however, that Israel represents an exceptional case, in that the growth rate was sufficiently rapid as to require substantial increased imports of food, and P.L. 480 provided this food without additional foreign exchange requirements.

An ECAFE/FAO study of the use of agricultural surpluses in Japan (23) considers the period 1954-1957, and three agreements with the U.S. to provide agricultural commodities. The first agreement, under Section 550, MSA, apparently was equivalent to dollar aid.

Consequently there was an urgent need in 1954 to import much larger quantities of foodgrains to ensure that domestic food requirements could be met....Japan's holdings of foreign exchange...were seriously depleted... (p. 4).

The two P.L. 480 agreements were sought, especially by the Ministry of Agriculture, as an aid to development, but also as a means of bypassing the Japanese Government's retrenchment policy in public finance.

The decision to seek further surplus commodities...was due, however, to the need to obtain additional yen funds for development purposes....This arrangement also relieved the strain on the country's United States dollar holdings... (pp. 4-5).

An analysis of P.L. 480 assistance to India also compares Title I assistance against the criterion of unrestricted dollar aid. Sir John Crawford (16), of Australia, after a tightly reasoned analysis of the relation of P.L. 480 to the Indian development program between 1951 and 1958, seems to suggest that food imports were excessive, that the food

...would be used, but non-food aid in lieu of the excess over minimum needs may more effectively lead to economic development (p. 388).

It should be noted that here, as elsewhere in this article, Crawford argues that some P.L. 480 assistance does support development, partly as a substitute for commercial imports that would otherwise have been necessary, and partly as a resource in its own right. In a paper commenting on Crawford, S.R. Sen (65) states

If P.L. 480 supplies were not available, India would have certainly preferred to restrain the rate of increase of consumption rather than that of investment. She would have either reimposed the food controls which she had relaxed in 1954 or cut down the import of other consumption goods,...(pp. 396-397).

We know of no empirically based research which deals with this question for the 1960's for a particular country. However, there are a number of recently developed global estimates of the amount of food aid that can be effectively utilized.

The first estimate on food aid in relation to total economic aid is attributed to Ezekiel in an FAO report (26). This was that 30 or 40 percent might be provided through food, based in part on food consumption patterns in India, and in part on the assumption that labor intensive projects would predominate. A later FAO report (25) estimated

...that food aid for economic development alone could not be expected to amount to more than one sixth to one fifth of the total capital aid required by underdeveloped countries (p. 3).

One of the experts who contributed to this FAO report, Rosentein-Rodan, recently pointed out that this ratio applies to India and is larger than can be used in most other countries.

...food deficiency and a general lagging behind of agriculture are considered to be the main obstacles to reaching the plan's

(Third Plan) objectives. It may be therefore legitimately inferred that the scope for a productive use of food surplus is larger in India than in most other countries. Yet the scope for it is not more than between 1/6 and 1/5 of the total foreign aid (60).

The Key words in the above quotation are "productive use of food surpluses". He also notes that:

...the Institute for Economic Development of the International Bank of Reconstruction and Development has the most complete collection of development programs of various countries.... Going through all those plans one cannot find one which could use more than 15 to 20 percent of surplus foods as aid.

It should be noted that the reference is to total capital required and not to U.S. public assistance alone.

The proportion of total aid that can be provided in food will be smaller if the available food commodities are mainly food grains, and will be larger if vegetable oils, feedgrains, dry beans and animal products are included. The structure of the development program will also shift the possible proportion. A relatively large proportion of labor intensive projects will increase the amount of food shipments that are appropriate, while a development program which draws on imported machinery and engineering skills is likely to decrease the appropriate food proportion of the aid total(26, 88).

A different global calculation has been made by Fitzgerald (29). From the total \$14 billion committed by the United States between July 1, 1954 and June 30, 1964 he deducts (1) grants for disaster and other relief, (2) local currency sales to Japan and developed countries in Europe, and (3) local currency earmarked for U.S. use, to attain an estimate of \$8.7 billion of development assistance. He further assumes that without P.L. 480,

the U.S. foreign aid appropriations would have been 10 percent larger, leaving a net \$7 to \$7.5 billion of food aid. Finally he deducts another third or so as representing consumption assistance, and concludes: .

If this is roughly correct, then the net investment component of food aid during the last decade amounts to the equivalent of \$4 to \$5 billion, or an average of \$400 to \$500 million a year (p. 4).

Later he generalizes in this manner:

During the last decade food aid has contributed substantial additional net resources to developing countries--estimated by the writer at nearly \$1 billion a year--of which in the order perhaps of \$500 million went into investment or released other funds for investment. Since even "cash" foreign assistance does not generally result in a dollar's worth of investment for every dollar's worth of aid, it may be concluded that food aid is, in general, at least 50 percent as useful as non-food aid in contributing to economic growth in developing countries. The usefulness of food aid for any particular country will depend, on the one hand, on the amount of external resources the country would receive in the absence of food aid and, on the other, on the net effect of food aid on current consumption and investment (p. 39).

A slightly different calculation is provided by T.W. Schultz (52), whereby he estimates the value of P.L. 480 exports to the receiving country (as imports but not necessarily as foreign aid). He summarizes this calculation as follows. (But note that he begins with the CCC cost of Title I authorization, and not, as Fitzgerald does, with export market value.)

(1) CCC costs of P.L. 480 products appear to me to have been in the neighborhood of twice the value of these products had they been sold freely in world markets.

(2) Costs to the United States of P.L. 480 products measured in terms of marginal revenue foregone from foreign sales may have been zero, provided we treat our farm programs and agricultural production as a constant.

(3) The value of P.L. 480 products to the countries receiving them has perhaps been about 37 cents for each dollar of CCC costs.

(4) Accordingly, under conditions set forth in (2) and (3) above, there is a substantial range for negotiating P.L. 480 transactions, inasmuch as the value to the recipient countries is about 37 cents per dollar of CCC costs and the cost to us in earnings foregone may be zero, on the shaky assumption that we will not improve on our agricultural policies.

(5) It is a serious misconception to treat all P.L. 480 appropriations to cover CCC costs as if these were a valid measure of the true value of these farm products to the underdeveloped countries receiving them. Half or more are simply a consequence of our farm programs (pp. 1023-4).

Of course, neither of these calculations provides assistance in estimating the marginal value of an increase or decrease in the food aid proportion of total capital aid.

Evaluation of the Evidence

A larger discrepancy among estimates hardly seems possible. Differences in the beginning figures account for some of the differences, thus the three country studies begin with export market value. Had Schultz started with this figure, his calculations would be slightly less damning. Israel and especially Japan do not seem to be appropriate countries from which to generalize, but India perhaps is too far in the other direction. In any case the changing program, the long term contracts after 1959, the recent history of population growth and lagging food supply, and the harder terms legislated in 1964 make it difficult to apply any of this specific quantitative evidence to 1965. Nonetheless, the arguments that Fitzgerald and Schultz present should prevent the easy assumption that all such exports are development assistance. The Indian based conclusions of Crawford and Sen argue also that a portion of the Title I imports are for consumption but not development.

Conclusions that can be Drawn

For a few countries, such as Japan and Israel, food aid was almost as good as dollar aid. But these were exceptional cases. Observations on India indicate that for the 1950's food shipments were less productive of development than local currency. Since the major FFP recipients are more like India, it is probable that, in general, development would be more rapid if they were able to substitute some additional industrial products for some food aid. Though no recent studies deal with this problem, it is likely that this situation continues to the present.

The hardening of the terms in Title I Agreements (the freight rate provisions, the limitations on "like" commodity exports, the convertibility of some local currency) reduce the size of the possible economic development effect of such shipments. A reduction in the flow of foreign exchange resources (through reduced foreign aid) is likely to make the food aid less productive of development, while more hard currency resources will enhance the possibilities of using food shipments productively.

Several estimates have been made as to how much food aid can be used, starting from an estimate in the middle 1950's of 35 to 40 percent to one of no more than 15 to 20 percent made several years ago. No great credence can be given to any such figure, since the individual country differences in the amount of food aid that can be productively utilized are sufficiently great to make an overall proportion of food aid almost meaningless. The exclusion of three countries, India, Pakistan and Egypt would greatly reduce this proportion, while their inclusion would increase the proportion that would be meaningful.

Moreover, food aid defined as wheat has a more limited role than food aid defined as a wider range of products. And a country like Colombia which

has limited land resources on which to expand grain production would gain more from a wheat aid program than would a country with substantial production potentials.

Finally, not all FFP shipments can be considered as food aid. Some are grants for disaster and relief, some food shipments provide local currency and save expenditures of U.S. Government dollars, some support consumption but not development, and other deductions may be proposed and debated. Again, it is more relevant to consider country programs and strive for an additive total, than to use a rule of thumb such as that about half the shipments represent development aid and the rest something else. Moreover, changes in P.L. 480 rules will change the proportion.

2. Alternative Mechanisms for Commodity Transfer

The Issue

Given the decision to make U.S. farm commodities available to another country for some mutually accepted purpose, what is the best way to transfer the commodity? Aside from normal commercial trade, three broad mechanisms are available.

- (1) Sales for local currency
- (2) Loans in dollar terms, but tied to U.S. commodities
- (3) Donations of the commodity

Are there significant differences among these procedures? What are the advantages and limitations of each? Is one of them a most desirable procedure? How well have the actual programs worked?

Relevant Research Evidence

The four Titles of P.L. 480, of course, fall within these three categories, with Titles II and III representing several kinds of donations.

Conceptually there are several possible kinds of local currency sales, depending upon the way the local currency is handled. And if the local currency were to be donated to the host government, then even Title I could be included among donations.

Obviously each of these Titles is an effective mechanism; the question is how effective. Comparison of the three broad categories or of the four Titles is clouded by the different pattern of objectives attached to each procedure. Thus Titles I and IV are bulk supply programs, which bypass the international market system, or postpone adjustment to it, but do utilize the host country marketing system to distribute the commodities. Titles II and III however bypass, for the duration of the program, both the international and the national market system. Thus they are directed via projects to particular groups of people. It is evident that for certain purposes donations are more effective techniques, while for other purposes local currency sales or dollar loans are more effective techniques.

Several types of comparison may be made, including program aid versus project aid, the personnel needs of the several approaches, the relative effectiveness in attaining stated objectives, returns to the United States, or the gains for the recipient country. There are others, but even for those listed it is not possible to provide complete answers.

The program versus project aid question is a general and recurring foreign aid question; there are several reports which apply these questions to farm commodities. One of these is Fitzgerald's recent study for the World Food Program (29). He calls program aid "bulk-supply food aid" and points first to two problems, (1) the potential interference with normal commercial trade, and (2) the potential interference with normal food production in

the recipient countries. He discusses both the problem potential and ways to avoid the problem, and believes that not all the problems have been avoided in actual program operations. Thus,

Bulk-supply food aid may have had more harmful effects on aggregate production and its sector composition during the last decade than on international trade (p. 9).

Later he points to the management of local currency as a possible problem, as well as to negotiating procedures by which these problems can be reduced. Finally,

Bulk-supply food aid is not synonymous with "food aid for support of a country's long-range development program." While bulk-supply food aid is sometimes used to support the government's general budget, and through it a comprehensive development program, much more often it is used to support a variety of individual projects, which may or may not be in any governmental budget and which may not be part of any long-term development program, frequently because no such program exists. In contrast, project-oriented food aid, as the name implies, invariably is used to support specific projects. Such projects may be, but usually are not, specifically contemplated within a long-range developmental program (p. 15).

Turning to project aid Fitzgerald comments that

...project-oriented food aid...has certain inherent limitations that do not apply to, or do not apply with equal force to, bulk-supply food aid. The development of individual projects, or their extraction from an overall development program; the preparation of specific food budgets; the receipt, storage, transportation, and physical distribution of food to end users; the separation of these activities for specific supervision; the provision of the necessary non-food resources, if necessary by diversion from other competing uses; separate audit, inspection, verification, and evaluation are all limiting factors. In many developing countries administrative capacity is at a premium, and project-oriented food aid frequently makes fairly heavy demands on this scarce resource.

Project-oriented food aid is more adaptable to certain situations than to others. In developing countries without reasonable comprehensive development plans project-oriented food aid may well have a built-in incentive to increase the development effort since detailed project plans are required

to obtain such aid. To the extent that project-oriented food aid results in either a shift to, or an increase in, total resources devoted to projects with a high labor component, there is a useful contribution to levels of employment and personal consumption. Project-oriented food aid facilitates experimental approaches to economic development, particularly in the broad field of livestock and poultry expansion. It may be well adapted to areas in which the commercial market is underdeveloped or inadequate for any one of a variety of reasons since the provision for food aid satisfies the increased demand of consumers. It is quite suited to institutional feeding, including school lunches, since in these instances the problem of distribution of the individual packages to numerous end users and their families is avoided. Many kinds of institutional feeding, again for example school lunches, are likely to represent almost 100 percent additional consumption (p. 42).

A conference held in Britain under the auspices of the Ditchley Foundation brought together an international group competent to discuss food aid programs. Early, the short report states: (21)

The successful use of food aid given to support a programme clearly demands an effective, well-balanced development effort. The more effective the development programme, the more successful the food aid and vice versa (p. 14).

After pointing to the need for money to defray the non-food costs of the project and the need for technical and administrative personnel, the report compares program aid and project aid:

The scarcity of such resources--especially trained manpower--is a great limiting factor so far as food aid projects in developing countries are concerned. There are a number of ways of alleviating this problem including the incorporation of food aid projects in development activities already planned for which both money and personnel resources are already assured; the tapping of outside sources of funds such as voluntary organisations for the money needed to transport food or to buy tools or machinery or other requisites; and the use of technical experts financed by Specialised Agencies of the United Nations, the UN Special Fund, or unilateral aid programmes to give technical supervision to the project. Advice on the physical handling of the food is often required also, and the financing of experts to give this advice is a proper charge against the cash resources available to the agency supplying the food to the project.... Careful planning, a critical appraisal, and the assurance in so far as possible that non-food requirements will be met, are essential (p. 20).

And the concluding statement is:

Programme aid and project aid should not be looked upon as mutually exclusive but rather as complementary to each other. Each has its role to play. Although there is undoubtedly room for considerable expansion in project aid, the difficulties in the administering agencies as well as the recipient countries of developing and administering a very large volume of sound projects are such that programme (i.e. bulk supply) aid will probably continue to be the vehicle for the transfer of by far the larger portion of food resources reaching developing countries on concessional terms (p. 23).

The relative effectiveness of the several approaches is suggested by the above quotations. The purpose to be served and the relative quality of the host country's development programs are likely to press for one or another approach.

It also is fairly clear that donations--project aid--require more administrative personnel, although the comparison of personnel needs for Title I with Title II or III projects usually does not include the personnel needed to utilize and account for local currency. If development is claimed as an aspect of the local currency sales program, then such personnel needs properly should be added to the personnel costs of commodity transfer mechanisms.

The direct monetary returns to the United States are greatest with the dollar loan mechanism and zero under the donation program. Local currency sales cover the intermediate range depending on the country and eventual dollar savings of the U.S. Government. The non-monetary returns may be very significant but there is no present basis for a solid assessment.

Similarly, hard data and information are not available for an appraisal of the benefits to recipient countries, although general assessments have been made for a number of countries, and are summarized in Witt and Eicher (88).

One other aspect of the process may be examined. Fitzgerald (29) provides several tables on time lapses between stages of program request and implementation for projects processed between Jan. 1, 1963 and Aug. 31, 1964. In one case he compares project-aid under the multilateral World Food Program with that of the United States showing an average 359 day time lapse between receipt of request and the loading of the initial shipment for the WFP compared with 211 days for the U.S. (p. 25). The former of course was a new agency, developing operating programs and procedures. The 120 day lapse for the U.S. between the receipt of the request and the approval of project (based on 42 cases) is surprising.

Another table, dealing only with the WFP Emergency Aid indicates that the most prompt shipper took 79 days from orders to ship to arrival at the unloading port, while the slowest took 124 days (p. 36). With such lags, emergency aid can only function to replace inventories or to service a continuing emergency.

Evaluation of the Evidence

The published research on this issue is very sparse. The criteria used to place a country or proposed agreement in one category or another is not clear to those outside government (and even some inside). This is especially true for Titles I and IV, but also applies to certain types of Title II and III programs, such as school lunches. Nearly all of the statements comparing these programs, seem to be based more on administrative evaluations than upon empirical evidence. Data suitable for the evaluation and summary of the non-monetary gains to the United States, and for the real returns within the host country are totally absent.

Conclusions that can be Drawn

There are particular purposes for which each mechanism of commodity transfer is particularly suited. Thus the choice among them is made partly on the basis of program objectives. Within each broad category there are possible variants in the mechanisms; no specific comparisons have been made. The U.S. ownership of local currency has created a number of problems that could be less serious if the local currency is owned by the host government, as is the case with many other aid programs. Local currency is the next issue.

Program aid, aside from the handling of local currency, is an efficient procedure for the transfer of commodities. This applies to Titles I and IV. Project aid, such as in Titles II and III, is a much more cumbersome procedure, and requires more personnel resources. But it has the real advantage that such aid can be geared to specific objectives within the host country, even when there is not an effective overall development program. Project aid is of special value in attaining social objectives.

The money returns to the U.S. are least with donations, and largest with the Title IV loan program. But the value of the non-monetary results of the programs to the United States and to the recipient country have not been estimated in a systematic way. Without such information the several approaches cannot be adequately compared.

3. The Local Currency Problem

The Issue

The accumulation of currency in major recipient countries is one problem with many ramifications. The size of the accumulation threatens to become a

political problem in some countries. The confusion as to what these currencies represent affect Congressional actions and public attitudes. The reservation of some of the currency for certain U.S. uses (Cooley loans), and the various activities associated with the allocation and expenditure of these currencies all add to the complexity of inter-governmental relations. A number of Embassy and AID employees abroad and Treasury employees in Washington are required to maintain accounts for these funds. The use of these currencies may or may not have inflationary impacts, depending upon the monetary and fiscal policy of the host country, and the U.S. may or may not have influence on these policies and the local currency use in development programs. These problems are particularly acute among the major Title I recipient countries.

The appropriate questions include the following. What can the U.S. do with present currency accumulations in major recipient countries? What can be done to insulate or prevent the future accumulation of currency? Does the U.S. have any leverage in the use of this currency? Can the complex procedures now required in certain uses be reduced or made more flexible? (The previous two questions assume the continuance of U.S. ownership of Title I currencies.) What are the conflicts between local currency use and development? In what way and to what extent can such currency contribute to development?

Relevant Research Evidence

Research and experience indicates that there is much confusion in the concept of local currency received as payment for Title I shipments. Many people in Congress and among the lay public treat this currency as "almost dollars." Yet it is clear that in major recipient nations the local currency cannot be treated as equivalent to money. Mason (48) uses the apt term

"Foreign money we can't spend" and suggests that serious political problems arise in countries where there is a rapid and substantial accumulation of this local currency. Mason and others (49) in recommendations to the Undersecretary of State (then Douglas Dillion), made two suggestions for extricating ourselves from the excess currency problem. One involved a new sales concept where the commodities would be sold for only the amount of currency which the U.S. Government realistically would be able to use; the remainder would be a grant, some part of which would be earmarked in support of particular programs. The second proposal discussed Bi-National Foundations. (pp. 30-32). Only the latter seems to be receiving current consideration.

The contribution of local currency to economic development is subject to a wide range of interpretations. According to Mason, et al., (49) it has little value.

In our opinion, the greatest single impediment to the proper handling of the local currency situation is the widespread confusion and misunderstanding over the nature of the currency itself, its possible uses, and its inherent limitations. The very words "currency" and "money" customarily denote something which is desirable to own, definitely worth saving, and only too easy to use. It is difficult, therefore, to convince people that these local currencies which we are accumulating have little in common with dollars or with other freely convertible money, and that these funds have limitations which frequently make it difficult for the United States to use them for purposes which are either in our interest or in the interest of the countries we are assisting (p. 5).

Money itself is not a resource; it is a claim on a country's resources. When the United States supplies a foreign country with the latter's own local currency, we are not increasing the real resources available to it--we are giving it an additional claim on its own resources. In fact, because such loans or grants are primarily to governments, we may be adding to the already heavy concentration of claims on the country's resources in the hands of government, at the expense of the private sector (p. 6).

and in commenting on local currency as leverage, the report states:

Inasmuch as our excess local currency accumulations have limited economic value, what of their importance as a leverage factor? Our conclusion is that, as a rule, the local currencies themselves, with their limited utility to the foreign country, do not furnish the United States with very powerful leverage. A foreign country may well accept loans of its own currency and may direct its efforts in activities or projects compatible with what the United States thinks advisable, but we believe that this is generally more the result of persuasion or of the country's desire to please the United States for political reasons than because of any leverage factor contained in the currency itself (p. 8).

There are a number of countries which have smaller Title I programs and where the inflow of local currency is small relative to the total level of the economy and not large relative to U.S. government expenditures. In such countries there are more possibilities of using most of this currency. It may be used as logistical support for military programs. It may substitute generally for dollars which would have been expended in that country through the normal operations of the U.S. Government. It may, with the consent of the local government, be allocated to development programs within the country. These may be loans or grants to governmental units or loans to nongovernmental entities.

The Mason et al. report does recognize such possibilities

There are also certain situations where these local currencies can be genuinely useful to the recipient country. In some countries, local governments lack sufficient strength and stability adequately to finance their expenditures by taxes or sound borrowing. In such cases, the sale of U.S. aid-commodities for local currency can provide the local government with funds needed to run its domestic affairs...

These special situations, however, are not the cases which contribute to the excessive accumulation of local currencies (p. 7).

Both the Japan (23) and Colombia (32) studies indicate that much of the local currency was used for agricultural development, and provided the

Ministry of Agriculture with leverage vis-a-vis the Treasury in developing budgets. This concentration, however, does not persist; and in many countries never existed. One of the local currency loans in Colombia appears particularly helpful. It seems

...that this substantial Title I currency loan was impossible to finance through local banking channels, but did convert the Cauca Valley Corporation (CVC) from an engineering and planning operation to an operating program. Its successful use of the local currency proceeds enabled the CVC to justify its applications for large international loans (p. 55).

The Israel (30) and Turkish (2) reports indicate that the projects nominally financed were already within the development budget; the true increments were financed with the released funds and have different characteristics from those nominally supported by Title I currency. Some of them do not appear to have much development significance.

Ginor's report (30) on Israel local currency investments indicates that the identified loans had a smaller import component than the average loan made through the State Development Budget, and also indicates that without Title I the total development program would have had a smaller import component. Thus, the true additions to the Israeli development program were some of the non-Title I loans, rather than those actually financed (pp. 25-47).

The Aktan report (2) on Turkey points out that P.L. 480 local currency was only a part of the counterpart fund available. To a degree it is not possible to assess which projects were truly Title I financed and which were supported by other counterpart funds (p. 327). But in a more fundamental sense the various local currency allocations in the Ministry of Defense, with the exception of a literary training program

...have not initiated any new programs..., but were used for projects that would, normally, be undertaken by this Ministry..., (pp. 327-328).

and later speaking of State Economic Enterprises

...we conclude that even in the absence of the local currency loans, all or nearly all of these investments would have taken place (p. 343).

The ECAFE/FAO report on Pakistan (24) provides a table which indicates that the government sector expanded the money supply between 1954 and 1958, by nearly 600 million rupees in 1956 and over 900 million in 1957, while P.L. 480 local currency accumulation subtracted about 300 million rupees in each of these years. Many of these accumulated rupees were spent in 1962 and 1963 on rural work projects,* fortunately during a period of good harvests so that there were no serious inflationary effects. This appears to be a case in which the early accumulation of local currency had a counter inflationary effect, but later was spent outside the budget and outside the Five Year Plan. It represents a situation in which the local currency provided significant leverage to the United States. Since many of these funds were available on a grant basis the leverage was enhanced.

Thus, aside from Pakistan, there are a number of countries, particularly among the larger Title I recipients, where the United States Government (AID) is putting considerable effort into reviewing projects which probably would be implemented anyway, yet is having, through this process, little or no influence on what are truly the net additions to the total program. An expansion of the Title I program and the increasing sophistication of the monetary authorities in various countries is likely to decrease rather than increase the leverage which the United States has with respect to local currency use, and to decrease the number of countries in which the U.S. still has some leverage.

*According to John Wilson, until spring 1964 on AID assignment in East Pakistan.

Witt and Eicher (88) conclude a discussion of local currency in these terms:

Finally, it is necessary to re-emphasize that local currency is not a developmental resource. It can be used to by-pass institutional, monetary, and fiscal rigidities, but it also is a dangerous tool, capable of promoting strong inflationary forces. Inflation, by itself, can both stimulate and warp the development process. Large accumulations of foreign currency are developing in a number of countries. Such currencies, owned by the U.S. Government, are likely to pose political problems between the U.S. and the relevant country. The arbitrary character of these funds should be recognized; they should not be treated as if they were dollars, and in some cases should be granted back to the local government... (p. 68).

Another and recent element of the local currency problem is the increased reservations of local currency for U.S. uses. Conceptual analysis indicates a conflict between increased U.S. use of local currency (and the consequent decreased foreign exchange availabilities) with the economic development goals of the recipient country. One possible major increase in currency reservation is in the Cooley loans to American businesses operating in the recipient country. Such loans may or may not contribute to development. But they can have considerable impact upon foreign exchange resources. Other aspects of stiffer terms, such as the set asides for market development, with exchange privileges, the changed rules on ocean freight, and other proposals to make "Title I more businesslike" conflict also with the U.S. and recipient country's desire for more rapid development. But there is no published research known to this research group that estimates the quantitative importance of these changes.

Evaluation of the Evidence

Most of the discussion of local currency is based upon countries which are large recipients of Title I commodities. It is in these countries that the program is large enough to have a visible impact, but in these countries the excess currency problem is likely to appear. In countries

where the Title I programs are small, the value and leverage of Title I currencies may be more favorable. These two categories should be differentiated. Still the bulk of the Title I program is with some eight or nine countries, where excess currencies are a serious problem.

Conclusions that can be Drawn

There should be more differentiation in program planning and evaluation between excess currency countries and those in which the U.S. is able to use the local currency.

Local currencies derived from Title I have accumulated to an excessive degree in a number of principal Title I recipient countries. These currencies are a source of political friction. They are not a development resource of any great magnitude and are likely to become less so as the host country better understands monetary and fiscal operations. Procedures which insulate such currencies from the recipient country's national money supply or prevent their accumulation would have many benefits and few costs.

In countries with small Title I programs the United States either has some leverage in influencing development or saves dollars over a period of years as the funds substitute for dollar expenditures. In such cases the local currency development assistance is short term assistance only, comparable to a dollar loan and likely to be less carefully evaluated. In many such countries Title I is essentially the use of food to prepurchase currency which is to be spent in the host country over a period of time.

In general, the United States incurs a substantial administrative overhead in evaluating projects, in accounting for funds, and in budgeting programs, which reduces to a degree the net U.S. returns from these currencies. Moreover, the actual marginal increments to the development program due to the combi-

nation of P.L. 480 commodities and currencies often, perhaps usually, are not the ones identified in the local currency loan agreements.

4. Expanding the Range of Available U.S. Commodities

The Issue

Certain U.S. commodities are available for all of the FFP uses. Some foods are available in limited supply, while others are never or hardly ever available for programming. One argument is that more nutritional improvement could be accomplished if a wider range of products were available. Better school lunch programs could be developed more easily with a range of products, and they could incorporate more of the protective food items. To what extent is it appropriate to restructure U.S. production for non-commercial outlets abroad? What are the costs and benefits of such changes? Is it possible and desirable to insist that the host country provide such nutrients? Are there cheap non food procedures by which the same nutritional objectives might be attained?

Relevant Research Evidence

The problem is essentially one of estimating the costs of various alternatives and the comparison of the accomplishments of the programs associated with each alternative.

Data available in the Department of Agriculture would enable agricultural economists to estimate the possibilities and domestic costs of enlarging the range of commodities available to Food For Peace. It is possible to calculate the approximate cost of producing a smaller wheat surplus and a larger soybean surplus, or to convert some of the feed grain supplies into larger quantities of nonfat dry milk. Whether the Staff Economists Group have made such actual estimates in official documents is not known but related estimates have been

made on domestic policy alternatives. There also are data and judgments available by which the USDA can estimate the amount of commodity forthcoming over a period of time as a consequence of a 5 or 10 percent increase in the price of, for example, dry skim milk, compared with other agricultural commodities.

What is not available, however, are calculations of the possible gains which the Food For Peace program would enjoy as a consequence of a larger range of commodities. Furthermore, the domestic and foreign political implications of a decision to provide a broader program, such as in nutrition, at a somewhat increased cost are not known. Even though the Public Law 480 program has operated over a period of twelve years, it has been extended on a temporary basis in each circumstance. Consequently, research to identify and calculate the benefits has not been encouraged. A restructuring of domestic agriculture to provide the kinds of commodities needed overseas would imply a permanent program and would inspire a variety of domestic and international reactions. Again there is no information; results can only be estimated.

There are other little known elements in the estimation. What would be the comparative costs of producing particular commodities within the recipient country? What would it cost to add nutrients via nonagricultural processes, in the recipient country? And how significant would such fortification be for people who might not otherwise be affected by FFP?

Evaluation of the Evidence

Not relevant

Conclusions that can be Drawn

Estimates of the costs of alternative U.S. agricultural production patterns are made periodically in the USDA. They also have information for some com-

parisons of food versus chemical additives and other means of fortification to provide an improved nutritional balance in diets. At least some of these estimates have been made in an AID-FFP context. However, there is little basis for making comparable estimates of alternative production costs in specific overseas countries. And there certainly are no data by which to calculate the economic, social and political benefits of a wider range of FFP commodities, and thus to compare benefits with costs.

5. Possible Disincentives to Agricultural Development in Host Countries

The Issue

This issue is one of the most widely discussed in Public Law 480. There is a substantial difference among authors as to the importance of the disincentive consequences of P.L. 480. Early in the P.L. 480 program, the discussion tended to be conceptual. One approach argued that any additional food shipped to the recipient country must be price depressing, hence discouraging to agriculture, and to general development because of the predominance of agriculture. The other approach was that the general development spurred by food aid would overwhelm the disincentive effects, and that some countries were already facing food inflation threats. In more sophisticated terms the issue may be posed: Does P.L. 480 actually have a disincentive effect upon agriculture directly or upon the level of effort in the agricultural development program? What internal counter measures can be or have been taken to prevent disincentives?

Relevant Research Evidence

The early articles on P.L. 480 emphasized the adverse effect on recipient country agriculture, including Nicholls (54) and Mikesell (53) but perhaps

the most widely quoted is Schultz (62). The comments by Sen (64) and Witt (84), published at the same time took issue with Schultz' on the particular point of negative impacts on local agriculture, but have received less attention.

More recently the views have become more sophisticated and a bit more empirically based. The existence of a growing population-food supply problem and of food price inflationary threats is more widely recognized. The theoretical possibility of internal agricultural price policies to offset Title I imports is developed by Fisher (28). He pointed out, first, that the effect in any case would be less extreme than Schultz postulated, and, second, that it would be relatively easy to establish domestic price policies which offset the potential negative price impact of P.L. 480 imports. Sen (64) argued that in the actual Indian situation food shortages were threatening inflation, and the prevention of this was a P.L. 480 contribution. Witt (84) pointed out that agricultural development depends on a favorable combination of forces, and that stable prices could be more effective than high but fluctuating prices.

Schultz, in his most recent book, (61) has modified his 1960 position.

There is a remedy for the unwanted side effects of Public Law 480 aid to poor countries. The large deficiencies of food in parts of Asia and elsewhere are unfortunately beyond our capacity to remedy by means of more "free" food. Even if we were to double our production and make all the additional output available, we could not distribute so large a surplus of food in poor countries without critically undermining the incentives for growth on the part of the principal economic sector of these countries.

The fact is that these food shortages cannot be permanently satisfied except by large increases in agricultural production within these countries and by a marked decline in population growth. Vast quantities of "free" food from abroad can at best only serve particular transitory objectives (pp. 6-7).

In a footnote he accepts the view of Fisher and others that countermeasures can be taken.

It is not that the P.L. 480 imports are lacking in value to the recipient country; the rub is their probable adverse effects on internal farm prices. These can be averted if proper means are taken and the country has the administrative capacity to promulgate these measures (p. 97).

Both Fitzgerald (29, pp. 8-9) and Dandekar (17, pp. 29-34, 58) argue that P.L. 480 can have some negative effects on agricultural production, and that positive internal agricultural policies are necessary to counteract these effects. But Dandekar is even more concerned (and Fitzgerald less so) in arguing against the view that lower agricultural prices may increase sales by subsistence farmers in order to obtain minimum amounts of cash.

The idea that a favorable price is only one element in stimulating agriculture is pointed to by Adams et al. (1), and that stable prices, improved knowledge on agriculture, incentives via land tenure changes, new farm inputs such as chemicals, fertilizers, improved seeds are all elements of a package which, as a group, may be more important as stimulants than a modest and falling relative price of farm products may be as a disincentive. Fisher's proposition (28) is validated (in advance) by Goering (31) as he points out that Colombian cotton prices and various development aids were favorable, even though significant amounts of cotton were imported under P.L. 480. However, the situation for wheat was closer to disincentives. A new variety encouraged production, but price and marketing policies led to a shift to barley and no change in wheat production despite higher yields per acre. Colombian wheat prices were substantially above world levels throughout.

The Turkish report (2) indicates that P.L. 480 supplies led to a relative decline in grain prices compared with farm and other prices for 1955-60, but

the discrepancy was completely eliminated after 1961 (pp. 141-42). A very recent study in India, (33) under USDA sponsorship, reportedly concludes that disincentives to Indian agriculture have not been critical. This report has not been widely circulated. The Israeli experience with feed grains is discussed at some length in the Ginor report (30). Here feed grains were subject to price controls prior to P.L. 480. After feed grain imports began arriving, the government no longer feared excessive prices, removed price controls, and both farm prices and farm production of feed grains increased. The assurance which farmers felt about adequate grain supplies, led to a significant expansion of the livestock industry (pp. 240-250). In some respects these results are more typically those of a developed rather than a developing country, at least in the sense that the elimination of effective price controls is likely to be a stimulus to agricultural production.

Evaluation of the Evidence

There seems to be no justification for depending upon theoretical arguments on this issue. Fisher's conceptual analysis indicates that it is not difficult to develop policies whereby the recipient country can protect its farmers against possible price declines due to additional imports. The question is whether the recipient country actually did so, either by conscious policy, or by a pattern of circumstances which had the same effect. And whether such a program can be effectively implemented and administered.

Empirical evidence is available for only a few of the P.L. 480 recipient countries; this evidence does not resolve the issue, because there appear to be differences among countries and also among commodities within the same country.

Conclusions that can be Drawn

Theoretical concepts indicate the possibility of disincentives, and also point out ways in which farm prices can be protected from the adverse effects of imports, whether commercial or under FFP. Thus it is necessary to investigate the specific empirical and institutional situation to determine whether disincentives occurred. The available empirical evidence indicates that price disincentives have occurred in some commodities in some countries and for certain time periods. Empirical evidence also identifies situations in which recipient country policies adequately protected or more than protected their farmers from price disincentives, or provided other incentives which offset the price disincentives. The evidence does not cover enough countries to make a general statement as to which predominates. Furthermore the incentives or disincentives of an earlier period do not necessarily persist to the present.

What can be said, however, is that disincentives may occur. Thus one important aspect of any decision to provide FFP commodities is to determine whether internal economic institutions and policies exist in the host country sufficient to offset possible disincentives. A fuller knowledge of the agricultural development process in the host country will help identify the measures needed to prevent disincentives and to create further incentives in agricultural production. The population pressures upon food supply further underscore the need for the latter approach.

6. Effects on International Trade

The Issue

Protests from competitive exporting countries have charged that their own exports have been hindered by the U.S. Public Law 480, particularly Title I,

Title III barter, and more recently Title IV. Although elaborate clearances, usual marketing requirements and other measures, have been taken to minimize these disturbances, the charges continue to be made (more commonly in professional writing than in diplomatic notes). At times in the past, protests have come that U.S. commercial exports have been adversely affected. Less attention has been given to the possible effects a larger surplus stockpile in the United States would have upon prices and levels of world commercial exports in the absence of P.L. 480. What is known about the effects on international trade and prices?

Relevant Research Evidence

The basic law under which Food For Peace operates requires that the various agreements protect the usual commercial markets of the U.S. and friendly countries. It is not possible to determine exactly whether actual Title I agreements have maintained, reduced or increased the net commercial sales of the United States and friendly countries from what they would have been. One part of the problem is the determination of the criteria against which to measure any change.

An examination of possible criteria by which to measure whether commercial trade has been affected by P.L. 480 is presented in Witt and Eicher (88, p. 27). Several of these suggest that minimum commercial purchases should increase over time due to increases in population and in levels of income, others argue for flexibility to permit a change in the structure of commercial imports, while another poses a possible decline. Actual requirements seem to have been determined largely by negotiation on the basis of historical imports. Some differences in interpretation will be noted in the citations below.

One might argue that from 1954 to 1964 there would have been an even larger increase in commercial sales as a consequence of larger populations and substantial increases in real income levels, particularly among the developed countries. If so, how large should such a growth factor be? It is also possible that the structure of commercial sales would have been different--involving less wheat and cotton and more feed grains, vegetable oils and tobacco. One can even argue that the normal growth would have been in increased industrial exports with declines or little change in agricultural trade. Since this problem is not resolved, and indeed is very difficult to resolve, the evidence on usual marketings can best be presented as historical and statistical data only. No matter how carefully stated, any statements on what would have been the case without P.L. 480 are debatable.

Crawford (16), for example, points out that India's

Cereal imports (commercial) were 20 percent of total imports by value in 1951. They were down to 3 percent of lower total value of imports in 1958 (p. 387).

But Sen (65) argues that the decline would be much smaller had Crawford used a later base, more relevant for comparison with the P.L. 480 period; and in any case that Australia benefited from larger Indian purchases of wool, made possible because she did not have to increase foreign exchange expenditures on wheat.

An analysis of Colombia's purchases of wheat, cotton and vegetable oil by Goering (31) suggests the variation in trade patterns. Comparing with the pre P.L. 480 period 1951-54,

Colombia's imports of Canadian wheat averaged less than 32 percent of average annual imports from that country during the earlier period. Imports of Canadian flour average 37 percent....Peru's share of total cotton imports has decreased little, yet Colombia's 1955-1960 imports are only

30 percent of its 1951-54 shipments by that country....
 Oil imports from countries other than the United States are
 114 percent of 1951-1954 levels, while imports from the
 United States have increased more than eightfold (p. 1003).

Table 1, adapted from the Israeli report (30), indicates a substantial increase in food imports as that country expanded its population and increased its level of income. These data show that there was a substantial substitution of P.L. 480 imports for imports from countries other than the United States, and help to account for Kahn's view (45) that P.L. 480 aid was "almost as good as dollars." The figures on industrial imports indicate that imports from the U.S. other than MSA and P.L. 480 remained virtually constant 1950-54 to 1955-60, while imports from other countries increased more than 40 percent. Even total imports from the U.S., including aid, did not increase by 20 percent (p. 97).

Table 1. Israel: Imports of Wheat, Feed Grains and Edible Oils and Fats: 1950-54 and 1955-60

	(Tons)			(Tons)		
	Annual Average 1950-54 (of US imports)			Annual Average 1955-60 (of US imports)		
	US	Title I	Other Countries	US	Title I	Other Countries
Wheat	112,912	---	125,174	239,877	127,915	62,350
Feed Grains	26,467	---	34,859	228,317	190,048	17,142
Vegetable Oils	2,281	---	1,614	6,238	5,340	1,243

Adapted from: Fanny Ginor, Uses of Agricultural Surpluses,
 Jerusalem: Bank of Israel, 1963. Computed from tables
 6.7, 6.8 and 6.10, pp. 105-107.

The Japanese report (23) has a somewhat ambivalent statement

Although it is not possible to assert that there was definitely no effect at all on the development and structure of Japan's commercial trade as a result of purchases of United States surpluses on special terms, it can be claimed that possibly with the exception of barley and tobacco, there was no appreciably great effect, since the Japanese Government has been careful to minimize any disturbance of normal trade with third countries (p. 36).

One study examines Canada's exports to a group of countries--countries in which Canadian writers argued that Canada was losing sales to the United States because of P.L. 480. Stam (69) identified 18 such countries, mainly underdeveloped, but including Japan, West Germany and Italy.

A comparison of U.S. and Canadian wheat sales indicates that Canadian commercial sales to 16 less developed nations dropped on both a relative and absolute basis from the average of 1950-54 to 1955-57 (when U.S. barter sales were relatively large) but have improved since then, particularly after 1960. The commercial wheat sales of the United States, to these same 16 countries, using 1950-54 as a base, appear to have declined more than Canada's sales.

Stan's analysis indicates trade losses to Canada in 1955-57 compared with 1951-54, but gains in 1958-63 to exceed the base years (p. 12). Japan and West Germany were major factors in the increase. An analysis for 16 countries, excluding these two indicated

Canadian annual average wheat sales to the 16 countries,..
totaled 55 million bushels, 1951-54; 20 million bushels,
1955-57; and 29 million bushels, 1958-63 (p. 313).

Table 2 accompanying this material shows wheat exports on a percentage basis, and indicates that, using the same base, U.S. commercial wheat exports declined more drastically than Canada's, but have recovered slightly since 1961.

Table 2. Percent of total wheat imports by 16 selected countries from the United States and Canada, 1951-63

Fiscal years	Total imports from U.S.	Commercial imports from U.S.	P.L. 480 imports	Total imports from Canada
	percent			
1951 through 1954	43.5	28.9	None	18.0
1955 through 1960	62.1	7.3	54.9	6.7
1961 through 1963	75.6	9.0	66.5	5.1

Adapted from Table 4 of Stam's article (69) p. 813.

Krause (46) supports FFP on the following grounds: (1) it enables developing nations to move labor forces into nonagricultural sectors, (2) it provides raw material (e.g., cotton) for industry, (3) it frees up foreign exchange for other purposes, and (4) the generation of local currencies permits the financing of new programs which otherwise would not be considered. Krause does, however, have reservations: (1) he feels FFP competes with local production, (2) that it causes distortion in world trade, (3) that it worsens the balance-of-payments position in recipient countries over the long run, (4) that it induces currency backlogs, and (5) that it does not meet all the foreign exchange demands of the recipients.

Note that for Krause the substitution of FFP imports for commercial imports is a fact, with a consequent advantage for economic development and a disadvantage in distorting world trade.

A tabulation and comparison of export prices, as presented in Witt and Eicher (88) is shown below.

	<u>1952-53</u>	<u>1958</u>	<u>1959</u>
U.S. surplus export products	100	79	76
Other farm products	100	100	99
Non-farm products	100	105	105

This seems like clear evidence that the P.L. 480 program has depressed prices of such products. But the cause-effect relationships are not necessarily so direct. It is more appropriate to say that the surplus situation adversely affected export prices, and that adequate counter measures had not been taken to resolve the problem.

Allen and Smethurst (3) argue that

Many of the complaints of third parties overlook the indirect benefits which they may have secured from food aid (p. 48).... If, as an alternative policy to P.L. 480, the United States had relied more on market forces to balance demand and supply, then its competitors would have been forced to reckon with the inherently strong competitive position of American agriculture. Both American and foreign critics of P.L. 480 appear to have underestimated the extent of the disequilibrium in the United States farming and its implications for 'normal' international trade (p. 49).

Evaluation of the Evidence

The statistics cited above appear to be accurate and reliable. The selection of the base years, however, can significantly affect the apparent results, particularly since the early 1950's was a period of decline in U.S. agricultural exports (due partly to the completion of post war reconstruction of Europe).

The data can be compared country by country, commodity by commodity, and also certainly show gains for some and losses for others. But the defi-

dition of a satisfactory world trade situation varies with the observer. Some will argue that a decline in prices and small increases in volume are the best that can be expected in light of present chronic surpluses; others will argue that stability is an adequate compromise; while still others will insist that trade should be managed so that the trade volume and exchange earnings of competitive countries increase.

Conclusions that can be Drawn

American agricultural exports have increased greatly over the past decade. Though a substantial part of this increase is represented by P.L. 480 shipments, commercial exports also have increased. The exports of third countries increased to countries not eligible for P.L. 480 shipments. Some decreases have occurred in exports to individual P.L. 480 recipients. In some cases the recipient country has been able to increase its purchases of non P.L. 480 products and sometimes of industrial products.

The export prices of P.L. 480 products have lagged behind other farm prices, and farm prices have lagged behind industrial prices. This can be interpreted as a reflection of the surpluses, or as an indication of aggressive export programs by the U.S. The two are related. Thus one cannot blame P.L. 480 exports for low world wheat prices without considering U.S. export payments, and both are reflections of a U.S. and world surplus situation.

But even so, a decline in the commercial exports of third countries (and of the U.S.), where it has occurred, and a relative decline in prices is one way of freeing foreign exchange for the purchase of other products. And since most recipients are developing countries with foreign exchange shortages, the extent to which substitution has occurred, is development aid.

Finally, without question, the United States has done a great deal to keep this substitution small, through normal marketing clauses, through clearance procedures, through reducing the size of the request, and through regular discussion of the P.L. 480 program with representatives of interested countries.

7. Other Economic and Financial Issues
(Listed only)

Safeguarding Usual Marketings

The Issue

The reason for this requirement is a desire to avoid adversely affecting commercial trade. One problem stemming from this action is the effect of various interpretations of usual marketing requirements on a developing country's foreign exchange expenditures and its economic development program. A recipient country can increase its development resources if it can substitute some Title I imports for commercial imports without a comparable loss in foreign exchange earnings. But the Title I agreements strive to limit this substitution. The normal marketing restrictions imposed by the U.S. Government, mainly via the Department of Agriculture, often also require that the export of "like" commodities shall not be increased above a particular level. (e.g. a country receiving wheat may not be permitted to export more than a recent historical level of rice or corn.) Yet the development of many of these recipient countries logically requires an expansion in agricultural exports if they are to graduate into the family of nations who trade on a commercial basis. Thus, the usual marketing restrictions and the long term economic development of the recipient country may conflict. This is partially a short term versus a long term conflict.

Trade Expansion and Economic Development: Are they
Competing or Complementary Economic Objectives

The Issue

Most developed countries on a per capita basis are significantly larger markets for import commodities than are the developing nations. Yet if the latter can be brought to higher levels of living along with a growth of their exports to pay for imports, the potential markets of the developing nations are substantial even more substantial in absolute terms. Thus in the long run, trade development will be advanced by rapid economic development. In the short run, however, trade development policies presently involve such things as convertibility of 104a funds, less generous terms in paying freight assistance, and restrictions on possible savings in foreign exchange by using Title I imports as substitutes for other imports or to free domestic products for export. What are the effects on the economic development of the host country of such requirements? Do they hinder development (significantly) and postpone attaining full trade expansion potentials?

Title II Economic Development Projects

The Issue

The expanding Title II Economic Development program is in effect a comprehensive decision by the two governments on food allocations, on the economic development project, and on the beneficiaries of the donation. There is no accumulation of local currency because the food is directly allocated to individuals or institutions working on the projects. The program donates food, provided it is distributed in a particular way to a particular group of people. There are other ways to accomplish essentially the same purpose, but the point is that in Title II agreements the United States does have leverage because

the end uses are negotiated as the food allocation is made. In this sense a Title II Economic Development agreement is a tightly bargained equivalent to a Title I agreement which includes a 100 percent local currency grant. But Title II procedures insure that there is no lag between the use of food and the creation of purchasing power. Government to government relations are likely to be smoother without periodic local currency negotiations, and inflation is not likely to be a serious possible consequence since there is no lagged expenditure of local currency. On the other hand, there have been some questions as to whether the cumbersome issuance of food by a paymaster is necessary; might money be used, with the stores in the area of the project adequately supplied with the proper foods.

POLITICAL POLICY

8. U.S. Image Formation About FFP Operations

The Issue

The program authorized under P.L. 480 has a number of Titles and multiple objectives. Several executive agencies are involved in the implementation of the program. Among these agencies, with Congress and among the interested parties outside of government there are ample opportunities for differences of view as to the purposes of the program. Have separate images been created? Have communication and coordination among decision makers led to a common, precisely defined image? Or, at least, are the emphases similar?

Relevant Research Evidence

The literature dealing with the communication and coordination of FFP operations among U.S. decision makers is not well developed. As will be apparent below, the most relevant discussions of FFP problems are mentioned merely in passing by authors dealing with other questions.

In his discussion of American farm policy, Paarlberg (56) touches briefly on the question of images of FFP. He states (in the absence of specific supportive data) that three images of the program are generally held: (1) an "ethical" image, which emphasizes the feeding of the world's hungry, (2) an "economic" image, which views the program from the standpoint of who shall supply the necessary resources and how the recipients are to be made self-supporting, and (3) a "political" image, which reflects the manner in which the program satisfies interest configurations and has public support vis-a-vis the American political process. Paarlberg concludes that these images are often held by different persons and groups.

To the extent that they are conflicting, Paarlberg feels that effective operation of the FFP program depends upon compromise and cooperation among those with different images of the program.

With regard to the question of the relationship between adequate communications and coordination and cooperation of FFP decision makers, the literature is again very sketchy. Joseph Davis (19) points out in an historical analysis that the price-support/surplus-disposal program has "dismally failed" to realize most of its objectives; there are, however, he feels, vested interests in almost every part of this "internally inconsistent and costly system" which have had the effect of forcing a continuation of the program. If what Davis alleges is correct, it would appear that imperfect communications may be partly at fault. Paddock (57) makes a similar observation; but in his view the program, regardless of inefficiency, has continued to exist because of well developed channels of communication among the vested interests (the agricultural bloc).

McLellan and Clare (51) in their historical examination of P.L. 480 during the period of 1952-1961 point to several areas of conflict with respect to FFP decision makers (Congress, the State Department, and the agricultural interests). If, in fact, this was the case, one would expect communications and cooperation to be somewhat strained because of the differences. Such a deduction is borne out by the findings of the "McGee Report" (73), which criticized AID and the State Department strongly for working at cross purposes to the objectives of Congress, implying very clearly that the image of FFP held by the State Department is not the same as that of the Congress. Menzie and Crouch (52) further document the evolution of separate images among the decision makers of the FFP program.

After examination of the manner in which the various decisional bodies reacted to the issue of the purpose of the program (foreign aid or domestic relief of a surplus problem), they conclude that different conceptions of the purposes of the program had resulted in a restricted fulfillment of the stated goals and purposes of the program.

Viner (79) criticized the operation of the program stating (in the absence of any concrete data) that it is so diffuse and complex as to make any communication and coordination impossible. Further indicating that existing communications channels are inadequate, Witt (85a) concludes that U.S. policy makers have differing perceptions of the purposes of the program regarding the reduction of surpluses, nutritional improvement of impoverished peoples, economic development of recipient nations, and political stability; while he does not mention the problem of communications specifically, it would appear that adequate communication channels would alleviate such problems.

With respect to the formal and informal channels of communication, it is relevant to note Witt's (86) description of the P.L. 480 decision-making process. The best study of those discovered dealing with this area is Ripley (59) which examines the formal channels of P.L. 480 communication (i.e., the Interagency Staff Committee) relative to the granting of aid to India. Ripley approaches his subject from the standpoint of incrementalist theory concluding,

...there is no need to insist on absolute smoothness in the working of the Executive machinery but without similar understandings of the purpose of the program the 'meshing' or 'dovetailing' of activities necessary for coordination and described in the standard works on public administration cannot exist (p. 151).

Ripley then proceeds to cite various examples in support of his case.

Finally, Menzie and Crouch (52) develop, rather briefly and in a descriptive manner, the notion of informal communications, concluding that personalities play an important part in P.L. 480 operations.

Evaluation of the Evidence

Even though the evidence is sketchy, it appears adequate to support a conclusion that disparate images is a FFP problem. The material is inadequate, however, as a basis for suggestions on how to resolve the problem.

Conclusions that can be Drawn

There are differences in the expectations or images of the FFP program. The suggestion that there are three images -- ethical, economic and political-- appears to be inadequate. There are several economic images and at least two political variants. The existence of these diverse images or views makes the communication and coordination process correspondingly more difficult, especially in the relations between Congress and the Executive Agencies. It is not clear that improved communication, in the ordinary sense of the term, will resolve the question. There are some who understand perfectly the image held by or desired by others, but are not willing to accept the program objectives implied by such an image. Thus, value conflicts.

9. Relation of FFP to Foreign Policy

The Issue

The FFP program has been both an explicit and implicit instrument of U.S. foreign policy, to a degree becoming more explicit in recent years. The principle aims are to achieve modernization, stability of government, and a greater degree of cooperation, and these are not necessarily mutually exclusive or dependent. This leads to such questions as these. How may less hunger and better nutrition lead to grass roots political institution building? Does hunger cause revolution? May food support an unpopular regime or lead to its overthrow? To what extent is it appropriate to expect concessions of fuller international cooperation from FFP recipients?

For countries like Yugoslavia, like Egypt, like Brazil? Do the U.S. domestic interests of FFP, the foreign humanitarian interests, the market and economic development interests of the program impose restrictions upon FFP as an instrument of U.S. foreign policy?

Relevant Research Evidence

The evidence, mostly provided by economists or supplementary to another issue, can conveniently be reviewed under four subheadings: stability of government, international cooperation, recipients in the Communist system, and political modernization.

Stability of government: The notion that FFP contributes to the political stability of the recipient nation is one of the well-accepted truisms about the program. From the standpoint of research findings, however, it appears to be one of the least reliable. Witt (87) concludes that food can make a contribution to several conditions in recipient nations: provision of a steady food supply has the effect of reducing urban dissatisfaction; lower food costs tend to raise urban income, especially among the poorer classes who spend a large portion of their income in obtaining food; food per se contributes to a sense of well-being; food assistance frees other production sectors for the production of items for which there is a demand among the people. While the author never addresses himself to the question of political stability per se, it would seem clear that if the alleged relationships hold true, FFP would definitely contribute to political stability.

Paarlberg (56) notes in passing that FFP can contribute significantly to political stability; the author does not, however, choose to support his comment with data. Finally, Golay (34) in a statistical analysis notes the

increasing dependence of the Phillipines upon P.L. 480 supplies while Johnson (44) makes the same observation about Brazil. Both of these seem to indicate that, if the FFP program does indeed affect political stability, FFP programs at least tend to give the U.S. some control over the internal stability of recipient governments.

International Cooperation: We are here concerned with whether FFP leads to some meshing of the foreign policy of the recipient country with that of the United States. The material available is considerably outdated and mostly descriptive.

Hultman (41) concludes from a descriptive statistical analysis that P.L. 480 has little utility as a foreign aid program because it is too closely linked with surplus disposal to have the necessary flexibility to make food assistance productive of international cooperation. He further argues that Title I programs are open to harsh criticism as interfering with the marketing and production of agricultural commodities of both the recipient and other exporting countries; that it is not conducive of international cooperation.* Finally, he concludes that Title II and III programs have done the most to induce international cooperation because they are immediate, widespread, and are effective directly upon the people; however, this contention is not supported with concrete facts.

Joseph Davis (19) notes that the complaints from friendly nations about unfair competition detract from any positive effect P.L. 480 has with respect to producing international cooperation in the recipients. Hamilton and Drummond (37) along the same lines, conclude that P.L. 480 has caused rather

*But note our earlier discussion on Possible Disincentives to Agricultural Production in Host Countries.

serious Canadian-American tensions. Fisher (27a) concludes from a historical analysis that food assistance is one of the most effective forms of foreign assistance, primarily because hunger is "the world's greatest problem" and agriculture is one of the strongest facets of the American system.

Williams (83) comments briefly on the effect of FFP programs among export recipients, pointing out that while FFP may assist individual recipients, it may damage trade relations and exports from other nations in the same locality (using the examples of Argentina and Brazil, Burma and Thailand). He also comments in passing that for a nation to have to ask for assistance in as fundamental an area as food production is not necessarily conducive of mutual respect between the donor and recipient vis-a-vis the international system.

Hayes (38) argues that P.L. 480 (among other programs) is not the best way to develop "genuine international cooperation" for the following reasons: (1) the ethnocentrism of the aid officials and experts tends to emphasize political advantage rather than genuine assistance, (2) many Americans perceive aid as a kind of charity and act accordingly, (3) there is a change-mindedness on the part of Western experts and officials which is often not appreciated by the recipients, (4) there is an imbalance of training between the experts and officials of host and donor countries which often creates frictions, (5) the vested agricultural interests of the recipient countries are often strong and resist the P.L. 480 programs, (6) the necessary American budgetary process related to food assistance reduces the flexibility of the program, (7) there is an urge on the part of Americans to see early results which is frustrated in the case of food assistance, and (8) there is a feeling on both sides that "he who pays the piper calls the tune."

With respect to the effect of food assistance vis-a-vis the international system as creator of friends and allies some very critical comments are made. Paddock (57) concludes on the basis of experience and observation that food shipments to Pakistan, Egypt, Brazil, Indonesia, and Mexico

...in my opinion, only a naive person blinded with rose-colored glasses would claim that the United States had received anything of value in return, either economic or political (p. 146).

Farnsworth (27) in a comprehensive analysis of the effects of U.S. sales of surplus wheats under P.L. 480 is very critical of barter and currency sales, contending that they create far more tensions in the international system than they relieve; she concedes, however, that the emergency aspects of the program is of some utility in the cold war.

Asher (4) argues (in the absence of supportive data) that holding of currencies are a political handicap with respect to the production of international cooperation because the recipient country (he uses the example of India) feels that the program has provided outsiders with a method of meddling with their internal affairs (especially frustrating monetary or developmental policies). Mason (48) has similar comments.

Paarlberg (56) feels that food assistance offers an excellent opportunity to induce international cooperation in that it shows the superiority of free enterprise techniques in the agricultural sector and thus induces recipient nations to follow our example. The program also, for Paarlberg, has the effect of showing the world that economic progress can be achieved in collaboration with the leader of the free world. On the basis of experience in six (unspecified) recipient countries, John Davis (18) argues P.L. 480 programs can lead to undesirable results because of the uncertainty of the availability of commodities upon which recipients are planning.

Recipients in the Communist system: While there was a great deal of controversy during the period of the last extension and amendment of P.L. 480 with respect to aid to Communist countries, it appears that little of it was based on research findings. The only work discovered dealing directly with FFP assistance to Communist countries was McGovern (50) who argued that assistance should be extended to Communist as well as non-Communist because the abundance of the American agricultural system will illustrate the superiority of the system.

Political modernization: From the standpoint of the concept of political modernization via social mobilization, very little has been written dealing directly with FFP. The vast bulk of the literature deals with economic modernization and development, which is just one aspect of the political mobilizing process, but it is relevant.

Paarlberg (56) states the following as requisities, from the standpoint of the recipients, for the maximization of FFP as a modernizing factor: (1) there must be a sufficient volume of assistance so as to make a real difference in the economy and social climate of the recipient country, (2) the assistance must not, however, be at such high levels as to displace recipient farm products and inhibit agricultural development, (3) the foodstuffs must be available over a sufficient period of time so that recipient planners can incorporate them in their general economic plan, (4) they must not, however, be so permanent that the recipient comes to expect them as his due, (5) food assistance must be supplemented with agricultural technical assistance (Paarlberg urges this as the most important condition of all), and (6) the food assistance must be an addition to dollar assistance rather than a supplement to it.

McGovern (50) feels that, on the basis of his observations, the following ten criteria must be met before FFP becomes a real force for social mobilization and hence, political modernization: (1) FFP must be made a permanent program, (2) U.S. production of surplus agricultural commodities must be planned so that commodities will be available, (3) a serious effort must be made to improve the nutritional quality of FFP foodstuffs, (4) school lunch programs must be vastly increased in the effort to improve the youth of recipient nations, (5) restrictions upon aid to Communist peoples must be removed, (6) food for wages programs must be increased, (7) surplus currencies should be used for the improvement of FFP distribution facilities abroad, (8) more use should be made of the Peace Corps for the purpose of administrative assistance in distribution programs, (9) indigenous agricultural development should be fostered through increased technical assistance, and (10) U.S. participation in and assistance to multilateral aid programs should be increased. In his evaluation of the role of FFP in modernization, McGovern cites examples (statistical and personal) from India, Tunisia, Morocco, Vietnam, Korea, Taiwan, Hong Kong, the Philippines, Dahomey, Bolivia, Brazil, Ecuador, Peru, and the Dominican Republic (the latter six in connection with the Alliance for Progress) reaching the conclusion that FFP has been a modernizing force (especially on the level of individual recipients).

Stern (70) notes in passing that the bilateral nature of the program has the tendency to restrict the flexibility and freedom of choice of recipients and thus tends to act as a damper on the process of social mobilization. Finally, in an examination of the relationship of food aid to development, the FAO (25) notes that, on the basis of a statistical analysis,

food is not a substitute for other forms of aid. They conclude that the modernization process may be slowed down when food assistance is out of proportion to other forms of assistance. On the basis of their examination, the FAO notes that in India, Pakistan, and Israel the program approach has been an excellent way to supplement modernization, but that in less developed societies, the project approach might be better employed. In either case, they conclude that food assistance can be meaningfully supplemented by food for work projects.

Evaluation of the Evidence

The materials available are disappointing in the main. There are important questions in this area and ten years of experience; yet most of the observations fail to provide a sense that judgments are based upon country based experience, perusal of policy papers, or interviews with decision makers. Paarlberg and McGovern, of course, are excluded from these comments, but here the reader tends to be locked into the views of a single individual, and even these views tend to be unduly global.

Conclusions that can be Drawn

The conclusions are mainly bland -- "There is no evidence."

It is often asserted that FFP encourages a favorable attitude towards the United States by demonstrating our concern for human welfare. Further food shipments prevent food riots, lead to political stability, and help prevent radical revolutions. It is also argued that cooperation with the United States and political modernization (democratic process) is stimulated. There is no research evidence to support such statements. There is negative evidence in the suggestion that the impetus for unrest and revolution comes from those whose present situation is worse than a previous

one, and does not come from those on the edge of starvation. The major contribution of the review of research in this area is to raise questions about some popularly accepted and presumed relationships.

If one turns to more aggregative evidence, what can one conclude about attitudes towards and cooperation with the United States from national policies? Yugoslavia probably is on the plus side, Indonesia on the minus side, with some confusion about Egypt and Poland. In any case the evidence is inadequate.

10. Relation of FFP to Other Aid Programs

The Issue

One of the objectives of FFP is the support of development effort in the recipient countries. To what extent do the administrative procedures function to enable the meshing of the several programs to occur? This question applies to U.S. foreign aid but it also applies to the assistance provided by other national and international programs.

In addition to this problem in general aid relationships, there also are specific food programs, bilateral programs such as those of France and Canada, international programs such as the World Food Program, and the possible multinational approach which the European Economic Community may develop. What kinds of cooperation or coordination are appropriate?

Relevant Research Evidence

There exists very little literature dealing with the political aspects of coordination and competition of FFP with other aid. In fact, two of the most important areas -- the extent to which various Titles of P.L. 480 complement each other, and the manner in which FFP competed with Communist

foreign assistance -- appear totally barren.

With respect to the cooperation among U.S. foreign aid programs (including FFP) Lewis (47) in his excellent study of India concludes on the basis of his research that the size of the aid program in India demands a single comprehensive aid agency; without going into specifics, he criticizes the Kennedy Administration for its failure to make FFP the integral part of AID which he feels would have made it more useful, at least in the case of India. Paarlberg (56) states (without the backing of any sort of data) that for FFP to be effective it must be supplemented with technical assistance in agriculture (the most important thing in his view that can be done to improve the program) as well as with dollar assistance (food aid can only supplement capital, never replace it). John Davis (18) concludes on the basis of personal experience in six unspecified recipient countries that P.L. 480 took the place of several other forms of assistance and that there was really no need for the program with respect to the distribution side of the program. Wolf (89) touches upon P.L. 480 assistance in India, Burma, and Indonesia in treating the general problems of aid and assistance in Southeast Asia; while there is no attempt at evaluation of coordination among the programs, there are sufficient examples to permit the reader some insight on the problem.

Turning now to the cooperation and competition of FFP with assistance from other sources than the U.S., the Organization for Economic Cooperation and Development (55) concludes on the basis of a statistical, economic study that food cannot be isolated from other forms of assistance, and on the basis of this finding, they urge a closer coordination of the overall assistance

effort. One of the better treatments of this problem is McGovern's (50) discussion, on the basis of examples, of the relationships between the FFP program and the Freedom from Hunger Campaign and the World Food Program; his conclusion is that the relationship has been fruitful but that it can be improved. Wickwar (82) contains descriptive information of the relationship between FFP and the World Food Program -- there is almost no analysis. The U.N./FAO (25) report examines various forms of food assistance and concludes that the multilateral World Food Program is a more efficient method of distributing surplus commodities than are the present bilateral programs with additional machinery for coordination, or commodity agreements with intercommodity coordination machinery.

Stern (70) concludes that studies need to be undertaken by the World Bank, FAO, and ICA with the end of using surplus commodities concurrently with other assistance for the purpose of accelerating the economic development of the recipient countries. Asher (4) argues that unless some institutionalized machinery for coordination of aid efforts is established, the needs of many of the recipient nations will not be adequately met, and in those cases in which they are, the burden will be inequitably shared. Barlow (5) in an excellent statistical study notes the large portion which food represents of total assistance supplied to the underdeveloped nations. With respect to FFP, he discusses the role played by the food assistance offered by Canada (under the Colombo Plan), Australia, France, West Germany and the manner in which the U.S., New Zealand, and the Netherlands have cooperated in the Calcutta, Bombay, and Madras milk schemes. While the author does not deal with criticisms of the interchanges, there is implicit in his argument a desire to see more coordination among the various forms

and sources of assistance. Country visits of the research team brought together evidence both of substantial coordination and of little coordination between P.L. 480 and other U.S. aid.

Evaluation of the Evidence

The evidence cited in the studies above involve a substantial personal element. They appear to range from mature judgments of people who have been personally involved in decision making to protests that there would be more evidence of coordination if such coordination actually did take place. In a few cases such as the FFP-WFP and the three city milk program in India the evidence of coordination is substantial.

Conclusions that can be Drawn

It is evident that other countries and international organizations are becoming more deeply committed to programs of food aid. The possibilities of overlap and duplication are likely to increase. Techniques for coordination among food programs have developed for a few complex and significant programs, but more are likely to be required. Between food aid and other aid programs, the evidence of substantial coordination is less compelling. The size of the food assistance provided compared with total aid requires greater effort, if productive development use is a major objective.

11. Other Political Issues (Listed only)

The Relation of FFP to U.S. Agricultural Policy

The Issue

When Public Law 480 was passed in 1954, it was considered mainly as an adjunct to domestic agricultural policy. As it has evolved over time it has

given more emphasis to other elements of the program, such as nutrition, foreign policy and economic development. Current agricultural policy and program alternatives assume certain volumes of FFP shipments. Is FFP uniquely dependent upon a particular type of U.S. agricultural policy? What would be the character of the program, policy and political strength of FFP if it were given an independent role with program needs defining the commodity input?

Relation of FFP to Political Leadership and Administration in Host Countries

The Issue

The concern here is with the factors and variables which influence the decision makers, the host bureaucracy and the U.S. administrative agencies in the host country. How do the host country decision makers view their legal and moral commitments to FFP? What role is played by the U.S. Ambassador? How do these influence the implementation of the program within the country? To what extent are the administrative responsibilities delegated, and what are their implications for effective implementation, within the host bureaucracy, or within the voluntary agencies, as the case may be?

The Host Country Image Formation of FFP

The Issue

The United States tends to have certain expectations about the response of recipient countries to FFP assistance. At times the actions of these countries appear "ingrate" or at least inconsistent with these expectations. What perception do host countries have of the program? Do they

continue to believe that their acceptance of FFP commodities is a benefit to the United States? Does the program have different meanings at different levels in the host country? If we understood these perceptions would the United States be able to (1) better understand the responses in other countries, and (2) develop programs which more fully attain U.S. objectives?

SOCIAL AND HUMANITARIAN

12. The Role of Voluntary Agencies

The Issue

The extent to which there may be a "role conflict" is the principal concern. This becomes more evident when considering changes in the size of the program. Several of the voluntary agencies place more emphasis on inducing self-help responses, promoting education, and stimulating religious activity than they do on food distribution, while FFP has no special interest in most of these, and none in the religious area. Some of the voluntary agencies would like to distribute the food at low cost (instead of free) and use the proceeds to build schools, low cost housing or support development activity. Alternative sources of funds have been developed, but the role conflict is unresolved.

An expansion in the food distribution programs requires additional staff and changes the balance in the administrative structure of the voluntary agency; and what happens if the program is curtailed? To the administrative staff? To the relationship with those who received food? The most obvious role conflict is between the mission programs of religious voluntary agencies and the distribution program, wherein the agency often appears to be an agency of the U.S. Government. On the other hand the United States may appear as if it is supporting the religious program. Another question, of some consequence, is whether the recipients become permanently dependent upon the program. Does a dole-dependent population develop or are recipients an ever-changing group in temporary difficulty?

Relevant Research Evidence

The concern with this problem has been sufficiently strong that the Executive Committee of Church World Service authorized a study of its

affects (11). Some 189 mail questionnaires (a 63 percent response) were filled out by people involved in about 30 countries. The questions were broad, solicited opinions and were to be answered from direct experience in some cases, and from discussion in other cases. The headings of the first four chapters, suggest the content -- The Effect of the Feeding Program Upon the Recipient, Effect Upon the Life and Work of the Churches Overseas, Relation of the American Churches to the Program, and the Church-State Issue.

Perhaps the most interesting part of the tabulation and discussion of the answers is this: while the answers were generally favorable to strongly favorable for the food program and its continuance there still was a strong minority on nearly every question. For example, 25 percent were not certain that the recipients knew the source of the food; 34 percent thought that undue dependency might occur, particularly among the aged, sick and hard-core refugees; 33 percent thought that the program had affected the evangelistic effect of the church (adversely); and 5 percent thought that the churches had been weakened by the program.

Thus, the great majority endorsed and supported the continuation of the program, while in a few countries, groups and individuals held a contrary view. Moreover, comments and reservations on the questionnaires indicate that some areas of doubt exist. For example,

...66 percent insisted that undue dependency upon donated food had not been created..., but large family-feeding programs and/or in areas of acute human need (India, Korea or Taiwan (p. 5).

did lead to the occurrence of dependency and a proprietary right to the food.

A contrived experiment in intergroup conflict by Sherif (66, 67, 68) discusses the development of role conflict and indicates that the introduction of superordinate goals which all must share was the effective means for conflict resolution. Such a procedure seems inappropriate in the present context.

Evaluation of the Evidence

The work cited does little more than indicate the existence of a problem. Its quantitative importance and structural relationships cannot be evaluated on the basis of present evidence.

Conclusions that can be Drawn

The humanitarian objectives of the voluntary agencies draw them into continued and aggressive participation in the FFP program. Yet as time passes they are becoming concerned with the possible relative neglect of other parts of their program, religious in some cases, broad programs of human and agricultural development in others. The commitments to these agencies by the U.S. Government and of the agency itself, both to administrative personnel and to recipient groups, make it very difficult to maintain FFP program and commodity flexibility. And the U.S. Government in turn is exposed to charges that it is supporting particular religious approaches, and using these institutions as instruments of national policy.

13. Influence of FFP Upon the Individual's Competence for Social and Economic Development

The Issue

The most important problem is the argument that extreme malnutrition at an early age (weaning to about age 5), leads to effects upon the psychomotor system such that mental and physical rehabilitation can never be

complete. If true, then such pre-school children clearly are a very high priority for any food distribution program with nutritional and human development objectives. However, it is possible that the incidence of severe malnutrition is associated with cultural deprivation, and that the subsequent failure of efforts at full mental rehabilitation may be due to cultural rather than physical deficiencies.

In any case the influence of FFP upon the individual's competence for development is an important topic. Does more and better food affect the productivity of those receiving it? Are they able to work more hours of the day and more days of the year? Do they perform more effectively when they do work?

Relevant Research Evidence

The nutritional research bearing on this problem has been summarized recently by Coursin (14) and will be discussed under Health and Nutrition -- The Pre-school Child. Here we are concerned with the social and psychological influences of food distribution programs, and their effects upon productivity and participation in development activity. One outdated report compares calorie level and output of German miners after World War II, indicating a positive correlation. Another suggests that better food, health and housing in a Latin American plant, or on a plantation leads to greater productivity of the workers, but the methodology is inadequate and there were no control comparisons.

Evaluation of the Evidence

The concepts are important but the evidence is not available to indicate either their possible quantitative importance or their validity.

Conclusions that can be Drawn

We do not know what effect additional food has upon the individual's capacity for work, and for participation in meaningful development activity.

14. Influence of FFP Upon Recipient Country
Institutions and Communities

The Issue

As Title II and III programs function in distributing food it requires new institutions or adaptations of present ones, and it provides something new in the school or community. What happens in the schools where school lunch programs are operative, to the children, their teachers, to attendance and to the family? Is the program of such a type as to elicit voluntary help, donated equipment, other commodities? Does the program add further to the tasks of the scarce administrative talent, or does it create and train such people?

Relevant Research Evidence

One kind of research evidence would evaluate the nutritional change, if any, as a consequence of the program, placing major emphasis upon the ultimate recipient of the food. The other would consider the changes in the community which are direct or indirect consequences of the program, perhaps affecting people who never received any FFP food. Both kinds of research are relevant.

A large number of nutritional studies have associated urbanization with a decline in breast feeding, and a consequent necessity for new food concepts and institutions. These studies also suggest that with urbanization come changes and some flexibility in food habits and patterns to become more like

those expected in developed nations. Specific research on school lunch programs is largely absent. However, Devadas and Radharukmai (20) found that a test group of Indian children showed a significant nutritional improvement when given one-third of their daily food requirement in an experimental school lunch program. They also indicate the program altered food tastes and significantly increased sociability. Some of these results are open to question on methodological grounds, but nevertheless this research is worth reporting and has a certain measure of validity.

A letter from Joe D. Wray, Rockefeller Foundation in Cali, Colombia to Alan Berg, FFP White House offices, states:

Well over a year ago I undertook to learn what I could about the effectiveness of school feeding programs. Having found nothing helpful in the literature available to me, I wrote to several people whom I considered to be authorities, including Nevin Scrimshaw, Les Tepley at UNICEF, V.N. Patwardhan at WHO, and to someone at the FAO in Rome. Scrimshaw wrote that one well managed program studied by INCAP personnel in El Salvador produced no significant improvement in the children studied. He suggested that one reason for the lack of information in literature, is probably the uniformly discouraging results. Tepley described a highly successful program in Puerto Rico, but pointed out that it was based on providing three meals a day. He added, 'It comes as a surprise to most people to learn that there have been very few well-controlled studies on the effect on health of supplementary feeding of school children.' Neither the WHO nor the FAO people provided any more useful information.

When one contemplates the fact that various international agencies have been enthusiastically pushing school feeding programs for nearly two decades, and that thousands and thousands of tons of skimmed milk have been consumed, thus it is utterly incredible that so little concrete evidence is available concerning the effectiveness of such programs. The problem would seem to boil down to the fact that individuals capable of carrying out adequate studies are not where the school feeding programs are.

During 1964 an AID research contract was approved to study the school lunch program in highland Peru, comparing three schools utilizing the program against three schools not under the program. An interim report to AID might provide some solid evidence.

With respect to the leadership development, the changes in the community and institutions, the record is even more limited. The Michigan State research group has been unable to identify either a research publication, or even a systematic report which listed community changes. The report of the Church World Services (11) does suggest that the overall structure of the foreign missions has been changed to accomodate the food distribution program, and the majority replied that the image of the church has been enhanced.(p. 9).

Evaluation of the Evidence

The reports available do little except provide possible working hypotheses.

Conclusions that can be Drawn

None.

15. Other Social and Humanitarian Issues
(Listed only)

Social and Social-Psychological Factors
Influencing the Distribution of New Foods

The Issue

The surplus foods available from the U.S. do not always match the food habits of the people in the recipient countries. Thus, the alternatives are to change the structure of U.S. surpluses, to shift the food habits of the recipient people, or to process the food in such a way as to make it more acceptable. Bulgur wheat is an example of the third approach, trying to bridge the gap between wheat surpluses and rice deficits. What are the factors that limit the adoption of such a new food? In what ways may it be possible to accelerate the adoption process?

Advantages and Disadvantages of Large Scale
Multi-Country Title II and III Projects

The Issue

As FFP developed, a number of administrative procedures were formulated to serve as a basis for distributing food to needy groups. These involve distributing organizations and types of programs. It is convenient to retain these procedures because they are familiar and have operated so as to transfer substantial quantity of products. But there has been little evaluation of their general effectiveness. What are the disadvantages? This general evaluation would be in terms of the particular goals of each program.

Role of FFP in Disasters

The Issue

The incidence of disasters is such that speed in providing food is a major criteria of effectiveness. Yet the complex logistics of providing food supplies out of far distant stocks and via international or national government, other than the one in which disaster strikes, make a slow response inevitable. How quickly has the U.S. reacted? What improvements can be made? What role does FFP really play? Is it in restoration of inventories? What might be done if assistance of an organizational character were provided to help meet the immediate problems of those in distress?

The Social Effects of Food Withdrawal

The Issue

Title II and III programs tend to have low priority for U.S. surplus commodities. Thus there tends to be substantial instability in the availability of particular products. In addition programs are curtailed in

certain countries for reasons of foreign policy, or because of failure to observe administrative specifications. What are the social effects of such curtailments, or of program cessation? Are there ways in which program reduction can be made so as to preserve many of the past gains?

Effects of Housing Projects on Living Conditions
of Former Slum Dwellers

The Issue

Substantial amounts of Title I currency and significant Title II resources are being directed toward the improvement of housing. What are the consequences?

Effects of Cultural Exchange and Other
Local Currency Uses

The Issue

A substantial amount of Title I local currency is being used for social and cultural programs. What have been the effects of such programs?

Social Factors Influencing the Acceptance
of FFP Commodities in Particular Countries

The Issue

In each country there are likely to be a series of rational and some irrational beliefs about United States foods. People may believe that the foods are undesirable in the United States, which may lead to rejection. Or they may simply be unfamiliar. Or the use of these foods may lead to "dependency upon the United States" so as to place X country in a future dependency status. If this view is held, then political and social

agitation may focus on the program. Such cultural and political attitudes need to be identified and steps taken to deal with them.

Learning How to Effectively Use New Foods

The Issue

Even when food is not rejected, people will be unfamiliar with its specific qualities. Food preparation in ways which fit taste patterns will facilitate adoption. It may be possible to teach nutritional principles at the same time. In what way can social and cultural factors be used to facilitate adoption? What are distributors of food doing to communicate such knowledge?

POPULATION AND FOOD SUPPLY

16. Relation Between Population and Food Supply

The Issue

The overall relationships existing between population and available food supplies form the present environment for FFP. This is characterized by actual or emergent excess production in many of the developed countries and by food shortages and malnutrition in the developing world. The rates of change in population and in food production are rapidly changing the character of the environment in which FFP will operate in the future. What is likely to be the indigenous food supply-population relationship in the major developing nations? Is the food gap likely to be larger than the surpluses available in the developed countries? What can be done to improve the situation, in the developing countries, in the United States, in developed nations?

Another series of questions involve the quality of the projected supply relative to population. The quantities of proteins and other protective foods are less than adequate at present for satisfactory nutrition. What is likely to be the future situation with respect to those foods needed for a nutritious diet?

Relevant Research Evidence

There have been a number of attempts to gauge and project these relationships. Two broad approaches have been used, with a number of modifications within each. One of these involves nutritional food needs; the other food demand, sometimes including but oftentimes not taking account of foreign exchange earnings.

The need approach is based upon an estimate of minimum diets, usually above actual levels in most nations, particularly in the developing world. This approach emphasizes the need for nutritional quality in the available food. Such diets, multiplied by population are compared with world food supplies. Future nutritional needs and supplies are projected on the basis of recent trends in population and food production to provide regional and world balance sheets. All such calculations indicate large and rapidly growing deficiencies in food production, with animal proteins and protective foods particularly short. Even if there are substantial errors in these calculations, the gap between projected needs and food supplies looms as a major world problem. The ghost of Malthus cries "Vindication, at long last!"

The USDA report "The World Food Budget--1962 and 1966" (76) and a later report for 1970 (77) represent the first of these approaches. They have drawn on supply data accumulated and published in a series "Food Balances in Foreign Countries," (75) and on nutritional and other help to define protein, calorie, and other diet needs. The FAO also has made calculations of world food needs defined in a similar way. Such studies make it clear that the nutritional challenge cannot be met easily, and is far larger than the annual surplus potential of U.S. agriculture.

The contrast between calculations of needs and of demand is discussed in Cochrane, Mackie and Chappell (113) when they refer to nutritional deficits and economic deficits. The first is defined as

...a shortage of available calories and protein per capita to meet minimum physiological requirements for the maintenance of health and normal activities. The second is defined as the tendency for food demand to outrun supplies during the early stages of economic growth. (p. 961).

The demand approach in estimating present and future demand and supply relations is more complex than the calculation of needs and supplies. One variant is that implied in discussions of market development--the amount of future commercial purchases in the world market compared with the amount available for sale in these markets. Since agricultural production is increasing most rapidly in the wealthier countries, which encompass nations providing the majority of the world trade, the prospective balance is far less favorable for agriculture.

Another and more usual approach is to ignore the foreign exchange problem and to calculate the increase in food demand in terms of its own currency as population increases and per capita income changes, to compare these figures with the current demand, and thereby estimate the increase in production plus imports that will be needed to maintain current relative prices. Such an approach implies that improvements in nutrition will come mainly from individual decisions as they spend larger incomes, and assumes that many countries will continue to have significant numbers of people suffering from malnutrition. These estimates usually project rather significant increases in demand, though smaller than the increase in nutritional needs. They will become real future demands only if the foreign exchange shortages of the developing nations are met, by hard currency loans, a growth in exports of present soft currency countries, or through "sales" programs which bypass the shortage of hard currency.

Estimates of the world demand for food have been presented in several places, including Cochrane et.al.(13) cited above. One of the most comprehensive of these is an FAO document attributed to Goreux (22), in which estimates are made of population and levels of income for 1970 and then

converted into a demand for food, using income elasticities appropriate to countries at that income level. Production projections were made on the basis of judgments and data about the recent past. Comparisons of supply and demand on a country by country basis and by commodities give estimates of trade potential, provided foreign exchange problems can be met. The results clearly indicate that there is ample within-country demand, but that the foreign exchange availability is a major limiting factor. P.L 480, of course, can be a way to approach this problem, though repayments on previous Title I sales can work in the other direction.

This approach also is incorporated in a series of USDA sponsored studies (78), mainly based upon soft currency research contracts. Qualified research organizations abroad project, for a specific country (usually their own), the level of demand and supply for farm products and the likely volume of exports and imports of these products. Such studies have been or are being made in all parts of the world, including Japan, India, Turkey, Austria, Ghana, West Indies, Colombia and others. Such studies will provide an improved base for future global supply and demand projections.

The FAO State of Food and Agriculture presents data each year on current trends in population and food production. Since about 1959 these summaries show a worsening relationship in all regions in most years except for North America and Western Europe, but increases in North America were sufficient to offset decreases elsewhere. However, in the last two years, due to a larger increase in population, due to the effect of production controls in North America and other factors, the aggregate world picture has deteriorated. The changes have not been dramatic, three-five percent in a region from one year to another, and one to two percent on a world basis, but such

small changes if long continued mount up over a period of time. The USDA's 1965 World Agricultural Situation (74) estimates a decrease for 1964/65 from 105 to 104 over the year previous, with 1952/53-1954/55 per capita production as 100 (p.4).

All of these projections clearly imply that local agriculture in the developing nations needs to expand far more rapidly than it has in the recent past. They also clearly support the arguments of those who propose a vast increase in efforts to control population growth.

Probably the best single source for a comprehensive review of Population and Food Supply is provided in Lester Brown (9). Since he and his material are available in the ERS-USDA, no summary will be attempted. However, the contrast between developed and developing countries can be shown in another table prepared by Brown (19). Table 1 of this paper, refers to grains which

Table 1. Indexes of grain production, area, and yield, population, and output per person by economic regions of the world, 1934-36, 1948-52, and 1960*

Region	Quantity	1934-36	1948-52	1960
Developed	Grain production	100	112	151
	Area in grain	100	96	100
	Yield per acre	100	116	151
	Population	100	106	120
	Output per person	100	106	126
Less-developed	Grain production	100	106	142
	Area in grain	100	118	132
	Yield per acre	100	90	108
	Population	100	123	146
	Output per person	100	86	97

* Developed regions are North America, Europe (including Soviet Union), and Oceania; less-developed regions are Asia, Africa, and Latin America

constitutes 71 percent of the world's harvested crops and provide about 53 percent of man's supply of food energy.

Note that the aggregate increase in production is not too different. However, the developed countries expanded production by increasing yields, while the developing countries did so mainly by increasing the area in grains. And the per capita supply increased significantly in the developed countries while it declined slightly in the developing countries.

Evaluation of the Evidence

Projections are among the most difficult things economists are called upon to do. It is easy to identify areas of weakness; difficult to substitute more appropriate procedures. Actual population projections tend to be under-estimations if one assumes that further improvements in public health and further declines in the death rate will take place, particularly for young children. Previous estimates usually have been underestimates. Population projections tend to be overestimates if one assumes that birth control and family planning will become widespread in the villages of Asia in the next several years. Actual food supply projects are likely to be under estimations if one expects an acceleration of agricultural development effort and the use of new technology. Over-estimation seems unlikely, except for possible significant disasters which substantially reduce food production, but might be a consequence of less than expected success in increasing agricultural productivity.

Conclusions that can be Drawn

The FFP program operates in a changing environment between food production and population. It also operates in a situation in which for many people the foods and incomes available are not adequate for a nutritious diet.

Estimates of nutritional food needs are substantially in excess of present production. While there are calculated to be shortages of calories in some countries, the major gap occurs for protective foods. This gap is

sufficiently large as to go well beyond any possible international food distribution program. A significant part of the food gap, therefore must be met by expanded internal food production of the countries with food shortages.

These food needs and food supplies have been projected into the future, using recent trends in food production and population growth. On this basis, the gap between needs and supplies is increasing rapidly, to nothing less than crisis proportions.

But food needs do not necessarily convert into a demand for food. Individuals whose food intake is inadequate or improperly balanced may have neither the income nor the knowledge which converts to actual market purchases. Therefore estimates of present and future demand have been calculated.

Estimates made within the framework of expected foreign exchange earnings lead to a slow growth in food exports and the extension of the food surplus situation to additional developed countries.

The potential demand is much greater if the foreign exchange problem is assumed not to be a bottleneck. Estimates based on probable future levels of income and population, indicate demand deficits for some commodities and supply deficits for others. It does not appear likely that these changes in demand will significantly improve the world pattern of malnutrition.

17. Other Population and Food Supply Issues (Listed only)

Non Assistance to Surplus Crops

The Issue

The likely pressures of population on food supply require a substantial and wide ranging effort in expanding agricultural productivity.

The comparative advantage for some countries is in expanding for export in one or two commodities, and using the consequent foreign exchange earnings to pay for imports of other food commodities. Assistance from the United States in such efforts often is requested. Yet such assistance and the actual expansion in exports are contrary to U.S. policy, if the products to be expanded are in surplus in the U.S. What are the possible alternative policies? Are any of these alternatives preferable in the long-term context of U.S. interests in dealing with the world food problems?

Agricultural Potentials

The Issue

The lag of food production behind the growth of population is such that both imported supplies and accelerated rates of internal food production are required. If such advances cannot be made, then FFP will face increasingly difficult choices in allocating supplies among countries and programs. The agricultural potentials of specific countries need to be identified and when identified, steps taken to attain these potentials by other AID, USDA and host government activities. FFP programs can assist or limit such efforts as agreements are negotiated and quantities of commodities specified. These interests are somewhat peripheral to FFP in the short run but significant in the long run. FFP agreements may be useful in bargaining for appropriate agricultural efforts.

Population Potentials and Controls

The Issue

This is the other side of the food supply/population relationship. While

other units of AID and government are studying these problems, FFP is concerned that progress be made in solving them. Also it may be useful to try to identify whether FFP has affected the rate of population increase.

Effects of Rural-Urban Migration

The Issue

In most developing countries, rural to urban migration occurs at a substantial rate. A major share of FFP commodities are utilized in the urban centers, and many recent migrants are likely to be part of the low income groups participating. The food habits of rural people often differ from their urban counterparts, and change as the migrants adjust to the urban environment. Program needs may be different for these ex-rural dwellers, and also they may be in a situation in which new foods and new food habits can be developed.

Use of FFP to Support Agricultural Development

The Issue

In addition to the general concern with agricultural expansion, described earlier, there are specific ways in which FFP can be an implement to induce change in agriculture. Feed grains can support a modest expansion in livestock production. Food can assist new settlers or the beneficiaries of land reform while the new farms are being established. Food can also provide a guarantee against short supplies in urban centers as a consequence of deliberate changes in agricultural structures which might cause the loss of part of a year's production.

HEALTH AND NUTRITION

18. Increasing Knowledge of Human Nutrition--The Pre-School Child

The Issue

Nutritional studies at home and abroad clearly demonstrate that a large fraction of the people in the developing countries are affected by malnutrition and nutritional deficiency diseases, by an associated lowered resistance to infections, and often by a descending spiral of health and well-being. Nutritional evidence also indicates that the pre-school child is the least well-fed sector of the population in most of the developing nations. Programs to reach such children are difficult and expensive. The problems of the pre-school child focus particularly on the period immediately after weaning. One of the approaches is to reach the child through the parents via education. The parent must become aware of the special needs of the child in this age bracket, and provide food beyond that which can be gleaned from the general table. Maternal and child health centers reach only a portion of the pre-school children.

There are a number of puzzling aspects to this problem, which press against the frontiers of current knowledge in nutrition. These include such items as, the adaptation of the child to some degree to reduced levels of intake, the relationships between food adequacy and physical and mental development, and the needs of lactating mothers and children in cultures where breast feeding continues for an extended period. The increasing urbanization of the developing world, however, is associated with an increase in bottle feeding. There is some indication that low quality milk substitutes and inadequate bottle sterilization and food handling may be accentuating the infant nutrition problem in the lower income groups, due partly to lack of knowledge.

Relevant Research Evidence

One of the frequent products of research is the identification of new and puzzling problems, even when the research does clarify and explain the problem initially identified. Thus, present and recent research provides much information on nutrition at home and abroad, yet brings up new and as yet unanswered questions. Moreover nutritional research in developed countries is not necessarily fully applicable in countries with much lower levels of food intake, and different patterns of consumption.

Malnutrition at an early age has effects later in life of impaired physical development, but during the acute phases of postweaning malnutrition there are obvious signs that the child adapts to a lowered nutrient intake. No scientific explanation for such adaptation has yet been determined, according to Gyorgy (35, 36). Children on plainly unsatisfactory diets are retarded in growth compared with better nourished children, yet they often appear relatively healthy in general physical appearance and activity, although their diets may be deficient in protein, vitamin A and other nutrients. Conversely, they frequently succumb in greater percentages to infectious diseases than do well-fed children of the same age group. See Woodruff (90).

The adaptation of the post-weaning child to minimal nutrient intakes is observed but the detailed research which leads to understanding has not been done. This would require metabolic studies, concerned with protein, vitamin A, carotene, riboflavin, iron and fat in malnourished pre-school children and normal control children in the same age group. It is expected, but not verified, that the nutrient requirements of individuals malnourished early in life will be lower than in control groups, and that this situation may extend into adolescence and adulthood.

The nutrition of women prior to conception and during pregnancy and lactation can influence the health of both the child and mother. Since pregnancy and lactation impose requirements for nutrients beyond the needs of the nonpregnant woman, which frequently are not met by an increase in the dietary intake, better methods of evaluating nutritional intake and status during these periods are needed. Numerous reviews summarize the piecemeal type of data presently available on the nutritional physiology of pregnancy and lactation and its relationship to the health of the infant. Although many publications have reported on (1) dietary intakes during pregnancy, (2) the composition of human milk, (3) growth and development of infants and children in relation to nutrition, and (4) physiology of pregnancy and lactation and the influence of some aspects of nutrition thereon, there is little information on the interrelationships of the findings.

Studies of nutritional status during pregnancy, and growth and development of the child in some scientifically advanced countries have provided information on nutrient intakes which are adequate during pregnancy. However, they have elicited little information on dietary requirements for lactation, partly because of the great decline in breast feeding in the European and North American populations. The importance of breast feeding in developing countries is difficult to over estimate. Accordingly, attention to nutritional factors favorably influencing the quality and quantity of breast milk is particularly germane for providing maximal nutritional health of mothers and infants in developing areas. The most severe problems of malnutrition and starvation occur in the young infant who cannot be successfully breast fed and as the prevalence of breast feeding as a consequence of urbanization, cultural change, and even advertising in favor of bottle feeding. Walker (80) and Welbourn (81) discuss nutritional aspects of these changes.

Evidence relative to the influence of dietary quality on human lactation currently is conflicting. From India have come reports which imply that successful long-term lactation can occur in the face of what appear to be gross dietary inadequacies. Data from Nigeria indicate that in a given lactating woman the quantity and even quality of breast milk is relatable, within limits, to the quantity of good protein consumed. If these latter data have general application they would imply that great improvement in the nutriture of the breast-fed infant can accrue through the improvement in the mother's diet. Practical implications of such concepts for the design of effective public health and educational programs are apparent.

In areas where supplemental feeding programs and rationing systems are in effect there are provisions for some additional allowances for the pregnant or lactating woman. The nature and size of these allowances varies as does the time during pregnancy when they are first issued. Despite the acceptance of the principle of additional rations during pregnancy and lactation, no prolonged or extensive investigations have been made which assess the acceptability to and use by the mother of such rations or their physiologic benefits. Existing data from developed nations are not particularly relevant to malnourished subjects with cereal based diets and in cultures and environments where there are great differences in energy expenditures during pregnancy.

There is much evidence in regard to the quantitative adult requirements of vitamin B₁₂ and folic acid. But the quantitative requirements for folic acid by infants and young children have not been established despite ample evidence of the occurrence of deficiencies. Similarly there is only fragmentary evidence concerning the growth promoting effects of vitamin B₁₂ in children.

Vitamin B₁₂-responsive anemias in infants and young children are less frequently encountered than are those responsive to folic acid. Despite this, anemia in infants, which responds to vitamin B₁₂ administration, is well established. In other work in animals, a deficiency of either of these vitamins results not only in anemia but also in growth failure and death. There is almost no evidence regarding the requirements of folic acid for growth in man.

Vitamin B₁₂ in foodstuffs is usually associated with animal protein and, indeed, this vitamin was at one time designated as an "animal protein factor." Dietary vitamin B₁₂ deficiency is a well-recognized syndrome among persons who subsist solely on food of vegetable origin. Again, the bulk of evidence pertaining to dietary deficiency of vitamin B₁₂ concerns the development of a pernicious anemia-like syndrome in adults(50). In order to plan adequate diets, particularly those which are based on cereals, it is essential to have information pertaining to the quantitative requirements of these nutrients. This includes both the minimal requirement necessary to cure or prevent the anemias resulting from a lack of these hemopoietic substances, and the requirement for growth.

Some recent research suggests that serious malnutrition at an early age leads to both physical and mental retardation. Fairly extensive research with rats and other animals would seem to indicate and support the suggested relationship between malnutrition and the permanent psychomotor system impairment. Not all nutritionists are prepared to extend these findings to human populations without further verification. And, as pointed out in the Social and Humanitarian Section, the cultural levels likely to be associated with cases of severe malnutrition may also limit the potential mental development of the child. This question cannot be considered resolved.

The association of serious early malnutrition and retardation of brain and mental development involves the fact that about 90 percent of the growth of the head and central nervous system occurs before age five. Three different reports discuss the available information, namely Coursin (14), Stoch and Smythe (71), and Cravioto (15). Coursin summarizes a number of studies, and indicates that the earlier the occurrence of extreme malnutrition the less chance there is that the effects of mental and physical rehabilitation will ever be complete. The extreme malnutrition generally is associated with kwashiorkor and marasmus and prior to the age of six. Questions may be raised as to the definition of "extreme malnutrition," so it is best to quote a recent review.

We quote the opening paragraphs of the article by Coursin (14), but omit his extensive references.

While the general physical debilitation of undernutrition has long been clinically obvious, it is only recently that reports from world-wide programs for its evaluation and treatment have led to a growing awareness of its related subtle effects on central nervous system function. Various studies have shown that these alterations in brain activity occur primarily in undernourished pre-school children, particularly those under four years of age, whose deficient dietary intake, high incidence of parasitic infestation, and disease synergistically limit the availability of nutrients and produce abnormalities in molecular structure and chemical energetics within the nerve cell. Furthermore, even though they may demonstrate "catch up" in physical size through the new cell growth that occurs with adequate nutritional therapy, the established aberrations in nerve cell activity in some of these youngsters are not readily corrected and, if of months of prolonged duration, may be irreversible.

The timing of limitation of nutrient intake during these early years correlates well with the rapid increase in nerve cell mass and cellular differentiation that normally produces some 90 percent of normal brain structure by four years of age. It also coincides with the specific "critical periods" of sequential maturation and myelination of the brain as it integrates into functional units in the development of mental abilities.

Interestingly, reports of evaluation of newborn children in some of the developing countries have shown them to have normal performance on a standard scale of 100 with many of them capable of superior neuromuscular performance at birth; comparable to that expected in European newborns at four to six weeks of age. Longitudinal studies suggest that if these infants are provided with adequate nutrition, good medical care and environment, they will make excellent progress (120 to 140 on standard psychometric testing) with gradual gradation of abilities to within the usual normal range of 100 to 110 by three to four years of age.

In contrast, infants of similar initial abilities but who received a deficient diet and lived under poor health and environmental conditions during these early years, showed not only retardation of physical growth and development but tested at a level that was approximately 25 percent below normal standards (score 75) of central nervous system capacity by three to four years of age.

In studies of undernourished children, those who exhibit the marked clinical changes of kwashiorkor and marasmus are the ones who most frequently come under study. Their treatment with long term adequate dietary measures usually produces a satisfactory remission of the general clinical symptomatology but in many instances there is evident lack of improvement in the functional capacities of the brain. Apparently, the duration and extent of nutritional deficiencies in these children has impaired the normal critical cellular maturational processes of brain structure. Their intellectual, psychological and neuromuscular capacities are found to be some 10 to 25 percent below those of normal controls. Although this does not represent a marked degree of mental retardation, it is enough to limit the individual's ability to realize his inherent potential and minimizes his possible contribution to his own well-being as well as his asset value to his nation (pp. 65-66).

We turn next to some of the programs which attempt to reach the pre-school child. Such children represent the major public health problem in developing countries. In many of the developing nations some two-thirds of the children under 5 years of age are malnourished and therefore have little chance to develop their full potential. Sickness rates are very high because these children have diminished resistance to the usual childhood diseases as well as to the parasitic infestations to which they are exposed

in their environment. Mortality rates in this age group are also very high, sometimes 40 times higher than comparable figures for children of the same age group in the United States or Western Europe.

In order to reach the child, parents must be taught the kinds of available foods which are suitable for the child. In communities where nutrition education has not yet been begun, nutritional supplements such as protein concentrates, red palm oil, or fortified complete foods may be more acceptable when given as medicine than would be the same substances presented as food. It is important to reach the homes. Even maternal and child health centers reach but a portion of the pre-school child population. Two recent reports which deal with this problem are Jelliffe (43), and Tepley and Balcome (72).

The most extensive effort to introduce a special food for child use, in an effort to bridge this nutritional gap, has been in Central America with Incaparina. However, efforts to introduce it have been based largely on its nutritional value without emphasis on product variations that enhance its flavor, color and texture. A concise history of the development of Incaparina is provided by Moises Behar (6).

Evaluation of the Evidence

There is more than ample evidence certifying to the existence of a critical nutritional situation for the pre-school child, particularly for some months after weaning. Yet there are a number of puzzling problems which make it difficult to define the specific content of the program to meet the problem. These involve both the quantity of additional nutrients required and the ways in which significant numbers of such children can be effectively and efficiently reached. However, such gaps in our knowledge do not downgrade the importance of the nutritional gap for this sector of the population.

Conclusions that can be Drawn

In many developing countries about two-thirds of the pre-school children are subject to malnutrition. For a significant number extreme or serious malnutrition appears at an early age, usually after weaning. The high death rate among small children is one of the consequences. Other consequences include physical and perhaps mental impairment, some of which may never be restored, even if good diets are provided later in life.

Such malnutrition is a consequence of economic, cultural and knowledge factors. The people are unable to purchase sufficient quantities of the more expensive protective foods. The reduction in breast feeding and the inadequate quantities of food, particularly proteins, for human lactation appear to be related to the problem. And for many families the nutritional and special food problems of the very young child are not known.

The specific kinds of malnutrition have been described. The level of specific nutrients required to correct the situation, so far as the people in the developing countries are concerned, are not known in detail. Operating programs may be faced with the possibility of stretching supplies to reduce cost and expand coverage with consequent improvement but less than optimum nutrition versus the possibility of a smaller, higher per capita cost program but with an adequate supply of critical food elements.

Program alternatives for the pre-school child include: (1) nutritional education so that parents provide added supplies of protective foods locally available, (2) nutritional education of a more limited character combined with programs to distribute appropriate supplements, or (3) a special food for child use distributed commercially. The latter could be modified to become (2), it

might be sold under a subsidy, or it might be combined with some sort of educational-advertising campaign. Any of these alternatives are likely to be relatively costly on a per capita basis, compared with school lunches, for example.

19. Expanding the Production and Processing for
Foods of High Nutrient Value

The Issue

The important contribution that expanded domestic production of food can make to feed the rapidly increasing world population has been discussed previously. In addition to a sheer volume increase in available food to maintain the present structure of consumption, significant nutritional improvement requires a change in the structure of production and consumption of foods. One possibility is expanding and shifting the structure of the "surplus" supply of U.S. commodities but in view of the immensity of the task and the problems of internal distribution in the developing nations, major attention must be given to production changes in the developing countries themselves. Existing foods can be made more nutritious in a number of ways. Nonfat dry milk and other products can be enriched with vitamins, and controlled fermentation may be used to increase the protein content of foods; fish protein concentrate is proposed as a particular supplement, and cereal products can be fortified with vitamins, minerals and perhaps amino acids, protein or amino acids may be used as supplements to other foods.

What are the potentials of such efforts? What are the major problems?

Relevant Research Evidence

A number of foods can be identified as having a special contribution in providing vitamins, supplying substantial amounts of proteins, or in providing

specific amino acids which strengthen the within protein balance, and in furnishing other essential food elements. For example, yellow sweet potatoes (as opposed to white) provide carotene, a vitamin A precursor; legumes and oil seeds both provide large amounts of protein and amino acids likely to be short in diets based on grains; meat and animal products tend to be more costly sources of protein and energy but do provide amino acids difficult to attain otherwise; fish protein concentrate makes the same kind of diet contribution.

Another approach, which is particularly relevant for the plant based diets of many developing countries, is the effort to identify a group of plant products that will provide the proper levels of all the amino acids. Such a combination may be able to supply the animal type proteins in the proper amounts at less cost than to rely upon animal products.

The problems and possibilities of increasing production of such products are properly in the area of agricultural development; their contribution to improved nutrition warrants special efforts to increase their production and use.

The development of new plant varieties could be designed to (1) increase the protein yield of major crops used for energy, (2) improve the quality of the protein by increasing the amount of specific amino acids, and (3) increase the total caloric yield. Vitamin A deficiency commonly occurs in most developing countries and is usually responsible for eye disease and sometimes blindness. The more commonly used vegetables are nearly devoid of carotene, the precursor of vitamin A, although many vegetables do contain carotene.

Animal products (milk, eggs and meat) have been recognized as important sources of high quality protein and protective vitamins and minerals for many years. In fact a diet of whole eggs (boiled) and distilled water has been used

to maintain rats through four generations with no adverse affects, attesting to its high nutritional value, and except for iron and copper content, and perhaps vitamin C, whole milk is essentially a complete food.

The levels of critical B-complex vitamins are provided in generous amounts by animal products, almost without exception. Meat products are excellent sources of amino acids, lysine, methionine and cystine; and milk and eggs contain high levels of all essential amino acids including lysine, tryptophane and the sulfur amino acids. For these reasons, small amounts of animal proteins including fish proteins, can be expected to materially improve the amino acid balance and adequacy of the protein mixtures generally consumed by people subsisting primarily upon cereals and limited amounts of other plant proteins.

At the same time it must be recognized that feeding cereal grain and other feeds to animals which could be consumed by man is less efficient than direct consumption of those food-stuffs by man. In every country, however, there are fibrous feed resources such as pasturages, roughages and by-products which are unsuitable for man to eat, but which can be used to support, in large part, production of cattle, goats, sheep, or other ruminant animals or limited swine or poultry meat and egg production. In addition, significant amounts of poultry meat and eggs can be realized by small size "scavenger" flocks for rural families, where insects, worms and plant materials are available and occasional kitchen or table waste contribute materially to the total animal food supply in many developing countries. But to go further into this area involves the whole of agriculture, animal and plant disease and controls, improved nutrition, the more effective use of fertilizers and chemicals, water control projects and so on.

More directly relevant are the efforts to substitute plant protein for animal protein. In many areas of the world, high quality animal protein is

either very scarce, expensive or both. Due to this fact, many people are forced to derive their protein intake largely from plant protein sources. Usually one or more of the essential amino acids are somewhat lacking in these diets, thus reducing the overall efficiency of the food. For example, in areas in which the major part of the caloric intake is furnished by wheat, millet, teff, barley or sorghum, lysine is the chief limiting amino acid. Similarly corn diets require both lysine and tryptophan supplementation while rice diets require lysine and threonine. It is often noted, in Jansen and Howe (42), that most of the protein shortage in the world is one of the quality not quantity for the above outlined reason. Quality, as used here, refers to an adequate amount of each amino acid. If one amino acid is limited, the other amino acids, available in adequate amounts, are wasted so far as the human dietary system is concerned.

Research on this problem has taken two general trends: (1) Amino acid supplementation of vegetable diets; and (2) the attempt to combine various available vegetable proteins in such a way as to increase the chief limiting amino acids, as indicated in Scrimshaw et al. (63).

In the former area, Howe et al. (40) indicate that in the cassava/banana/yam-eating segments of the world, the nutritional value of the protein concentrates will be greatly affected by the protein content of the remainder of the diet. They point out that supplementation of these diets with lysine, threonine and methionine singly or in combination would upgrade the quality of the oil seed proteins to values approaching or equal to that of a high quality animal protein, casein. Howe indicates that such a diet would be equally adequate for infants and adults.

Scrinsshaw et al. (63) on the basis of favorable biologic and clinical findings indicate that their experimentation reveals that vegetable protein mixtures may be used in supplementary and mixed feedings of infants and young children and may also be used as low-cost protein-rich food of good quality for persons of all ages where the basic ingredients (of the mixtures used-- INCAP mixtures 8 and 9 plus corn and beans) are available and animal protein sources are either expensive or in short supply.

There are many foods preserved by traditional methods of fermentation that are known to be highly acceptable in certain countries. These include fermented soybeans, fish paste, tarana-a blend of bulgar and milk, pickled vegetables, and idli, a bread-like product made by the action of leuconostoc bacteria on a dough containing black gram (a black pea) and rice. This product supplies two to three times as much protein as an equal quantity of rice and is simple enough for home use. The flavor is said to be pleasing and bland and the texture is like leavened baked products.

Processing indicates the possibility of additives not requiring additional farm raised raw materials. Thus vitamin enrichment of nonfat dry milk is part of the current FFP program; time has not been sufficient to evaluate its effect.

But in this area of food supplements, the U.S. Government and the FFP program have become very aware of fish protein concentrate (FPC). Its proponents claim that FPC represents potentially an abundant and economical source of high grade animal protein. They point out that protein concentrate prepared from fish requires no refrigeration or special handling and offers an effective means of getting this protein resource into the diets of the people who need it most desperately. FPC can be produced in many forms, but the form of immediate interest is a fine, light-colored, nearly odorless and tasteless product

which results from a process that has been developed by the USDI Bureau of Commercial Fisheries. Borgstrom (2) is among those who argue that the potentials of the fish industry is exaggerated. He argues that the existing natural resources are being fairly thoroughly exploited (by large scale Japanese and Russian fishing ships particularly) and that scientific management of the oceans must come next. Even so it is probable that present resources are not being fully utilized as an aid in nutrition.

The feasibility of a fish protein concentrate is under study. A Scientific Advisory Committee on Marine Protein Resources Development was set up as a sub-committee of the Food and Nutrition Board in the National Academy of Sciences, National Research Council, to counsel the Bureau of Commercial Fisheries on their research program. More recently, this Committee extended its responsibilities to include the conduct of those studies, surveys and activities required to establish the feasibility of the use of FPC as an aid toward the elimination of human protein malnutrition on a global basis, with emphasis on such problems as the feeding of pre-school children and pregnant and lactating mothers. This Committee has been chartered with the presentation of a complete feasibility project by September 1, 1965.

Although much is known today about the processing conditions required for the production of high quality soybean protein products, the conditions needed to make high quality protein supplements from cottonseed, peanut, coconut and sesame are more difficult and less well defined. Methods of producing cottonseed meal protein of reasonably good quality are known, but most industrial plants in the U.S. as well as in developing countries fail to handle the cottonseed protein with sufficient care to achieve a quality suitable for use in

human diets. In most instances, minor revision of plant operations and some additional equipment would permit routine production of a cottonseed meal with acceptable protein quality for use in formulated foods and for pre-school children. In addition, the level of gossypol and halpen substances can be reduced sufficiently low to be quite suitable for human feeding with the proper application of present technology. Use of genetic gossypol or even the glandless cottonseed varieties will further reduce this concern. Improperly processed cottonseed protein is relatively low in the essential amino acids, lysine, tryptophan and methionine. These amino acids frequently limit the value of the total protein where diets contain only cereal and other plant proteins.

Since cotton production is common in many of the tropical and sub-tropical countries with serious protein deficiencies, cottonseed protein has received attention for possible increased use as human food. Peanuts, coconut and sesame are less widely distributed or available in smaller quantities, but they too offer prospects as protein supplements. The USD Southern Regional Laboratory has devoted extensive research to the improvement of cottonseed protein, and indeed has received some AID support. In spite of this, only a few plants in the U.S. or elsewhere are now producing cottonseed meal suitable for use in formulated foods for man.

So far as amino acids are concerned, lysine availability especially is critical in cottonseed, peanut, coconut and sesame protein and almost all cereal proteins are low in this essential amino acid. Application of improved processing technology in the production of food grade as well as feed grade protein supplements can materially improve their nutritive value and extend the effectiveness of the protein mixtures. The technical and management problems may impose a number of difficulties.

In addition proper handling and storing of these materials are essential to minimize the problem of mycotoxin contamination from molds and fungi. This is especially critical for peanut proteins, where aflatoxin contamination is known to be a real hazard. Suitable control measures and methods of aflatoxin detection are known, however.

Cereal based diets are common in the developing nations, with 60 to 80 percent of the calories provided by cereals. In such countries an improved diet requires some high protein foods, particularly in rice-eating and corn-eating countries. Young children suffer the most because their rapid growth calls for more protein, yet they tend to be fed starchy gruels that often contain less protein than the usual adult diet. Special supplemental foods for children have been developed, but tend to be expensive relative to the usual foods, inconvenient, and lacking appetite appeal.

Evaluation of the Evidence

There appears to be general agreement upon most of the information presented. The problems are of a different character and do require further technical information. To what extent should the United States become involved? What is the cost of various levels of participation? What kinds of programs should be developed? Where? How much will they cost? And how should costs be allocated between governments and among the people participating?

Conclusions that can be Drawn

There are a variety of ways in which more nutritious foods can be provided to people in the developing countries.

- (1) The varieties of crops can be shifted so as to be more nutritious.
- (2) The pattern of crops can be structured in favor of a higher protein content.
- (3) Modest increases can be made in animal production by better utilization of wastes and forage.

- (4) Plant breeding, with time, can upgrade the nutritional quality of present food crops.
- (5) The above four items can be done both or either in the United States and in the recipient country, with emphasis on the recipient country.
- (6) Nonfarm produced additives and irradiation procedures can provide certain nutrients.
- (7) Fermentation and other types of processing can increase the protein content of the food and make it more storable.
- (8) Carefully controlled processing procedures can preserve more of the basic food elements (such as amino acids), prevent or limit the presence of potentially toxic elements and thus utilize for human food a larger proportion of the plant proteins, such as provided by cottonseed, peanuts, coconuts, soybeans and sesame.

20. Other Health and Nutrition Issues (Listed only)

Evaluation of Foods and Nutritional Status of People

The Issue

The food produced and prepared, and the parts considered edible, vary from region to region. Foods which contribute essential elements to the diet of one region may not be practical (even if the cultural problems can be overcome) for use by people in other parts of the world. Some foods show marked differences in nutrient content from similar food grown in other areas. At the other extreme, it is necessary to identify foods which may or do contain toxicants, foods which carry residues naturally occurring from pesticides or other chemicals, or foods in which toxins or allergens may occur. The recent efforts to convert protein concentrates to suitable human foods, especially for feeding small children, draws heavily on products which may be associated with toxic agents.

Another area in which knowledge is inadequate is in the trend analysis of nutritional status. The ICNND surveys do provide a great deal of information

in levels of health and nutrition at one point in time. Food balance sheets (discussed under Population and Food Supply) are one technique for estimating whether the aggregate food supplies are improving or deteriorating, and the previous section suggests that some deterioration has occurred in the past several years. But the situation for individuals at or below nutritional adequacy is not uncovered by aggregative data. An analysis of family food budgets is one way to identify the trend in those groups more likely to suffer deficiencies. Another approach--and likely to be more reliable--is the periodic repetition of ICMND surveys, particularly when there is reason to believe that changes have occurred. Also, such surveys are the major procedure for determining within family deviations in nutritional status.

Problems in Distributing Improved Foods

The Issue

There are a wide variety of problems that might be subsumed under this heading. The cultural resistances to new or improved foods were discussed in the Social and Humanitarian section. Certainly nutrition specialists have a concern with creating foods which are likely to be culturally accepted. But the problems posed here are technical and by implication economic. An improved food can be produced in a laboratory or a small pilot plant, but eventually it must be produced and consumed on a commercial scale. This normally requires a substantial capital investment in plant and equipment. A source of raw material is needed, which may require significant changes in farm production patterns in the vicinity of the plant. There need to be market prospects for

the resulting product, and with a new food there is no assurance that the product will be purchased in significant amounts. Even if the product is distributed through public or charitable agencies, it is always possible that frustrations, or unexpectedly poor results will cancel the program or shift to another product. This problem is obviously far less severe if the product can be produced as a part of an existing plant operation, with little specialized equipment.

Problems of Nutritional and Health Education

The Issue

Better nutrition for the young child almost certainly requires some nutritional education of the parents. For other sectors of the population, there may be ways to advance nutrition without this emphasis on education. Still, in order to make maximum use of food resources, there is need for education and training of people at many levels, since there is a shortage of people and a paucity of positions for people who would become the communicators at the town, village and farm level. The nature of the nutritional challenges clearly calls for a dramatic increase in these kinds of talents if a large scale communication of the desirability of a changing diet is to be accomplished.

PROGRAM OPERATION

21. The Consistency and Relations Among
FFP Objectives

The Issue

Food For Peace is characterized by multiple objectives and dispersed responsibility for program operation. The program objectives tend to be fragmented into groups which go to one or another major agency, and sometimes to different units within that agency. Objectives attached to FFP and its legislative predecessor include surplus disposal, market development (for U.S. exports), economic development (of the recipient country), improved foreign policy (support of U.S. positions by recipient countries), better nutrition, and improved social and humanitarian relations in the recipient country. The objectives associated with various local currency uses would extend the list, ranging from military support to cultural exchange.

It is inconceivable that any program can efficiently attain all of such varied objectives although it might to some degree. Hence, for effective overall functioning, it is essential to establish the extent to which two or more objectives are mutually consistent, competitive, or partially complementary. Further, priorities need to be established between and among objectives and groups of objectives, so as to program effectively among competitive objectives. Overall evaluation by Congress and especially by the public often fails to differentiate among Titles and Sub-Titles, so that the entire program may be damned by an aberration in one area.

A first question is: Now, after more than a decade of operation, can these objectives be clarified and integrated? The second question is:

Are the political costs of clarification of objectives too high to be acceptable? If not, towards what purposes should the program be integrated? Or, what priorities are attached to each of the objectives? Important questions about the future of FFP can not be answered unless there is at least a preliminary answer to such questions.

Relevant Research Evidence

Evidence of the multiple objectives of FFP can be provided by almost any serious report on the program; the list would be very long. One of the more charitable views is provided by Benedict and Bauer (7)

The existing program is a result of compromises of many kinds and hence does not reflect in to the thinking of any one group or individual. That, of course, is inevitable in programs that must be arrived at through democratic procedures.... But we now have more experience than we had when these programs were taking shape, and some important elements of the over-all problem that were not apparent then can now be more readily seen and understood (p. 203).

The authors go on to suggest ten changes in emphasis and procedure.

Briefly a few.

1. The program should be authorized...on a longer-term basis.
2. More emphasis should be given to...building up the poorer and newer countries.
4. For some of the very poor countries the [local currency] loans should be supplemented by grants...
7. The USDA should be responsive to requests for purchase... with foreign currencies but should not pursue an aggressive sales policy as it is virtually required to do under existing legislation... (pp. 203-204).

Heady (39) examines the framework of U.S. surpluses as aid, concluding that the program can take different molds, depending upon the end or goal of the program.

Confusion over the extent to which portion of outpouring from the U.S. farm supply function can or should be used in assistance programs to less developed nations stems from differences in values, beliefs about facts and ends of economic

interest groups. Some people press it in pure humanitarian hope. Some sincerely believe that it can or should be used as a primer in economic development of backward nations. Others support it in terms purely of their own economic interest, and policy proposals and legislation have both been made in this vein. Some groups who would call 'foul play' should Canada or Australia pour their surpluses into the United States ...are not unwilling to dump farm surpluses in other countries, without concern over detrimental price and income effect (p. 640).

Willard Cochrane, in an article published in 1960 (12) criticised the program in these terms.

But perhaps the most important point...is their failure to produce, or generate, lasting benefits for the recipient countries involved (p.18).

Would he support this statement today? In his 1960 article a seven point proposal for making the program acceptable included these items: (1) Except in famine situations, the commodities are to be used exclusively to finance economic development, (2) Once committed to a development plan these commodities become U.S. committed "development supplies" regardless of levels of U.S. agricultural production, (3) Financing procedures, (grants, loans, sales for local currency) would be convenient to the recipient country but with the basic objective of speeding economic development, (4) The recipient country must provide evidence that they purchase "normal" outside supplies, (5) Other outside financing is necessary for the development program, and (6-7) Referred to the desirability of programs by other countries and by a U.N. agency.

These suggestions are for a clearcut priority emphasis on economic development, with concomitant effort to avoid interfering in commercial trade. If one examines P.L. 480 against economic development objectives, one of the major evaluations is presented in a 1961 paper (16) by Sir John Crawford (Australia). He drew four main conclusions.

1. The subject under discussion arises from the fact of surpluses which have risen for reasons quite other than a desire to make them available for development.
2. There can be little quarrel about using surpluses for purposes like famine relief and buffer stocks against seasonal changes in supply.
3. Although there are important qualifications and difficulties, there are nevertheless circumstances in which U.S. farm surpluses can be a resource (whether 'powerful' or not is more debatable) for economic growth in the recipient countries. The two principal circumstances are present when food is needed beyond the reasonable expectation of home agriculture and when foreign exchange is a limiting factor in the use of available and usable domestic factors of production.
4. This relevance to growth is found when food disposals replace commercial imports but is also possible when they are additional to some measure of commercial imports. A first limiting factor is the total volume of food imports required to meet a level of consumption regarded as a necessary minimum as an integral part of the total plan. Imports (whether disposals or commercial) beyond this level may not be necessary for economic growth (pp. 391, 392).

Heady (39) in arguing for economic development sets up rigorous criteria for food aid.

Only where it can be shown that the food will not substitute for other claims in exchange, will not depress development of agriculture in the recipient country, will not displace exports from other nations and does not divert resources within the United States from more essential commodities for foreign development, can surplus disposal be considered a perfectly neutral program with no danger of sub-optimum or negative outcome in respect to development (p. 643).

In further examination of development as the objective, Heady states

...there is need to develop American farm policy which eliminates and restrains buildup of surplus supply and which frees the public capital so represented for more optimum developmental purposes. In this sense both goals might have been better attained had we paid U.S. farmers to cease production here, and travel to foreign countries to aid cultivators in their decisions (p. 644).

A report by the OECD (55) also discusses food aid as development aid in a less provocative vein. Among its conclusions were the following comments.

The basic question is whether food aid is a desirable way of putting the productive resources of the developed countries at the disposal of the less developed ones. The analysis of the present report suggests that this may be the case so long as the productive resources in the agriculture of the developed countries cannot easily be shifted to other uses. Food aid may thus represent in the short run a net addition to the total amount of aid. Countries with agricultural surpluses are prepared to give them as aid and in the short run may not be willing to give aid in other forms.

Food aid, however, should not be regarded as a permanent arrangement. It would not be an economic solution in the long run for the developed countries to maintain by subsidy a large domestic agriculture and to export their surpluses on non-commercial terms to the less developed countries. World economic growth can best be promoted by having each region produce the industrial and agricultural goods for which it is relatively best fitted. The long-term objective should therefore be to promote maximum economic growth in both developed and underdeveloped regions, and if less developed countries can reach a higher level of economic development and find increased outlets for their exports, they could progressively increase the proportion of goods which they can purchase through commercial channels and achieve the pattern of imports best suited for their needs.

Food aid therefore cannot remove the need for other forms of aid to assist the country's development....

In view of this close relationship, it seems desirable that food aid should be more closely integrated in the development plans of receiving countries, where such plans exist, and also that there should be more provision than there is at present for co-ordination between food aid and other aid programmes (pp. 12-13).

It may not be too unrealistic to characterize the first years of P.L. 480 as a combination of surplus disposal and market development. After 1958 long-term commitments were being considered and geared into national development programs. In 1961 social and humanitarian concerns were given added emphasis. Also the pressures of population upon food supply in an increasing number of countries made it realistic to consider food as a possible instrument of foreign policy. In late 1964 and 1965 a nutritional concern is being emphasized. The President's letter transmitting the 1964 Annual Report and

AID's vitamin enrichment of nonfat dry milk are cases in point. The renewed emphasis of some groups on trade expansion and market development, however, is a demonstration of continued multiple goals and possible inconsistent objectives.

Even so, the closest approach to priority assessment probably is the allocation of supplies to the several titles. Thus a high priority is given to Title III domestic donation and a low priority to Title III foreign donation. But the latter, compared with Title I priorities, seems inconsistent with the current attention to emphasizing nutrition.

These statements suggest that there have been drastic revisions in the actual program operations over the past decade, as one or another objective was emphasized. Yet, except in terms of new programs, the changes are hard to identify. Most of the old approaches continue to function in customary programs. One way to identify priorities might be to think through a mandatory reduction of 50 percent over a five-year period; then using as a base the program which would persist at the end of five years, consider how it would be expanded. What programs would be maintained and which ones curtailed? What FFP program requirements, if any, would be translated into changes in the structure of U.S. agriculture? Which ones into host country agricultural development? Perhaps in this way it would be possible to assess today's priorities and build a more integrated program.

Evaluation of the Evidence

The material presented above are judgments of mature people, but they are judgments.

Conclusions that can be Drawn

The P.L. 480 program image in the executive departments has tended to

shift away from its early emphasis on surplus disposal and market development. In the late 1950's, economic development was given emphasis, including four-year commitments to facilitate programming. Since then emphasis has been given to foreign policy support, to social and humanitarian aims and especially to improved nutrition during the past year. Even so the older objectives and customary programs persist, with renewed emphasis on trade expansion. In the views of some, there has been little lasting effect within the recipient country; while in the views of others, it is a less efficient but none the less positive contribution.

There has not been a systematic effort to evaluate alternatives, and to identify the way in which the multiple objectives of FFP interrelate. Yet it is clear that both competition and complementary exist among these objectives.

Priorities in the allocation of surplus commodities to Titles and Sub-Titles are not consistent with the current emphasis on human nutrition.

In any case the apparent shift in emphasis upon objectives has led to new programs but with no apparent curtailment in most existing programs, except that some countries were shifted out of eligibility as their foreign exchange position improved.

22. Possible Future Changes in Program Size, Emphasis and Their Implications

The Issue

The FFP program has evolved from a temporary program (which might be categorized as surplus disposal) to a continuing program which gives increasing attention to nutrition and economic development. There are a

variety of specific ways in which the program can be shifted within this broad change in emphasis. The physical facilities and the internal social and economic absorptive capacity limit the total volume of FFP shipments that can be made to a specific country. It would be useful to have some specification of these limits for major recipient countries. What guidelines are available for choosing among changes in emphasis, including such items as: (1) a planned change in the commodities available for shipment, (2) procedures which complement and support the growth of agriculture in the host country, (3) guidelines to field personnel to enable them to better calculate the U.S. interest in developing a large or a small program, and the commodity composition thereof, and (4) value of proposed new procedures.

Relevant Research Evidence

In one sense all the research, as well as all the experience of Agricultural Attaches, Food For Peace officers and administrators is relevant. In another sense the relevant evidence is the information specifically organized to provide guidance on alternative programs. We turn to the latter area, despite the sparseness of materials.

Experience, i.e. difficulty, has shown that there are limits to the amount of commodities that a port can handle, or that can be stored, transported or distributed. There are a number of reports, usually by consulting firms, in some of the embassies dealing with storage and processing facilities and the possible size and location of new facilities. Some of these recommendations are being implemented. The recent experience in attempting to ship more wheat to India is also evidence that there are physical limits, at least at present, in the amount that can be received. This amount is

influenced and in turn influences other imports and exports, and the priorities the host country attaches to the movement of products into, out of and through the port.

In rice consuming countries a favorable rice crop quickly leads to a reduction in the level of wheat consumption, and often in wheat prices. Under such conditions there is a need for a short-run cessation of imports, and perhaps even some re-exports of wheat so as to avoid depressing internal prices or having the wheat deteriorate in storage. Personnel in this project observed some of these problems in East Pakistan. Within limits, there may also need to be some evaluation of the role which social and cultural problems may impose upon the shifting of food habits.

The problems faced in the emergency distribution of food, as under Title II disaster relief, are common knowledge even though each case has some unique characteristics. And reference has been made earlier (Social and Humanitarian Section) to the possible implications of a larger or smaller program upon the structure and program emphasis of voluntary agencies.

The need for an expansion of internal agriculture in the recipient country, and the need to be quite sure that FFP supports rather than conflicts with such developments, also puts a premium on program planning.

Similarly for U.S. domestic agriculture and agricultural policy there are a variety of alternatives and implications as various sizes and program emphases are given attention. The Staff Economists group in the USDA have a substantial amount of information and calculation on such alternatives.

But comparable data and calculations are not available for the overseas part of the program with anything like the same degree of comparability. If

they were, then it would be possible to compare the economic, political, social, budgetary and administrative implications of shifts in the composition of U.S. agricultural surpluses, of changing the balance between production controls and FFP exports, and adjusting the programs over time so as to attain greater continuity of specific projects. Such foreign and domestic problems, possibilities and their implications, need to be carefully thought through and interrelated.

But the evidence, information and analyses of such alternatives are not at hand. There are various bits and pieces, mainly with respect to domestic alternatives. The costs and benefits in social, foreign policy and economic terms are simply inadequate for the importance of the issue.

Evaluation of the Evidence

As already indicated the information of the quality required just is not available.

Conclusions that can be Drawn

The importance of this issue in terms of forward planning for government, suggests that there should be a substantial number of documents which evaluate the pros and cons of alternative kinds of projects, levels of operation and so on. The preparation of such documents normally raise questions which stimulate research, at least within government. There is a great paucity of information, however, by which add foreign costs and accomplishments to domestic program alternatives, and upon this basis to judge and compare alternative ways to deal with the excess productive capacity of American agriculture.

It just is not possible to make decisions about the program size and emphasis on the basis of "hard facts" about costs and accomplishments.

23. Statutory Changes that would Expedite the Administrative Processes

The Issue

Many FFP procedures follow those developed for domestic operations far from the needs of FFP. Are there alternative and simpler approaches that both protect the public interest and expedite arrangements? Since the process of administration usually is complex in the recipient country, and capable public administrators are among the more critical personnel shortages, there are sound reasons for trying to hold down the administrative burdens. The problems of end use accounting in donation programs are not easily resolved, and at the same time, the process of accounting, itself, creates a series of time consuming problems.

Similarly, other elements such as package markings, the procurement of commodities in the U.S., the allocation and expenditure of local currency all are subject to a set of rules which do not always make sense and often are restrictive on imaginative FFP programs. Can flexibility be increased without encouraging improper actions?

While these questions are written as if the problem were statutory, some alternatives may be available without changes in the statutes.

Relevant Research Evidence

We know of no really relevant research effort. Instead let us suggest several alternative approaches which may clarify the issue.

There has been some effort in the last year or so to combine shipments under different Titles to the same country so as to reduce ocean freight costs and facilitate shipments. The advantages and limitations of such procedures may be available to program administrators; if not, someone

familiar with the situation should be asked to review the experience.

An extension of this procedure should likewise be examined. Under present procedures a country with multiple P.L. 480 programs will have duplicating distribution programs. Under Title I, imported commodities will flow into the established commercial markets and use existing distributional facilities in moving to ultimate consumers. Any Title II projects will require separate personnel and rented facilities for warehousing, processing, transportation and distribution. Such procedures may be essential in areas of natural disaster, but not necessarily for handling at point of entry (except for U.S. regulations and the need for end use accounting). There also are likely to be several Title III projects each with duplicating warehousing, transport distribution facilities and personnel to control commodity flows. Are these duplications necessary for statutory or for administrative reasons? Could procedures be worked out whereby wheat flour, for example, were purchased through regular market channels with local currency accumulated from Title I wheat imports, thus short circuiting the port, warehousing and internal transport procedures?

It might work something like this. Title I wheat shipments would be increased by the amount of Title II and III wheat and flour, and all charged in the first instance. As the invoices are turned in to the agricultural attache, an estimate of the landed cost (70 or 80 percent) could be reimbursed from Title I local currency paid when the "Title I plus" shipment was received. The remainder would represent internal warehousing and distribution costs which the voluntary agency would defray from resources presently available. This should result in some cost savings due to efficiencies of scale, and it certainly would reduce the personnel costs

and problems of the Title II and III operating agencies. This procedure may not be useful in the handling of small quantities of commodities such as nonfat dry milk which are included in Title III but not Title I agreements. It should not be difficult to maintain priorities on commodity availability by Titles, if this is necessary, by rules on reimbursement from Title I currency.

Thus the Colombian Government would pay the U.S. Embassy, who would pay the voluntary agency or local government unit, who would pay the marketing firm who would pay the Colombian Government. The wheat would flow from the U.S. to the arrival port, where a Colombian agency takes responsibility for internal distribution. The voluntary agency would purchase authorized amounts out of this commodity flow in whatever city or town was most suitable, and distribute the commodity free to schools and other consumers.

The above procedure immediately runs into objections due to the package markings provisions under Title III. Yet to a substantial degree today, the ultimate recipient does not actually see and handle the package of commodity sent from the United States. In school lunches, for example, the child receives a roll and a glass of milk, or other commodities ready to eat. Posters and word of mouth are relied upon to convey the message about the source of food. This procedure could be continued.

The package markings also bring up another question. The legislation specifies a procedure designed to communicate a message, and the message is intended to create an attitude towards the United States. It seems appropriate to work back from the desired attitude and see whether there

are alternative ways, perhaps better ways, to develop this attitude, and to examine what attitude knowledge of the source of the food actually does create. For example, the presence of the food may simply confirm the view that rich countries should assist the poor, just as the wealthy man is expected to assist his poor relatives. If so, then the absence of the program may create negative attitudes, while the presence of the food prevents developing a negative attitude, but does not create a positive one. This is only one of several possible consequences and contradictions which might be explored if a shift from the statutory marking requirements is considered.

It is believed, but this may not be true, that one item which takes considerable time is the advertising-for-bids-and-directions-to-ship phase of the program approval and implementation process. In disaster relief and in new programs there often are sound reasons for expediting the arrival of the first shipment. One way to do this is to establish an exception to the bid procurement procedure. (The writer is not clear as to whether such exceptions are presently possible.) Another alternative, not always physically feasible, would be the allocation out of Title I shipments of commodities already enroute or in the host country, following reimbursement procedures discussed earlier.

The allocation and use of local currency from Title I has become increasingly complex as the Bureau of the Budget and Congress apply procedures treating these funds as if they were dollars or nearly so. This makes it difficult, even though it should be easier in excess currency countries, for the United States to effectively utilize these currencies either to sponsor research, to obtain local materials and services, or to influence and

strengthen institutions in the host country in directions desired by the United States. One can sympathize with the desire to have some control over the U.S. agency uses of these funds, but the administrative procedures followed should reflect the realities of what these funds really are and should not support the myth that they are deferred or near dollar earnings from Title I sales. Obviously, there are differences among countries; in excess currency countries the procedures should be minimal (as if dime's worth rather than dollar's worth of currency were being spent).

Evaluation of the Evidence

Not applicable.

Conclusions that can be Drawn

This is a summary of views based on personal experiences rather than a summary of research conclusions.

It is proposed that an almost totally different procedure be explored for major commodities utilized in Title II and Title III programs. This procedure would combine Title II and III shipments with Title I all the way to the town where distribution to consumers takes place. For approved Title II and III programs, the commodities would be purchased in the local market. The voluntary agency or other distributing agency would pay the market firm and be reimbursed by the U.S. Embassy. Distribution costs could be handled about as at present. It is believed that such a procedure would reduce costs, and certainly reduce manpower needs.

Package markings requirements could not be maintained by this process. It is suggested, however, that the fundamental reason for package markings is a desired change in attitudes. Investigation of this process may provide other means, e.g. the posters often used at present, to convey the message and perhaps more effectively attain the desired change in attitudes.

Procurement for new and emergency programs might tap the Title I flows of commodities in the same way, or be used as a basis for occasional exceptions to the normal complex commodity procurement procedures.

The use of local currency in excess currency countries should be liberalized so that it can easily and quickly be used for U.S. Government purposes or to influence in desired directions the host country institutions. In such countries the simplified procedures should act as if dime rather than dollar equivalents were being expended. Grants of local currency should be substantially greater than they are at present in such excess currency countries.

24. Other Program Operation Issues (Listed only)

FFP Policies and Strategies in Individual Countries

The Issue

The FFP program can relate to several areas and levels of host country operations. Title I and IV are a type of balance of payments support, while Titles II and III influence local institutions and individual welfare. Any of these can operate as distinct programs with self-contained objectives or they can be related as integral and integrated parts of the U.S. objectives in that country. AID has had aid evaluation teams in a number of countries, but all too frequently they have given only passing attention to the optimum role and function of food aid in the country programs. There are outstanding exceptions of course. The separate responsibilities of AID and the USDA particularly, but also of other departments tend to develop world wide policies which interfere with specific country programming. Are there procedures which would make improved country level policies and strategies possible?

Market Development Effects

The Issue

One of the objectives of Public Law 480 and continued under FFP is to expand the commercial markets for U.S. farm products. In the long run there is likely to be much complementarity between this market development objective and economic development objectives. That there may be several kinds of short-run conflicts was suggested earlier in the Economic and Financial section.

But the issue of concern here is the question of whether market development efforts do have the effects which they are designed to create. To what extent do advertising, promotion and public relations provide a positive increase in the markets for U.S. farm products? Which of the various techniques is more effective? Are such efforts effective in Western Europe but not in developing countries? Under what circumstances does such a program work? And what are the implications of such programs for longer term development?

The Pre-School Child

The Issue

The nutritional problems of the pre-school child were discussed in the Health and Nutrition section. The decision to try to meet this challenge presents a host of program operation problems. How can the proper food be made available? It seems likely that the best alternatives involve either personal services such as teachers of nutrition, or a complete food, perhaps prepared from a combination of domestic and imported ingredients. How would such programs fit into FFP routines? What are the possible sources of

financing? Which program is best under specific host country circumstances? The questions are easy to ask; difficult to answer.

Administration of FFP Programs

The Issue

The specific problems identified here, out of a host of administrative problems, are the comparative costs, accomplishments and influences of FFP programs under the several titles. Is the apparent comparative low cost of Title I offset by the costs of handling local currency? Are the specific institutional and individual level responses to Title II and III programs sufficiently important to warrant the greater use of such programs? For economic development? For improved nutrition? For other objectives? How does Title IV compare with Title I as food aid and for other desired objectives, since the local currency is a host country, rather than a U.S. Government responsibility.

As a country AID mission determines to develop a Title II project, for example, what are the necessary personnel costs of an effective program?

Changing Program Emphasis

The Issue

This issue relates to a previous issue -- Possible Future Changes in Program Size, Emphasis and Implications. As decisions are made on overall programming, there is a need to translate this into specific procedures and especially to communicate these to the country missions. Also involved is the need for guidelines as FFP country personnel are reassigned to new

countries, and as they develop new projects. What is the interest of the United States in large versus small programs in each of several categories? What should the United States be willing to contribute or insist on receiving in order to make the budget cost -- domestic and foreign -- reasonable? In other words, what are the criteria for aggressively creating projects, and to what extent should U.S. representatives simply respond to clear food needs?

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