

FOOD FOR PEACE RESEARCH MAPPING
(Contract No. AID/csd-677)

Third Progress Report
of the
Economic and Agricultural Development Center
Michigan State University
January 1 to June 30, 1965

1. The first two Progress Reports covered the two three-month periods between July and December 1964. This Third Report deals with work accomplished during the period January to June 1965, inclusive. A few items carry into July 1965.
2. Work Progress: Field work and interviews continued during January and early February, but the major work during the six month period was the preparation of working drafts in each of the six subject matter areas, the discussion of these with consultants and our Washington Advisory Group, and preparation of revised drafts to take account of such discussions and recommendations.

The Scientific Monitor to this project and the FFP Research Mapping Advisory Committee, at the behest of the Food For Peace Policy Committee have urged a greater emphasis on research evaluation in order to make certain aspects of our work more readily accessible to those who will be participating in pending decisions on future FFP policies. The original work plan included an Annotated Bibliography and specific statements on Research Accomplished or in Progress for each of the proposed research projects. To this is now added a Research Review, classified by major subject

matter areas and by issues or problems within these areas. The Research Review is appended and is an integral part of this Third Progress Report.

In more detail, four members of the project staff conducted interviews and problem exploration seminars overseas on Food For Peace problems during January and early February. James Hendry and Kirkpatrick Lawton traveled to India, East and West Pakistan and Korea. Archibald Haller and Lawrence Witt worked in Egypt, Tunisia and Brazil. They interviewed Food For Peace officers, Agricultural Attaches and other officials of the U.S. Mission in the respective countries. They interviewed a selection of representatives of voluntary agencies. Host country officials at various levels of administration were asked to comment on problems and opportunities of the FFP program as they saw it. Similar questions were asked of a selection of academic personnel, workers in research institutions and nongovernment Americans working in these countries. Specific FFP problems, points of view, the general social, economic and political setting and trends were identified. In some cases it was also possible to appraise the interest and capability of host country research institutes.

In February and March working papers were prepared to delineate problems, to submit alternative forms of the Research Map, to clarify general and specific objectives, and to propose various working procedures. A two-day conference composed of the project staff and the four-man U.S. Government Advisory Group was held in East Lansing March 8 and 9, 1965. At this time the broad outlines of the Research Map were developed, and a division of labor specified among the project staff.

The next step was the preparation of a draft copy of the Research Map in each of the six subject matter areas:

1. Economic and Financial
2. Political Policy
3. Social and Humanitarian
4. Population and Food Supply
5. Health and Nutrition
6. Program Operation

With the exception of the Health and Nutrition section (which was mimeographed in July), these materials were distributed for review and appraisal by the Advisory Committee, other people within government and by university consultants to the project.

The comments in the first three and the sixth areas have been digested and incorporated into redrafts, which were distributed in June and July 1965. The Health and Nutrition section was prepared by bringing together consultants from various institutions, who reviewed the task, and individually prepared a number of projects. Though this required more time, it brought together a highly competent group of consultants. These separate projects and materials were coordinated by Dr. Gaurth Hansen, Chairman of the Biochemistry Department, Michigan State University.

Finally, in an effort to make the Research Review as useful as possible, several alternative sample drafts were prepared during June and reviewed in Washington with the Scientific Monitor and FFP Research Mapping Advisory Committee. The Research Review was actually written in late June and July 1965.

Personnel: The following professors from other universities are serving as consultants to the project.

Jimmye Hillman, Dept. of Agricultural Economics, University of Arizona
Gale Johnson, Dean, Social Sciences, University of Chicago
Willard Cochrane, Dean, International Programs, University of Minnesota
T. W. Schultz, Dept. of Economics, University of Chicago
Ralph Braibante, Dept. of Political Science, Duke University
Richard Crabbs, Dept. of Government, Indiana University
Gerald F. Combs, Poultry and Nutrition, University of Maryland

William J. Darby, Division of Nutrition, Vanderbilt University
R. W. Engel, Laboratory of Biochemistry and Nutrition, Virginia
Polytechnic Inst.
David B. Hand, Dept. of Food Science and Technology, Cornell
University
Paul Gyorgy, Dept. of Pediatrics, Philadelphia, General Hospital
Lester J. Teply, Dept. of Nutrition, UNICEF

The following government employees have been working directly with the
research group: others have been contacted through these people.

Herbert Turner, Office of Technical Cooperation and Research,
Washington, D.C.
Alan D. Berg, FFP, The White House, Washington, D.C.
Frank Barlow, Economic Research Service, USDA, Washington, D.C.
Martin Forman, AID, State Department, Washington, D.C.
Miss Christine S. Wilson, ICNND Secretariat, National Institutes of
Health, Bethesda, Maryland
John McKigney, ICNND, National Institutes of Health, Bethesda, Maryland
Arnold Schaefer, ICNND, National Institutes of Health, Bethesda,
Maryland

The project also has drawn on a number of Michigan State faculty mem-
bers as consultants, especially the following:

James Bonnen, Dept. of Agricultural Economics, Michigan State University
(Until July 1 with the Council of Economic Advisors)
Dale Hathaway, Dept. of Agricultural Economics, Michigan State
University
Robert Stevens, Dept. of Agricultural Economics, Michigan State
University

And we have had the benefit of informal counsel from:

Murray Benedict, retired, Dept. of Agricultural Economics, University
of California, Berkeley
Charles Hardin, Dept. of Political Science, University of California,
Davis
Don Hadwiger, Dept. of Government, Iowa State University
David McLellan, Dept. of Political Science, University of California,
Riverside

The great majority of the formal consultants were brought to either the
East Lansing or Tucson campus for two days or more of discussion of specific
portions of the Research Map. Subsequent consultation is to be mainly by
mail.

The project staff during the period consisted of:

James Hendry, Director, Economic & Agricultural Development Institute
Archibald O. Haller, Department of Sociology
Kirkpatrick Lawton, Coordinator of Foreign Agricultural Programs
Maurice Perkins (January only), Department of Agricultural Economics
Richard Luecke (through mid-March), Department of Biochemistry
Gaurth Hansen (mid-March on), Chairman, Department of Biochemistry
Lawrence Witt, Department of Agricultural Economics
(all members of the Michigan State University faculty), and
Peter Toma, Department of Government, University of Arizona

The following graduate students worked on this project during the period.

Allan Steeves, Department of Sociology, Michigan State University
Chris Andrew, Department of Agricultural Economics, Michigan State University
Fred Schoenfeld, Department of Government, University of Arizona

Interim Results: Customarily at the expiration of the first year of research a progress report would give considerable attention to the hypotheses being tested, the data collected, or preliminary conclusions provided by the data. But the results of this contract will be a comprehensive program of research, and drafts of these have been submitted to the Scientific Monitor and Advisory Groups as completed and already have been circulated within government. Moreover, the reproduction of the final Research Map will be underway very soon. Thus, it seems redundant to reproduce here the several hundred pages of the Research Map as presently drafted. Actually, the Research Review, presented with this report, provides an overview of the issues and problems. Its content and relation to the Research Map is discussed below.

Plans for Completion: Comments on the semifinal drafts of the various sections of the research proposals have been requested by August 2, 1965. Many have already been received. At this time the final revision will begin,

and move into reproduction via a photo offset process as soon as convenient. Though many parts are virtually complete, there may be slight delays in one or two sections.

The Preliminary Annotated Bibliography is being corrected and extended, and will move into mechanical processing some time later, probably late in September.

After the Research Map is completed and delivered, it is expected that a number of consultations and seminars will be required, some with interested and responsible government officials and others with interested research workers and organizations. Specific plans and timing have not been specified, but presumably will be the major activity under this contract for the September-December 1965 period.

The Research Review: This Research Review is a preview and summary of the problems and issues that are incorporated into the Research Map at this nearly final stage of the work. The six major chapters in the Map are the basis for the six sections of the Research Review. The issues in each section are the issues from the Map. In the Research Map there is at least one proposed project under each issue; in some cases as many as six. All the issues are described in the Research Review, but not all are discussed in terms of evidence. We have tried to bring together relevant evidence for all the major issues, but in some cases the material is extremely scanty. In such cases the discussion is brief. Most of the issues described but not related to research evidence were deemed to be of more limited interest for major policy decisions.

SUMMARY STATEMENT

Over \$13 billion of U.S. farm products have been shipped overseas under P.L. 480 in the past 11 years. The program has effectively transferred substantial quantities of farm products from areas of surplus to areas of deficit production. Through this program the emerging nations have been assisted in managing their short run food problems. But despite 11 years of operations, there remain a wide range of views and a plethora of unresolved issues about the program. The statements which follow attempt to identify the separate effects of the program, recognizing that the same commodity usually cannot simultaneously serve many objectives.

FFP and Economic Development

Food aid was almost as good as dollar aid in a few countries, such as Japan and Israel. These appear to be exceptional cases, with most of the major FFP recipients having characteristics more like those of India. Two reports agree that India in the middle 1950's would have preferred to substitute some additional industrial products for some of the food aid, and to apply measures to hold back consumption. It is argued that the development process would have been more rapid had this been possible. The hardening of the terms in Title I agreements, such as the freight rate provisions, the limitations on "like" commodity exports, the convertibility of a certain proportion of local currency receipts, and the use of repaid local currency loans to defray U.S. Government expenditures, all tend to reduce the size of the possible economic development effort.

The proportion of food aid that can effectively contribute to development has been estimated as high as 35 or 40 percent of total aid but in recent years the estimates have been dropping to 20 percent and less. Any such calculation has at least two variables, the character and needs of the recipient country, and the range of commodities available as aid. The individual country differences are sufficiently great to make almost meaningless any estimate of the appropriate overall proportion of food aid in total development aid.

A country which exports grains (Thailand) can make relatively little use of the kinds of U.S. food aid available, while one normally importing grains (Israel, Egypt) can utilize greater quantities. Similarly when food aid consists of wheat it plays a smaller role than when food aid also provides feedgrains, oilseeds, rice, cotton, and animal type proteins.

The quantity of food that can be effectively utilized for economic development is increased if FFP permits de facto substitution for commercial imports, if shifts in production occur which permit a growth of exports, and if other nations increase their hard currency aid. However, the usefulness of food for development is decreased as local currency defrays more of what would have been United States Government dollar expenditures, as other countries reduce their aid, and probably by a worsening of trends in host country population/food supply relations, even though the food is readily consumed.

International Trade

American agricultural exports have increased greatly over the past decade. A substantial part of this increase is represented by P.L. 480 shipments. There also have been changes in commercial exports of third countries with increases to countries not eligible for P.L. 480 shipments and with some decreases in shipments to countries which are P.L. 480 recipients. In some cases the recipient country has been able to increase its purchases of non P.L. 480 agricultural products and sometimes of industrial products. It is not clear whether to attribute such changes to the surplus situation, to export payments, or to P.L. 480.

Procedures followed under Title I have attempted to keep the substitution of P.L. 480 shipments for normal exports small. Even so, there seems to have been some effects in commercial exports of third countries, due to P.L. 480. This is one way of freeing some foreign exchange for the purchase of other products. Since most recipients are developing countries with foreign exchange shortages, this substitution, small though it may be, is development aid.

The inverse may be more significant. Some of the third countries adversely affected are developing countries, perhaps even P.L. 480 recipients. Their exports may be held down by (1) normal marketing provisions on "like" commodities, (2) U.S. competition, and (3) reduced export earnings due to a combination of smaller exports and lagging prices. Such effects slow down the development effort and postpone the time when they "graduate" from foreign aid.

Possible Disincentives to Host Country Agriculture

The theoretical arguments about possible disincentives to agricultural development are inconclusive. The quantity of imports, whether commercial or FFP, will have an influence upon prices in the recipient country, in the absence of host country programs to influence the price level. In some circumstances the additional imports will prevent an inflation in food prices, or slow it down; in other circumstances food prices may be depressed. However, the recipient country can establish programs which reduce adverse price effects. Empirical evidence supports the existence of both types of influence on domestic food prices.

Thus, price disincentives are an ever-present possibility, and need to be offset. But the comprehensive agricultural development program that most FFP recipients require in order to meet future food needs can provide more than enough counter measures. A more serious issue is the possibility that, because FFP is available, the recipient country will place higher developmental priorities on nonagricultural sectors, being willing to depend for some period on imported concessional food. To offset this situation requires (1) knowledge by U.S. executive agencies of the agricultural development needs of the recipient country, and (2) a specification of and a willingness to insist upon commitments for agricultural improvement as the two nations sign the FFP agreement.

Local Currency

Countries where the Title I program is relatively small and where there are many alternative U.S. uses for the local currency should be separated from those where excess currency develops.

In the former countries the local currency often represents only a short-term contribution to economic development, because the United States uses these currencies to reduce dollar expenditures. Title I sales tend to shade into Title IV sales except for the interest rate differences and the possible losses through devaluation.

But the excess currency countries account for the major share of Title I sales. These accumulated local currencies usually serve little purpose and are an actual or potential source of political friction. Alternative procedures which recognize the fact that these commodities are 80 to 90 percent donations would be preferred. If this cannot be done, then steps should be taken which insulate these currencies from the national money supply. So far as using these funds to support economic development is concerned, the effect is minimal. These currencies can be allocated to projects already in the national plan, but actually be used in other projects via national government reallocation of funds. In any case they add to inflationary pressures. Where they appear to be effectively used, it is because of close rapport between the United States and the host country; often the same general purpose can be accomplished as effectively by joint development of a national development plan.

Food Supply and Population

The FFP program operates in a changing environment between food production and population. Projections have been made both of nutritional food needs and of food demand in relation to probable supplies.

Estimates of nutritional food needs are based upon calculated minimum diets multiplied by the expected population. On this basis there is a significant present shortage of supplies. Using present trends the projected food gap soon reaches crisis proportions. The present and projected gaps go far beyond any possible international food distribution program. Therefore, the major part of the food gap, if it is to be filled, must be met by expanded internal food production in the food short countries and by controls on population growth.

Estimates of the demand for food usually are calculated from expected population, levels of income, and income elasticities for food. This procedure assumes that a substantial amount of malnutrition will persist or be dealt with outside of the food demand framework. These estimates also show substantial increases in the demand for food. But they do not convert into international demand unless the foreign exchange available to the developing countries increases sharply. The pressures for internal agricultural growth become obvious.

On the basis of recent trends, the food needs of the developing nations are growing more rapidly than the surpluses of the developed countries. If this continues, the requests for concessional surplus supplies will accelerate and such supplies will need to be carefully allocated among countries and purposes.

The pattern of excess capacity in the agriculture of developed countries appears likely to increase and become more widespread, while in developing countries the inverse appears probable. More marriages of convenience between surplus production capacity and surplus consumption capacity impend. The challenge is to make such marriages qualitatively productive.

Nutrition

If one turns from emphasis on economic development to consideration of nutritional objectives, the policy alternatives take on a different complexion.

In some developing countries about two-thirds of the preschool children are subject to malnutrition. For a significant number, extreme or serious malnutrition appears at an early age, usually shortly 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. Most people are unable to purchase sufficient quantities of the more expensive protective foods. Habit and culture restrain the adoption of new food practices. And for many families the nutritional and special food problems of the very young child are not known.

Program alternatives for the preschool child include: (1) nutritional education so that parents provide added supplies of locally available protective foods, (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. Any of these alternatives are likely to be relatively costly on a per capita basis, compared with school lunches.

The humanitarian objectives of the voluntary agencies drew them into early, 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 voluntary agencies are an important way to contact low-income people in the host country, particularly if nutritional objectives are being emphasized. Yet, Title III foreign donations (the voluntary agency program) has a very low priority in commodity allocations. The commitments to these programs need to be more stable.

The U.S. Government, in turn, is exposed to charges that it is using these agencies as instruments of national policy, and is supporting particular religious approaches (despite CARE and distribution which goes far beyond the members of the religious groups). These are vexing, but not impossible problems.

Sources of Quality Foods

One implication of an emphasis on a quality diet is a change in the structure of U.S. agriculture so as to provide a larger quantity of the protective foods for export. Cost considerations point to chemical and other additives as preferable alternatives to food. Whether such changes in the nutrient composition of foods should be made in the United States or in the recipient country -- perhaps added to a locally produced and widely consumed commodity -- is another issue into which cost considerations enter in a major way.

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 the recipient country with emphasis upon the latter.
- (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.

Political Attitudes

It is often asserted that FFP encourages a favorable attitude towards the United States, leads to political stability and helps prevent radical revolutions. There is no research evidence to support or deny these statements. General evidence on revolutions and unrest strongly suggest that the impetus comes from those whose present situation has deteriorated from earlier circumstances, and does not come from those on the edge of starvation. In terms of attitudes towards the United States, one might cite Yugoslavia as mainly on the plus side, Indonesia on the minus side, with confusion about Poland and Egypt; but actually solid evidence on attitude changes within any of these countries is inadequate for generalization.

Another aspect of international relations involves relations between FFP and the food aid programs, actual and emergent, of other countries and of the World Food Program (WFP). The areas of emphasis, the division of effort, and the principles to follow to avoid competitive donations and soft sales need to be discussed among those participating. United States general support for the WFP is about the only item given attention up to now. Such cooperation should also involve efforts to gear food more fully into economic aid programs or whatever mutual objectives are appropriate.

The Appropriate Transfer Technique

Public Law 480 includes four principal Titles under which commodity transfer may be authorized. The choice among these must be made partly on the basis of program objectives. The comparison really comes down to program aid (Titles I and IV) versus project aid (Titles II and III). A nutritional, social and humanitarian emphasis probably requires project aid such as now provided under Titles II and III, with its substantial personnel costs and troublesome end use accounting. Program aid is a far more efficient procedure for the transfer of commodities, but if a development impact is desired, host country development planning must be of a high order, or the detailed local currency or commodity project uses must be determined at the time the United States has leverage -- usually prior to signing the Title I agreement. There is no assurance either of economic development or diet quality improvement consequences from Title IV programs.

A number of changes in actual operations are worthy of consideration. These will be stated as questions.

Is it necessary to maintain separate warehouses, transportation and distribution channels for each Title III program? Would it be feasible, given changes in statutes to combine shipments under all four Titles, use the normal marketing system, and draw supplies out in various cities and towns for particular distribution programs? Financial arrangements would be easier than the present physical supervision of the commodity flow.

Is it necessary, under Title II Economic Development programs, physically to distribute the food? Is the impact worth the cumbersome procedure?

Do package markings convey the desired message, and do they create the desired attitudes? Are there more effective ways to attain the desired attitude?

Future Changes in Program Emphasis

There is a need to plan future program emphases due to changes in U.S. agricultural conditions and to provide guidelines to field personnel. Drouth or favorable rains, new diseases or varieties may create domestic pressures in the U.S. for larger or smaller programs, or for a different range of commodities. Are there any criteria by which to determine which parts of the FFP program should be expanded or contracted? What are the social implications of forced program termination? What guidelines can be communicated to field personnel besides "create a larger program"? This overemphasizes the problem, but the preferred programs are not clear to field personnel, and not clear from administrative agency instructions. Various kinds of priorities are needed for effective operations. For example, is it better to provide a roll and glass of milk to 1000 schools in a particular country, or to provide a high quality lunch which contains adequate amounts of protective foods in 200 schools? Such forward planning requires a clarification of objectives, but the political costs of such clarification of P.L. 480 objectives could be too high to be accepted -- as is sometimes argued. There is no hard evidence available on this question despite the longevity of the arguments.

Towards a Focusing of Objectives

The early objectives of the P.L. 480 program emphasized surplus disposal and market development. Economic development was given increasing emphasis in the late 1950's, with three and four-year commitments so as to facilitate development planning. About this time the term Food For Peace came into usage. After 1960 foreign policy support, social and humanitarian aims, and better nutrition came to have more emphasis in the program image in the executive departments. Such humanitarian objectives as disaster relief were always present, as were some voluntary agency donation programs. Still the emphasis changed, and is still changing, with improved nutrition moving to the front of the stage in 1964 and 1965, along with a renewed emphasis on trade expansion.

Despite these changing emphases, there is not a systematic effort to evaluate and choose among alternatives. New items are added, but old items become customary. There is a need to evaluate systematically the alternatives, the cost and benefits of such alternatives, to examine the degree of competition and complementarity among these objectives, and then to indicate which are the high priority combinations of objectives.

Policy decisions on FFP involve relationships with two other major programs -- the farm program and foreign aid. The FFP-farm program relationship involves: (1) whether the FFP program can be fully effective so long as it is based upon what happens to be in surplus, (2) whether FFP shipments have eased the government inventory problem just enough to prevent consideration of a fundamental change in the approach to agricultural policy, and (3) whether we are in effect spending substantial budget amounts producing for FFP without evaluating alternatives that would provide more program at less cost. The FFP-foreign aid relationship involves (1) the proportion of food aid that can substitute for dollar aid, (2) the effectiveness of that aid, and (3) the extent to which the combination of foreign aid and P.L. 480 budgets increases the total and reduces the dollar aid budget compared with a single aid budget which includes dollars earmarked for farm products.

There are strongly held values that urge that some part of our productivity be used to improve the well-being of people in other countries. But it is not clear to the public at large that this may best be accomplished by providing dollars through which a wide variety of U.S. products and services can be sent. If food is sent, there are limits on the amounts that can effectively be handled. Chemical or other fortification may provide more additions to welfare per dollar than extra food.

The domestic farm price policy can be discussed in terms of the federal budget, its political implications, and its moral values. Various estimates of costs and benefits can be made. But the FFP program is discussed in less sophisticated terms, because there is far less evidence of what its effects have been. Yet the FFP program is exceedingly relevant both to the U.S. farm program and to the foreign aid program. A comprehensive review of the interrelations of these three programs and available alternatives may well add up to a different set of judgements in the future than in the past.

Concluding Comment

After eleven years of P.L. 480 operations there continue to be controversy about the advantages and disadvantages of the program. The reasons for these diverse views stem from the following:

- (1) A multiplicity of objectives are attributed to the program, with consequent difficulty in establishing specific criteria against which to measure program effects.
- (2) The emphasis upon objectives has shifted over time, but without adequately carrying through into substantial structural adjustment in traditional programs.
- (3) There has been limited research on the overseas effects of the program, especially on Titles II, III and IV.
- (4) There has not been a systematic attempt to examine the domestic and foreign needs, costs, benefits and interrelationship of the program.