

UNITED STATES GOVERNMENT

Memorandum

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DATE: December 12, 1966

FROM : TCR/HS, Harald Frederiksen, M.D. *HF*

SUBJECT: World Food Situation and U.S. Nutritional Assistance

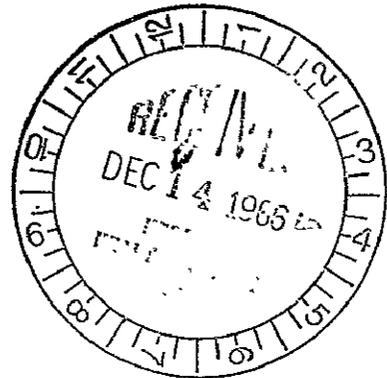
Attached report on subject was prepared by Mr. Noel W. Solomons, who was working with the TCR/HS as intern during the summer of 1966. He was assigned the task of reviewing the decision making process in the formulation of A.I.D. policy for nutrition programs, particularly those relating to the donation or concessional sales of food to less-developed countries.

As a result of prodigious efforts of Mr. Solomons and extraordinary cooperation from staff members in various parts of A.I.D., as well as excellent cooperation from other parts of the Federal Government, a remarkable body of information and evidence has been compiled in support of the important conclusions of the report.

Attachment

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cc: Mr. Noel W. Solomons



..BREAD UPON THE WATERS
The United States and Nutritional Assistance

* * * *

An analysis of the world food situation and
the current activities of the United States
in the field of nutritional assistance as a
background to transition to a larger scale
of nutritional activity

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INTRODUCTION

Scope:

The successful resolution of the world's two major problems, the food crisis and the population explosion, is the key to world stability in the coming decades. This paper focuses on the former problem, the food crisis; it is an attempt to a) place the problems in perspective, b) analyze the machinery with which it is being faced today, and c) serve as background and reference for the transition into the expanded effort now being planned by the United States.

The Emerging Picture

Observations made in the academic, private and governmental institutions of the world during the post-war era increasingly indicated the emergence of a critical situation regarding the availability and distribution of the world's food resources. Today, the crisis is acute. Two-thirds of the three and one-half billion inhabitants of the planet are underfed. Malnutrition is a leading killer andcrippler of infants and children in the less developed world.

The post-war development of communications media has given the peoples of the less-developed world the vision and the hope of achieving radical material improvements in their standards of living. These rising aspirations can only be met by concrete substantive efforts in economic development. Nutrition, moreover, like resources, capital, and education, is a prerequisite to economic development.

So directly is the resolution of the food crisis in the American interest that the President established a high level Task Force on Nutrition with representatives from USDA, A.I.D., NIH, USIA, NAS, and State to formulate and coordinate nutrition policy. In the light of the enormity and complexity of the food problem, the group arrived at a comprehensive definition of nutrition. In the meantime, the Congress held hearings with economics, population, and nutrition experts on the new "Food for Freedom" bill.

U.S. Role in Nutrition

The United States has been active for a number of years in the areas which now come under the expanded definition of nutrition. To be sure, they have been on a limited and uncoordinated basis. There have been technical and capital assistance projects in marketing, food storage, and processing; nutrition surveys have been conducted by U.S. teams; grants for food technology research has been made to institutions in less developed countries; recent advances in chemistry and agriculture are being exploited in the development of new formulated foods and improved agricultural crops. The largest project, however, the heart of the U.S. activities related to nutrition, has been the P.L. 480 "Food for Peace" assistance program.

Organization

This paper will be divided into three sections: 1) The consequences of the food crisis; 2) the past and present role of the U.S. government agencies in nutrition; and 3) strategy for transition.

Part I will a) outline the nature of the food crisis, b) discuss the dependence of economic development on nutrition, and c) review the policy outline of the Task Force and the Food for Freedom bill.

Part II will a) outline briefly the extent of U.S. aid in the nutritional area, b) examine the decision making process in concessional sales under P.L. 480, and c) review the history of nutritional fortification of foods in our "Food for Development" program.

Part III will indicate the areas in the present mosaic of nutrition assistance which are flexible and open for strengthening with additional nutritional considerations.

THE FOOD CRISIS

U.S. Policy

On August 8, in an address to college students, William S. Gaud, Administrator of the Agency for International Development, listed food as the number one development priority in the U.S. assistance policy. The President has drawn attention to the problems of hunger and nutrition in seven messages within the past two years (1). The Vice President, the Congress, and members of the Cabinet have all made statements concerning the current world food situation. It has become a ranking concern among the leaders of the U.S. Government.

Consumption Patterns

What is the nature of this crisis which has motivated so much recent policy consideration? Currently, two-thirds of the world's people are underfed, while one-third are overfed (2). This division correlates roughly with the demarkation of less and more developed countries. Whereas, before the '30's the less developed world, Asia, Africa, and Latin America, was a net exporter of grain, today they import huge amounts of cereals from the more developed world, North America, Europe, and Oceania (3). In some countries, protein supplies have fallen about 6% below pre-war levels (4). The daily consumption of protein is two-thirds less in LDC's than in MDC's.

The diets of people in Asia, excluding Isreal and Japan, North and Central Africa, Central America, the Caribbean, and northern South America, taken as a whole, average 900 calories per capita per day below the average of the more developed world, and 300 calories below the recommended standards for the area (5). Country populations,

furthermore, do not reflect the whole picture; in Brazil, for example, in which the national daily per capita calorie intake average is an adequate 2710, the figure for the extreme lower end of the spectrum, the northeast region, is estimated to be 1612 cal./day.

Contributing Factors

There is a nutritional disparity between developed and underdeveloped nations which grows steadily greater. A number of factors are involved in the equation of world hunger and malnutrition. Population growth, land restriction, urbanization, and waste all make their contribution.

Population Growth

Today, there are an estimated three and one-half billion people in the world. The population rise in the underdeveloped world for the last decade was 22.4% (6). If the present demographic trends were to continue unchanged, there would be 7.5 billion people by the turn of the century.(7) Dr. Irene Taeuber illustrates the problem for the Asian subcontinent. She calculates that if Indians and Pakistanis continued to produce at their present rate until 2000, the combined population would total more than 1.5 billion; even if they succeed in cutting their birthrates in half, the population of the Asian subcontinent will number 1.1 billion by the turn of the century (8).

This population increase has direct consequences for the food supply. Since 1959, most less developed nations have made no progress toward increasing per capita food production. Some have advanced at the same rate as population; others have not. In the Far East (excluding mainland China) food production rose 45 percent from 1934-38 to 1962-63;

population grew 47% in the same period. Thus, the per capita food production declined by 2%. During this same period in Latin America, production increased 70% while population increased 76%, leaving a 6% decline in per capita production. (9)

The study of 26 developing nations, conducted by USDA-ERS, makes an interesting point:

"At present growth rates, most of the study countries will double their population in about 25 to 35 years. If they succeed merely in increasing food production at rates equal to their population growth rates and if there is no change in their import-export rations, these countries will also have twice as many hungry people during this time span." (10)

Dr. Roger Revelle has testified that an increase of 10 percent in nutritional levels would not be sufficient to overcome the most serious deficiency in the diets in LDC's, i.e., the lack of high quality protein. (11) World progress requires that the race between food production growth and population growth be won by the former.

Land

There are 3.5 billion acres of "arable" land, i.e., land planted in crops (12); there are approximately that many people. This gives a world man:land ratio of one man per acre. In the United States, there are 0.38 men per tilled acre (13). A ratio of one, however, is adequate. The problem is not yet one of scarcity, but one of distribution. The Far East has one half of the world's population, but only one-fourth of the usable land. The countries with high man-land ratios, Japan with 7.4, Netherlands with 4.4, Egypt with 3.9, U.K. with 2.9, are all net

importers of food. Empirically, we find, that when the ratio approaches 3, the land does not support the population. Since population is growing fastest in those areas which already have a disproportionately low level of agricultural land, the ratio will be surpassed in China, Indonesia, and elsewhere in the next 35 years.

Urbanization

In many less developed countries, urbanization is proceeding at unprecedented rates. The agricultural sector declines or remains constant while the industrial population expands. Therefore, fewer farmers must produce more food. Incentives to establish surplus rather than subsistence farming must be found.

The city is physically removed from the farm. Consequently, the infrastructure of a system for distribution is needed in urbanizing regions. Marketing, preserving, storing, and transporting facilities, along with the "middlemen" to fill these capacities in an expanding food chain are lacking in developing countries.

Waste

Not all of the food planted is available for consumption. At least one-fifth of the world's crops are destroyed before or after harvesting by insects, fungi, or pests. In India, an estimated two billion rats attack grain ladders; crows destroy as much grain as one-tenth of the annual U.S. grain crop (14).

The Human Consequences

Because of a general lack of food, and the maldistribution of existing resources, large population groups throughout the entire less developed world suffer from both undernutrition and malnutrition. An estimated 70 per cent of the children in developing areas suffer from protein-calorie malnutrition; over three million children die each year from severe forms of this deficiency (15). In adults, starvation, beriberi, and anemia reflect the consequences of undernutrition and malnutrition.

Conclusion

There is a worsening crisis in food and nutrition in less developed countries today. It can result in social unrest, or in retarded economic development (See Chapter 3). The magnitude and ramifications of the problem have been recognized and the United States Government is addressing itself to the problem.

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DEVELOPMENT AND NUTRITION

There is, as yet, no exacting science of economic development. The several more developed countries and multilateral organizations concerned with assisting the world's developing countries have been searching for a formula for development. Civil order, long-range planning, financial programming, manpower mobilization, and education are all part of the equation. The mental and physical capacity of the populace moreover, is now also recognized as a prerequisite to development.

The health component of the equation for development is itself composed of many facets, sanitation, health education, water supply, eradication of communicable diseases, and nutrition. Among these, nutrition stands out as the most significant. Malnutrition and under-nutrition is extensive in the less-developed nations. Conservative estimates indicate that 50% of the child populations are nutritionally disadvantaged (1); many estimates range up to 70% (2). Malnutrition is as much a part of the definition of underdevelopment as is economic retardation itself. The priority of nutrition in the health strategy was emphasized by AID Administrator Bell in his airgram to the Missions.

AID health personnel are now of the view that correcting serious protein deficiencies of preschool children would make a greater contribution to development than any other health measure -- malaria eradication, sanitation and water supply not excluded.

There is sound economic and medical reasoning in the Bell statement. There is scientific evidence that malnutrition cuts deeply into a country's potential for development in many ways. The lethargy and stagnation of the populace of developing countries is largely attributable to the lack of good nutrition. There are two factors operating, the lack of calories for energy, and the synergistic effects of infection and parasitism. Among 26 developing nations studied by the U.S. Department of Agriculture, eleven had a per capita calorie intake below the recommended level of 2460 per day, during the period from 1959 thru 1961. The deficits ranged from 20 calories in Tanganyika to 450 calories in Tunisia. The average deficit was 257 calories per capita per day. In these eleven countries, and others with a net deficit, the restricted energy intake severely limits at least the manual productivity of the majority of the population.

Research has shown, furthermore, that there is a synergistic relationship between nutrition and infection. Malnutrition enhances the susceptibility of an individual to attacks by bacteria and parasites. (4) (5) (6). There is scarcely a person in most developing countries who is free of chronic infection or infestation; and the more severe the malnutrition, the more aggravated is the accompanying disease. Gomez et al (7) raise the question, "Could any human body show any noticeable reaction when the body tissues are worn out, when the body is permanently tired, and the stomach is empty?" They answer:

"The most serious social challenge facing our Government (Mexico) is the enormous problem of malnutrition among the broad masses of people. . .they obtain hardly more than 60% of the calories that are required by an adult in order to manage to perform normally in working. Furthermore, the food they get is of a very low biological value (protein deficient). This is the reason that large groups of our people in a conspicuous way look tired, gloomy, and incapacitated. They lack sense of responsibility, they fail to take creative initiatives, nor do they have ideas of their own. In one word they are devoid of all ambition. . .they are not productive."

It is obvious that a population with half-filled, worm-infested stomachs cannot be motivated to learn no matter how adequate the course of training is. Nutritional viability is a prerequisite to technical education and technological advancement in the less developed world.

With specific reference to protein-calorie deficiency in infancy and childhood, there is a further relationship between malnutrition and impairment of human resources. Physical growth and development in the malnourished child is significantly lower than in the well-nourished child. Ford (8) has shown that children with malnutrition generally fall below the 66th percentile (66 per cent of the population are above) in weight for their age. Arab children with a mild protein calorie deficiency were observed to all increasingly below Western standards for weight, stature, and subcutaneous fat over time (9). Cravioto has shown that even slight, prolonged imbalances in protein intake during the crucial phases of development can cause irreversible changes in physical growth (10). As shown in studies of native Japanese and Japanese American growth patterns, the characteristic slight statures of non-Western peoples are more of a nutritional than a genetic phenomenon. Kahn (11) showed that if Bantu children were

given compensatory nutritional therapy, their growth was comparable to that of an equally well-nourished Caucasian child. The frail, underdeveloped bodies cohabitant with chronic malnutrition, disadvantage the manpower resources of developing countries. "Chronic" good nutrition could reverse this trend.

Moreover, with regard to children, there is a correlation between sub-normal mental performance and malnutrition. An explicit association between retarded physical development and retarded mental development has been documented in rural regions of Mexico and Guatemala in which mild-moderate malnutrition is endemic. (12) (13) As early as 1944, it was shown that improved nutrition could significantly raise the level of mental performance of previously malnourished children (14). More recently, Mexican workers have shown that nutritional rehabilitation eliminates both severely malnutrition and severe retardation in children (15) (16). Those subjects older than six months of age at the onset of malnutrition achieved full mental recovery; those below six months were significantly improved although they did not attain the expected performance for their age. Adequate nutrition can eliminate what would otherwise be chronic mental underdevelopment. Nutritional rehabilitation of the young is an investment in the economic future of a less developed country.

Population resources in a developing country are as much a part of the pre-requisite infra-structure as highways, dams, power projects, and waterways. The people of LDC's are not only the objects of developmental assistance, but the subjects as well, the builders and sustainers of economic progress. The general elimination of malnutrition would remove lethargy and stagnation, reduce infection

and parasitism, and improve the physical and mental performance of the people. In sum, the disruption of general emotional, physical, and mental health which presently renders an underdeveloped country undevelopable can be reversed by a successful program of nutritional rehabilitation.

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FOOD FOR FREEDOM

The Task Force

The humanitarian, political, and economic implications of the nutrition crisis alerted the United States government to act. Late in 1964, the President established with the executive branch an Interagency Task Force on Food and Agricultural Assistance. Central to this group was the Sub-Group on Nutrition (later the Working Group on Combatting Malnutrition) headed by Frank Ellis, A/MR/FFP and Alan Berg of the White House Food for Peace Office. This team analyzed the present and projected nutritional needs of the developing countries, and compared them with the assistance apparatus then in existence. It concluded:

"A small amount of additional money and a major amount of additional emphasis could enhance substantially the nutritional effectiveness of the current Food for Peace donation program." (1)

The Sub-Group made a number of specific recommendations. It recommended that increased emphasis and attention be given to nutritional activities, and that priorities be established in the strategy for food assistance. It, further, recommended that the concept of surplus disposal be changed to one of combatting hunger and malnutrition, and that measures be taken to assure the availability of certain nutritious commodities. It urged the nutritional modification of foods--foods be fortified wherever suitable, and new protein-rich formulated foods be promoted. It recommended that operational and long-range research be initiated, and that inter- and intradepartmental relationships be attuned to an increased nutritional effort. (2)

The Sub-Group on Nutrition recommended that the following policy and operational directives be issued: 1) to encourage host country participation and self-help efforts; 2) to give increased emphasis to nutrition throughout A.I.D.'s development activities; 3) to encourage the participation of private enterprise in the nutrition effort; and 4) to give priority to overcoming child malnutrition. (2) The broad outlines of this report to the President were included in his Food for Peace Message on March 31, 1965.

The War on Hunger

During the ensuing years, the recommendations of the Task Force guided the executive branch in considering ways to amend P.L. 480 to meet the dual circumstances of dwindling food surpluses and expanding world agricultural and nutritional needs. The full impact of the Task Force's study is seen in the President's Food for Freedom Message of February 10, 1966.

Following the speech in February and March, hearings were held before the House Agricultural Committee on a "bill to wage world war on hunger, to amend the Agricultural Trade Development Act of 1954." (3) Demographers, nutritionists, and public health experts outlined the nature and scope of the problem; Agricultural experts and economists suggested ways in which the United States could contribute to a solution. Two major conclusions emerged from the testimony: 1) the world problem is serious, 2) the solution cannot be effected with the resources of the United States alone.

Food for Freedom

Currently, the Food for Freedom Act of 1966, H.R. 14929, is in the process of ratification by the Congress. The bill reflects some of the recommendations of the President's Task Force and of the experts who appeared before the Agricultural Committee. In a word, the bill emphasizes self-help in U.S. agricultural and nutritional assistance.

The bill incorporates all of the provisions of P.L. 480 which were deemed useful, as well as several new provisions. The new bill is structurally different from its predecessor bill. The new Title I includes both local currency sales and long-term-dollar-credit sales (formerly Title IV); the new Title II covers the famine relief and government to government donations of its P.L. 480 counterpart plus voluntary agency donation provisions of the old Title III; the new Title III deals exclusively with barter; Title IV includes general and miscellaneous provisions.

Several of the provisions of the new bill are significantly related to nutrition effort. Self-help criteria have been established to determine eligibility for U.S. assistance programs. The concept of "surplus" has yielded to the concept of "available" commodities. The Secretary of Agriculture (and Interior for fishery products) is empowered to determine those commodities which are available for aid purposes.

Among the uses specified for local currency funds are development of market for U.S. farm commodities, overseas research in family planning, health, and nutrition, and promotion of trade and economic development, including emphasis on storage, handling, and food distribution facilities. The bill authorizes a new farmer-to-farmer program to be run by USDA in cooperation with American colleges. This "Farmer Corps" will accelerate the transfer of technical knowledge to farmers in developing countries.

The new Title II authorizes donations to meet famine and other relief requirements, to combat malnutrition, especially in children, to promote economic and community development, to promote assistance to needy persons, and for non-profit school lunch and preschool feeding programs in developing countries. It also authorizes donations to friendly governments and multilateral voluntary relief agencies. The CCC is directed to provide for processing, fortification, enrichment, packaging, preservation, handling, and transportation.

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UNITED STATES NUTRITIONAL ACTIVITIES

Definition of Nutrition

Until recently, the concept of "nutrition" has had a contracted definition related primarily to the clinical and physiological aspects of the term. The U.S. realizes that efforts against malnutrition and starvation must be manifold; A.I.D., therefore, has defined a variety of nutritional goals for U.S. policy. (See Appendix 1.) For A.I.D., now, "nutrition" has taken on a comprehensive meaning, i.e., activities designed to achieve the nutritional goals. It has come to include clinical, research, technological, educational and extension activities to foster nutrition in the developing countries. Food science, food technology, industrial processing, agricultural production, and the development of storage, marketing, handling, and distribution infrastructure are all encompassed by the new definition.

The United States has conducted assistance programs related to most of the above outlined activities. However, before a comprehensive connotation of "nutrition" was developed, each activity operated independently. There was neither conceptual nor operational coordination of "nutritional" activities. This chapter will survey the variety and nature of projects and programs financed by the United States which now come under the expanded classification of "nutrition" activities.

Nutritional Activities

United States nutritional activities can be classified under six headings: 1) Technical assistance and capital assistance related to food and agriculture (A.I.D.); 2) foreign agriculture research agreements executed under P.L. 480 sections 104 (a) and 104 (k) (USDA); 3) nutrition

research grants (A.I.D.); 4) nutrition research grants (OIR); 5) P.L. 480 concessional sales; (FFP) and 6) P.L. 480 donation programs (FFD).

1) Technical Assistance and Capital Assistance Related to Food and Agriculture

The bulk of U.S. foreign assistance administered by A.I.D. is in the form of technical assistance or capital assistance. Of the active technical assistance programs of A.I.D., about 105 in 47 countries deal with subjects included in our comprehensive definition of nutrition.

Of A.I.D.'s capital assistance projects now active, 19 in 16 countries deal with nutritional activities. Formerly, these projects were not seen as part of a coordinated effort against malnutrition, but only as part of the country's development program.

Typically, the technical assistance projects involve a staff of professional experts, either A.I.D. employees or contracted personnel, who support and advise local programs for development of institutions. The programs are typically named "agricultural development," "agricultural extension," "agricultural education," etc. An example of a nutrition related technical assistance project is project 526-11-110-050 to Paraguay for agricultural productivity and institutional development. A.I.D. assists in reorganizing the Ministry of Agriculture, increasing extension services, research, fertilizers, credit, improving the marketing and processing of food through co-ops, and plants, and supporting rural colonization and resettlement.

The 19 nutrition oriented capital projects are valued at \$185,800,000. These capital assistance loans finance: agricultural equipment (2); agricultural universities and research facilities (3); fertilizer plant construction (3); irrigation system construction (1); loans for agricultural credit or fertilizer imports (5); livestock banks (1); grain storage facilities (3); and farm-to-market access roads (1).

2) Foreign Agriculture Research Agreements Executed under P.L. 480, Sections 104 (a) and 104 (k)

Section 104 of P.L. 480 defines the uses to which the local currencies which accrue from Title I sales can be put. Subsection (a) authorizes the spending of local currency "to help develop new markets for United States agricultural commodities on a mutually benefitting basis." Subsection (k) authorizes the allocation of local currency for a number of purposes among which is scientific research. The U.S. Department of Agriculture has disbursed over 700 grants for foreign research under subsections 104 (a) and 104 (k) of P.L. 480.

Today, there are about 580 active agreements in 29* countries in which we have at some time accumulated local currency through surplus commodity sales. The grants are in the area of marketing research as

* Ceylon, India, Israel, Japan, Korea, Pakistan, Philippines, Taiwan, Turkey, Belgium, Finland, France, West Germany, Greece, Italy, Netherlands, Poland, Spain, Sweden, Switzerland, United Kingdom, Yugoslavia, Egypt, Australia, Brazil, Chile, Colombia, Peru, and Uruguay.

well as utilization research, forestry research, economic research. They range from the investigation of the addition of non-fat dry milk solids to buffalo milk in the manufacture of hard cheese in India to studies on the economic aspects of production, marketing, and utilization of corn and other feed grains in Colombia.

3) Nutrition Research Grants from A.I.D.

A.I.D. also finances research in nutrition in foreign countries.

Presently, there are 3 active A.I.D. funded research projects in nutrition. Three are monitored by TCR/HS.

Dr. Nevin Scrimshaw of M.I.T. has a \$124,967 grant to test ways of extending protein concentrates with glycine, ammonium citrate, and other inexpensive nitrogen sources. Children in Guatemala are being tested. Dr. George Graham, in Peru, has \$171,000 grant to perform a clinical evaluation of the effectiveness of various new formulated high protein foods in combatting protein-calorie malnutrition.

The remaining A.I.D. overseas grant is monitored by TCR/ARDS through a P.A.S.A. with USDA. The project is conducted jointly by the East African Agriculture and Forestry Research Commission and the Scientific, Technical, and Research Commission of the Organization of African Unity in Nigeria, Kenya, and Uganda. The expenditures through 1967 are expected to total \$904,625. The project is aimed at producing higher yields and improved varieties of the major cereal grains; maize, sorghum, and millet. Research on ways of removing an unpalatable chemical in yellow sorghum is underway. There is also attention to controlling diseases and insects which attack cereal crops. (For a list of A.I.D. Nutrition projects, see Appendix 2.)

4) Nutrition Research with O.I.R.

The Nutrition Section of the Office of International Research of the National Institutes of Health also assists in international nutritional research by monitoring a number of research projects throughout the developing world. There is an \$80,000 grant to Dr. Chichester for a project to develop high protein formulated foods from domestic protein sources in Chile. In Brazil there are two coordinated projects studying the ability of young children to absorb vitamin A in diets containing varying amounts of fat, conducted by Drs. Figueria and Chavez. The combined research allocation for the two projects is \$26,700.

Dr. Gerald Combs is heading the investigation with the Peruvian Ministry of Public Health and Welfare for a \$30,000 project in Peru to assess the nutritional aspects of school lunch programs from various approaches. Clinical, biochemical, and chemical analyses are all being used to determine the optimal school lunch regimen for Peru. There is a \$65,000 grant with Dr. Arnold Schaefer backed up by a team from V.P.I. for a project to evaluate a high protein modification of soy grits. Children in the Philippines are being currently fed in this study.
(See Appendix 3.)

The Nutrition Section of the OIR, (formerly ICNND), has conducted, between 1956 and today; nutrition surveys in 30 countries*; two more such surveys will be begun in the next few months**. The studies include food and agriculture, dietary, biochemical, clinical and dental surveys of the various populations.

Food Assistance

United States food assistance is an outgrowth of three policy trends which emerged at the close of World War II. After the war, the United States expanded its agricultural production to serve as the breadbasket for Europe, while Europe diverted its resources toward restoring its industrial capacity. Our expanded food production was also used to relieve hunger and famine in war devastated areas. Our domestic economy adapted to the increased agricultural output; any drastic cutback would have seriously affected the economy. As a response to these conditions, the Congress passed Public Law 480. It incorporated the concept of both food for development and food for humanitarian relief.

5) P.L. 480 Concessional Sales

Under Title I of P.L. 480, commodities designated as "surplus" by the Secretary of Agriculture can be sold for local currency to certain foreign countries; under Title IV, enacted in 1961, surplus commodities can be sold for dollars on long-term credit with an easy repayment schedule. From July 1, 1954 through December 31, 1965, \$9,298,470,000 worth of surplus goods were sold to 52 countries for local currency.

* Iran, Pakistan, Korea, Philippines, Turkey, Libya, Spain, Ethiopia, Peru, Ecuador, Vietnam, Chile, Colombia, Taiwan, Thailand, Lebanon, West Indies, Burma, Uruguay, Jordan, Bolivia, Malaya, Brazil (Northeast), Venezuela, Nigeria, Guatemala, Paraguay, El Salvador, Nicaragua, Costa Rica.

** Honduras, Panama.

From July 1, 1961 to December 31, 1965, \$538,500,000 worth of surplus goods were sold to 22 countries on long-term dollar credit.

Among the surplus commodities sold on a concessional basis have been: Wheat and wheat flour; barley, corn, sorghum, oats, and rye (for livestock); rice; milk, cheese, and butter; beans, peas, and lentils; frozen beef, canned pork, and canned hams; poultry; soybeans and meal, soybean and cottonseed oil; cotton; tobacco; hay and pasture seeds. Except for the exceptional financial arrangements, P.L. 480 sales operate as any other international agricultural trade. Chapter 6 contains a detailed analysis of the decision making channels in Title I and IV sales.

6) P.L. 480 Donation Programs

The surplus donation program authorized by Title II and III of P.L. 480 is administered by the Office of Food for Development. Included among our overseas donation activities are refugee relief, disaster relief, economic development (food for work), the world food program, and child feeding. In addition, there are barter activities for foreign goods and military purposes. Overseas voluntary agencies: CARE; Catholic Relief Service; Church World Service; UNICEF; Lutheran World Relief; and smaller agencies distribute U.S. surplus commodities in conjunction with our donation program. In the period from 1954 through 1965, \$4,500,000,000 worth of food has been donated by the United States under Titles II and III of P.L. 480.

Food for Development emphasizes the principle that relief, alone, does not solve any problems, that food should not be a dole, but rather

an aid to economic development. Priorities have been established for the use of food. Preschool children have the highest priority; adults have the least.

The central program is the Latin American child feeding program, Operacion Ninos, sponsored jointly by Food for Peace and the Alliance for Progress, and run by Food for Development. By 1965, over 13 million children in 18 countries* in Latin American were benefitting from U.S. food donations; another two and a half million hard-to-reach infants and preschoolers were also receiving milk.

* Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela.

THE DECISION-MAKING PROCESS IN P.L. 480 SALES

Introduction

The following is an analysis of the decision-making process in P.L. 480 sales under titles I and IV. It was compiled from interviews with various participants in the process. Management Planning has published an excellent analysis of Food for Peace* However, the focus of the present treatment is somewhat different.

The Program Book

In the consultation between the officials of a host country government and the U.S. country team, preliminary to the drafting of the Program Book for the following Fiscal Year, a general estimate of the types and levels of commodities to be requested under P.L. 480 is laid down. The AID mission submits its development assistance plans as part of its recommendations in the annual country Program Book.

In Washington, the Program Book is reviewed by various parties within the AID regional bureau, principally the country desk officer; it is also reviewed by the regional officers in A/PC and A/MR and interested governmental bureaus and agencies. These parties consider 1) the political importance and status of the country vis a vis U.S. foreign policy; 2) The overall contribution of the various programs -- including P.L. 480 -- to economic development.

* See Food for Peace: Analysis of Organization and Administration by Calhoun et. al. March 4, 1966

The Economic Section of P.C. reviews the recommendations from the several regions with regard to balance and availability of resources. A summary of recommendations is submitted to the Administrator of AID for an overall regional review. The submissions are reviewed in the context of the "strategy" for the country defined in the CASS. The Administrator makes a general review of proposed assistance for development objectives in all nations for the following Fiscal Year, with particular attention to major recipients. The P.L. 480 request is only described tentatively, in terms of orders of magnitude.

The Formal Request

In the "operational" year, the host country makes a formal request for P.L. 480 commodities to the U.S. Country Team. The country team reviews the host country request, giving general "on the scene" consideration to the economic, social, political, and financial consequences for the host country. The formal request and the country team's recommendations are submitted to Washington. The primary action recipient of the request is the U.S. Dept. of Agriculture/ Foreign Agricultural Service (F.A.S.). The request goes simultaneously to Material Resources, the AID country desk, the State Dept. country desk, and the Economic Section of State, among the foreign affairs agencies. The Treasury Department, Bureau of the Budget, Department of Commerce, and Department of Defense also receive the request.

The Role of USDA

Within Agriculture, it is the legal responsibility under P.L. 480 for the Secretary of Agriculture to designate those commodities which are surplus. A Departmental Committee of representatives from 1) The Foreign Agricultural Service, 2) the Office of the Secretary, 3) the Agricultural Stabilization and Conservation Service, 4) The Consumer and Marketing Service, and 5) The Economic Research Service (E.R.S.) confer and must concur on the amount of

agricultural produce available for "surplus" designation in the forthcoming Fiscal Year. The recommendation of the committee are reviewed and approved by the board of directors of the Commodity Credit Corporation, chaired by the Secretary or Undersecretary of Agriculture.

The individual country request is discussed by a committee within USDA consisting of 1) representative from the Program Development Division of F.A.S., 2) a representative of the General Sales Manager in F.A.S., 3) a commodity specialist from F.A.S., 4) a regional specialist from E.R.S., 5) an international finance specialist from E.R.S., 6) a representative from the Barter and Stockpiling Office of F.A.S., and 7) a representative of the Program Operations Division of F.A.S. If the request is under title I, the representative of the Program Development Division chairs the committee; if the request is under title IV, the representative of the General Sales Manager chairs the committee.

Considerations by USDA

The questions considered by the committee about a given request are, sequentially: 1) Should there be a P.L. 480 program in the country? Could the country buy the commodities through commercial cash or credit channels? 2) Should the U.S. assistance be in the form of title I or title IV agreements? 3) What should be the distribution of the country's total import schedule between concessional and commercial sales? 4) What commodities will be under barter.

In these deliberations, the focus of the commodity specialist is the effect of U.S. exports on the country's import pattern. The focus of the regional specialist is the effect on local production and agricultural development in the recipient country. The concern of the financial expert

is the overall effect on economic balance of payments, and trade effects. The Barter and Stockpiling Division is concerned with the movement of commodities under the barter provisions. The Program Operations Division attends the record of the P.L. 480 operations in the country including compliance with the provisions of the agreement. The proposal incorporating the recommendations of the committee is written up in the Program Development Division (or Office of General Sales Manager if dollar sales) and presented to the Inter-agency Staff Committee.

Role of AID

Within the foreign affairs establishment, Material Resources assesses the country request in terms of operational difficulties and operational policy in the country. The AID country desk, with data furnished by the AID mission in the field, considers the relation of the request to the total aid strategy, other economic assistance which the U.S. might provide, the country's food needs, and the distribution of local currency funds among 1) 104(g) development loans, 2) "Cooley" loans, and 3) U.S. administrative costs. If title IV, the desk looks at the effect on overall development of a shift of hard currency resources into agricultural commodities.

The Role of the State Department

The State country desk considers the 1) importance of the country to U.S. foreign policy, 2) the international and bilateral performance of the host country, 3) the effect, positive or negative, of P.L. 480 on achieving U.S. objectives within the country. In general, the State country desk assesses the political possibilities and/or consequences of P.L. 480 assistance. The head of the Regional Bureau co-ordinates P.L. 480 within his region and suggests political priorities.

The Economic Bureau of State, as represented by the Temperate Products Division of the Office of International Commodities of the International Resources Office of the "E" Section, considers 1) the trade strategy, 2) the commodity composition, 3) the trade effects, 4) the usual marketing requirements, 5) additional factors of the request.

The Regional Sales Officer of Material Resources

The cumulative recommendations of the four offices mentioned above with the integration of the Regional Sales officer in M.R., form the AID - State position on a given country request. The M.R. sales officer co-ordinates the various recommendations to reduce contradictions and inconsistencies within the foreign affairs agencies and adds operational and policy considerations of his (her) own, and formulates a definitive and consistent AID - State policy.

The Inter-Agency Staff Committee

The policy formation on a given sales agreement is finalized by the Inter-agency Staff Committee. Agriculture, AID-State, Commerce, Treasury, and Bureau of the Budget are represented. Agriculture and AID-State present the recommendations which have come out of the deliberations outlined in the preceding paragraphs. Commerce is concerned that American industry is allowed to participate maximally in any processing of commodities for sale. The Bureau of the Budget focuses on the uses of the local currencies to be generated under title I or the credit terms under title IV. B.O.B.'s main objective is to maximize the efficiency of programming limited agricultural resources. The Treasury is responsible for formulating the U.S. negotiating position. Treasury assumes custody of foreign currencies generated in title I sales. The Treasury also focuses on the nature of the impact of the

proposed sale on the U.S. balance of payments position.

The decision-making process in P.L. 480 is a complicated flow receiving many inputs from many people with varying foci of concern. The quantitative aspects, the economics and politics, are given adequate attention. There are no mechanisms, however, for dealing with the qualitative aspects, i.e. the nutritional implications of the commodity sales.

AGENTS II: THE DECISION MAKING PROCESS

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Sec. of Agr.
CCC
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Departmental Committee
on Foreign

availability

USDA
Committee

Program Dev. Division
General Sales ^{Division}
Commodity Specialist
Regional Specialist
Internat. Finance Specialist
Barter and STK. Piling
Program Oper. Division

Administrator
of AID

P.C.

AID Region
Regional P.C.

Program
Book

AID MISSION
↑
HOST COUNTRY
Gov.

HOST COUNTRY
Gov.

AID Mission
Economic Attache
Agr. Attache

Country
Statement

M.R. Regional Sales
AID Country Desk
State Country Desk
Economic Bureau
Material Resources

Recommendations

Interagency
Staff
Committee

PROGRAM BOOK

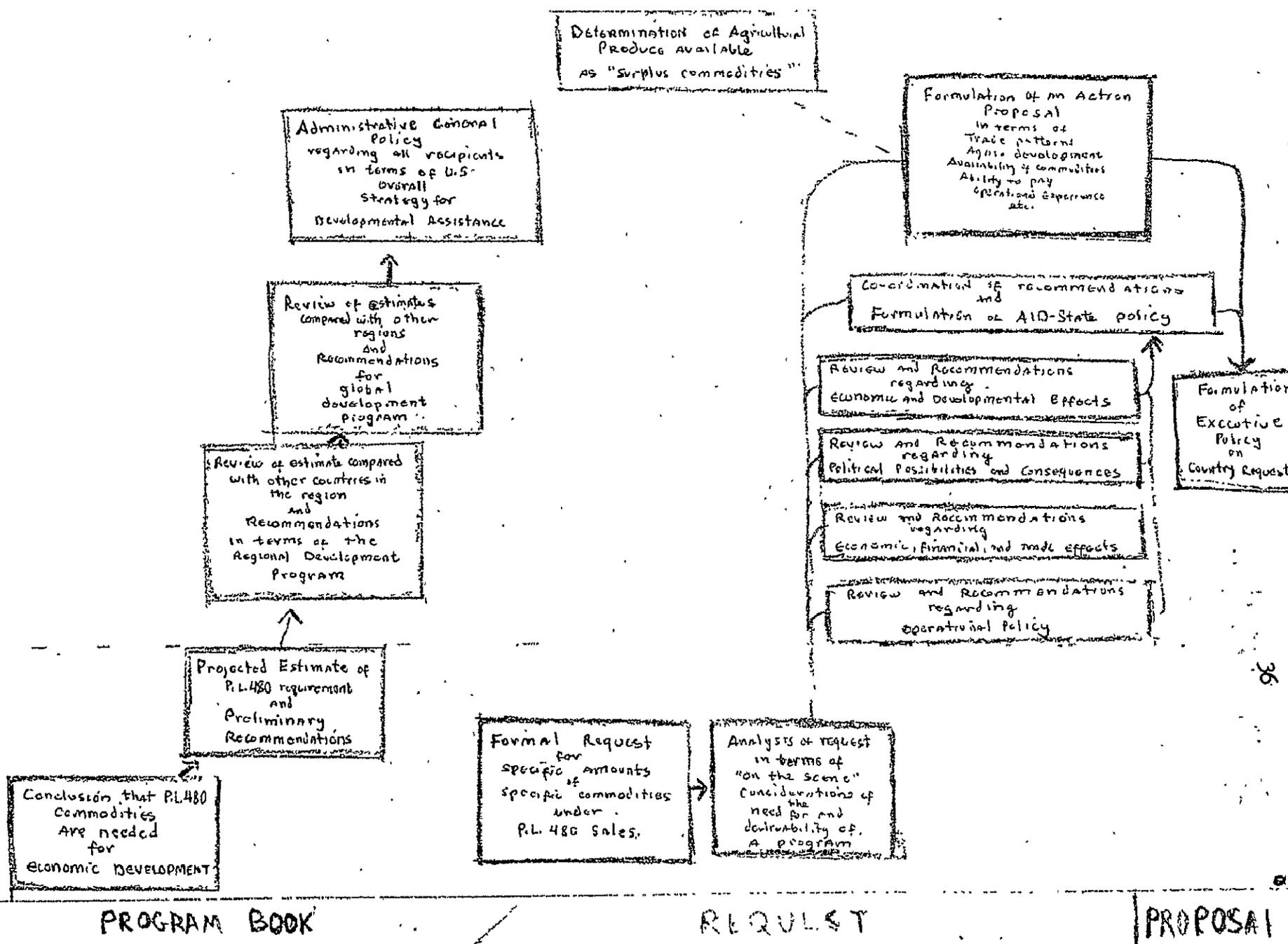
REQUEST

PROPOSAL

EVENTS IN THE DECISION MAKING PROCESS

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NUTRITIONAL CONSIDERATIONS IN FOOD DONATIONS

Nutritional Considerations

If the United States is to optimize its effect in the war on hunger, it must increasingly consider nutritional implications in its food assistance programs, in relation to the social, political, and economic ones. There are instances in the annals of AID food programs in which the attention paid to nutritional aspects of food disbursement was dominant. This chapter will analyze the logic of past bureaucratic consideration of nutrition in food assistance programs.

Food for Development

The donations programs of our Food for Peace program authorized under titles II and III of P.L. 480 are administered by the Office of Food for Development. Unlike the concessional sales arrangements, the donation programs allow for flexibility and creativity in pursuing developmental goals. The donation programs emphasize the qualitative rather than the quantitative aspects of food assistance. To quote the chief of the Food for Development branch, DR. Martin Forman, "the concept of bureaucracy as a servicer of requests gave way to the concept of bureaucracy as an initiator of requests." Four of the decisions to include nutritional "enrichment" or "fortification" in foods for overseas donation will be outlined.

Case #1: Enrichment of Cereal Grains

During World War II, when meat, dairy products, and other protective foods were in relatively short supply, the United States government inaugurated a program of enrichment for flour and cereals supervised by the Food and Drug Administration. The nutrients added were, iron,

thiamine, riboflavin, and niacin.

When the War ended, and prime foods were once again in abundant supply the enrichment of cereal grains was continued because of their protective value particularly among the low incomes groups in the domestic population. When P.L. 480 was enacted in 1954, all title II and III cereals were enriched to FDA standards on the same assumption that the additional nutrients would contribute to the health and protection of the overseas recipients.

Case #2: Calcium Fortification of Cereal Grains

The fortification of flour and cornmeal with calcium is optional under FDA regulations. Diet surveys showed that in many areas in which there were U.S. donation programs, there is a calcium deficiency in the local diet. Operating on the same principle that fortification can help in those deficit areas, and does not hurt in adequate areas, AID requested that calcium be included in its donated flour and cornmeal. AID agreed to pay the costs of calcification of the grain. On Nov. 2, 1965, a PASA between AID and USDA provided for the calcium fortification of future flour and cornmeal for donations.

Case #3: Vitaminization of Non-Fat Dry Milk

The United States has been shipping milk under its P.L. 480 programs since 1954. At the inception of Operacion Ninos in 1962, we greatly increased the foreign distribution of milk. All milk in the donation program is non-fat dry milk, a byproduct of butter manufacture. It is less expensive and more easily stored and shipped than whole milk.

Vitamin A is a fat-soluble vitamin, and is removed with the butter

fat when the milk is skimmed. Other natural sources of vitamin A are leafy green and yellow vegetables. In those individuals, mainly pre-school children, who receive a diet composed entirely of non-fat milk, there is apt to be a vitamin A deficiency.

During the early 1960's, UNICEF was conducting a program of non-fat milk distribution under title III in Brazil, accompanied by a supplementary program of vitamin pill distribution. During this time, a process for adding dry vitamins to non-fat dry milk powder was developed. In 1962, UNICEF agreed to pay the costs of pre-vitaminizing non-fat milk purchased from the CCC. Later the Hoffman-LaRoche Co., a pharmaceutical house, and Land-o-Lakes Co., a butter and non-fat dry milk producer, developed a process of vitaminizing milk prior to drying.

As Operacion Ninos began operations in 1962, UNICEF decided to phase out its milk distribution in Brazil; it did agree, however, to continue its vitamin pill distribution through the end of calendar year 1963. Thus, during 1964, certain infants were receiving a diet composed exclusively of non-fat dry milk. There were about ten reported cases of blindness among children receiving United States donations of milk. Propaganda from various groups opposed to U.S. interests in Brazil linked this to U.S. food. Experts at NIH clarified the connection between avitaminosis A (vitamin A deficiency) and keratomalacia (corneal lesions).

AID immediately sought a means to provide vitamin protection to young non-fat dry milk recipients. United States laws for protection of the whole milk industry prevent the vitaminization of non-fat dry

milk for domestic consumption. On February 26, 1965, AID hosted a meeting to discuss the feasibility of vitaminizing the non-fat dry milk for overseas distribution under titles II and III donations as UNICEF had done. Non-fat dry milk producers and vitamin manufacturers were in attendance along with representatives of AID, USDA, the Office of Food for Peace, NIH, and UNICEF.

Specifications for vitaminizing of milk (5000 international unit of vitamin A & 500 I.U.'s of vitamin D per 100 gm.) were set, and on May 7, 1965, bids were announced for the first purchase of vitaminized non-fat dry milk for U.S. child feeding programs. Since then, the United States has shipped 363,000,000 lbs. of fortified milk, and 89,000,000 lbs. of unfortified non-fat milk. Since the amounts of milk did not cover the entire U.S. commitment for milk donations, certain countries have had to receive the unfortified milk. The decision was made in MR to send the unfortified milk to Spain, Yugoslavia, Italy, and some countries in Africa and the Far East, where it was considered, on the basis of dietary evidence, that the vitamin A deficiencies were not so severe as in parts of Latin America.

Case #4: Formulated High Protein Foods

Malnutrition, as the name implies, is caused by an imbalance of nutrients. It can be corrected by reducing or increasing the nutrient which is out of balance. It can be prevented by a diet in which the fats, proteins, calories, vitamins, and minerals are in a proper balance.

For a number of years, nutritionists and food technologists have

been developing formulated foods which contain many or all of the nutrients required for a balanced diet in a single food. Such foods are generally grain based high protein mixtures with supplementary vitamins and minerals. Incaparina, ProNutro, and Peruvita are several such formulated foods.

In 1964, the American Corn Millers Federation consulted with Dr. Gerald Combs, a nutritionist at the University of Maryland, concerning the formulation of a high protein food based on corn. In December, 1964, a proposal to produce such a formulated food for overseas distribution was submitted to the Office of Food for Peace.* Since then, AID and USDA have been working with vitamin and mineral manufacturers, cereal processing groups, and other government agencies. A prototype mixture, of corn, soy flour, and milk was developed, known variously as Ceplapoo, (cereal plant protein) or CSM - mix, (corn-soy-milk).

Formulated foods were conceived primarily to combat malnutrition in children. The United States is engaged in a campaign against malnutrition. On January 13, of this year, Food for Peace announced that the United States would buy 10 million pounds of high protein formulated food to combat malnutrition among refugees and infants in Vietnam.

See "Preschool Child Feeding" by Dr. Gerald Combs

Two formulae have been developed for the government. The first, Blended Food Product - Formula #1, contains corn, durum wheat flour, soy flour, and non-fat dry milk with vitamins and minerals; it is in the form of rice-like pellets. The second, Blended Food Product - Formula #2, contains gelatinized cornmeal, soy flour, and non-fat dry milk with vitamins and minerals; it is a flour-like mixture. In June and July of this year, CARE ran an "acceptability test" of a similar corn-soy-milk mix in India. Served as a porridge, it was accepted by 77.8% of the children tested.

The United States is now beginning to procure high protein formulated foods for its programs overseas. The CCC has purchased 712,600 lbs. of Formula #1. It is ordering 9,287,000 lbs. of Formula #2.

CONCLUSION

A significant positive development in the U.S. nutrition policy was the recent broadening of the operational definition and scope of "nutrition" to include any and all efforts to increase the nutritional well-being of developing nations. What remains now to be done, is the co-ordination and integration of all U.S. nutritional activities in order to maximize efficiency.

The U.S. is engaged in a variety of nutritional activities. The concept of each type of program outlined in chapter 5 is sound. Attention must be given, however, to the balance and distribution of assistance in each country to achieve the maximal return with the limited manpower and material resources available. This integration can only be effected when nutritional consciousness and competence is institutionalized in the development planning of the host countries and U.S. administrative agencies. Skilled personnel, aware of the role of nutrition in development must be incorporated into the planning of development programs.

The present research points to a few operational adaptations which might increase the nutritional efficiency of overseas activities:

- 1) Nutritional and economic, rather than political considerations should become paramount in planning technical and capital assistance projects related to nutrition
- 2) All grants for food technology or nutritional research abroad should (a) encourage the maximal development of indigenous technical competence (b) concentrate on skills needed in terms of projected technical manpower needs of the country in these areas.

- 3) The donation programs should concentrate, as far as possible, in extending coverage to the nutritionally vulnerable pre-school child.
- 4) Fortified diets for children should be remedial, i.e. specifically designed to overcome endemic nutrient deficiencies in the given country.
- 5) There should be an extension of the kind of rational, "nutrition foremost" considerations, demonstrated in the experience of Operacion Ninos, in other food distribution programs.
- 6) The concessional sales of U.S. commodities have operated and will continue to operate on market principles. Through encouraging the nutritional education of host countries, the U.S. could foster the consideration of nutritional needs by the host countries purchasing U.S. available commodities.
- 7) Foodstuffs, of the highest nutritional content, and in some cases, fortified with protective nutrients, should be included among the commodities designated as "available" for concessional sales. A nutrition expert might be given status on the I.S.C.

In sum, nutritional consciousness must be sold to the farmers, merchants, government officials, and people both at home and in developing countries. There must be an insistence that the maximum improvement of nutrition is the primary consideration in all planning of nutrition related projects. The effort to eliminate undernutrition in the developing world is a staggering challenge. Maximizing the efficiency of nutritional activities through applying the above principles and through educating and nutritionally orienting economic planning, could mean the difference between success and

Appendix 1

1. Inventory and project food requirements by types and amounts, by year for next ten years.
2. Strengthen LDC capacity to plan nutrition programs, including contingency planning for families.
3. Fortify and enrich existing foods including PL 480 foods.
4. Develop new formulated foods.
5. Establish a food technology competence in LDC.
6. Expand capacity of food processing industry in LDC.
7. Develop ways to facilitate new and increased capacity for production and services by U. S. firms in LDCs.
8. Strengthen and enlarge marketing and distribution systems including infrastructure, e.g., storage facilities, container industry, etc.
9. Improve LDC knowledge of nutrition and acceptance of new foods.
10. Promote legislative base and government incentives for increasing and improving food supply.

APPENDIX 2

A.I.D. Sponsored Nutritional Research

Extending protein concentrates for child feeding by addition of inexpensive simple nitrogen sources	AID/csd-1431 Dr. Nevin Scrimshaw M.I.T. & INCAP	\$124,967
Clinical evaluation of new protein sources for the prevention of malnutrition	AID/csd-1433 Dr. George Graham Anglo-American Hospital Lima, Peru	\$171,000
The development and use of improved varieties of the major cereal grains in Africa	USDA PASA RA-4-00 East African Agriculture & Forestry Research Commission Scientific, Technical, and Research Commission of the Organization of African Unity	\$904,625

APPENDIX 3

OIR Monitored Nutritional Research

Evaluation of high protein supplements in child feeding programs in the Philippines and Turkey	PASA RA-1-65 Dr. Arnold Schaefer NIH-PHS	\$65,300
Nutrition assessment and surveillance services (Chile)	PASA TCR-5-5-66 Dr. Chichester University of California Davis, California	\$80,000
Evaluation of the utilization of vitamin A provided in a stabilized form in non-fat milk powder used for preparing infant formulas. (Brazil)	Dr. Figueira Dr. Chavez	\$26,700
School lunch nutritional assessment programs (Peru)	Dr. Combs	\$30,000