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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

PROJECT PAPER

522 -

Proposal and Recommendations
For the Review of the
Development Loan Committee

HONDURAS - Nutrition

AID-DLC/P-2163

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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

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AID-DLC/P-2163
May 24, 1976

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: HONDURAS - Nutrition

Attached for your review are the recommendations for authorization of a loan to the Government of Honduras of not to exceed Three Million, Five Hundred Thousand Dollars (\$3,500,000) to: (a) increase GOH capability to carry out analysis, planning and evaluation activities related to nutrition; (b) develop rural institutional and infrastructure in Nutrition Education, Water Supply and Environmental Sanitation, and Food Production.

No meeting has been scheduled for consideration by the Development Loan Staff Committee; however, your concurrence or objection is requested by close of business on Friday, May 28, 1976. If you are a voting member a poll sheet has been enclosed for your response.

Development Loan Committee
Office of Development Program Review

Attachments:

Summary and Recommendations
Project Analysis
Annexes A-I

PROJECT PAPER
NUTRITION PROJECT
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I.B. RECOMMENDATIONS

Authorization is recommended for a Grant to the Government of Honduras (GOH) for a sum not to exceed \$650,000; and a Loan, the amount of which will not exceed \$3,500,000, to assist in the financing of the Honduran Nutrition Program. The Loan will be repaid in Dollars over a period of forty (40) years, including an initial grace period of ten (10) years, with interest charged at the rate of two percent (2%) per annum during the grace period, and three percent (3%) per annum thereafter. Total Project costs:

SUMMARY PROJECT COSTS
(US \$000's)

<u>Project Activity</u>	<u>A.I.D. Grant</u>	<u>A.I.D. Loan</u>	<u>GOH Contribution</u>
Analysis and Planning	466	-	730
Nutrition Education	164	200	170
Environmental Sanitation	20	1,650	500
Pilot Projects	-	1,650	400
	<u>650</u>	<u>3,500</u>	<u>1,800</u>

I-C DESCRIPTION OF THE PROJECT**1. Summary Description**

This Grant/Loan Project is intended: (a) to increase the GOH capability to carry out analysis, planning and evaluation activities regarding nutrition programs; and (b) to support the development of institutional elements and rural infrastructure essential to dealing effectively with the problems of nutrition confronting the Honduran people.

The Project is based on a Nutrition Assessment carried out by the GOH with assistance from INCAP and A.I.D.; project analyses carried out by GOH, INCAP and A.I.D.; and an intensive review of GOH policies, programs, and plans.

The four Project components are:

a. Analysis, Planning and Evaluation - The purpose of this component is to increase the capability of the GOH to carry out analysis, planning and evaluation activities related to nutrition. It includes: (i) the development of a system for monitoring nutritional status in Honduras; (ii) design of systems and procedures for the evaluation of programs related to nutrition; and (iii) a series of studies and surveys aimed at a better understanding of the extent, nature, and causes of nutrition problems, in order to improve the design and coverage of nutrition-related programs.

b. Nutrition Education - The nutrition education component of the Project includes support for long-term and short-term training of personnel in GOH agencies and institutions involved in program activities related to the attainment of nutrition goals, as well as for certain activities designed directly to increase awareness and knowledge of nutrition problems, their causes and potential solutions. Activities include: (i) a total of 6 man-years of participant training in nutrition planning and related fields for GOH personnel engaged in national nutrition planning activities; (ii) 360 man-months of training, 6 months for each of 60 people, for technicians who work in programs related to nutrition; (iii) 320 man-months of inservice training for 320 extension agents and promoters who will be used by the GOH in outreach activities related to nutrition; (iv) the design of primary school curriculum supplements, for use in primary schools, and non-formal education packages concerning nutrition; (v) design and production of a series of thirty-second radio spot messages on nutrition, and the broadcast of these on a nationwide hookup of 16 radio stations; and (vi) the purchase of essential audio-visual equipment, and the training of staff in their use in the production of audio-visual support materials for nutrition program activities.

c. Water Supply and Environmental Sanitation - Funds for this Project component will be used for extending a GOH program whose purpose is to provide, between now and 1980, potable water and sanitary means of waste disposal for over half a million of the rural population. Activities are: (i) the construction of 3,000 low-cost water wells or gravity-fed systems per year, or a total of 9,000 for the three years of the Project, in rural areas of Honduras; (ii) the construction in the same communities where the wells are placed of 10,000 latrines per year, or a total of 30,000 latrines during the life of the Project; (iii) nutrition education for the families who are beneficiaries of the above facilities; (iv) an evaluation of the impacts of these facilities upon the nutritional status of the families benefited.

d. Pilot Projects - Activities included in this component are intended to provide information regarding several new avenues to improved nutrition for rural families. These include: (i) a series of small, community-level projects for increasing the availability of food products for consumption by the families involved; (ii) improvement and expansion of fish farming as a source of more food; (iii) research into methods for introducing soya into the diets of rural families; and (iv) applied research concerning the use of new varieties of sorghum.

2. Target Group

In order for the different activities included in this Project to result in a cohesive program, the activities themselves must share some centralizing focus. This focus, which knits the various Project elements together, is in this case the target group.

Target group selection begins with a consideration of those areas now covered or to be covered in the next 3 years by Rural Health Centers. Health Center services, which include preventive and curative health care; health,

nutrition and family planning, promotion and education activities; and the collection of information concerning nutritional status and related factors, are important to the improvement of the nutritional well-being of the Honduran population. There were approximately 200 rural Health Centers established as of 1974. Up to 500 new Centers will be operating by 1980. Annexes D-5 and 6 show the new Health Centers planned for the year 1976, the locations of Health Centers and other health installations, and populations served.

It is in the geographic areas serviced by these rural Health Centers that the Ministry of Health will concentrate its nutrition education activities (to be carried out through the Health Center) and its investment in potable water and environmental sanitation facilities. These Centers will provide basic health services coverage for over half the rural population in 1976. Centers are staffed with an auxiliary nurse and a health promotor, and are supported by health guardians who live in the small communities served by the Health Center, dispense simple medicines, and refer families to the Health Centers for health service they themselves cannot provide.

The pilot community food production activities will be undertaken in these same areas. First priority will be to promote these projects among the most nutritionally deficient families included in the above target population.

While MOH plans call for the water system and latrine construction to be located precisely in those localities being provided with rural health centers (CESARs), it is still unclear exactly how the choice of communities to participate in the community food production projects is to be made. At the time that detailed revised implementation plans are completed the linkages between these activities will be spelled out.

Other Project activities, while not serving this target group directly, are nevertheless supportive of the targeted effort. The Analysis, Planning and Evaluation component will initiate nutritional monitoring and other evaluation activities, in addition to more general analysis and planning. The aquaculture project will provide support to the community fish-pond alternative under community projects. Applied research into nutrition-oriented uses of soya and sorghum may contribute in the long run to the nutritional well-being of the target group.

3. Executing Agencies - The GOH agency with overall responsibility for organization and supervision of the Project is SAPLAN⁽¹⁾, a division of the National Planning Council whose responsibilities include the formulation of national policy regarding food and nutrition; review of GOH programs

(1) "Sistema de Análisis y Planificación de Alimentación y Nutrición", with members from the National Planning Council (CONSULANE), the Ministry of Natural Resources (MNR), the National Agrarian Institute (INA), the Ministry of Public Health (MOH), the National Social Welfare Board (JNBS) and the Ministry of Public Education (MOE).

to determine their relationships to, and impact upon, the nutritional status of the population; and analysis, planning and evaluation of nutrition programs. Implementation of the various Project components will be carried out as follows:

a. The analysis, planning and evaluation project will be carried out by SAPLAN, with the cooperation and assistance for studies and surveys of other agencies such as the Directorate General of Statistics and Census, (DGEYC);

b. SAPLAN will be responsible for participant training under the nutrition education component. The Ministry of Public Health will be responsible for the training of technicians. For field personnel, training will be carried out on an agency-by-agency basis with course content, design, and evaluation supervised by SAPLAN. The development and testing of primary school materials will be the joint responsibility of the Ministry of Education and SAPLAN. SAPLAN will be responsible for the development of radio messages.

c. In the potable water and environmental sanitation component responsibility will lie with the Ministry of Public Health for promotion and construction of facilities and for the nutrition education aspects, and with SAPLAN for evaluation.

The Department of Fisheries of the MNR will carry out all activities under the aquaculture project; the soya production project will be the responsibility of the MNR, with INA and the MNR being responsible for the introduction of soya into the diet; the sorghum project will be carried out by the MNR through its research and extension program; and the JNBS will be responsible for the promotion and development of community food production projects.

4. Achievement of Project Purpose

Carried to their successful completion, the activities financed under this Grant/Loan Project will serve to: (i) create an improved capability for the GOH to view nutrition problems in their broadest context; obtain, process, and analyze information bearing on nutrition problems and causes; and design and implement cost-effective nutrition programs in a multi-sectoral setting; (ii) increase popular awareness of nutrition problems and their causes, assist poor people to deal more effectively with nutrition problems using resources at hand, and increase the number of avenues for producing wholesome food for consumption; and (iii) establish infrastructure in rural areas essential to combatting malnutrition.

5. End-of-Project Status

By the end of this Project SAPLAN will be a permanently staffed and operational entity with well trained professionals who carry out the nutritional analysis, planning, and evaluation for nutrition programs, and recommend national food and nutrition policy. SAPLAN will have completed a comprehensive income and expenditure study providing information on income distribution and on expenditure and food consumption patterns. It will also have completed studies concerning the causes of malnutrition in selected areas of the country and will have put into operation a pilot national nutritional status monitoring system.

Curriculum materials for introducing nutrition education into the primary schools and non-formal education packages geared to nutrition education will have been designed with assistance from this Project and produced and introduced into the primary schools and into adult non-formal education programs under the Rural Education Project. Radio messages concerning the elements of nutrition needed by the Honduran public will have been developed, and will be aired on a nationwide network of radio stations throughout the day. Outreach personnel in the various agencies associated with SAPLAN will have been trained in nutrition, and will be delivering nutrition education to the segments of the rural population that they deal with in their work.

Approximately 550,000 people in rural areas will have been served by water systems and latrines. This will enable the GOH to meet the target of providing these services for more than half of the rural population, since this Project, taken together with other projects such as the IBD and CARE aqueduct projects, will result in a total of over 900,000 people being served with water and sanitation systems by the year 1980.

Under the pilot projects section of the Loan, the introduction of new varieties of sorghum and soya will have taken place on a limited scale, and the economic, technical and managerial problems associated with introducing new crop varieties will have been worked out.

A sound base for the introduction of fish culture into Honduras will have been created, with the necessary manpower and facilities for the production of fingerlings and for demonstration of fish farming techniques.

Approximately 7,500 families will have been reached with community level food production projects, broadening the base of production of high quality food sources, and improving the nutritional status of the groups reached.

I-D SUMMARY FINDINGS

Analysis of the four Project components has led to the conclusion that the project appropriately addresses the nutrition problem in Honduras, and is technically and administratively sound. Levels of technology have been chosen with due consideration of the problem to be solved, management requirements for successful implementation, and where applicable, cost-effectiveness. Reasonably advanced technology (methodology) will be employed for analysis, planning and evaluation; low-cost intermediate technology for wells and gravity-fed systems to provide potable water, and latrines for environmental

sanitation; and relatively low levels of technology for community-level projects. In each case the approach chosen has been selected in an attempt to insure a high probability of successful implementation. The project meets the requirements of FAA 611, sections (a) and (b), and all other applicable statutory criteria (See Annex E).

I-E ENVIRONMENTAL IMPACTS

The activities financed under this Project will have a minimal adverse effect upon the physical environment, and a large portion of the Project activities will tend to improve the environmental conditions for the target population.

Considerations of the various activities are:

Water Wells: With the water wells to be dug dispersed over large areas of Honduras and the average well being hand-pumped at a rate of less than two gallons per minute, no significant effect on the ground water table or recharge is anticipated.

Latrines: Through the construction of 30,000 latrines a positive benefit will result in the control of human wastes in limiting pollution of surface waters.

The number, size and distribution of latrines to be built under this program, in general, will not contaminate the ground water supply. However, care must be taken in the placement of latrines in relation to individual wells to prevent possible well water contamination through seepage.

Latrine design will take into account the control of flies and other disease vectors, the control of odors, maintenance recommendations, and the capabilities of the waste receiving media.

Local experience would also indicate that latrine design must consider that the seated position for human elimination is not customary among the target group and the latrine designs must reflect acknowledgement of this cultural heritage.

Pilot Projects: Because of the small sizes of the pilot projects and wide distribution, environmental impacts will be limited to a family or a community.

It is assumed that as part of the technical assistance in providing high quality food products for home consumption the target families will receive training in methods for disposal of new wastes to be introduced into the areas through the acquisition of small farm animals such as chickens, rabbits and goats.

With the proposal for more intensive utilization of farm lands, the natural resources are to be renewed through the application of fertilizers. Close monitoring will be required where insecticides are contemplated to prevent over-use and consequent pollution of air, surface and ground water.

Water impoundment sites for fish farms will be selected with a view to using the least productive agricultural lands and sites that will permit continuous outflow of impounded waters. Depending upon the soils and the terrain, some silting and sediment build-up may occur.

The minimal degradation of the physical environment for the total project will be far out-weighted by the social advantages in health and nutrition for some 550,000 people.

I-F PROJECT ISSUES

Issues and concerns raised at the DAEC review of the 1975 Nutrition Assessment and the Interim Report have been dealt with as shown in Annex C.

II. BACKGROUND AND DESCRIPTION OF THE PROJECT

II-A. BACKGROUND

1. The Nutrition Problem in Honduras

In 1975 the GOH, with assistance from AID and INCAP, carried out a Nutrition Assessment in Honduras. Both direct and indirect indicators of nutritional status showed the problem of malnutrition to be severe in Honduras. All age groups and geographic areas are affected, but the problem is most critical for low income families. Within these families the individuals who are most vulnerable to malnutrition are young children and pregnant and lactating women.

Forty-one percent of all registered deaths in Honduras are children under the age of five years. Infant mortality is estimated to be 117 deaths per live births. This compares with 65/1000 in Costa Rica and 19/1000 in the United States. Many of these deaths, as well as those in older children and adults, are caused by illnesses which are normally not serious for well nourished individuals.

Direct indicators of nutritional status among pregnant and lactating women are not available, but such indirect indicators as low birth-weights of children, deaths of mothers and infants associated with child-births, and problems arising during lactation testify to the existence of malnutrition among this group as well, and to its impact on the nutritional status of infants.

The most comprehensive assessment of nutrition in Honduras, and the only one of national scope, was carried out in 1965-1966 by INCAP. The resulting analysis showed that more than 70 percent of all children under the age of five years suffered from some degree of malnutrition. The problem was most severe in the rural areas of the country, where 76 percent of all children in this age group suffered from malnutrition, in the following degrees:

<u>Degree of Malnutrition</u> ^{1/}	<u>Percentage of 0-5 population</u>
1st	45.4
2nd	28.7
3rd	2.4

These levels of malnutrition in young children were the highest found in any of the Central American republics.

During the period 1972-1975 studies based on surveys carried out in poor areas of Tegucigalpa and in 11 other locations concluded that no improvement in nutritional status had taken place during the period following 1966. In

1/ A child under 5 years of age is considered to suffer from 1st degree malnutrition if his weight falls below the 90th percentile for his age in months; 2nd degree, if his weight is beneath the 75th percentile for his age; and 3rd degree if his weight is under the 60th percentile.

these studies an average of 83 percent of the children examined were malnourished.

Although studies show anemias, vitamin A deficiencies, and shortages of riboflavin, iodine, and other trace minerals to exist on a wide scale in Honduras, protein-calorie malnutrition is by far the most critical nutrition problem in the country. Dealing with protein-calorie malnutrition is not a simple matter. The problem is complex, and the relative importance of various conditioning factors and causes is not well understood, as evidenced by the existence of considerable scholarly controversy. Moreover, the mix and relative importance of reigning causes in specific instances varies with such parameters as income, geographic location, age, and a host of other variables.

2. Causes of Malnutrition

Conceptually, nutritional status is primarily a function of two things: (1) the quantity and quality of food consumed; and (2) the efficiency with which the body is able to utilize the food eaten. With regard to the first, amount and quality of food consumed are determined by a series of inter-related factors, among which are:

- a. Availability and relative prices of food items;
- b. Family income;
- c. Food habits -- those which influence foods eaten or prescribed, the intrafamily distribution of food, methods of preparation, breast feeding patterns, etc.;
- d. Level of education within the family.

Efficient biological utilization of food, on the other hand, is conditioned by the quality of the food eaten, and also by the presence of infectious disease. Frequency of occurrence of infection is largely an environmental matter, with the availability of potable water, sanitary means of waste disposal, and the provision of preventive health services playing key roles. The duration of illness is also a major factor related to nutritional status itself, since many illnesses which are relatively harmless to well nourished individuals become serious, and in some cases fatal, in the presence of malnutrition. Another factor of major importance to the duration of illness is access to low-cost curative health services.

a. Food Availability

INCAP in 1969 and Schouten in 1975 examined global food availabilities in Honduras for the period 1968-1970. Both concluded that overall supply was insufficient to meet minimum dietary requirements, even on the average. A joint GAFICA/INCAP study estimated that in 1970 the lower half of the Honduran population, in income terms, consumed only 68 percent of the minimum caloric requirements, and 61 percent of the minimum recommended protein requirements. Schouten came to the same conclusion concerning the calorie shortages, although his work showed no real shortage of protein on an aggregate protein basis. Studies at INCAP have shown, however, that diets typical of low-income families in rural areas suffer from amino acid imbalances which reduce the

effective amounts of protein which can be absorbed. In some cases this reduction has been shown to be considerable, with only 50 or 60 percent of the protein ingested being effectively utilized.

Current programs in agriculture are designed to address this situation through increased production of food commodities, such as basic grains, for domestic consumption. Integrated rural development activities in colonization areas (asentamientos) and for other cooperatives promise considerable expansions of output of corn, beans, and rice in the near term. Activities in this Project, such as introduction of soya into rural diets, address the problem from the point of view of consumption rather than production in order to complement the ongoing production focus.

b. Income

Income is clearly a major determinant of malnutrition in Honduras. Although income statistics are not abundant, the data which do exist indicate that income is extremely low for a large percentage of the population. Data from the 1967-1968 Income and Expenditure Survey carried out by the National Planning Council (CONSUPLANE) show that the average annual income -- including both monetary income and the value of on-farm consumption -- in rural areas of Honduras was less than \$75 per capita, and that for over 60 percent of rural families, less than \$45 per capita. The latter figure would represent twelve U.S. cents per person for the daily food budget, if all income could be spent on food.

No data on income levels or distribution exist for years subsequent to 1968. But regular Central Bank surveys show that average costs of living have risen by more than 40 percent in the decade since 1966, and that average food costs have increased by more than 50 percent in the same period. It must be realized that average costs of living mask the real impacts of price increases on the poor. In recent years in Honduras, the escalation of food prices for items typically consumed by low income families has far outstripped increases for other food and non-food items. The table below gives an idea of what these increases have been in just one year.

RETAIL PRICE INCREASES FOR SELECTED
FOOD ITEMS - 1975/1974

<u>Item</u>	<u>Percent increase</u>
Beans	0.0
Corn	27.7
Rice	39.5
Wheat flour	10.9
Spaghetti	23.2
Pasteurized milk	25.9
Powdered milk	29.7
Vegetable oil	32.4
Bananas	15.0
Plantains	39.2

Source: Banco Central

Since the percentage of total income spent on food is very high for low income families, the impact of these price increases on the cost of living is considerable.

Although the impacts discussed above are most severe for urban families, rural families are not unaffected. Poor rural families frequently must sell much of their food crop at harvest time (and at farm-gate prices) in order to raise cash needed for repayment of loans, purchase of food items they are unable to produce, and to buy other consumption items. Later on these families frequently purchase the same food items sold earlier, but at retail prices.

INCAP has studied the problem of food costs and diet in Honduras. It has published 'minimum cost diets' for the country for the years 1970 and 1975. These diets take into consideration reigning prices as well as foods which are nutritionally desirable and culturally acceptable. For 1975 the cost of such a diet for a rural family with six members was about \$1,000. The majority of the Honduran population cannot afford this diet. For example, the 1967-1968 Income and Expenditure Survey showed that 91.2 percent of the rural population, and 75.5 percent of the total population, had total family income less than this figure. Almost 45 percent had total income of less \$250 per year. Since there is no hard data on income distribution in recent years, it is difficult to say exactly how many families fall below the income levels necessary to consume this minimum cost diet. But there can be no doubt that the percentage is a large one, and includes a majority of rural families, in spite of the fact that they are able to produce certain amounts of low-cost food.

c. Intrafamily Distribution of Food

The 1966 INCAP survey showed that for children under five years of age, the amount of food consumed produced a calorie deficit of 40 percent, whereas for the lower half of the population as a whole the deficit was only 32 percent. This points to a poor distribution of food within the family, with members of the most vulnerable age group receiving proportionally less than other family members.

d. Biological Utilization

The frequency of occurrence of gastro-intestinal illness which impede the proper utilization of ingested nutrients is in large part a function of the availability of potable water and sanitary waste disposal. Low availabilities of potable water result in high rates of water-borne diseases, many of which manifest themselves through diarrheas. Public health statistics for Honduras show that 65.7 percent of all reported cases of transmissible disease in 1974 were of this type. In five of the eight public health districts the percentages were much higher, with a high of 80.3 percent in one district. These data are accompanied by the fact, from the 1974 census, that only 8.7 percent of the rural population enjoyed potable water with connections inside of the home, and only another 4.9 percent had easy access to a source of water which is known to be safe for human consumption.

The National Malaria Eradication Service (SNEM) recently completed a survey of water supply, waste disposal, and housing conditions for six departments of Honduras (Atlántida, Cortés, Colón, Islas de la Bahía, Gracias a Dios and Yoro). This survey found that approximately 12.4 percent of the 23,000 households surveyed had water piped into the house; 3.4 percent had access to a public basin or other catchment facility; 9.7 percent had their own wells; and 3.3 percent had access to a public well of some kind. The remaining 71.2 percent obtained their water from other sources. Although it was not spelled out in the survey what these other sources were, the majority of households surveyed lacked access to water sources which can be assumed with a fair degree of certainty to deliver potable water.

The same survey showed only 3.8 percent of all households surveyed to have public sewage connections for waste disposal; 2.0 percent to have septic tanks; and 19.1 percent to have some form of latrines. The remaining 75.1 percent had no facility for disposal of human wastes.

e. Summary and Conclusions

The severity of the nutrition problem in Honduras, evidenced by high rates of malnutrition among young children, high infant morbidity and mortality rates, and low food consumption levels for a large part of the population, is without equal in Central America. The most critical nutrition problem is that of protein-calorie malnutrition, followed in importance by anemias, vitamin A shortages, and other nutrient deficiencies.

Among the important causal factors area: low incomes for a large part of the population; high incidence of gastro-intestinal and other infectious diseases related to a lack of potable water, environmental sanitation, preventive and curative health care; and inadequate nutrition knowledge at practically all levels of society.

It is impossible to isolate one of these as the most important cause of malnutrition -- aside from the temptation to lay the blame for everything on low income -- nor can a single most pressing need be identified. These factors are tightly interrelated, and a balanced mix of interventions must be initiated lest problems left unattended erode or nullify the effectiveness of the interventions selected.

3. The GOH Strategy

For several years the GOH has evidenced a growing interest in nutrition problems. In 1968 the first national conference concerning food and nutrition policy was held, and the results of the 1966 INCAP study presented. These results led to the creation of the National Food and Nutrition Council (CNAN), which was charged with formulating Government policy for food, nutrition, and related activities. The positive accomplishments of CNAN during the period from its creation until 1972 included the elaboration of a nutrition policy within the Ministry of Public Health, and the inclusion of nutrition goals in all sector plans within the 1972-1977 National Development Plan.

Between 1972 and 1975 nutrition activities in Honduras were carried out on only a limited scale, but within the past year new interest on the part of the GOH has been awakened. The 1976 First Operating Plan for Food and

Nutrition published by the National Planning Council is a step toward a serious GOH commitment to nutrition as a national development goal. The responsibility for analysis, planning, and evaluation of nutrition programs now resides in the Council itself. Because of the multi-sectoral character of nutrition programming, a multi-disciplinary group has been organized which, operating as a division of the Council, will be responsible for the development of a national system for analysis and planning with respect to food and nutrition (SAPLAN). The members of this division have been drawn from the various agencies whose activities relate to nutrition, and liaison with these agencies will be carried out through their representatives in the division.

The overall GOH strategy for nutrition, as articulated by SAPLAN, can be summarized as follows:

- (1) Analysis, planning, and evaluation of nutrition programs will be carried out by CONSUPLANE, through its division SAPLAN;
- (2) Implementation of nutrition and nutrition-related programs will be the responsibility of the agencies represented on SAPLAN;
- (3) The initial GOH focus will emphasize programs designed to:
 - a. increase the incomes of the poor;
 - b. make better use of national resources to produce more food for internal consumption;
 - c. improve marketing and distribution of foodstuffs with the objective of improving food quality, and lowering the cost of food to the consumer through reduced marketing costs;
 - d. make improvements in the presently inadequate institutional base with respect to analysis, planning, management and evaluation of nutrition and nutrition-related programs;
 - e. improve the information base necessary for adequate planning, management, and evaluation of programs;
 - f. increase the coverage of health services, both preventive and curative, and of potable water and sanitation systems, with the target group being the rural and urban poor, and by reducing infectious disease to improve biological utilization of food consumed by those groups.

4. Programs Relevant to the Nutrition Problem

The nutrition problem cuts across several sectors and many different types of programs.

a. Increasing Food Production and Rural Income

The GOH is concentrating its efforts here on land reform and resettlement projects. Approximately 22,000 families have already been provided with new lands. Programs are being developed for technical assistance, credit, health, and education services. In addition to the nutritional benefits of

increased incomes for these families, a secondary benefit will come from their growing contribution to national production of foodstuffs, principally basic grains.

b. Improving Marketing of Basic Grains

The National Development Bank (BNF), with the support of AID, is implementing a basic grain price stabilization project which includes rural buying stations, large storage facilities in San Pedro Sula and Tegucigalpa, and working capital for the buying and selling of grain. The project objective is to increase the supply of basic grains and to stabilize prices through producer incentives and improved storage.

The Canadian International Development Agency (CIDA), in collaboration with the BNF, is planning a project to improve buying and storage services for minifundistas.

c. Expanding Health Services

The GOH has embarked upon a program designed to increase significantly the coverage of preventive and curative health services in rural areas. Plans call for GOH financing of the construction of 257 rural health Centers, to be staffed by intermediate-level and paraprofessional health personnel. An additional 243 rural Centers will be financed by an IDB loan, along with 8 regional emergency hospitals and construction or expansion of three other large health facilities. The above projects are expected to be completed by 1980. AID is planning to grant finance the training of personnel for rural health Centers in health care, nutrition and family planning.

Expansions in the rural health system will provide, in addition to health services, an infrastructure upon which can be based improvements in nutrition education services for the rural population, and through which can be obtained improved and expanded information for analysis and planning.

d. Improving Environmental Sanitation

Several projects are underway or in planning to improve potable water and waste disposal services in rural areas. The Interamerican Development Bank and CARE are presently engaged in aqueduct construction programs aimed at providing water for selected communities of between 200 and 2,000 people. The combined level of the two projects provided water for approximately 10,000 people in 1975, and it is estimated that it will benefit an additional 200,000 people (40,000 per year) by the year 1980. Because of the nature of the systems being constructed, the per-capita costs of the above projects are relatively high, \$64 for the IDB project and \$21 for the CARE project.

In addition to the above, the Ministry of Public Health has begun, with help from UNICEF, a program to provide potable water in small rural communities (200 - 2,000 people) through the construction of low-cost wells. A portion of the cost for each well or set of wells is borne by the community, which provides labor for digging or drilling those wells which can be sunk using hand labor. Total per-person costs for this project have been running less than \$2.50.

A project for building latrines has been in operation through the Ministry of Public Health for the past few years, with materials, promotion, and technical assistance being provided by the Ministry and labor by the community. Approximately 8,000 latrines were built in 1974, and 10,000 in 1975.

e. Other Programs

In addition to the projects discussed above, a number of GOH and other donor programs or projects provide services which are related to the nutrition problem. Iodization of salt, for example, was begun in 1966, when the INCAP survey showed high incidences of goiter in Honduras. Non-iodized salt is still sold, but must bear a warning that the salt does not contain iodine. The most important of these programs, in terms of nutrition-related components:

(i) The National Social Welfare Board (JNBS)

The JNBS was created in 1958 as a semi-autonomous welfare agency. The JNBS operates two programs in nutrition. The first consists of child feeding centers (SERNs) in urban areas, and Comedores Infantiles in rural areas. The SERNs treat children suffering from severe malnutrition (2nd or 3rd degree). The treatment usually lasts for three months, during which time the children are fed and the mothers are given instruction concerning nutrition and child care. There are 27 SERNs operated by JNBS, with a capacity of 924 children. The Comedores Infantiles are to assist children suffering from 1st degree malnutrition. One meal a day is offered. There are 36 Comedores, serving an average of 5,810 children monthly.

(ii) The Patronato Nacional de la Infancia (PANI)

PANI is a semi-autonomous agency whose purpose is to provide assistance for the needs of children. All of its funds come from the national lottery, and are transferred to the Ministries of Public Health, Education, and other entities for child welfare projects. PANI supports the following programs which are related to nutrition: Maternal Child Rural Penetration Program - run through the Ministry of Public Health, this program encourages communities to consider small projects in modern methods in agricultural production, utilization and conservation of foods, improvement of maternal-child health, and improvement in community environmental conditions; and Child Feeding Centers (SERNs)- PANI provides funds to cover the costs of operating 11 SERNs in addition to the ones operated by the JNBS.

(iii) CARE

CARE is a non-profit voluntary agency registered with the Advisory Committee on Voluntary Foreign Aid, and operates in Honduras under the Ministries of Public Health and Education. It provides PL 480 foods to:

a. 60,000 pre-school children in orphanages and child care centers, and to pregnant and lactating mothers through the Maternal Child Health Program;

- b. 180,000 primary school children in the form of a beverage which serves as a nutrition supplement; and
- c. 3,500 workers and 14,000 dependents in community development projects.

(iv) Catholic Relief Services (CRS)

CRS is a non-profit voluntary agency carrying out a PL 480 program under a bilateral agreement with the Ministry of Public Health. The program consists of food supplements provided to:

- a. 25,000 pre-school children and to pregnant and lactating mothers, through over 600 Housewives Clubs;
- b. 5,000 workers and 25,000 recipients in food for work programs which include road construction and maintenance projects, agricultural projects, and programs of literacy and leadership training.

(v) Private Sector Programs

Although there has been limited involvement in nutrition per se on the part of private enterprise in Honduras, one notable private sector project begun recently is the production and marketing of a soya-based milk substitute (PROTEMAS).

The Rotary Club in Tegucigalpa has expressed considerable interest in the problem of nutrition, and has volunteered its offices as a civic group with a large private sector membership to provide liaison between government and private sector for the promotion of nutrition and the involvement of private enterprise. A possibility under consideration currently is the formation of a private sector nutrition advisory group which would work with SAPLAN and the private sector to promote and coordinate such efforts.

5. Target Group

The population of Honduras is at present about 2.8 million, slightly over 60 percent of which is rural (residing in communities of under 2,000 people). Projected 1980 population is 3.2 million, with 58 percent estimated to live in rural areas.

The 1967-1968 Income and Expenditure Survey showed that 40 percent of the urban population of Honduras had total annual family income of under \$1,000, with this figure rising to over 90 percent for the rural population. Furthermore, almost 53 percent of rural families had total family incomes of less than \$250 per year. Although recent figures on income distribution are not available, it is hardly probable that rural (or urban) incomes have kept pace with costs of living, which have increased dramatically in recent years, hitting the poor proportionately harder than others by virtue of the fact that food costs have risen faster than other costs. Thus it appears that almost all rural families, and over one-third of all urban families, must struggle even to approach a well-balanced diet. For many of these a diet which is merely adequate in protein and calories is out of the question. And problems

of biological utilization, greatest among the rural poor but also serious among the urban poor, complicate matters further.

It is among this population that virtually all malnutrition occurs, and it is this population which must be taken as the universe within which all 'target groups' for individual projects are to be specified. An analysis of GOH programs shows that the beneficiaries indeed do belong largely to this population. The beneficiary populations of current and planned GOH nutrition-related programs:

<u>PROGRAM</u>	<u>TARGET GROUP</u>
1. Asentamiento program	Over 22,000 landless rural families
2. Basic grain stabilization	. Producers of basic grains <u>1/</u> (through production incentives) . Consumers of basic grains
3. Rural health program	Rural families
4. Environmental sanitation program	Rural families living in communities of under 2,000 people
5. Feeding and MCH programs	. Children 0-5 . Primary school children . Pregnant and lactating women . Workers and dependents

Children under 5 years of age, and pregnant and lactating women have been shown to be the groups most vulnerable to problems of malnutrition. They further serve as a bellwether for the detection of malnutrition. Because the impacts of malnutrition are usually far more severe for them than for others, they should be prime beneficiaries of nutrition and nutrition-related programs. Programs such as numbers 3, 4 and 5 above, while they do benefit others, have their largest impacts on these groups.

6. Justification of the AID Loan

a. Analysis of the GOH Program

Although the GOH has only recently begun to think seriously of nutrition per se as a national development goal, it is clear from an analysis of existing programs in rural development, agriculture, health, and environmental sanitation that GOH development planning has produced programs which

1/ Note that because small farmers are largely basic grain producers, this program, while wide in scope, contains a large segment of the rural poor its target group; and since the poor consume substantial quantities of grains, this program includes both urban and rural poor in its target group.

are in concert with nutrition requirements, and which are aimed at those populations which suffer most from malnutrition. Because of the scope of malnutrition in Honduras, much remains to be done. But the directions taken so far by GOH programming represent an adequate beginning.

b. The AID Mission Strategy

Recognizing the multi-sectoral character of the nutrition problem, the GOH has begun efforts to approach food and nutrition policy, plans and programs in an integrated way. The AID Mission bases its own strategy for development assistance in this integrated approach.

Mission strategies in other sectors are in general concert with overall nutrition goals. In agriculture, efforts have been made to increase production of basic grains and other food crops for domestic consumption and to provide needed marketing infrastructure to help reduce price fluctuations, addressing income and food availability. In health, assistance has been in support of the rural health program whose thrust is to provide low-cost preventive and curative health services to rural families. In education, the focus has been on the rural primary school and on non-formal education approaches geared to rural populations, providing rural families with the knowledge base necessary to make better decisions regarding the resources at their disposal.

Mission nutrition strategy is to choose activities for support which:

- (1) are directly related to one or more of the causes of malnutrition in Honduras;
- (2) complement or extend GOH activities which address the problem of nutrition;
- (3) appear to offer significant potential for impacting the nutrition problem.

The key elements proposed to implement this strategy over the next three years are the following:

- (1) Support for the development of an improved GOH capability for analysis, planning and evaluation of nutrition and nutrition-related programs, both through the strengthening of existing Government planning units and through the mounting of a series of pilot projects which will provide important information concerning viable alternatives for future GOH programs;
- (2) Support for strengthening of the GOH institutional effort to increase the popular awareness, knowledge and use of the nutrition resources available; and
- (3) Expansion of current GOH efforts to utilize low-cost methods for bringing improved water and environmental sanitation to a large part of the rural population.

c. Relation of Project to AID and Other Lenders Programs

It is an integral part of the Mission strategy that activities undertaken in this Project complement or extend important activities being financed under other projects. Other A.I.D. projects which fall into this category include: (1) the funding of the construction of low-cost gravity-fed water systems with Special Development Assistance funds; (2) the funding under the agriculture Core Services Grant of start-up costs for the aquaculture project to be continued under this Grant/Loan project; (3) the implementation of training courses in curriculum development methodology under the Rural Education Grant, which will tie into curriculum development activities included in this Project. Technical assistance for several elements of this Project will be provided by INCAP under a regional (ROCAP) grant project.

The principal non-A.I.D. projects to which this Project is related are the aqueduct projects of the IDB and CARE, which will reach about 200,000 people in small communities between now and 1980. The water and latrines component of this Project is designed to reach a population of about 550,000 in areas not covered by the IDB or CARE projects, in what is basically an extension and expansion of a project funded by UNICEF following Hurricane Fifi. With technical assistance from PAHO over 900 wells or alternative water systems and almost 2,000 latrines were constructed in 1975. The use of an intermediate level technology allows water to be brought to rural families at a low cost. Participation of communities through the provision of labor for the construction of facilities allows existing GOH resources to be spread farther than with higher technology projects. Since the IDB and CARE projects will be implemented during the same period as the loan project, and since the target group in each case is communities of under 2,000 people, coordination of installations to avoid overlap will be necessary.

The principal non-A.I.D. projects to which this activity is related are the water projects of the IDB and CARE. The A.I.D. financed project represents complementary activity in both the sense of the population covered and the technology used.

II-B PROJECT DESCRIPTION

1. Goal

The Goal is to improve the nutritional status of the Honduran population.

2. Purpose

The Project has a two-fold Purpose: (1) to increase the GOH capability to carry out the analysis, planning, execution, and evaluation of nutrition programs; and (2) to assist in the development of rural infrastructure necessary for improvement of the nutritional status for rural areas.

Because of the nature of nutrition planning requirements, the GOH needs an institutional capacity which can: (1) view the nutrition problem in as broad a manner as possible, not limited to a given sector; (2) play a central role in integrating the design, implementation, and evaluation of programs in different sectors and of various types in order to make most effective use of development resources; and (3) develop systematic and effective methods for gathering and utilizing information for planning and evaluation purposes. Such information must be broad in character, planning: (1) basic and applied nutrition research; (2) the situation in Honduras with respect to nutritional status and causes; (3) coverage, effectiveness, and resource utilization for existing programs related to nutrition; and (4) other information related to the development of viable alternatives; e.g., institutional capacities for managing the implementation of new programs. Since these information demands are great, and potentially costly, careful attention must be paid to the specification of information needs.

There are certain elements essential to any nutrition strategy. One element is the improvement through training of the institutional capacity to deal with the nutrition problem. Another is to put in motion nutrition education activities which will increase the awareness of nutrition problems among the Honduran people, and begin to provide them with the kinds of knowledge necessary for them to make the most rational use of existing resources. A third is to assist in programs which will provide the population access to ample supplies of drinkable water and means for disposing of wastes in such way, as not to prejudice human health. It is the Purpose of this Project directly to address these elements.

3. Outputs

a. Analysis, Planning, and Evaluation

The scope and complexity of the nutrition problem is such that coordinated efforts on the part of a number of agencies and institutions in several sectors are demanded if the problem is to be dealt with effectively. SAPLAN, a division of the National Planning Council, will be responsible for facilitating this coordination. SAPLAN is charged with formulating national food and nutrition policy for Honduras, and for evaluating the design and operation of programs related to nutrition. In this role it will be necessary for SAPLAN to synthesize information concerning malnutrition and its causes, possible interventions, how resources are actually being used, and what existing programs are accomplishing.

In that part of the Grant/Loan Project which aims at assisting SAPLAN carry out its activities more effectively, the following Outputs are planned:

(i) A system for monitoring nutritional status, determining causes of malnutrition, and measuring the effectiveness of nutrition programs will be developed. This system will serve as the basis for the design of a national system of nutrition surveillance to be implemented at a later date.

(ii) National nutrition plans will be updated and improved during the life of the project, and a process established for continuing this updating on a regular basis.

(iii) A series of surveys and studies to generate much needed information for analysis; planning and evaluation will be completed. These will include:

a survey to document existing income distribution, consumption and expenditure patterns;

a study evaluating food donation programs; and

a study to determine the feasibility of using agricultural by-products to improve nutritional status.

b. Nutrition Education

Much of the impact of nutrition programs depends upon changes in knowledge, attitudes and practices of the rural poor. Many project failures, in nutrition as well as in other areas, have been traced to unwillingness or inability on the part of the target population to accept necessary changes.

The 1975 Honduran Nutrition Assessment noted widespread ignorance of nutritional concerns at all levels of society, and suggested: (1) technical training at all loci of nutrition-related activity, but especially at the level of those who engage in field work; and (2) educational activities aimed directly at the population itself.

Project Outputs for this Project which support this approach will include:

(i) 6 Man-years of training for SAPLAN professional staff, principally through short courses, seminars, on-the-job training under the tutelage of technical assistance personnel, and site visits to other countries to view and discuss approaches taken there;

(ii) 360 Man-months of training for 60 operations and teaching technicians in the Ministries and agencies represented in SAPLAN. Sixty percent of these are people directly responsible for implementation of their institution's nutrition activities, and the remainder are teaching personnel

who provide inservice and refresher courses;

(iii) 320 Man-months of short term training (1 month each) for 320 field personnel who work in nutrition-related programs;

(iv) Design of textual materials on nutrition for introduction into the primary schools in Honduras;

(v) Development and broadcast of 30-second spot commercials designed to orient the consumer concerning specific nutrition problems and priorities. Broadcasts will cover the entire country through a network of 16 radio stations, and messages will be aired an average of 27 times per day.

(vi) Purchase and installation of equipment for improvement of the audiovisual facilities within the Ministry of Health for producing promotional and educational materials related to nutrition and health.

c. Water Supply and Environmental Sanitation

One of the most clearcut and significant causes of malnutrition in Honduras is gastrointestinal illness. Studies show that the majority of this illness is related to scarcity of water and unsanitary conditions arising from lack of adequate methods for disposing of human excreta and other wastes. In Honduras a high percentage of both the urban and rural population live under these conditions.

The GOH, with assistance from UNICEF and PAHO, has begun the construction of low-cost water wells and latrines. The A.I.D. Project includes a component for continuing this effort, and expanding it to include nutrition education at the community level at the time wells and latrines are built. Project Outputs will be:

(i) The construction of 3,000 low cost wells or other low cost water systems per year over the three-year life of the Project serving approximately 550,000 people;

(ii) The construction of 10,000 latrines per year in the same communities where water is being provided;

(iii) The development and execution of an educational campaign to accompany the above two activities, aimed at conveying to the populace the importance of clean water and proper waste disposal to their health and nutritional well-being, and the importance of proper use and maintenance of the water and sanitary facilities.

(iv) Execution of an evaluation to measure the impact of this element of the Project on the nutritional status of families covered.

d. Pilot Projects

These activities have been chosen for the potential they hold for opening up new avenues to improved nutrition for rural families.

(i) Small Community Projects - This series of activities is geared directly toward increasing the availability of high quality food for consumption by the families involved. Activities will be funded through existing community organizations on a grant basis, and will be for families who lack access to other sources of capital and technical assistance. Representative projects include: (1) construction of small, on-farm storage facilities; (2) purchase of breeding stock for small animals such as chickens, rabbits, or goats; and (3) construction and stocking of small fish ponds.

Outputs for this component will consist of capital and technical assistance provided to 2500 families per year, for a total of 7500 families, for implementing the activities described above.

(ii) Aquaculture - Fish farming offers an opportunity for rural families in certain areas of Honduras substantially to improve their food quality and quantity. A recent study of aquaculture in Honduras uncovered considerable interest on the part of rural families in participating in fish farming, although the GOH has been limited in its ability to respond to this demand with technical assistance and breeding stock. The GOH aquaculture program is in an early stage, having been formally established in May, 1974. Honduras at present is totally lacking in trained technicians in aquaculture, and although at several sites fish ponds are under construction, human and capital resources are inadequate to the task. The Outputs of the activity proposed herein will serve to support these efforts:

(1) improvement of fish farming facilities to be used for the production of fingerlings for breeding stock, demonstration, teaching, and eventual commercialization, in 5 sites in Honduras;

(2) long term training for 2 technicians in aquaculture through participant training, and short-term training for 8 technicians engaged either in fish culture operations at the above sites, or in extension work.

(iii) Diet Improvement Through Soya - Over the past few years soya has been introduced into production in Honduras. The GOH has conducted field trials in a number of areas, and has found that with proper cultivation yields are on the average acceptable and in some areas excellent. While such production projects are certainly of interest as new income sources, of central concern to the nutrition problem is the potential role that the soy bean can play in the diets of rural families.

Studies conducted in Guatemala in recent years have shown that the introduction of a corn-soya mixture for use in making tortillas and other foods which normally use only corn brings a considerable improvement in the diets of rural families. The mixture combines acceptable taste, texture, and simplicity of preparation with an improved nutrient content. In addition to a considerable increase in utilizable protein over corn or a mixture of corn and common beans, the corn-soya mixture contains an elevated fat content. This serves to correct the traditional shortage of fats and calories in rural diets in Central America. Soya offers considerable potential for

improving the nutritional status of rural families, and especially of children.

Questions remain however, as to whether the nutritional impacts are indeed what prior studies seem to indicate; whether there is a reasonable chance of successful introduction; and whether the use of soya in this way compares favorably with other possibilities in the sense of overall resource utilization. It is the purpose of the activity proposed here to answer these questions.

The pilot test planned will be carried out in selected agrarian reform re-settlement projects or other cooperatives. Here land can be devoted to the production of soya for the pilot test without placing undue risks on small producers, as might be the case in the choice of independent small farmers; there are already present and functioning community organizations around which to build the project; and a sufficient number of families exist in one area to simplify logistics problems and lower overall costs.

Outputs will include:

(1) Analysis of the economic costs of production of soya techniques required for cultivation, and requirements for operating capital and technical assistance;

(2) evaluation of the use of corn-soya mixtures in the diet of rural families, from both nutritional and economic points of view; and

(3) determination of the priority the GOH should assign to introducing soya in this form on a wider scale.

(iv) Sorghum Improvement - In southern Honduras the variability of rainfall has led farmers to seek to reduce the risks associated with planting corn, their principal crop, and assuring some sort of crop production even in times of drought. As a result corn and sorghum are planted together on a large number of small farms. If the rains come, the corn grows rapidly and the slower growing sorghum is partially choked out. If the rains fail, the corn withers but the sorghum, requiring less water, continues to grow. In either case the farmer has a crop, but must accept reduced yields.

Recent experiments with new varieties of sorghum have identified several new varieties which are considerably better suited to the conditions found in the south of Honduras than older, more commonly planted, varieties. One such variety, Lujosa S-1, can be harvested in 100 days, as opposed to about 280 days for presently used varieties. The rapid maturation of this variety will allow farmers to plant their corn alone, allowing maximum corn yields if the rains come, and still have time to sow the sorghum over the corn if they do not. Even in the second eventuality, income is higher because of the rapid maturation and increased yield. Activity under this Project component will consist of the selection of 50 farmers per year who will be provided with improved sorghum varieties, all inputs necessary for production, and intensive technical supervision. Soil tests will be carried out, and complete cost and yield records will be kept. Included will also be

research concerning high-protein sorghum varieties developed recently at Purdue University.

Outputs will be:

Development of an optimum set of inputs and crop management practices for new sorghum varieties; determination of economic costs of production, credit requirements, and GOH lending policies; and final selection of improved varieties to be grown on a wider scale.

4. Inputs

Detailed breakdowns are included in the Technical Annex D,7.

III. PROJECT ANALYSIS

III A. TECHNICAL ANALYSIS

1. Analysis, Planning and Evaluation

a. Costs and Technical Description

This component contains financing for: (i) development and implementation of a monitoring system for nutritional status, using key direct and indirect indicators; (ii) completion of a series of studies and surveys related to the causes of malnutrition; (iii) development and implementation of evaluation components for donated food programs and for activities financed under this Project; and (iv) investigation of the feasibility of using agriculture by-products. Technical descriptions of these activities follow. Detailed cost breakdowns are included in Section D.7, Technical Annex.

(i) System for Monitoring Nutritional Status - In order to develop methods for gathering, analyzing, and interpreting information which bears on nutritional status, SAPLAN will undertake a system for monitoring factors known or suspected to be correlated with malnutrition. Because the task of implementing such a system is formidable it will be initiated on a pilot basis, with expansions in the system, both in terms of geographic coverage and depth of information, being made at a rate which will permit careful attention to the appropriateness of indicators used and to the information management requirements of the system.

Because of current data gaps, much of the data needed to implement such a system does not exist or is out of date. During the life of this Project, information will be provided through the income and expenditure survey and through other studies and evaluations. Time lags in the production of this data will be experienced, and therefore data of this type will only begin to flow after the initiation of the Project activities. In order to begin immediately with the design of a monitoring system, a pilot system using available data, however limited, and a series of small nutritional status surveys will be undertaken early in the Project. As SAPLAN gains experience with this system, and as new information from other sources becomes available, the timeliness and utility of the system's data will be improved and its coverage expanded.

Initially the system will use indirect indicators of nutritional status such as infant mortality or changes in availabilities of food staples, such as basic grains, which are known to be correlated to some extent with overall changes in nutritional status. Because such indicators can in many instances be derived from existing statistical sources, rapid compilation is possible.

Although these indicators are not totally satisfactory for nutrition planning purposes, they do point to existing or potential problems.

A review of existing GOH data sources was made during the intensive review to determine which indicators can presently be compiled from GOH data and used in the initial stages of the system design. The indicators shown in the table below summarize the findings of that review, and will serve as a basis for first steps in the design and implementation of a monitoring system. These indicators will be compiled by SAPLAN and published on a quarterly basis. The first quarterly report will cover the period ending June 30, 1976, and will be published some time in August.

INITIAL SURVEILLANCE SYSTEM INDICATORS

Indicators of Nutritional Status

A. Data Reported by Clinics and Health Posts

1. Number of children examined by degree of malnutrition (Gomez I, II, III).
2. Number of malnourished children by clinical diagnosis.
3. Cases of Gomez Grades II and III per 100 children examined.
4. Cases of diarrheal disease per 100 children examined.

B. Mortality Data

1. Infant Mortality.
2. Mortality in children 1 - 4.
3. Mortality in children 0 - 5 as a percentage of total mortality.

Agricultural Indicators

1. Retail prices of basic grains (corn, rice, beans).
2. Estimated production levels for basic grains.

Education and Rural Development Indicators

A. Education

1. Initial enrollment in primary school by grade.
2. Drop-out rates.
3. Promotions by grade.
4. Recipients of supplementary food in school.

B. Rural Development

1. Number of training courses and participants in: (a) basic nutrition, (b) agricultural techniques; (c) health and family planning.
2. Data on project completion for: (a) water supply; (b) latrines; (c) home consumption of basic grains; (d) supplementary feeding for preschool children, pregnant and lactating women.

In addition to the above, SAPLAN during the last half of its first year of operation will begin to gather data in two areas of the country on nutritional status and causes of malnutrition. This second activity, to be carried out initially in the area of Ocotepeque and in the lower Aguan Valley, will provide data essential to the monitoring of nutritional status, the determination of the major causes of malnutrition, and the specification of GOH food and nutrition policy. In subsequent years SAPLAN will expand this active type of surveillance to other areas of the country, two new areas each year. This survey will be carried out under the guidance of SAPLAN, with actual survey work done by other agencies such as the MOH and the MNR.

(ii) Income Distribution and Expenditure Survey

The income distribution and expenditure survey will be designed to provide new information on income distribution in Honduras and to document patterns of food consumption and expenditures. The data from such a survey are exceedingly important for decision making in a number of areas. First of all, the survey provides a guide to the consumption patterns of different socio-economic groups, which is important for nutrition policy and program guidance. In addition, the survey provides expenditure coefficients used in estimation of the impacts upon various groups in the population of inflation and of GOH policies concerning consumption which are under consideration. Data from the survey concerning food consumption allow the determination of calorie and protein shortfalls in different groups as well.

It is planned to carry out the survey for a sample of 5,000 families representing different socio-economic groups and various geographic areas of the country. The survey will be carried out with contracted supervisory personnel, and with participation by the Ministry of Natural Resources and the Directorate General of Statistics and Censuses. The phases of the survey include: (1) design and printing of questionnaire and selection of sample; (2) selection and training of interviewers; (3) pilot test of the

survey; (4) fielding of the survey; (5) codification and processing of data; and (6) analysis and reporting of results. The survey, from initial design to final reporting, will cover a period of approximately 18 months.

(iii) Project Evaluations - Activities under this heading will include evaluations of the nutrition education, water supply and environmental sanitation, community projects and aquaculture components of the project. These evaluations will be designed by SAPLAN in cooperation with the executing agencies for the various Project components. Data for these evaluations will be collected as part of the component activities themselves. The exact details of evaluation design will in each case be determined by SAPLAN and the appropriate implementing agency, with technical assistance as needed. Primary responsibility for management of the evaluations will reside in SAPLAN.

The environmental sanitation component will include an evaluation of its cost effectiveness that would include effectiveness of sanitation system operations and effectiveness of reducing diarrhea and improving nutritional status. An objective of the project should be to provide the GOH with a technically sound basis for reviewing and making adjustments to the water supply component. This will entail carrying out (a) baseline surveys of nutritional status and diarrhea incidence in areas in which wells (or other systems) are to be introduced; (b) recording of wells and/or other supply introduced; (c) post intervention surveys of nutritional status, and (d) establishment of a control group. Particular emphasis should be given to ascertaining whether distance from the water supply is a crucial variable. The coverage of number of families per well or tap should also be recorded to provide a comparison on density of usage, i.e. 10 families per well/tap or 1 or 2 families per well/tap. To the extent possible other types of water supply systems should be included in the evaluation. A major review of evaluation findings to date will probably be held by SAPLAN with the participation of other appropriate GOH agencies within eighteen months after implementation begins. Technical personnel will be requested to help in designing the evaluation. In addition, SAPLAN and other appropriate GOH officials will be provided the opportunity to visit Panama, Costa Rica, and Nicaragua to review the experience in water supply activities.

(iv) Feasibility Studies - An investigation of the potential for using a series of products of high nutritional value that appear as by-products or wastes in agriculture will be made. Project activities will be carried out under contracts between SAPLAN and local firms or government agencies with the requisite expertise.

b. Appropriateness of the Technology

Given the magnitude of the nutrition problem in Honduras, and the complex, multi-sector character of nutrition planning, coordinated efforts on a wide front are necessary in order to make maximum use of limited development resources. The GOH has recognized the Multi-Sectoral nature of the problem in the structuring of SAPLAN. The activities included in this component address three priority needs: (i) the need for continual updating of information concerning nutritional status and the causes of malnutrition, in order to refine problem statements and better specify future program needs; (ii) the need to evaluate Project activities in terms of nutritional im-

pacts (where possible), completion of targeted outputs, and internal efficiency to provide feedback for improving program design and strengthening of institutional capabilities; and (iii) the need to search for ways to make better use of existing natural resources.

The approaches taken in these activities are appropriate to the problems addressed. Analytical approaches have been determined based upon the kinds of results which are needed, and with the assistance of various professional sources of technical help including INCAP, the Communicable Disease Center, and university and consulting professionals. The types of studies and surveys to be used have been determined based upon a consideration of informational needs, both for future program design as well as for the evaluation of current programs.

2. Nutrition Education

a. Costs and Technical Description

Included in this Project component are a series of interrelated training activities designed to strengthen institutional capabilities in the nutrition area, as well as a series of activities geared to the development of nutrition education materials. The former include six man-years of participant training for 21 people working at SAPLAN. This training may include:

- (i) Two one-year scholarships to the MIT program in nutrition planning;
- (ii) Three scholarships to the MIT three-month course in nutrition planning;
- (iii) One scholarship for 18 months of training in nutrition in Caracas, Venezuela;
- (iv) A one-month course in nutrition planning, including site visits in Central America, to be conducted in INCAP for trainees.

In addition to participant training, which is meant to improve the capabilities of SAPLAN and other GOH agencies to analyze, plan and evaluate nutrition programs, this component includes training activities at two lower levels. The first of these activities consists of a series of six-month training courses designed to prepare 60 operations technicians and teaching personnel in the Ministry of Health, the Ministry of Education, and other SAPLAN member agencies for carrying out nutrition education functions. MOH personnel included in these programs will be those who supervise elements of rural health care or who teach in-service courses for para-professional and promotional personnel engaged in the delivery of rural health services.

The six-month course to be offered by the MOH has already been designed, and the first set of trainees is in the process of being selected. Course sessions will begin some time in June. Because of a shortage of trained nutritionists in Honduras, contract technicians will have to be used in the implementation of this course in the MOH. These same instructors will be used to design the one-month courses which will be used by the various SAPLAN member agencies to train field personnel.

The second level of in-country training will be carried out by the personnel trained under the six-month courses described above. This will consist of short courses designed to inject nutritional concerns into the activities of rural Health Centers, rural primary and adult education, agricultural extension, and related activities. Trainees will be selected by the member agencies of SAPLAN from among their personnel, and will be trained within the agencies themselves. SAPLAN, with the assistance of its representatives from the various agencies, will monitor course content for consistency and relevance.

This component also includes three activities related to the design of nutrition education materials for various segments of the population. The first of these is the development of primary school curriculum supplements, and non-formal education packages concerning nutrition for use in primary and adult education programs. Materials will be integrated into existing rural primary curricula which focus on agricultural techniques through school gardens, fish ponds, and animal projects. The materials for non-formal education will be used in adult and other non-formal education programs.

The second activity will consist of the production of a series of thirty-second radio spot messages concerning nutrition. These messages will be broadcast on a nationwide basis through a hookup of 16 radio stations, and will be aimed at raising the awareness of the general public concerning simple nutritional facts. SAPLAN, with appropriate technical assistance as needed, will design message content and contract for the production of the taped messages.

The final element of this component consists of improving the MOH audiovisual support needed for the production of materials for use in training courses and other promotional activities related to nutrition. Essential equipment will be purchased and staff trained in its use.

b. Appropriateness of the Technology

The training portion of this component is designed to strengthen GOH institutional capacities, and has been focused on the needs of other components. Participant training included here will serve to increase SAPLAN's capacity to carry out analysis and planning activities. The six-month training courses will enable the MOH and other agencies to obtain spread effects in reaching the target group, as personnel trained in these courses deliver nutrition education in Health Posts and clinics, and in short courses to promoters working in the field, who in turn will deliver nutrition information to members of the Project target group in conjunction with their regular promotional activities.

3. Water Supply and Environmental Sanitation

a. Costs and Technical Description

In 1972 the Ministers of Health of Latin America urged their governments to give a high priority to the provision of potable water to rural populations, and to make every effort to provide potable water for at least fifty percent of the rural population by the year 1980. The low-cost water systems selected and built under this Project will provide potable water to over half of the rural population in Honduras currently not being served, and will raise the overall level of population served in the country to more than 50 percent.

Four interrelated activities are proposed under this component: (a) the construction of 3,000 low-cost water wells or other low-cost water systems per year for the three years of the Project; (b) construction of 10,000 latrines per year in the same areas where the wells are to be located; (c) provision of nutrition education to families receiving the above-described facilities; and (d) evaluation of the impact of these activities on the nutritional status of the families covered.

Selection of areas in which wells will be located will be done according to MOH plans for the opening of new operational rural health centers. The areas selected for the first year of the Project are shown in Annex D.5. Exact construction locations will be a function of the demographic, cost, and technical (soil conditions, water quality and availability) conditions encountered.

Labor for well construction will be provided by participating communities. Organization and promotion will be carried out by MOH sanitary inspectors and promoters, who will train and manage workers as well as supply all materials required. Overall supervision will be carried out by engineers under contract to the MOH, with additional technical assistance provided by the resident PAHO representative. Wells will be sanitized and capped before community use is allowed.

Latrines will be constructed in the same communities and at roughly the same time as the water wells. Organization and promotional activities will be carried out by the MOH personnel mentioned above while the well-sites are being chosen and community participation is being enlisted. Labor will be provided by villagers, with technical assistance by MOH field personnel.

Under certain conditions low-cost alternative water systems may be constructed. A typical such system might consist of creating a small reservoir, spring-fed, from which plastic pipe would be run to a tap located within the community. Current JNBS community project activities include this kind of system. All labor is provided by the villages, and JNBS supplies materials such as cement and plastic pipe. Cost is mainly a function of the size of the reservoir constructed and the length of tubing used. In many cases a cost of less than \$5 per person served can be achieved.

Wells are to be constructed according to one of three methods. In the case of sandy soil conditions, the hole can be hand-driven using a pointed steel shaft. For soil conditions where heavy clay is present, a manually operated auger must be used. And if rock is encountered, holes must be dug by hand. Average cost per well is estimated to be \$125 per well.

Nutrition education activities will be conducted by MOH field personnel. Content will focus strongly on the relationships among water supply, sanitary habits, and nutritional status. The format for these education activities will vary, but will include short talks at health centers and at well and latrine construction sites, and the use of audiovisual materials prepared by MOH audiovisual center.

Since this component is expected to have direct, short-run impacts on nutritional status, an intensive evaluation activity is planned. Baseline nutritional status data will be obtained on a sample of children under five years of age in families receiving water supply systems and/or latrines. These data will provide not only baseline information for use in evaluation, but will as well provide information important to the monitoring system described earlier.

In addition to the evaluation of impacts upon nutritional status, a system for evaluating the construction project in terms of targeted outputs and resource utilization will be implemented as a project planning and control device. Records concerning labor and materials used, time-to-completion, and other parameters such as well-depth will be kept on a regular basis by MOH field personnel for each facility constructed. Forms for this purpose will be designed by MOH and SAPLAN analysts, and a quarterly summary reporting of project data will be provided to the MOH for supervision and to SAPLAN for monitoring purposes.

Costs estimates for this activity have been based upon the GOH experience employing a UNICEF grant as part of Hurricane Fifi reconstruction.

b. Appropriateness of the Technology

The technology proposed has been chosen because it represents the least-cost approach to provision of water and sanitary means of waste disposal available. The technology and managerial requirements have been worked out over the last year with funding from a UNICEF grant related to reconstruction following Hurricane Fifi. Technical assistance has been provided by the resident PAHO representative, an engineer with experience in low-cost water projects. The cost figures given above are thus derived from recent project activities in Honduras, as are construction targets and requirements for

supervision. The focus on manual construction of facilities maximizes the participation of beneficiary communities and allows GOH personnel to be used largely in promotional, organizational and managerial capacities, therefore gaining maximum coverage using existing institutional resources.

4. Pilot Projects

a. Costs and Technical Description

Activities include: (i) a series of small community-level projects for increasing the availability of food products for consumption by the families involved; (ii) improvement and expansion of fish culture installations to provide breeding stock and technical assistance to farm families who wish to engage in fish farming as a source of more food; (iii) research into methods for introducing soya into the diets of rural families; and (iv) applied research concerning the use of new varieties of sorghum.

i. Community Food Production - This will involve donating capital and technical assistance to small groups of families (10 or more families per group) who are without access to normal sources of credit and technical assistance, and who wish to increase their production of food. Funds and technical assistance will be proffered through the community organization established by these families, and will be destined for such farm projects as construction of small, on-farm food storage facilities; purchase of breeding stock for small animals such as chickens, rabbits, or goats; and construction and stocking of fish ponds. Promotion for the community projects and technical assistance for project design will be provided by JNBS field personnel and by MNR extension agents.

JNBS and MNR field staffs expect to develop projects at the rate of about 250 per year, representing a coverage of at least 2,500 families per year, or a total of 7,500 families during the life of the Project.

At the time a community project is approved, arrangements will be made for nutritional status of children under five years of age to be measured and mortality rates estimated. Subsequently, these same families will be evaluated on an annual basis to determine changes in mortality rates and levels of malnutrition attributable to the community project.

Each community project will also be surveyed for project results, using forms designed jointly by SAPLAN and JNBS with MNR assistance. Since this type of project has been under way for almost three years in Panama as part of the Rural Health and Nutrition Loan, site visits included in participant training for SAPLAN members may include a visit to see how under that Loan such projects have been handled, and what lessons might be applied to project design and evaluation in Honduras.

ii. Aquaculture - A recent survey concerning fish farming in Honduras established that in a number of areas of the country -- principally in the north central, central, and the south coastal areas -- fish is accepted in the diet, but existing supplies are such that prices are extremely high. In all of these areas rural families expressed interest in obtaining technical assistance and breeding stock in order to construct fish ponds. GOH resources have been too slight to be able to respond to such requests with appropriate technical assistance and breeding stock.

The activity will begin with the acquisition of short term technical assistance under the Agricultural Core Services Grant to help the Department of Fisheries update its current plans. The first year of this activity will also be financed by the Core Services Grant, including the first year's cost of a long term technical advisor, 2 two-year scholarships for technicians from Catacamas and the Fisheries department, and start-up and repair commodities. Four Peace Corps Volunteers will be assigned to the demonstration sites.

This Loan will support the final two years' cost of a long term technical advisor. Long term participant training will be scheduled to begin at the outset of the Project and will be geared to produce three additional technicians with two years training to return within the life of the Project. Another 8 technicians will be provided with 6 month training courses in fish culture. Under the supervision of the long-term technical advisor, improvements will be made in fish culture facilities at the El Picacho experiment station, the La Lujosa experimental station, and at the National Agriculture School at Catacamas. In addition, technical assistance will be provided to cooperatives (such as the one at Guanchias) who have expressed interest in introducing fish culture into their production activities, and to communities who desire to build and maintain ponds under the JNBS community projects activity above.

iii. Soya - Soya offers excellent opportunities for dietary improvement in Honduras. The activities envisioned here stress the use of soya for human on-farm consumption, rather than commercial application. A

selection of five or six asentamiento or other cooperative sites will be made, about 10 hectares will be set aside for soya production at each of the sites, and technical assistance will be arranged.

At the same time a small facility will be constructed to demonstrate the production of corn-soya blend tortillas and other food products. Soy beans produced on the test plot will be stored at this facility, which will have a 20 ton storage capacity. Equipment for controlling the quality of the harvested soya for storage and use will be available at the facility, and will serve the entire cooperative community. Equipment necessary for producing and demonstrating (stoves, ovens, pots, grinders, etc.) corn-soya blends to women from the community will be installed. Local women will be trained in preparation and demonstration techniques. Participants will be able to obtain soy beans at the demonstration facility, and will have access to the facilities for preparing the corn-soya mix.

Staff members at the facility will keep height and weight records on all children in families who participate in the project, as well as data on the incidence of diarrreal disease and childhood mortality. Amounts of soya eaten by families participating will be estimated and recorded. On the production side, data on the economic costs of production will be maintained throughout the life of the project. Cost and yield data needs will be determined with the aid of MNR economists, and data forms kept on all production.

This element of introducing soya into the diet of rural families will be complemented by applied research into the problem of growing soya in Honduras. Field trials have shown good results in several areas of the country, and a few producers are currently producing the soybean on a commercial basis. But the nature of soybean cultivation is such that care must be taken in assuring the correct production practices, particularly if the product is to be used for human consumption. For example, if the hull of the bean is broken, rapid oxidation takes place, altering the taste of the bean and rendering it unpalatable. bean is also more brittle than ordinary beans. These and other factors indicate a need to begin research into the kinds of practices required as well as the economic priority to be assigned to soya in Honduras.

The approach to be used is to select fifty farmers in the first and second years of the Project who will be given intensive technical assistance and capital for the production of soya. Each farmer will be monitored closely for a period of two years. Farms of different sizes and in different areas will be chosen in order better to be able to evaluate the impact on soya production of different factors, such as soil quality, climate, rainfall, and elevation. Economic costs of production will be gathered in order to study income levels and requirements for credit and inputs.

iv. Sorghum - Recent research on sorghum in Honduras has been geared toward producing high-yielding, rapidly maturing varieties well adapted to conditions in southern Honduras. In this Activity efforts will also be directed along lines pioneered at Purdue University, where nutrient content of sorghum varieties has been improved remarkably at the same time that yields have been improved. A series of experiments with new varieties of sorghum

will be carried out in southern Honduras under this Activity.

In a manner similar to that described above for soya production, fifty farmers will be selected in the first and second years of the project, on the basis of: (1) farm size (not to exceed 35 hectares); (2) experience in sorghum production; and (3) willingness to sign a contract with the project. In addition five asentamientos or cooperatives with a minimum size of 90 hectares will be asked to participate in the project, subject to: (1) a minimum of 40 families; (2) a sufficient level of organization within the cooperative; and (3) a willingness to sign a contract with the project.

Participating farmers will be asked to set aside from 1 to 3 hectares to serve as demonstration plots, and will be supplied with production inputs and technical assistance. Participating asentamientos will cultivate an average of 2 hectares per family, and will also be provided with inputs and technical assistance. Each farmer will participate for two years.

In recent years Purdue University has developed varieties of high yielding sorghum which has an excellent protein quality and protein content far superior to either corn or wheat. This holds out the promise of sorghum being a nutritious human food. In this element of the project, varieties of this type will be tested at the La Lujosa experiment station to determine if they are readily adaptable to Honduran conditions, and the acceptability of these varieties as human food.

b. Appropriateness of the Projects

These four activities are designed to explore intermediate-technology alternatives which offer potential for future GOH programs oriented toward improving the production of nutritious foods for domestic consumption, and which offer alternatives for improving the quantity and quality of food consumed in rural areas. Rather than being offered as projects using well-known and developed methods, the approach is to discover through applied research alternatives which work well in Honduras.

III-B. FINANCIAL ANALYSIS AND PLAN

1. Project Funding

The total cost of this Project is estimated to be \$5,950,000, of which the A.I.D. Loan will finance \$3,500,000 and the Grant \$ 650,000. A breakdown of estimated costs is shown in the Summary Cost Estimate and Costing of Project Outputs/Inputs tables on the following pages. Detailed cost breakdowns are included in the Technical Annex D.7.

Grant funds will finance start-up costs, i.e. training and institutional development activities related to SAPLAN including the preparation of detailed implementation plans and other analyses. These include the income and expenditure study, the design of a nutritional status monitoring system, and the design and initial phases (baseline surveys) of evaluations. Because of the importance of these activities, and since an assured source of funds for carrying them out on schedule is needed, the activities will be Grant funded even though they will extend into the Loan disbursement period.

2. Recurring Costs

Annual operating costs for SAPLAN, the monitoring system and radio messages will total approximately \$200,000 per year.

The water supply and environmental sanitation component of the project, as well as the community food projects activity, involve considerable community participation. Such participation has been shown to be effective in the first year of operation of the GOH water project which the loan is to expand and extend, and in the community projects currently being supported through the JNBS revolving credit fund for housing. Much of the recurring cost component for the maintenance of water systems and latrines will be borne by the communities through their provision of labor. There will be no recurring costs created by the community projects component.

COSTING OF PROJECT OUTPUTS/INPUTS
(In \$000 or equivalent)

Project Inputs	Project Outputs				TOTAL
	# 1	# 2	# 3	# 4	
AID Appropriated					
Training	20.0	96.8	18.0	57.0	191.8
Technical Assistance	270.0	25.2	-0-	214.8	510.0
Commodities	32.6	86.0	-0-	363.9	482.5
Other Costs	33.1	123.1	-0-	126.7	282.9
Construction	-0-	-0-	1500.0	-0-	1500.0
Salaries	68.3	-0-	-0-	192.0	260.3
Community Inputs	-0-	-0-	-0-	-0-	-0-
Community Food Production	-0-	-0-	-0-	546.0	546.0
Inflation Factor	42.0	32.9	152.0	149.0	375.9
Host Country					
Training	3.5	-0-	-0-	-0-	3.5
Technical Assistance	96.0	-0-	-0-	31.8	127.8
Commodities	84.5	-0-	-0-	13.0	97.5
Other Costs	166.3	25.0	-0-	89.4	280.7
Construction	-0-	-0-	-0-	-0-	-0-
Salaries	313.7	130.0	-0-	109.8	553.5
Community Inputs	-0-	-0-	455.0	120.0	575.0
Community Food Production	-0-	-0-	-0-	-0-	-0-
Inflation Factor	66.0	15.0	45.0	36.0	162.0
Total	1196.0	534.0	2170.0	2049.4	5949.4

SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(US \$ 000)

Source	AID		Host Country		Other(s)+		Total
	FX	IC	FX	IC	FX	IC	
Use							
Training	64.4	127.4	-0-	3.5			195.3
Technical Assistance	355.0	155.0	31.8	96.0			637.8
Commodities	406.3	76.2	15.5	82.0			580.0
Other Costs	-0-	282.9	-0-	280.7			563.6
Construction	-0-	1500.0	-0-	-0-			1500.0
Salaries	-0-	260.3	-0-	553.5			813.8
Community Inputs	-0-	-0-	-0-	575.0			575.0
Comm. Food Production	-0-	546.0	-0-	-0-			546.0
Inflation factor							
Contingency	81.0	294.9	5.0	157.0			537.9
Total	906.7	3242.7	52.3	1747.7			5949.4

III-C. SOCIAL ANALYSIS

1. Target Group Characteristics

The target group for this Project is located in dispersed rural areas and marginal sectors of urban areas. Major rural concentrations are in areas of low productive potential --- specifically departments of the western region of the country (Francisco Morazán, Copán and Lempira) which contain 46 percent of the Honduran population but only 19% of the country's arable land.

The average family size for rural, low-income households is 5.6 in Honduras. Typically the family is involved in undiversified agricultural production, and earns an annual income of slightly over \$250. Over two-thirds of the children suffer from malnutrition, and infant mortality is 117/1000. The typical household structure is an undivided room with a dirt floor, mud or adobe walls, and a thatched roof. Half of the parents are illiterate, and only one out of three children can be expected to complete the third grade.

The social fabric of these low income groups is characterized by high levels of social disaggregation. Production, consumption and distribution of food are largely matters of individual family organization. In 28 communities studied by INCAP in 1966 there were only 583 economic organizations above the family level (including stores, workshops, factories, etc.) which employ people outside the family group. The study found 19 production, consumption and credit cooperatives in the 28 communities. Religious and civic groups, 81 in all, were found to be the most influential organizations. In addition, low income groups typically live in relative isolation from the rest of society. Radio is the one mass medium which has the most significant communicative impact among these groups. Of the households interviewed for the 1966 INCAP study, 52% listened to radio frequently, whereas only 21% read books and 9% took advantage of newspapers, movies and television.

2. Socio-Cultural Feasibility

The components making up this Project can be divided into two groups: those which have direct and rather immediate impacts upon the target group, and those intended to have indirect, and usually lagged, effects. Included in the first group are: (1) the water supply and environmental sanitation component; (2) the educational elements which are intended to reach a target group; (3) the small community food production projects; and (4) the introduction of soya into the diets of rural families.

Those components designed to impact directly on the target group have been designed to fit within the socio-cultural reality of Honduras. The activities are flexible in design and content, and require target group participation in planning and implementation. There are no rigid organizational requirements. Although both the environmental sanitation and the community development project will be carried out with the participation of extra-familial community groups, it is not required that prior organization exist. Formation of new associations will be encouraged, and willingness to organize will be a prerequisite for participation. The soya diet improvement project will

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utilize existing cooperative and asentamiento organizations.

There are no prior skills required of participants beyond those possessed by the typical low income Honduran. Particularly with respect to the community development activities, there will be a wide enough range of alternatives that a given group of participants will be able to select particular activities which best fit their pooled skills and resources. Some degree of skill development can be expected from participation in any of the activities.

The primary obstacle which can be expected to inhibit these activities concerns participant motivation. However, response to the first year of the national well-drilling campaign indicates that low income Hondurans are willing to organize to procure water supplies. In A.I.D. visits to rural pilot school areas the problem most frequently cited was inadequate water supply. Success in agrarian reform projects, rural Health Post construction, and JNBS rural home improvement projects also indicate the willingness of low income Hondurans to participate in a wide variety of self-help development projects.

The 1966 INCAP study concluded that food values and beliefs were not a major obstacle to good nutrition in Honduras, but that knowledge concerning symptoms and causes of malnutrition was particularly deficient. When told the symptoms of protein-calorie malnutrition and asked to give the cause, only about half of the study respondents attributed the symptoms to inadequate nutrition. The rest mentioned such causes as worms, indigestion, swollenness and anemia.

For this reason, the communication strategy will be two-fold. Initial contact with the target group by MOH Sanitary District, JNBS, or other agency promoters will be designed to foster interest in nutritional well-being. Nationwide radio broadcasts and followup nutrition education will be directed toward improving target group understanding of the manifestations of poor nutrition and of the variables operative in the problem, in order to avoid motivational obstacles due to lack of knowledge.

3. Spread Effects

The direct target group beneficiaries are to include the over 500,000 rural low income residents of communities with between 100 and 2,000 inhabitants who will receive potable water and latrine facilities; 7,500 families living in areas of "severe" malnutrition who will receive inputs for small scale community projects; and 800 families involved in growing, producing and consuming improved vegetable food sources (soy). Community interest and the demonstration effect of these activities should encourage other families to become interested in receiving similar benefits.

a. Analysis, Planning and Applied Agricultural Research

Though these activities do not impact directly on the target group, it is

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expected that they will contribute to spread effects. Since the investigative activities will be broad in scope covering the full range of sectors important to nutrition, they will serve to sensitize the government bureaucracy to the importance of nutrition to development. This sensitization will communicate itself to lower level personnel responsible for working with the target group in other capacities. In addition, insights gained from information gathering, analysis, and planning, will alert planners to opportunities to promote innovation and to improve the nutritional status of the target group through on-going and future activities.

b. Nutrition Education

The primary intent of these activities will be to develop resources which maximize the impact of spread effects. Through multi-level training exercises practical nutrition knowledge will be made available to field personnel so that they can help, through their extension services, to translate this knowledge into better nutrition for the target group. Radio messages and primary school nutrition curriculum supplements will be developed to make use of two other media for promoting better nutritional understanding.

c. Direct Impact Projects

Spread effects from these activities will be expected largely from demonstration effects. Participants will not only benefit from improved physical facilities (wells, latrines, storage facilities, fish ponds, small animal herds, food preparation equipment), but they will also experience improved family health and income. In the short run the improved facilities should, through the demonstration effect, encourage interest of non-participants in obtaining similar equipment. Though it may not be motivated by nutritional considerations, this type of spread effect will nevertheless improve nutritional status. In the long run the improved health and economic status of project beneficiaries should lead other target group members to emulate their behavior.

Another phenomenon which will tend to induce spread effects is a reduced resistance to innovation. It has frequently been documented that traditional populations who have been exposed to, and have accepted, one type of innovation are less resistant to future innovations. To conquer a problem of a multi-sectoral nature, such as the nutrition problem, target group members will need to accept changes in many aspects of family life. A reduced resistance to innovation engendered through participation in projects under this Loan will facilitate other needed changes and serve to spread the nutritional effects of the investment.

4. Social Consequences and Benefits

The direct beneficiaries of this Project will be those families in greatest need: those with the least access to opportunities and resources. Improved nutrition for low income Hondurans can be expected to improve in a significant manner the capacity of these people to make a meaningful contribution

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to society. Increased physical well being on the part of better nourished populations will occur along with the increased confidence and motivation needed to improve the quality of life.

It is not expected that any social group will be adversely affected. All activities will tend to prevent rural displacement, migration, and urbanization since they improve living conditions in low income areas. The individual Loan components do not require changes in social power structure, although several projects do require increased participation in extra-familial groups. This is not seen to be a problem.

On all accounts the Project can be expected to have positive social impact. Analysis, planning and research will improve social knowledge and understanding and the social effectiveness of future projects. Nutrition education will combat the knowledge constraints which prevent socio-cultural beliefs from promoting good nutrition. Pilot community and environmental sanitation projects will promote self-help community planning and organization beyond the family level.

5. Role of Women

This Project will involve and benefit Honduran women at all levels. At the decision-making level, women will be highly visible and active participants. The director of SAPLAN as well as a majority of present agency representatives to SAPLAN are women. Their experience in planning and coordinating large national projects should further bolster existing positive opinion concerning the administrative and management capabilities of Honduran women in government employment.

In nutrition education a heavy proportion of the planners, technicians, and promoters to be trained under this Project will be women (if present employment patterns are extrapolated). This training will serve to upgrade the skills and status of working women. With respect to the community development projects, JNBS promoters (mostly women) will be involved in development activities not typically encompassed by the woman's role (i.e., promotion of on farm storage, construction of fish ponds, improved agricultural practices). Women of the target group will benefit from an increased ability to deal with their environment stemming from better knowledge and facilities. Their participation in community and environmental sanitation projects will allow them to take a more active role in the development process.

This nutrition program recognizes the multi-sectoral nature of the nutrition problem and reflects an understanding on the part of policy makers that it is a problem which requires full participation of Honduran society without regard to location, occupation, or sex. Frequently problems of nutrition are seen to lie within the domain of women, as a consequence of their roles in homemaking, child care and food preparation. The strategy of this program recognizes the importance of women in this context. However, it places equal emphasis on typically male roles of food production, income generation, and construction and maintenance of household facilities, thereby relinquishing typical sexual stereotypes.

III-D. ECONOMIC ANALYSIS

It is widely agreed that improvement in the nutritional status of a population will create recognizable economic benefits. Better nutrition leads to reduced morbidity and mortality, reducing the cost of providing health care and increasing the size and productivity of the labor force. The exact nature of the relationship between improved nutrition and economic benefits remains, however, a subject of controversy.

1. Costs and Benefits

Projects for improving health or nutritional status, like other human resource investments of this type, are not easily analyzed using traditional economic models. For example, government expenditures on education, health care, and feeding programs are officially classified for national accounting purposes as consumption spending rather than as investments in human resources. The economist's tools for analyzing investment feasibility must be stretched to accommodate projects of this type.

In general terms the direct economic benefits which can be attributed to the various components of this project concern improvements in the capacity and size of the labor force. The following benefits are examples:

reductions in adult morbidity, resulting in less absenteeism and higher worker productivity;

reductions in morbidity among children, producing healthier children who learn more; reducing overall education costs through improved attendance and lowered repeating of grades; and increasing future labor productivity through a healthier and better educated labor force; and

reductions in the demand for medical services, reducing health care costs both for the individual and for society.

It can reasonably be assumed that each of these benefits will accrue to Honduran society as a result of this program; however, the magnitude of the benefits which will be due to the overall nutrition program cannot easily be estimated. For these reasons the approach to the economic analysis here will be to employ a number of methods for illustrating the economic feasibility and viability of the Project components. Arguments will be advanced where applicable to show what individual projects are low cost alternatives for achieving a given objective. On a more general scale, attempt will be made to show that given the resource, budgetary and administrative constraints currently operative in Honduras, the Project includes close to an optimal mix of activities for achieving nutrition goals over the long run.

a. Analysis, Planning and Evaluation

In order to avoid a wasteful use of resources, the government has established the Analysis and Planning System for Food and Nutrition (SAPLAN) to begin

the kinds of analysis, planning, and evaluation activities necessary to allocate nutrition resources effectively. Through its activities in monitoring and evaluating an array of alternatives on a multi-sectoral basis, SAPLAN should possess by the close of the Project a viable information base and methodology for setting priorities and for choosing and implementing cost-effective nutrition programs. This capability should bring significant future costs savings and ensure that projects adequately address nutrition goals. It is in this context that the economic returns to information-gathering, analysis, and evaluation begin to become evident.

The present administrative design of SAPLAN is an efficient pattern for organizing a planning unit. Sector representatives to SAPLAN are expected to maintain working relationships with planning technicians and to keep abreast of the types of analysis being done in their respective ministries and agencies. This arrangement should tend to prevent costly overlap in planning activities. In addition, SAPLAN representatives are encouraged to seek the participation of technicians in their sector organizations in the study of food and nutrition matters. Thus the economies gained by this inter-organizational pattern will outweigh the diseconomies of the added management burden.

b. Nutrition Education

The nutrition education component of the Project has a two-fold purpose. The first is to strengthen the human resource base and the effectiveness of GOH institutions involved in programming and implementing investments which impact upon nutritional status.

The second purpose is to improve the awareness and knowledge of the Honduran population concerning nutrition, in order that the individual may make better use of the resources he has available. Although it is difficult to predict the types of behavioral change which will occur through the use of curriculum and radio in nutrition, costs for reaching large numbers of the population are quite low in comparison with any other mechanism. Further, the ability of the target group member to cut food costs, improve food preparation, and lower medical expenses through better preventive health practices represent immediate benefits.

Because the nutrition education component will utilize existing GOH personnel and infrastructure rather than a new nutrition education delivery system, it is a low-cost alternative for expanding nutrition education coverage.

c. Water Supply and Environmental Sanitation

The well and latrine construction to be carried out under this project is quite cost-effective. Potable water is to be supplied in the most needy rural areas at a cost of under \$3 per person, as compared to \$64 and \$21 respectively for aqueduct programs currently being implemented by the IDB and CARE.

The water supply and environmental sanitation project included here also represents a cost-effective method for preventing the occurrence of third degree malnutrition. The cost for supplying food to a malnourished child in a nutrition center (SERN) or a child feeding center is \$67 per year. In addition to this, the severely malnourished child requires close attention by medical personnel, elevating the cost considerably. Since a substantial number of cases of third degree malnutrition are caused by persistent diarrheas, the value of ample quantities of potable water in prevention and in lessening the effects of diarrheas is considerable.

The well and latrine project is likely to produce significant economic benefits. A benefit-cost ratio of approximately 3.9 and an internal rate of return of slightly over 20 percent have been estimated for this component. The internal rate of return is above the suggested cut-off rate outlined in the AID Manual. The relatively high returns of the project are due principally to two factors: (1) a large number of the target group are reached at a low per-person cost; and (2) the investment is of a durable nature, producing recurring benefits for a long period.

d. Pilot Projects-

(i) Community Development Projects

This component differs from the ones previously discussed in that it will result in productive activities by rural households and will therefore generate direct economic benefits. Investments in storage facilities will provide savings of farm grain losses and provide for more rational on-farm use of foodstuffs, while small animal projects, fish ponds, and vegetable gardens will provide new sources of income and will create savings in food costs. Improved diets should in turn lead to increased worker productivity.

Since these activities will be planned and implemented on a community basis, a prior benefit-cost calculation will not be attempted. However, there are two factors which insure that the project can be justified as economically sound. First of all, capital is exceedingly scarce for small farmers. Approximately two-thirds of all Honduran farmers are outside the institutional credit system. Only 10 percent of all farmers use fertilizers and pesticides, and only 5 percent use improved seed. Analysis of crop budgets collected during the past few years in conjunction with AID agriculture projects in Honduras, show that the shadow price of a dollar's worth of credit at planting time reaches or exceeds five dollars. What this means is that the resources available to small farmers are so restricted that even a small amount of capital will allow them to make use of their land and labor to recoup five dollars in net income for each dollar invested. Similarly, in a recent evaluation of JNBS projects at the community level, it was discovered that a group of farmers in La Esperanza was able to increase its collective income by over \$1500, using \$300 from the JNBS to rent land and grow potatoes for the commercial market.

A final economic factor is that community projects will be conducted in such a manner that the most cost-effective interventions can be identified.

Information gained from these evaluations will allow the Government to cut

costs in future nutrition-related interventions.

(ii) Aquaculture

Benefits from this project will include the proceeds received from fish breeding stock sales, as well as from the effective increases in farm income obtained by farmers engaged in fish production. This income change can occur in two ways. The farmer, by producing a high quality food at low cost, releases other income for the purchase of consumer goods that he cannot produce. And by producing an excess over this consumption needs, he can sell fish locally and increase his monetary income. Since the fingerling production ponds to be operated by the GOH as well as the demonstration sites represent a fixed, renewable resource, benefits will recur over the life of the Project. The Project will be cost-effective since it will build from existing facilities and will not require excessive investments in infrastructure. Because presently there is a considerable demand for technical assistance on the part of farmers who wish to engage in fish culture, the impact of this Project component will be rapid.

(iii) Diet Improvement through Soya

The purpose of this activity is to determine the economic and nutritional benefits which can derive from the production of soya in Honduras, with a focus on the introduction of the soya into rural diets, and compare these benefits with those generated by other alternatives for investment resources. The pilot introduction of soya into rural diets will allow determination of the value of soya-fortified foods in improving resistance to disease, which has been noted in experiments in Guatemala. The applied research activity concerning soya production will determine the feasibility of growing soya in Honduras as a domestic food crop.

(iv) Sorghum Research

This research will provide some immediate economic benefits in the form of increased production of sorghum, a campesino staple in the southern parts of Honduras, and also in the form of increased incomes for producers. However the principal benefits will only begin to accrue after the end of the research effort, when more widespread production of the higher-yielding and more rapidly-maturing varieties is in effect. These benefits will take the form of increased income attributable to increased production and to lowered risks. Other benefits might include increased returns to livestock enterprises as lower-cost sorghum replaces corn as a cattle feed, and potential benefits in nutritional terms if new high-protein varieties prove adaptable to Honduran conditions.

2. Overall Strategy

Since efforts to address the nutrition problem must span many sectors and different types of activity, it is difficult to deal with the economic impacts in monolithic terms. The number and variety of projects possible must be determined in terms of actual resource, budgetary, and administrative constraints. When many resources are limited, as is the case in Honduras, it is best to use each input to its capacity rather than limit activity

to the level where the first constraint becomes binding. Since SAPLAN will not be responsible for execution of projects, but rather for analysis, planning, and overall monitoring and evaluation, the capabilities of the individual institutions which will carry out the implementation must be taken into consideration in Project design. The strategy in designing the Project has been to divide implementation responsibilities among the different agencies in such a way that existing management resources, strengthened in some cases by the addition of contract personnel, can handle the task. This approach should not only make the best use of limited resources, but should serve to foster cooperation among the agencies involved. The use of evaluation mechanisms in all activities is intended to give information regarding institutional weaknesses or other difficulties in time for corrective actions to be taken.

3. Employment and Income Distribution

By improving the health and productivity of the individual, overall improvements in the productivity of the labor force will be achieved. Honduras has under active cultivation only about one-sixth of its potentially cultivable land, and in order to use that land effectively in the future, a dynamic and productive labor force will be required.

The target group includes the lowest income households in the country. In activities such as the community food production project, redistributive effects will exist because these activities transfer resources to those low income groups who most need them. All of the activities financed under the project should have, in the long run, positive impacts on this group, thus tending to improve the income distribution.

IV. IMPLEMENTATION ARRANGEMENTS

The Project will begin with the Grant. Activities to be financed under the Grant include: (1) start-up and support costs for SAPLAN; (2) an income and expenditure survey; (3) the design and implementation of a system for monitoring nutritional status; (4) a study to determine the potential for using agricultural by-products for nutritional purposes; and (5) the design and initiation of evaluation activities for the Loan components. Also included under Grant financing and to begin early in the Project is the training of technicians employed by the SAPLAN member agencies.

Grant funded evaluation activities will be designed early in the Project in order that evaluation data can be built into the Loan components. Loan activities will lag Grant activities by several months.

IV.A ADMINISTRATIVE ARRANGEMENTS OF THE GOH

1. Executing Agencies

a. SAPLAN

Overall GOH responsibility for organization and administration for this project lies with the National Planning Council (CONSUPLANE), and in particular with the SAPLAN division of the Council. SAPLAN was recently created to coordinate nutrition planning and programming. The Planning Council has two representatives in SAPLAN, and the other member agencies each have one representative (MNR, MOH, MOE, INA, JNBS). SAPLAN is housed in the Offices of the Planning Council. In addition to the agency representatives, SAPLAN will soon have a full time support staff and two vehicles. The Chief of SAPLAN is a member of the CONSUPLANE professional staff.

In addition to its overall responsibilities, SAPLAN will have direct responsibility for administration of the following Project activities:

(i) The analysis, planning and evaluation component of the Project. Although most of the surveys and studies contained in this component will be fielded by other entities under contract to SAPLAN, the design of such studies must meet SAPLAN's approval, and final responsibility for analysis of data collected and publication of reports lies with SAPLAN.

(ii) The participant training activity under the nutrition education component, all of which involves training for SAPLAN staff and representatives from other agencies.

(iii) The development of radio spot messages. The design phase of this activity, to determine message content, will be carried out jointly with the Ministry of Education, and final production of broadcast tapes will be under contract.

b. Ministry of Health (MOH)

Ministry of Health will train the 60 technicians who are to receive 6-

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Month courses in nutrition concerns, as well as those field personnel who work for the MOH and are to receive 1-month courses. Project responsibility for the potable water and environmental sanitation component of the Project also lies with the MOH.

c. Ministry of Education (MOE)

The Ministry of Education will train MOH technicians under the Rural Education Grant Project in the methodology of curriculum development. These technicians will later be trained in the 6-month course in nutrition offered by the Ministry of Health, and then will form the group who design and test curriculum materials for primary schools and for non-formal education.

Other MOE personnel who take the 6-month course will then provide inservice training in the form of 1-month courses for teachers and other MOE field personnel.

d. Ministry of Natural Resources (MNR)

MNR personnel will attend the 6-month inservice training in nutrition for field personnel given by the MOH. MNR extension agents will participate in the promotion and development of community projects along with JNBS promoters. The Department of Fisheries of the MNR will implement the aquaculture project. The sorghum research project will be carried out by the MNR, through its planning unit, research, and extension services. The production aspects of the soya project will be carried out by the MNR, and the MNR will share responsibility with INA for the introduction of soya into the diet in rural areas.

e. National Social Welfare Board (JNBS)

The JNBS will be responsible for promotion and development of community projects under the pilot projects component.

f. National Agrarian Institute (INA)

INA personnel will attend the 6-month training course in nutrition, following which they will provide inservice training to INA field personnel regarding nutrition fundamentals and nutrition promotion. INA will also implement that part of the soya project which focuses on the introduction of soya into rural diets, with technical assistance from INCAP and the MNR.

IV-B. A.I.D. ADMINISTRATIVE ARRANGEMENTS

A.I.D. will contract for the services of a full-time Project Monitor for the life of the Project. The Monitor will have overall responsibility for arranging A.I.D. input to the Project, and will assist SAPLAN in monitoring implementation activities. Goods and services will be purchased using established A.I.D. mechanisms, and customary disbursement procedures will be followed.

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IV-C. IMPLEMENTATION PLAN

Detailed schedules for Project execution have been outlined separately for each of the four components of the Project: (1) analysis, planning and evaluation; (2) nutrition education; (3) water supply and environmental sanitation; and (4) pilot projects. Performance Tracking Networks which illustrate the interrelationships among the various activities have been designed to reflect the current thinking of both the GOH and A.I.D.

In cases where implementation must take place in a highly dynamic, reactive manner, the method of presentation of the Performance Tracking Network have been modified slightly from traditional networks. For example, for the water well and latrine construction and for community food production a large number of separate village level subprojects will be organized, planned and executed within the large framework of the Project. These subprojects will each follow a general sequence which has been indicated in the tracking network. Information on the status of these small subprojects will provide continuous feedback for the allocation of resources and for modifying and revising plans and schedules. For this type of activity, dotted lines have been used in the tracking networks to indicate continued planning and implementation of village level activities.

The networks and implementation plans have been scheduled by calendar, based on the assumption that funds will begin to flow in January, 1977.

The long term Project Advisor who will be in charge of A.I.D. monitoring and administrative arrangements will be hired and incountry before the disbursement of the Loan funds takes place, and as early in the Grant project as is possible. The Advisor will participate with SAPLAN and its member agencies in drawing up scopes of work for technical advisors in analysis and planning, radio message design, evaluation, and the introduction of soya into the diet.

The principal milestones of project performance will be monitored through quarterly reports drawn up by SAPLAN on the basis of data furnished by the executing agencies. These documents will report the status of each component. For example, they will contain information regarding the progress toward completion of design and implementation of a pilot nutritional status monitoring system, and toward the completion of the various studies and surveys to be carried out under the supervision of SAPLAN. In addition, monthly information reported by the MOH field staff who are assisting in the construction of wells, latrines, and other water systems will be summarized by SAPLAN and included in the quarterly administrative reports. In a similar fashion progress in aquaculture and the other pilot projects will be included in the quarterly reports.

Contracts under this Project will be short and long term, and will utilize both personal and institutional services. Technical assistance will be sought locally, but in cases where it is not available locally either U.S. or third country sources will be used.

Detailed implementation plans and networks as described above are included in Annex B.

IV-D EVALUATION STRATEGY AND PLAN

1. Evaluation Strategy

Evaluations included in this Project will be of two kinds: (a) evaluations of Project impacts upon the target group; and (2) evaluations concentrating on performance variables such as targeted outputs and utilization of resources. Every Project element contemplates evaluation of one or both of these types. The evaluations will be expected to allow progress toward targeted outputs to be monitored; to provide adequate and timely information for Project control purposes; and, in the case of direct impact activities, to be able to assess the impact upon the target group. In the case of water supply, evaluation will include a comparative analysis of the nutritional impact and cost-effectiveness of alternative systems. In the applied research element involving sorghum, the economic impact on small farmers engaged in growing new varieties will be evaluated. Final impacts to be evaluated concerning the multi-level training element contained in the nutrition education component will occur at the level of field personnel of the Ministry of Health and other agencies, who will be evaluated to see if improved and expanded delivery of nutrition education to rural families occurs. In the case of community projects and introduction of soya into rural diets the direct impacts to be measured concern changes in nutritional status.

IV-E CONDITIONS, COVENANTS, AND NEGOTIATING STATUS

Two Conditions Precedent are contemplated:

1. As a Condition Precedent to Initial Disbursement under the Loan, the Borrower will provide evidence of the establishment of a permanent agency to coordinate the Project, and a staffing plan for this agency.

2. As a Condition Precedent to Disbursement of Loan funds to finance each Project Activity, the Borrower will provide a detailed execution and evaluation plan for that Activity, including administrative, technical, and financial considerations.

No Covenants are contemplated.

The content of this Project has been reviewed in depth with the Director of the Planning Council and the Minister of Finance. As noted in the Loan Application, the Minister of Finance expects to negotiate and sign the Agreement during July and August, to facilitate inclusion of the Government's 1977 Project costs in the 1977 National Budget. If signature occurs on that schedule, the subsequent processes of ratification and meeting of Conditions Precedent could be completed before the end of 1976.

V. ANNEXES

- A. Logical Framework
- B. Planned Performance Tracking Networks
- C. DAEC Issues Cable and Mission Response
- D. Technical Details
 - 1. Income/Consumption Profile for Honduras
 - 2. Evaluation of JNBS Operations
 - 3. Water Supply and Environmental Sanitation Project - Well Types
 - 4. Criteria Utilized in Identification of Communities with Nutrition Problems
 - 5. Location and Schedule for Rural Health Center Openings
 - 6. Health Service System 1976/1980
 - 7. Detailed Costing of Inputs
 - 8. Bibliography
- E. Director's 611(e) Certification
- F. GOH Application for Assistance
- G. Draft Project Description for Project Agreement
- H. Draft Project Authorization
- I. Statutory Checklist

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.

Life of Project
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared _____

Project Title & Number: _____

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p>	<p>Measures of Goal Achievement:</p>		<p>Assumptions for achieving goal targets:</p>
<p>Improve the nutritional status of the Honduran population</p>	<ol style="list-style-type: none"> 1. 20 per cent reduction in infant mortality by 1980. 2. 20 per cent reduction in number of malnourished children 0-5 by 1980. 3. 20 per cent reduction in number of children borne to term with birth weight under 2500 grams by 1980. 	<ol style="list-style-type: none"> 1. GOH nutritional status monitoring system. 2. Special studies and surveys. 	<p>Current program activities related to nutrition which this project is designed to complement achieve stated targets:</p> <ol style="list-style-type: none"> 1. Rural health program 2. Rural development program 3. Rural education program 4. Marketing improvement program

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U. S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <p><u>A. Analysis, Planning and Evaluation</u></p> <p>Increase GOH capability to carry out analysis, planning and evaluation activities related to nutrition</p> <p><u>B. Rural Institutional/Infrastructure Development</u></p> <p><u>1. Nutrition Education</u></p> <p>Increase GOH capability to create awareness and knowledge needed by rural families in order to improve nutritional status.</p> <p><u>2. Water Supply and Environmental Sanitation</u></p> <p>Provide potable water and sanitary waste disposal systems for rural population.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> 1. Completion of updated and improved nutrition plans, based upon studies, surveys and evaluations. 2. Improved information systems upon which to base decisions 3. GOH budgetary and personnel actions confirm performance of SAPLAN's staff and budget. 4. Composition of overall GOH national budget shows a trend towards increased funding of nutrition-related activities. <ol style="list-style-type: none"> a. Nutrition education in all Primary schools and via mass media. b. Improved outreach capability in nutrition promotion and education on the part of SAPLAN member agencies. a. Additional 90,000 families served by potable water wells and latrines. 	<ol style="list-style-type: none"> 1. USAID Inspection 2. USAID Inspection <ol style="list-style-type: none"> a. Results of SAPLAN evaluation USAID Inspection b. Results of SAPLAN evaluation, USAID Inspection. <p>SAPLAN evaluation, USAID Inspection</p>	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Appropriate and timely technical assistance available from INCAP and other sources. 2. Continued GOH commitment to coordinated nutrition planning efforts. <p>Scheduled completion of training in curriculum development and educational materials under Rural Education Grant Project.</p> <p>Sufficient number of rural families are willing to provide the labor necessary to meet targeted construction levels.</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <p><u>3. FOOD PRODUCTION</u></p> <p>Expand the number of alternatives for rural families to produce high-quality food for their own use and for increasing their incomes.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>a. Rural families engaged in expanded and diversified food production.</p> <p>b. GOH knowledge and experience concerning new alternatives for improved food production for rural families improved.</p>	<p>SAPLAN evaluation, USAID Inspection</p>	<p>Assumptions for achieving purpose:</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

AID 1925-25 (7-71)
SUPPLEMENT 1

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding: _____
Date Prepared: _____

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Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:		Assumptions for achieving outputs:
<p>A. Analysis, Planning and Evaluation A series of studies and surveys designed and implemented for donated food programs; nutrition education; participant training; environmental sanitation; pilot projects; agricultural by-products and income distribution, consumption and expenditure patterns.</p>	<p>1.a. Operating budget for SAPLAN of \$200,000 per year.</p> <p>1.b. Staffing and interagency relationships and operating tasks established and complemented.</p> <p>1.c. 6 Man-years of training completed.</p>	<p>1. USAID Inspection</p>	<p>Cooperation of agencies involved with SAPLAN to achieve multisectoral nutrition planning.</p>
<p>2. Process for upgrading national plans developed.</p>	<p>2. Plan for periodic formal review of national plans completed.</p>	<p>2. USAID Inspection</p>	
<p>3. Nutrition monitoring systems designed and implemented.</p>	<p>3. Monitoring system staffed and operational.</p>	<p>3. USAID Inspection</p>	
<p>B. Nutrition Education Development and implementation of:</p>	<p>1. Completed textbook design.</p> <p>2. Radio spot messages being broadcast.</p> <p>3.a. All profession staff members of SAPLAN are trained.</p> <p>3.b. 60 Operational and teaching technicians trained.</p> <p>3.c. 320 Field personnel trained.</p>	<p>1. SAPLAN evaluation, USAID Inspection</p> <p>2. USAID Inspection</p> <p>3. SAPLAN records</p> <p>4. USAID Inspection</p>	
<p>4. Audio visual facilities at MOH improved.</p>	<p>4. Equipment installed.</p>		

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ANNEX A
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PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding: _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:		Assumptions for achieving outputs:
<p>C. <u>Water Supply and Environmental Sanitation</u></p> <ol style="list-style-type: none"> 1. Water Wells constructed 2. Latrines constructed 3. Education campaign executed 	<ol style="list-style-type: none"> 1. 3000 wells completed per year for 3 years 2. 10,000 latrines completed per year for 3 years. 	<ol style="list-style-type: none"> 1. MOH Records 2. MOH Records 	
<p>D. <u>Pilot Projects</u></p> <ol style="list-style-type: none"> 1. Rural families outside normal coverage of credit and technical assistance reached with community food project assistance. 2. GOH capability to help rural families adopt fish farming increased. 3. Priority of introducing soya as a food product evaluated on economic, nutritional grounds 4. Introduction and evaluation of new varieties of sorghum begun. 	<ol style="list-style-type: none"> 3. Campaign covers entire geographic area of wells and latrines. 1. 2,500 families per year reached with credit and technical assistance for community food projects. 2. Five fish farming and demonstration facilities improved, 10 technicians trained, extension materials developed. 3. Economic and nutritional evaluation of soya carried out to help GOH establish priority of introducing soya as food crop. 4. Optimum set of inputs and crop management practices developed for sorghum production. 	<ol style="list-style-type: none"> 3. USAID Inspection 1. SAPLAN evaluation, USAID inspection. 2. USAID Inspection 3. SAPLAN records 4. SAPLAN records 	<p>Families in sufficient numbers able to form organizations to participate in community projects.</p>

U.S. PROJECT DATA
SUPPLEMENT 1

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared _____

Project Title & Number _____

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Notes:</p> <p>See INPUTS budget ANNEX D.7 of the Project Paper</p>	<p>Implementation Target (Type and Quantity)</p>		<p>Assumptions for providing inputs:</p>

PLANNED PERFORMANCE TRACKING NETWORK

A. ANALYSIS AND PLANNING

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
1.	Signature of final agreement	10/76	AID/H - GOH
2.	Necessary arrangements for first loan disbursement made	1/77	GOH - AID/H
3.	Contract long term technical assistance and technical assistance for design of evaluation system and design of surveys.	1/77	SAPLAN
4.	Finish developing evaluation system		SAPLAN
5.	Arrangements for collecting baseline data in project areas made	2/77	SAPLAN
6.	Questionaire for income, expenditures, and consumption survey designed.	5/77	SAPLAN
7.	Survey for study of causes of malnutrition	8/77	SAPLAN
8.	Request for proposals for feasibility studies distributed	4/77	SAPLAN
9.	Publish 1st quarterly report on initial surveillance system and and other activities	3/77	SAPLAN
10.	First in-house training program	3/77	SAPLAN
11.	Publish 2nd quarterly report	6/77	SAPLAN
12.	Second in-house training program	6/77	SAPLAN

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
13.	Contract for marine and fresh water product marketing feasibility study signed	7/77	SAPLAN
14.	Contract with national statistic office to do income survey signed	7/77	SAPLAN/DGEYC
15.	Sites for active surveillance selected and agreement with MOH for field work signed	8/77	SAPLAN
16.	Agreement with MCH division of MOH to evaluate donated food programs signed	9/77	SAPLAN/MOH
17.	Publish 3rd quarterly report	9/77	SAPLAN
18.	Sites chosen and agreement signed with MOH department of nutrition for study of causes of malnutrition	10/77	SAPLAN/MOH
19.	Active surveillance data received from field workers	12/77	
20.	Publish annual report on initial surveillance and other activities	12/77	"
21.	Final report on evaluation of donated foods received	1/78	"
22.	Finish processing active surveillance data	2/78	"
23.	Finish collecting baseline nutritional status data from health centers in areas with wells, JNBS programs and from soya diet improvement demonstration centers	2/78	"
24.	Publish quarterly report comparing active and initial surveillance and reporting evaluation of donated food programs.	3/78	"

<u>NUMBER OF NODE ON NETWORK</u>	<u>CRITICAL PROJECT INDICATOR</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
25.	Programs discussed on basis of baseline nutritional status data	5/78	SAPLAN
26.	Publish quarterly report detailing surveillance data and mid project program evaluations.	6/78	"
27.	Final report of marine & fresh water product feasibility study received	7/78	"
28.	Begin developing medium term food and nutrition plan	7/78	"
29.	Contract to carry out agricultural by-product feasibility study	9/78	"
30.	Publish quarterly report with surveillance data and results of marine and fresh water	9/78	"
31.	Finish developing medium term food and nutrition plan	11/78	"
32.	Publish annual report with surveillance data and medium term plan	12/78	"
33.	Begin to process data for study on causes of malnutrition	12/78	"
34.	Sites selected for active surveillance and field work contracted.	1/79	"
35.	Publish quarterly report	3/79	"
36.	Begin processing data on active surveillance	5/79	"
37.	Tabulated data from statistics office on income, expenditure and consumption survey received	5/79	"
38.	Finish processing data from study of causes of malnutrition	5/79	"

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
39.	Publish quarterly report	6/79	SAPLAN
40.	Finish processing data on active surveillance	7/79	"
41.	Final report on study of ag-by product feasibility received	8/79	"
42.	Publish quarterly report on initial and active surveillance	9/79	"
43.	Finish collecting nutritional status data from health centers in areas with wells, JNBS programs and soya diet improvement demonstration centers	9/79	"
44.	Programs evaluated from nutritional status data.	10/79	"
45.	Publish final report detailing surveillance results, final program evaluation and reports in income, expenditure and consumption survey, study of causes of malnutrition and feasibility study of agriculture by-products.	10/79	"

B. NUTRITION EDUCATION

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
1.	Signature of final agreement	10/76	AID/H - GOH
2.	Necessary arrangements for first loan disbursement made	1/77	AID/H - GOH
3.	Audio visual equipment ordered	2/77	MOH
4.	Participant selected for nutrition planning and audiovisual training	1/77	SAPLAN - MOH
5.	Technical assistance for radio messages and technician training contracted	1/77	SAPLAN - MOH
6.	Teaching technicians selected for six month training	1/77	MOH, MOE, MNR, JNBS, INA
7.	Begin training for photographer/ photographic technician	3/77	MOH
8.	Outline of primary school textbooks finished and agreement signed with MOE to produce sample materials	4/77	SAPLAN - MOE
9.	Technician training course reviewed and evaluated	3/77	SAPLAN - MOH
10.	Radio messages written and producer contracted	4/77	SAPLAN
11.	Six month training curriculum revised	5/77	MOH
12.	First participant to MIT short-course leaves.	7/77	SAPLAN
13.	First six month technician training course begins	7/77	MOH
14.	Radio messages on the air	6/77	SAPLAN
15.	First participant to MIT long course leaves	9/77	SAPLAN

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
16.	Participants for second 6 mo. training course selected	8/77	MOH, MOE, MNR, JNBS, INA
17.	Sample Primary school materials finished and distributed to sample schools for field test	10/77	MOB
18.	First participant from MIT short course returned.	10/77	SAPLAN
19.	SAPLAN associates take INCAP short course and make site visits	10/77	SAPLAN
20.	Field test of primary school materials completed	1/78	MOE
21.	All audio-visual equipment arrived	1/78	MOH
22.	Technical assistance contracted for short courses.	1/78	MOH
23.	First six month course completed, second training cycle begins	1/78	MOH
24.	Training for photographer/ technician completed	3/78	MOH
25.	Short course content and materials designed, production of materials begins	3/78	SAPLAN MOH
26.	Revision in primary school materials made;	4/78	MOE
27.	Second participant leaves for MIT short course	6/78	SAPLAN
28.	Participant leaves for 18 month training in Caracas	6/78	SAPLAN
29.	Short course materials produced; courses begin	7/78	MOH, MOE, MNR, JNBS, INA

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
30.	Second six month training course finished; third training cycle begins	7/78	MOH
31.	Radio message broadcasts ended	6/78	SAPLAN
32.	Second participant to MIT short course returned; third short course participant departs	9/78	SAPLAN
33.	First participant to one year MIT course returns; second participant departs	9/78	SAPLAN
34.	Evaluation of radio messages completed and given to AID	9/78	SAPLAN
35.	Third participant back from MIT short course; fourth participant leaves	12/78	SAPLAN
36.	Final six month technician training course completed	1/79	MOH
37.	Final participant to MIT short course returns	3/79	SAPLAN
38.	Second participant returns from one year MIT training	8/79	SAPLAN
39.	One month short training courses end	9/79	MOH, MOE, MNR, JNBS, INA
40.	Participant returns from 18 month training in Caracas	10/79	SAPLAN
41.	Evaluations of participant training, training programs, radio messages, primary school materials, published jointly		SAPLAN with MOH, MOE, MNR, JNBS, INA

C. WATER SUPPLY AND ENVIRONMENTAL SANITATION

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
1.	Signature of final agreement	1/77	GOH - AID/H
2.	Necessary arrangements for first loan disbursement made		
3.	Engineers and technical assistance contracted	2/77	MOH
4.	New promoters hired and trained	4/77	MOH - SAPLAN
5.	Operational system designed	4/77	MOH
6.	Village committees organized	5/77-5/79	MOH
7.	Agreements signed with villages	5/77-5/79	MOH
8.	Baseline nutritional status measurements made	6/77-5/78	MOH
9.	Tools supplied to village committee	6/77-6/79	MOH
10.	Well hardware and latrine blocks supplied	7/77-7/79	MOH
11.	Wells and latrines completed with local labor	7/77-7/79	MOH
12.	Local committees trained in well maintenance	8/77-8/79	MOH
13.	Nutrition education supplied by health center personnel	8/77-8/79	MOH
14.	Well completion report, interruption report or request for further assistance reported monthly by promoter to sanitary district supervision*	9/77-9/79	MOH

* If an interruption report or request for further assistance is filed it can be assumed that sequential completion of steps 6-14 has not been successful and special action by supervisor is required.

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
15.	Equipment ordered	1/77	MOH
16.	Equipment arrives	5/77	MOH
17.	Evaluation and reporting system designed		
18.	Local reports summarized by sanitary district supervisors and reported to chief engineer and SAPLAN	11/77	MOH
19.	Local report summary	2/78	MOH
20.	Local report summary, baseline nutritional status data col- lected by SAPLAN (same as A23)	5/78	MOH - SAPLAN
21.	Local reports evaluated and operational plan revised	9/78	SAPLAN
22.	Local report summary	2/78	MOH
23.	Local report summary	2/79	MOH
24.	Local report summary	5/79	MOH
25.	Nutritional status measurements taken on villages reporting baseline	6/79	MOH
26.	Local report summary	8/79	MOH
27.	Nutritional status follow-up measurements collected by SAPLAN (same as A 43)	9/79	SAPLAN
28.	Local report summary		
29.	Final evaluation completed	10/79	MOH - SAPLAN

D. PILOT PROJECTS

<u>NUMBER OF NODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
1.	Signature of final agreement	10/77	AID/H -GOH
2.	Arrangements for first loan disbursement made	1/77	AID/H - GOH
3.	Participants selected for two year training in aquaculture	1/77	MNR
4.	Equipment ordered for fish ponds and labs.	2/77	MNR
5.	Equipment in place; short courses and other technical services available to asentamien- tos and community groups	6/77	MNR
6.	Participants leave for aqua- culture training	9/77	MNR
7-10.	Bi-annual reports made to SAPLAN on aquaculture training and project activity	12/77-8/79	MNR
11.	Participants return from aqua- culture training		
12.	Financial control system for JNBS approved	2/77	JNBS
13.	Extra promoters hired and trained	2/77	JNBS
14.	Community development committee organized	4/77	JNBS
15.	Community project planned	4/77	JNBS
16.	Baseline nutritional status	5/77-5/78	MOH
17.	Credit, inputs, breeding stock, or commodities distributed	5/77	JNBS
18.	Project completion report (with baseline nutrition data), in- terruption report or request for further assistance sent to		

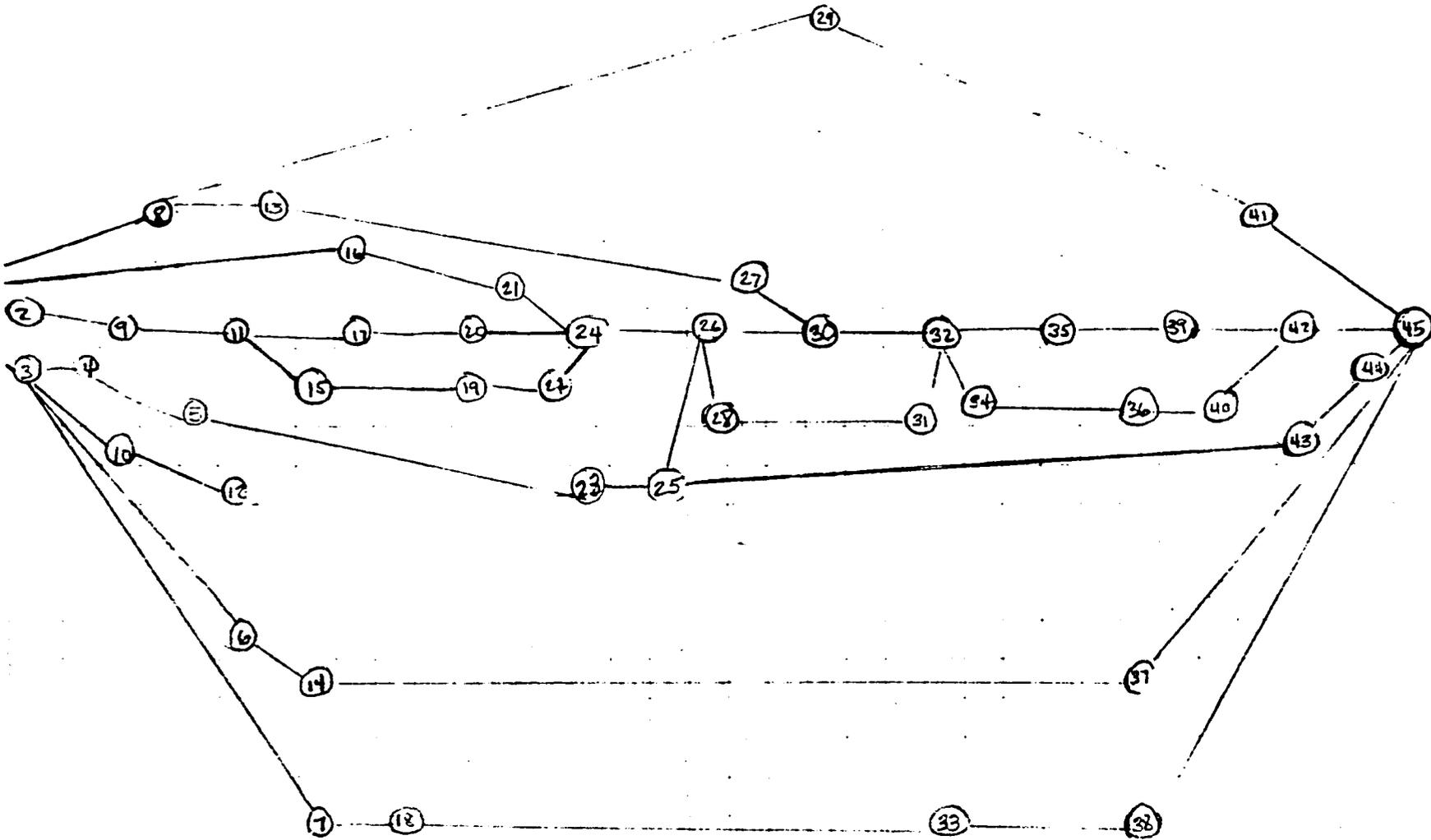
regional supervisor*

19-25,27, 28, 30.	Quarterly reports including project completion information and nutritional data made by regional supervisors to JNBS central committee and SAPLAN	8/77-8/79	JNBS
26.	Nutritional status measurements taken on children of community groups organized in first year	5/79	MOH
29.	Nutritional status measurements collected by SAPLAN (same as A)	7/79	SAPLAN
31.	Technical assistance in evaluation in village level maisoy production and in farm mangement accounting acquired	2/77	MNR
32.	Equipment ordered	2/77	INA
33.	Asentamientos selected	4/77	INA
34.	Baseline nutritional status measures taken on children	5/77	MOH
35.	Evaluation plan designed	5/77	INA - SAPLAN
36.	Equipment arrived	6/77	INA
37.	Construction of demonstration facilities started	7/77	INA
38.	Demonstration agents selected	7/77	INA
39.	Soy planted	5/77	INA
40.	Demonstration agents trained	9/77	INA
41.	Soy harvested and stored	10/77	INA
42.	Demonstration facility completed	12/77	INA
43.	Report on nutritional status	12/77	INA

<u>NUMBER OF MODE ON NETWORK</u>	<u>DESCRIPTION OF ACTIVITY</u>	<u>DATE</u>	<u>RESPONSIBLE AGENCY</u>
44.	Demonstrations of preparation of corn soy tortillas and maisoy blends	1/78	INA
45.	Demonstration agents report quarterly on use of soy in asentamientos	5/78	INA
46.	Soy planted	5/78	INA
47.	Soy harvested and stored	10/78	INA
48.	Soy and production	11/78	INA
49.	Nutrition status measures taken on children	6/79	INA
50.	Soy planted	5/79	INA
51.	Nutrition status measures collected by SAPLAN (same as A)	9/79	SAPLAN
52.	Soy harvested and stored	10/79	INA
53.	Production and consumption of soy and nutritional status data reported and analyzed	⁰ 11/79	INA

Country: Honduras Project No.: Project Title: Nutrition Grant Loan Project
 A. Analysis and Planning

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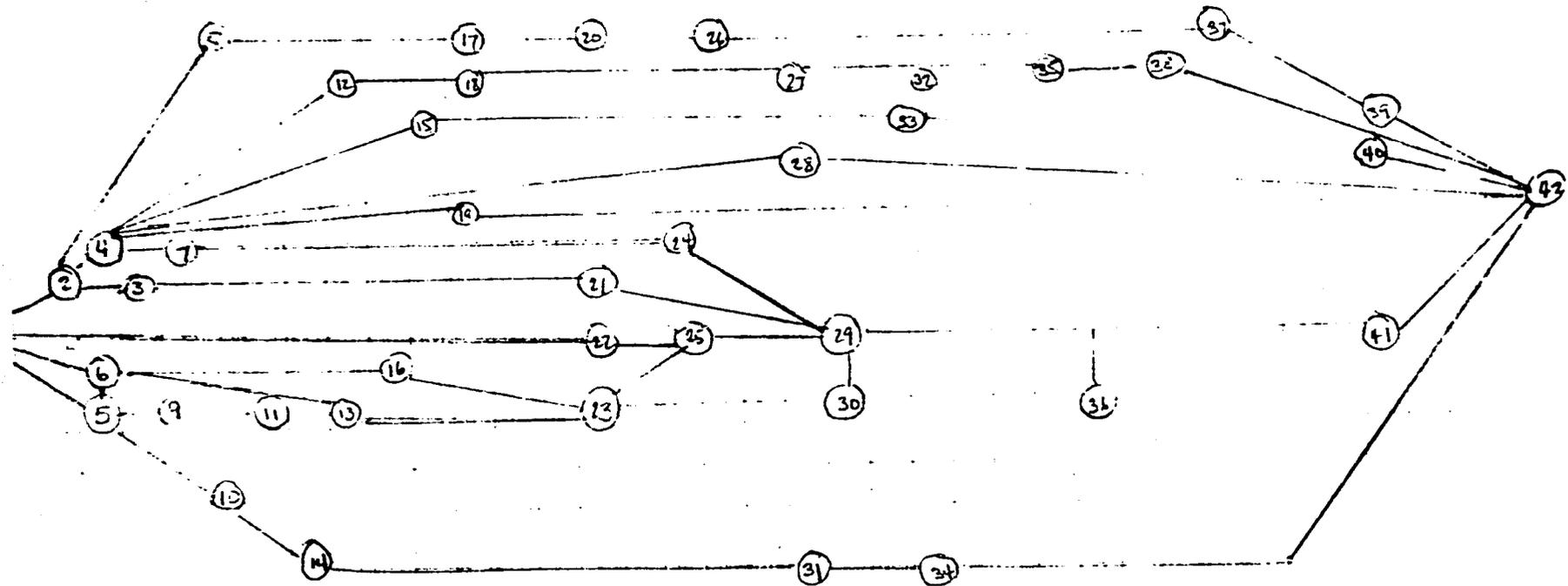


Country: Honduras

Project No.:

Project Title:
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B. Nutrition Education

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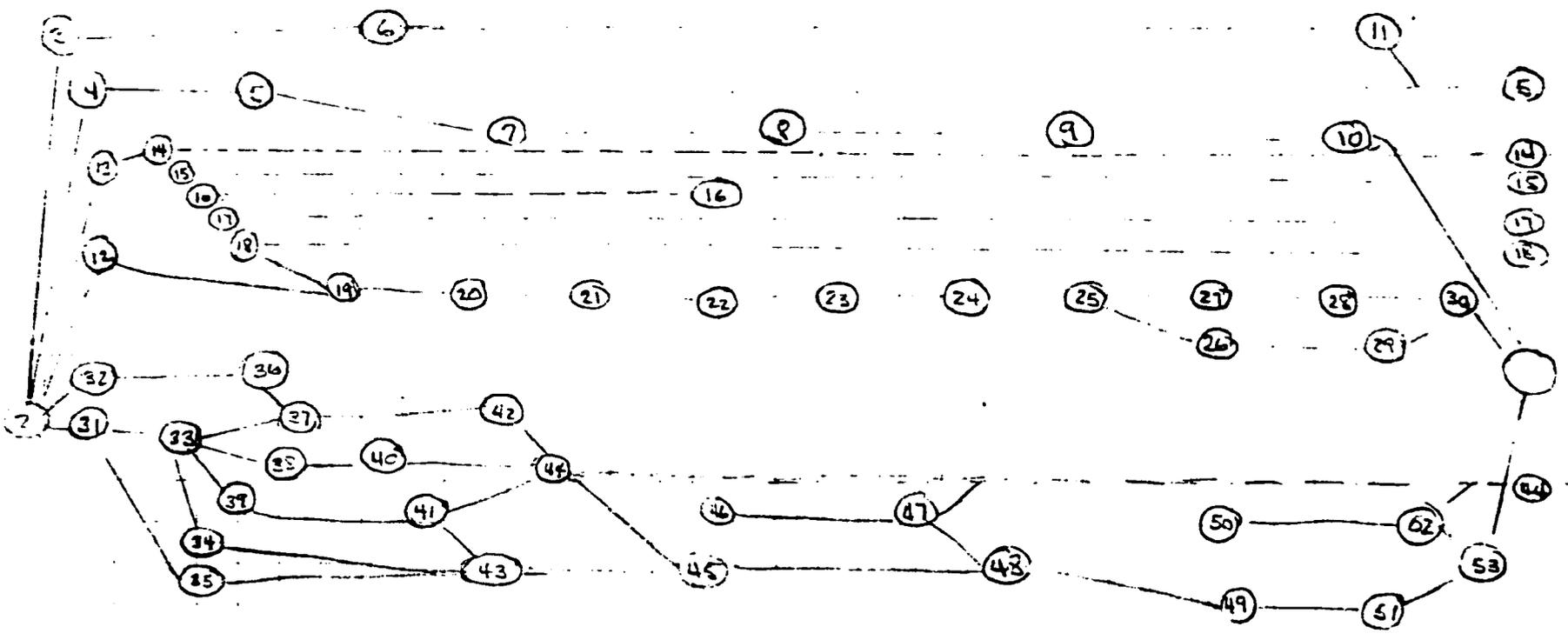
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Nutrition Grant Loan Program
D. Pilot Projects

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SUBJECT: DAEC REVIEW OF T;E NUTRITION ASSESSMENT AND INTERIM REPORT

1. DAEC REVIEWED SUBJECT ASSESSMENT AND INTERIM REPORT ON MARCH 25 AND APPROVED PREPARATION OF THE GRANT/LOAN PROJECT PAPER. SUBMISSION OF PP IS EXPECTED MAY 13 PER MISSION'S ADVICE. IF PP IS APPROVED AND FUNDING AVAILABLE, ---- WE WILL CONSIDER AUTHORIZATION OF THE LOAN PRIOR TO MAY 30 AND THE GRANT IN THE TRANSITION QUARTER.

2. SUMMARY: ASSESSMENT WAS FOUND TO BE AN ADEQUATE BASIS FOR THE PROGRAM. DAEC AGREED THAT PROPOSAL FITS WITHIN AID NUTRITION STRATEGY AND THAT RATIONALE FOR THE GRANT/LOAN IS SATISFACTORY FOR COMPLETING INTENSIVE REVIEW. IN CONSIDERING WHETHER ASSESSMENT MODEL AND ANALYSIS PROVIDE BASIS FOR IDENTIFYING CONSTRAINTS AND RECOMMENDING INTERVENTIONS, DAEC NOTED PROGRAM REQUIRES BOTH FURTHER ELABORATION OF RELATIONSHIP OF ACTUAL INCOME DISTRIBUTION WITH NUTRITIONAL STATUS AND FURTHER REFINEMENT OF PROPOSED INTERVENTIONS.

3. DAEC DISCUSSED SPECIFIC REQUIREMENTS FOR CLARIFICATION AND DEFINITION OF PROJECT ACTIVITIES AND OUTLINED CERTAIN TASKS FOR INTENSIVE REVIEW. SPECIFIC

CONCLUSIONS REACHED BY THE DAEC, INCLUDING REQUIREMENTS FOR ANALYSIS DURING INTENSIVE REVIEW, ARE DISCUSSED BELOW:

4. TARGET GROUP: PAGES 21 AND 24 OF THE ASSESSMENT HAD DIFFERENT DEFINITIONS OF THE TARGET INCOME GROUP. PROPOSED PROGRAM HAS ACTIVITIES WHICH WILL BENEFIT MORE POOR PEOPLE THAN STATED TARGET GROUP OF PREGNANT AND LACTATING MOTHERS AND RURAL CHILDREN FROM 0-5 YEARS. THEREFORE CLARIFICATION OF TARGET GROUP IS REQUESTED WITH REGARD TO INCOME, LAND TENANCY, NUTRITIONAL STATUS.

5. PRIORITIES: DAEC WAS CONCERNED AT APPARENT LACK OF A STRATEGY SETTING PRIORITY OF ACTIVITIES GIVEN BUDGET CONSTRAINTS. DAEC DISCUSSED BASIS FOR IDENTIFYING PRIORITIES AND SEQUENCE OF PROGRAM ACTIVITIES REQUIRED IN TERMS OF OVERALL STRATEGY AND ANTICIPATED LIMITED INSTITUTIONAL CAPACITY. PP SHOULD PROVIDE RATIONALE FOR INTERVENTIONS SELECTED FOR AID FINANCING IN TERMS OF COST AND TARGET GROUP IMPACT. IN DEVELOPING RATIONALE MISSION SHOULD ADDRESS OPTIONS WITH RESPECT TO TARGET GROUP, E.G., PREVENTION OF THIRD DEGREE MALNUTRITION CASES AND HOW GOH CAN AVOID SUCH THROUGH ENVIRONMENTAL SANITATION PROGRAMS. SINCE MUCH OF IMPACT OF NUTRITION PROGRAMS DEPENDS ON CHANGES IN KNOWLEDGE, ATTITUDES AND PRACTICES OF RURAL POOR, DAEC EXPRESSED CONCERN FOR THE NEED FOR A STRATEGY WHICH WOULD DEAL WITH INFORMATION, EDUCATION AND COMMUNICATION FOR TARGET GROUP.

6. GOH COMMITMENT: THE DAEC CONCERN WAS THAT GOH DEMONSTRATE INTEREST IN THIS PROGRAM THROUGH BUDGETARY ALLOCATIONS OR COMMITMENTS TO MAKE ALLOCATIONS BEYOND THE ESTABLISHMENT OF SAPLAN AND POSSIBILITY OF FUTURE BUDGETARY RESOURCES. PP SHOULD RELATE STRATEGY AND PROGRAM TO GOH BUDGET AS INDICATION OF COMMITMENT AND REALISM OF PROGRAM EXPECTATIONS. DESCRIPTION SHOULD CONTAIN STEPS UNDERTAKEN BY THE GOH TO ADDRESS OVERALL STRATEGY, PLANS TO DEVELOP THE DATA BASE, AND IMPLEMENTATION OF NUTRITION ACTIVITIES. A CONVENANT WITH THE BORROWER SHOULD ASSURE THAT RELEVANT MINISTRIES UNDERTAKE THE RECURRING COSTS OF THE PROGRAM. EXAMPLES OF ACTIVITIES WHICH CALL FOR BUDGET SUPPORT FROM OTHER AGENCIES INCLUDE MINISTRY PERSONNEL ASSIGNED TO SAPLAN, NUTRITION EDUCATION, ENVIRONMENTAL SANITATION AND AGRICULTURAL RESEARCH.

7. SAPLAN: DAEC REVIEWED THE STRUCTURE AND ROLE FOR SAPLAN AND EXPRESSED CONCERN WHETHER IT WAS INSTITUTIONALLY CAPABLE TO IMPLEMENT THE PROGRAM. PP SHOULD SET FORTH CLEARLY THE FUNCTIONS TO BE PERFORMED BY SAPLAN AND BY EACH GOH AGENCY INVOLVED IN THE PROJECT AND THEIR CAPABILITY TO PERFORM SUCH FUNCTIONS. DISCUSSION SHOULD DESCRIBE HOW INTERSECTORAL COORDINATION FOR NUTRITION POLICY-MAKING AND PROGRAM IMPLEMENTATION WILL OCCUR AND EXPLAIN STEPS REQUIRED FOR PLANNING, COORDINATION, AND EVALUATION MECHANISMS TO BECOME INSTITUTIONALIZED DURING THE LIFE OF THE PROJECT.

8. ENVIRONMENTAL SANITATION: DESCRIBE HOW THIS ACTIVITY SPECIFICALLY RELATES TO ASSESSMENT PROBLEMS, CONSTRAINTS, AND CAUSES OF NUTRITIONAL STATUS. AN EXPLANATION SHOULD BE INCLUDED AS TO HOW THIS INTERVENTION IS DIFFERENT FROM THE IDB PROGRAM AND RELATION TO THE TARGET GROUP.

9. FINANCIAL PLAN: IN ARRIVING AT FINAL COSTS AND PHASING GOH AND GRANT/LOAN INPUTS, MISSION IS REMINDED THAT FY 77 CONGRESSIONAL PRESENTATION BUDGET ALLOCATES 250,000 DOLS. FOR TQ GRANT. DAEC HAS APPROVED INTERIM REPORT LEVEL OF 3.5 MILLION DOLS. FOR LOAN. DAEC EXPRESSED CONCERN WHETHER RESOURCES ALLOCATED TO EVALUATION WERE ADEQUATE. SECONDLY, SINCE A SIGNIFICANT PORTION OF GRANT FUNDING IS PROPOSED FOR TECHNICAL ASSISTANCE, LOAN FINANCING OF THIS COMPONENT SHOULD BE CONSIDERED. MISSION SHOULD EXPLORE INCREASING GOH CONTRIBUTION FOR COMMODITIES, TEXTBOOKS, RADIO TIME, PARTICIPANT PER DIEM. PP SHOULD FINALIZE AND CLARIFY RATIONALE FOR INCLUDING FUNDING FOR ALL THESE COMPONENTS UNDER THIS PROGRAM, E.G., WOULD IT BE MORE APPROPRIATE TO INCLUDE MAJOR PORTIONS OF NUTRITION EDUCATION UNDER

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RURAL EDUCATION PROGRAM.

10. AGRICULTURAL RESEARCH: DAEC HAS RESERVATIONS ON APPROPRIATENESS OF RESEARCH ON SOY AND ITS INTRODUCTION INTO THE DIET. THERE IS A QUESTION ABOUT APPROPRIATENESS OF THE TECHNOLOGY AND ECONOMICS OF SOY PRODUCTION IN RELATION TO SMALL FARMERS, ESPECIALLY SINCE THIS LEGUME WOULD IN PART REPLACE BEANS IN THE CROPPING CYCLE. WHAT ADDITIONAL INVESTMENTS WOULD BE REQUIRED TO CONVERT RESEARCH AND DEVELOPMENT ACTIVITIES INTO OPERATIONAL PROGRAMS WITH DIRECT INCOME AND NUTRITION RESULTS? DISCUSSION SHOULD ADDRESS THE TECHNICAL, ECONOMIC, SOCIAL, NUTRITIONAL FEASIBILITY OF UNDERTAKING SUCH RESEARCH AND JUSTIFY APPROPRIATENESS OF FUNDING THE ACTIVITY UNDER THIS PROJECT RATHER THAN UNDER THE AGRICULTURAL PROGRAM. FOR SOY ESPECIALLY AND FOR SORGHUM ALSO, MENTION SHOULD

BE MADE HOW THE TARGET GROUP WILL BE ABLE TO USE THE INTRODUCED CROPS.

11. AQUACULTURE: CONCERN WAS EXPRESSED ABOUT THE BUDGETARY ADEQUACY FOR THIS ACTIVITY GIVEN THE COMPLEXITY OF SUCCESSFUL INTRODUCTION. PP SHOULD DISCUSS STATE OF THE ART IN HONDURAS FROM HISTORICAL PERSPECTIVE AND ANALYZE THE NUTRITIONAL OBJECTIVE AND INVESTMENT COST OF SUCH AN INTERVENTION.

12. COMMUNITY PROJECTS: DAEC EXPRESSED CONCERN THAT THE NATIONAL WELFARE AGENCY (JNBS) PROJECTS HAVE NOT BEEN EVALUATED, AND ALTHOUGH LIMITED FUNDING PRECLUDES A FULL-SCALE EVALUATION AT THIS TIME, THE MISSION SHOULD ATTEMPT AN INFORMAL EVALUATION. PP SHOULD DESCRIBE HOW THIS ACTIVITY WOULD BE INTEGRATED WITH CURRENT LOANS AND OTHER COMPONENTS OF THE PROPOSED LOAN AND WHAT PLANS HAVE BEEN ESTABLISHED FOR THE CONTROL OF FUNDS THAT THE JNBS WOULD DISBURSE.

13. TRAINING: CONSIDERABLE NUTRITION TRAINING IS PROPOSED FOR OFFICIALS AND TECHNICIANS IN THE MINISTRIES AND AGENCIES ASSOCIATED WITH SAPLAN. A TRAINING STRATEGY SHOULD BE DEVELOPED WHICH INCLUDES FOLLOW-UP EVALUATION TO ASSESS THE IMPACT AND EFFECTIVENESS OF SUCH TRAINING. KISSINGER

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MISSION RESPONSE TO DAEC ISSUES CABLE

1. Data Gaps

While certain data gaps exist, it is the considered opinion of the Mission that enough information is available to insure that the project addresses the proper needs in an efficient manner. Moreover, steps are to be taken in the project to make needed improvements in the data base (see, for example, II.B.3.).

2. Target Group Definition

This is discussed in Sections I, B and II, A, where it is defined both in terms of GOH programs and relative income status.

3. Priorities

In Section II. A of the PP the question of GOH nutrition strategy, initial focus and programs is discussed. The common thread in all these items is the rural poor target group.

4. GOH Commitment

The PP relates GOH strategy and programs to Project objectives in Section II.A.

5. SAPLAN Capability

SAPLAN capability and inter-sectoral coordination for nutrition policy making are discussed in Section II.B of the PP.

6. Environmental Sanitation

Section II.A discusses the question of improving environmental sanitation, looking at other donor and other GOH programs in this area.

7. Relationship to Nutrition Education

A rationale for funding under this Project verses Rural Education is given in Section III.A.

8. Suitability of the Soya Research Project

This is discussed in Sections II.B and III.A of the PP. The emphasis planned is soya for on-farm consumption.

9. Aquaculture

See Section II.B for brief discussion.

10. JNBS Community Projects

These are discussed in Section II.A as well as in Annex D,2.

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11. Training

Training strategy is developed in Section II.B of the PP.

Average Annual Monetary Income, Expenditure on Food, In-Kind Food Consumption, Total Income, Value of Food Consumption, and Consumption as a % of Income by Principal Cities, Regions and Zones, 1967-1968 ^{1/} (Lempiras per-capita)

City or Region, zone ^{4/}	Monetary Income	Expenditure on Food	Value of In-kind Food Consumption	Total Income	Value of Food Consumption	Consumption as % of Income	(Persons in Sample Group)
Distrito Central							
Urban	830	286	1	831	287	34.5	(1679)
Rural	199	133	15	214	148	69.2	(376)
Municipic of San Pedro Sula							
Urban	643	244	-	643	244	37.9	(957)
Rural	193	129	2	195	131	67.2	(361)
Region of San Pedro Sula ^{2/}							
Urban	521	201	8	529	209	39.5	(491)
Rural	109	70	20	129	90	69.8	(820)
Region of La Ceiba							
Urban	568	231	-	568	231	40.7	(134)
Rural	117	69	34	151	103	68.2	(496)
Region of Choluteca							
Urban	403	178	-	403	178	44.2	(97)
Rural	84	54	28	112	82	72.3	(1117)
Region of Sta. Rosa de Copan							
Urban	454	188	7	461	195	42.3	(200)
Rural	86	39	43	129	82	63.6	(983)
Region of Comayagua							
Urban	380	164	13	393	177	45.0	(299)
Rural	40	23	22	62	45	72.6	(743)
Region of Juticalpa							
Urban	279	136	29	308	165	53.6	(311)
Rural	119	43	74	193	117	60.6	(432)
Region of Danli							
Urban	539	182	10	549	192	35.0	(202)
Rural	253	76	29	282	105	37.2	(495)

^{1/} Special tabulations of Encuesta de Ingresos y Gastos 1967-1968, DGC&E & CONSUPLAN Plan de Accion, 1968-1972 Capitulo Regional (unpublished)

^{2/} Excludes Municipio of San Pedro Sula

^{3/} Based on market prices in place of consumption

^{4/} Regions are those of CONSUPLAN, 1968 Regionalization, no data available for Congolan and Gracias a Dios regions, generally considered to be the poorest regions in Honduras.

Note: Subsamples presented here are "chunk", i.e., not random for the areas under consideration; never-the-less they are quite widely dispersed, each region having sample points in at least 4-5 places, with sample points randomly selected in those places.

EVALUATION OF JNBS COMMUNITY PROJECTS

The Mission carried out an informal evaluation of JNBS operations during April, 1976. Following are key observations:

1. JNBS promoters are performing a good job in the fields of promoting and organizing the communities assigned to them.
2. JNBS provides agricultural inputs to those groups involved in agriculture production projects. The JNBS is reimbursed by the group when crops are sold
3. JNBS does not provide technical assistance to those groups involved in agriculture projects. TA is provided by MNR.
4. JNBS provides construction materials to communities involved in housing improvements, latrines, sewerage systems, potable water systems, wells and other projects undertaken by the community.
5. JNBS promoters make monthly visits to their assigned communities, and occasionally more often if required by communities served.
6. Quarterly evaluation meetings are held at regional headquarters of JNBS in order to determine achievement of goals during a given period. These meetings also give them an opportunity to take all necessary corrective measures to improve their system.
7. All activities undertaken by the communities or groups are supported with commodities donated to the JNBS by the WFP. Distribution of food is done on a weekly basis. The food is delivered to the head of the group and then in turn the food is distributed among the group members.

The JNBS budget for 1976 is for an amount of L.10.3 million, broken down as follows:

GOH Contribution	7.2
PANI "	0.1
Others "	3.2
	<hr/>
	10.3

The promotion section has 59 promoters working throughout the country, including 5 chiefs of regions and 5 nutritionists:

Zone 2	12	Promoters
Zone 3	13	"
Zone 4	10	"
Zone 5 & 6	16	"
Zone 7	8	"

59

Disbursements by JNBS are made under the "Reimbursable Fund System", i.e. JNBS allocated funds from the GOH General Treasury, and the JNBS transfers such funds to all its various regional offices in order to honor expenditures incurred and to make payments of salaries, travel expenses, per diem, etc. of its staff.

The Regional Offices submit all supporting documents to JNBS headquarters in order to obtain reimbursement for expenditures incurred.

It appears that the Junta is doing an acceptable job in the area visited. People interviewed have a good concept of the institution, and in some cases it was verified that JNBS is the only GOH institution supporting the community.

LIST OF COMMUNITIES VISITED DURING EVALUATION

<u>DATE OF VISIT</u>	<u>COMMUNITY</u>	<u>TYPE OF PROJECT</u>	<u>PROJECT STATUS</u>	<u># OF BENEFICIARIES</u>	<u>REMARKS</u>
4/20/76	El Tablon, Yamaranguila	School Construction	On going	87	10 Km of access. roads built, 1974- 1975
		Community house	Completed		
		Access Road	"		
		fish pond	"		
4/20/76	Quebrada de Laja, Yamaran- guila	Community house	On going	92	Ready for harvest- ing.
		Potatoes plantation	" "		
4/20/76	El Carrizal, Yamaranguila	Access Road	Completed	120	Ready for harvest- ing.
		Potatoes plan- tation.	On going		

<u>DATE OF VISIT</u>	<u>COMMUNITY</u>	<u>TYPE OF PROJECT</u>	<u>PROJECT STATUS</u>	<u># OF BENEFICIARIES</u>	<u>REMARKS</u>
4/22/76	Piñuelas, Ocotepeque	Potable Water System.	Completed	N/a	Inaugurated January 1975
		Access Road	Completed	N/a	3 Km. of Access road built in 1974.
		Latrines	On going	N/a	20 latrines will be constructed.
4/22/76	El Sunnete, Ocotepeque	School Improvement	Completed		
		Potable Water System.	On going	400	Water Spring 9 Km. away.
4/22/76	Santa Fe, Ocotepeque	School Construction.	Completed	N/a	Built with CAGE assistance.
4/22/76	San Rafael Ocotepeque	Water System	Completed	N/a	In service since January 1975.

<u>DATE OF VISIT</u>	<u>COMMUNITY</u>	<u>TYPE OF PROJECT</u>	<u>PROJECT STATUS</u>	<u># OF BENEFICIARIES</u>	<u>REMARKS</u>
4/22/76	La Antigua, Ocotepeque	Fish pond	Completed	n/a	No fish as of day of visit.
		Basket ball court	"		
		Child Feeding Center.	"	40	
4/22/76	La Hermita Antigua Ocotepeque	Onion Plantation	On going	190	Ready for harvesting.
4/22/76	Bado Ancho, Ocotepeque	Housing Improvement	On going	80	3 houses complete 3 more to go.
		Water well	On going	n/a	
4/22/76	Santa Anita, Ocotepeque	Sewing Shop	Completed		20 girls attending sewing sessions.
		Septic tank	Completed		
		Poultry farm	On going	74	under construction
		Child Feeding Center.	Completed	25	

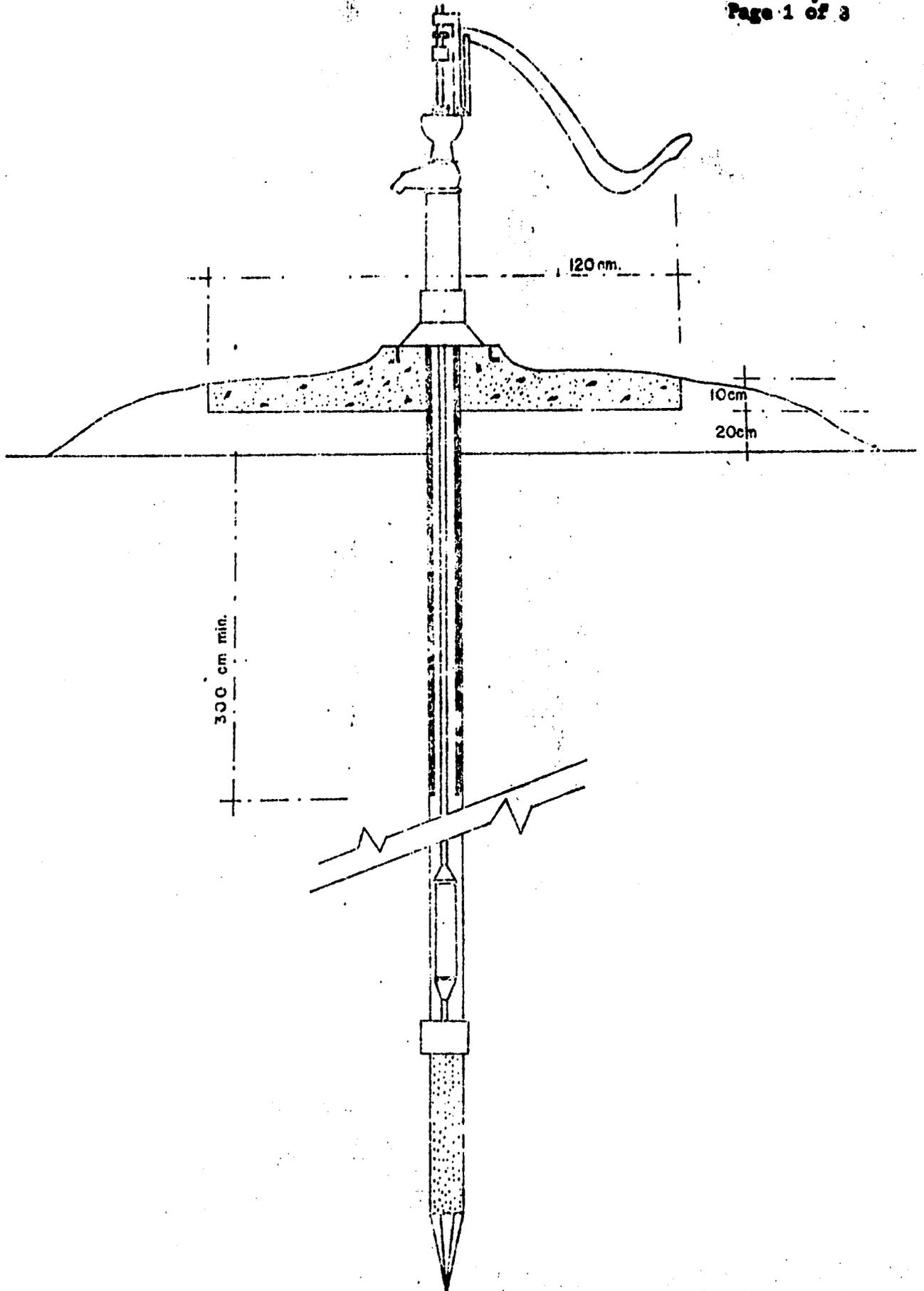
<u>DATE OF VISIT</u>	<u>COMMUNITY</u>	<u>TYPE OF PROJECT</u>	<u>PROJECT STATUS</u>	<u># OF BENEFICIARIES</u>	<u>REMARKS</u>
4/23/76	La Labor. Ocatepeque	Basket Ball court	Completed	n/a	
		Sewage System	Completed	✓	
		Poultry and hog Farm	Completed	✓	Not in operation
		Fish pond	Completed	✓	Not in operation
4/23/76	San Francisco del Valle	Basket ball court	Completed	✓	
		Sewage System	Completed	✓	
		Electric System	On going	✓	
4/23/76	Sensenti, Ocatepeque	School Lavatories	Completed	✓	
		School Construction	On going	✓	2 additional classrooms
		Sewage System	On going	✓	
4/23/76	Azacualpa, Sensenti	Repair of School furniture	Completed	✓	
		Access Road	Completed	✓	2 Kms. of access built 1975.
		Community House	Completed	✓	
		Bridge maintenance	On going	✓	

<u>DATE OF VISIT</u>	<u>COMMUNITY</u>	<u>TYPE OF PROJECT</u>	<u>PROJECT STATUS</u>	<u># OF BENEFICIARIES</u>	<u>REMARKS</u>
4/23/76	Lucerna, Ocatepeque	School Improvement	Completed		
		Sewage System	On going	468	
		Bridge Construction	Completed	468	2 hamacas bridges built.

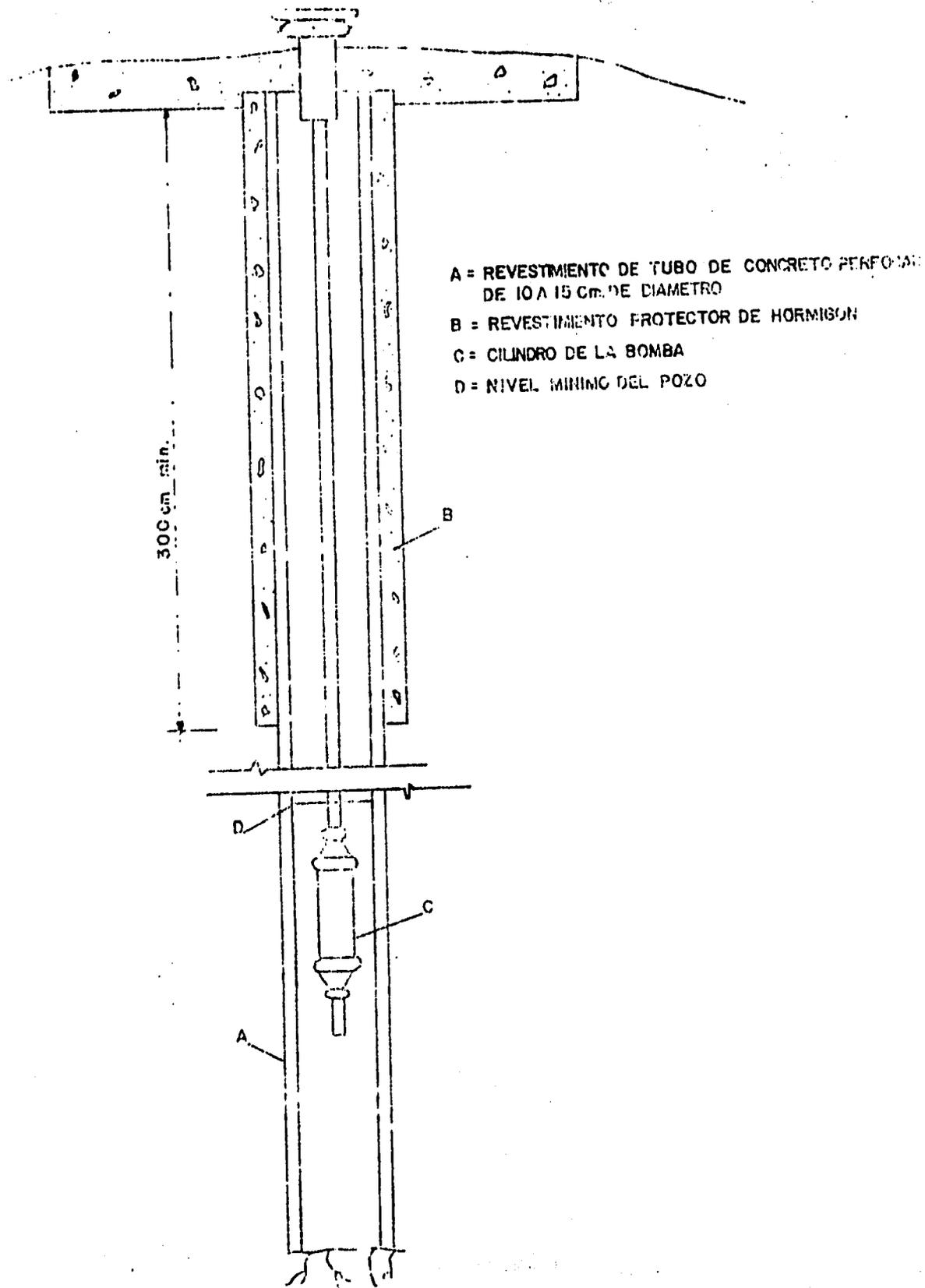
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TABLA PARA SUMINISTRAR LOS ALIMENTOS (5 Raciones Individuales)

DIAS TRABAJA- DOS.	HARINA DE TRIGO		CSM/MSB		ACEITE		TRIGO BULGOR	
	GRAMOS	LIBRAS Y ONZAS	GRAMOS	LIBRAS Y ONZAS	GRAMOS	LIBRAS Y ONZAS	GRAMOS	LIBRAS Y ONZAS
1 día	450	1 libra	400	14 onzas	150	5 onzas	1.200	2 libras 10 onzas
2 días	900	2 libras	800	1 libra 12 onzas	300	10 onzas	2.400	5 libras 4 onzas
3 días	1.350	3 libras	1.200	2 libras 10 onzas	450	1 libra	3.600	7 libras 14 onzas
4 días	1.800	4 libras	1.600	3 libras 9 onzas	600	1 libra 5 onzas	4.800	10 1/2 libras
5 días	2.250	5 libras	2.000	4 libras 7 onzas	750	1 libra 10 onzas	6.000	13 libras 2 onzas
6 días	2.700	6 libras	2.400	5 libras 5 onzas	900	2 libras	7.200	15 libras 12 onzas

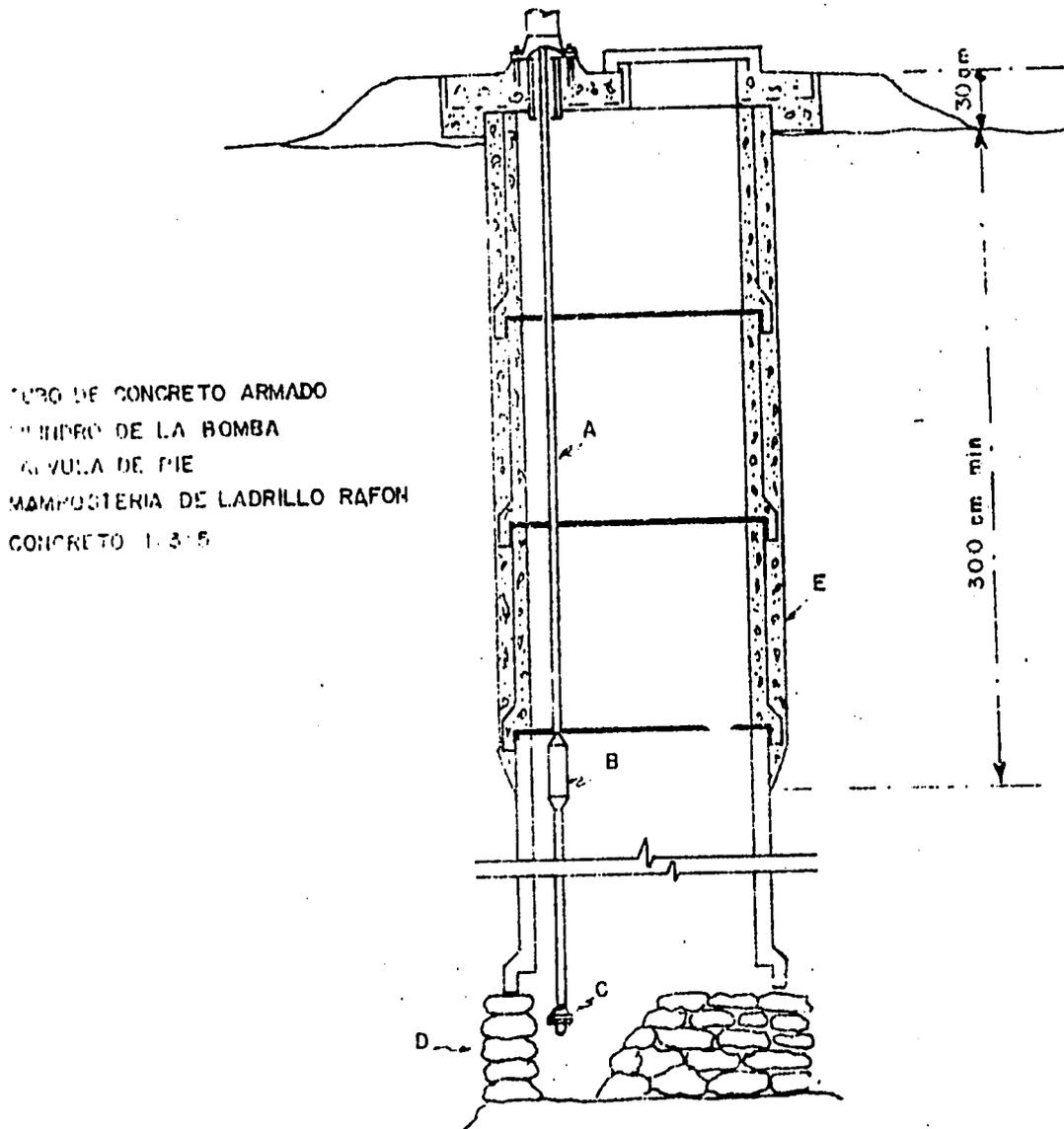


POZO HINCADO CON TUBO DE BAJADA HASTA EL CILINDRO Y



POZO TALADRADO A MANO CON ENVOLTURA DE PROTECCION Y

MINISTERIO DE SALUD PUBLICA
DIVISION DE SANEAMIENTO



POZO EXCAVADO A MANO Y REVESTIDO DE
HORMIGON O DE TEJAS

CRITERIA UTILIZED IN THE IDENTIFICATION OF COMMUNITIES WITH ACUTE NUTRITION PROBLEMS AND THEIR REALTION TO OTHER PROBLEMS

Based on the available information the assessment group identified a series of communities where the nutritional problem appeared to be most acute. The production, health and education in these communities were also analyzed in relation to the state of nutrition. Although the indicators utilized are general, the team believes that they constitute an adequate basis on which to justify a complete future analysis of those areas.

a) Identification of Communities with Greater Nutritional Problems

Considering that more than 60% of the deaths in the 1 to 4 year age group are associated with malnutrition, the proportion of deaths registered in this age group in relation to total deaths recorded was utilized as an indicator of the degree of the nutrition problem.

Based on a scale proposed by INCAP, the following criteria were established for determining low, medium and high rates of mortality among the 1 to 4 year age group.

<u>Deaths of 1 to 4 years old group</u> <u>As a % of Total Registered Deaths</u>	<u>Mortality</u>
Less than 10	Low
10 - 19	Medium
20 - 29	Higher
Over 29	Very high

Despite the arbitrary nature of this scale, the team believes that the extreme vulnerability of this age group makes the mortality rate a useful indicator of the communities where the nutritional problem is more acute.

By applying the above criteria, 105 communities were identified where the death rate among the 1 to 4 year age group was higher than 20% in relation to the total registered deaths, and where consequently the malnutrition problem is probably more acute than in the rest of the country.

The level of health, education and agricultural production in these communities was analyzed according to the indicators described below.

b) Access to Health Services

Information is not available on the population and communities which, given the communication system, have access to health services. As the use of the services depends on their accessibility, it is not possible to determine

the exact coverage of the health outreach services.

Consequently, the assessment group considered only the presence or absence of a health center in the community as an indicator level of health services. Obviously, the sole presence of the center does not guarantee adequate service or better health; however, it was considered as a factor which contributes to reducing the length of illness and thus improving the biological use of food consumed.

c) Educational Level

The proportion of school age children enrolled in elementary school was considered deficient when less than 50% were enrolled.

d) Production Level

It was impossible to analyze the factors affecting food production on a regional basis, as the only available data is not disaggregated.

In order to relate food production to nutrition, the production of corn and beans at a community level was compared to the consumption needs of the population. Due to their importance in the daily diet of Hondurans, only corn and beans were considered. The following criteria were used in classifying the production level in relation to the food needs.

Annual Production Per Capita

Production Level

Corn:

Less than 1.90 quintals
From 1.90 to 2.10 quintals
Higher than 2.10 quintals

Inadequate
Adequate
Surplus

Beans:

Less than 0.50 quintals
From .50 to .60 quintals
Higher than .60 quintals

Inadequate
Adequate
Surplus

These indicators are very general as exports, imports and losses at the municipal level were not taken into consideration. It is considered that the indicators reflect the degree to which production affects food availability at the municipal level, thus also affecting consumption.

Obviously a more detailed analysis would require the revision of all food production causal factors in these municipalities.

e) Relationships Found Between Nutritional Problems and Health Education and Production Levels

TABLE No. 1
MUNICIPALITIES WITH MAJOR NUTRITIONAL PROBLEM AND ITS RELATIONSHIP WITH DEFICIENCIES IN THE LEVELS OF HEALTH, EDUCATION AND PRODUCTION

Departments (No. of Municipalities in the Department)	No. of Municipalities with major nutritional problems.	Municipalities related with deficiencies in levels of health (H), Education (E), Production (P)							
		HEP	HE	HP	EP	H	E	P	OTHERS
Francisco Morazán (27)	9	0	0	0	2	0	0	4	3
Atlántida (7)	1	0	0	0	0	0	0	0	1
Colón (9)	3	0	0	0	0	0	0	2	1
Comayagua (19)	10	0	0	0	0	2	1	5	2
Copán (23)	5	0	0	0	0	3	0	2	0
Cortés (11)	4	0	0	0	1	0	0	2	1
Choluteca (16)	4	0	0	0	0	0	0	3	1
El Paraíso (18)	9	0	0	0	0	2	0	1	6
Intibucá (16)	9	0	1	0	4	1	0	3	0
La Paz (19)	10	0	0	1	7	0	0	2	0
Lempira (27)	15	5	1	1	3	0	0	5	0
Ocotepeque (16)	5	1	0	1	0	0	0	3	0
Olancho (22)	6	1	0	0	1	0	0	0	4
Santa Bárbara (26)	12	1	2	4	1	0	1	3	0
Yoro (11)	3	0	0	0	0	0	0	3	0
	105	8	4	7	19	8	2	38	19

In the 105 communities identified as having the most acute nutrition problem, 27 of them also had no health services, 33 had a low level of education and 72 showed deficiencies in food production.

These relationships are shown in Table No. 1. In 8 communities having acute nutrition problems, deficiencies in all of the other indicators - health, education and production - were noted. Five of these communities are in the Department of Lempira. While the baseline information does not permit a stronger conclusion, the team believes that this area should be given priority for a more detailed analysis.

Joint deficiencies in Education and Production were found related to acute malnutrition in 19 communities, the majority of which are in the Departments of La Paz and Intibucá.

On the other hand, deficient food production seems to accompany acute nutritional problems in a more general way, unrelated to the other deficiencies. In 38 communities this was the only deficiency noted.

In 19 of the 105 communities no relationship was found between acute nutrition problems and deficiencies in health, education and production. In those areas other factors are probably related to the nutrition problems.

As mentioned before, the indicators utilized here are very general, and only reflect how other negative or unfavorable conditions are present or associated with acute nutritional problems.

The definition of specific interventions for these communities will need a more complete survey and analysis of the communities, which is expected to be the subject of a future investigation. Nevertheless, with the information contained in this report a first selection can be made of the areas or communities that should be the subjects of that survey.

LOCATION BY SANITARY DISTRICT AND SCHEDULE BY YEAR FOR RURAL HEALTH CENTER OPENINGS

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YEAR	REGION 1	REGION 2	REGION 3	REGION 4	REGION 5	REGION 6	REGION 7
1976	El Terrero El Escanito San Miguel Jalaca Suyatal El Ocotal San Antonio	La Concepción Lajas San José de Potrero Agua Dulcita Guarajao	El Nispero San Nicolás Atima San Francisco Ojuera Nuevo Celilac Concepción del Sur Seguaca San Isidro	Barancaray Las Uvas Agua Fria San Marcos La Laguna	Concepción Ocotepeque San Fernando Dolores Lucerna San Fc. del Valle Tixila La Sierra Belén El Chile Potrerillos	Yaruca Sambo Creek Rio Estaban Descombros Estelina Sabana de Ilanga Bonito Oriental	El Busio El Bijao Plan de Turcios Punare Zopilotepe San Pedro Catacamas Patate Rio Tinto
1977	Río Dulce= Palacios La Ciénaga Palenquel Ojo de Agua Alauca Villa Santa El Zapotal	Santo Domingo Yamaranguila Chiligatoro Azacualpa Yarula	Azacualpa Callejones San Marcos San Fco. Los Valles San Antonio Majada La Habana Subirana	Reitoca La Guaruma San Benito El Aguacatal Macuelizo	Nueva Armenia Cabañas El Triunfo El Pastoreadero Protección San Jerónimo San Antonio Copán Trinidad Belén San Andres Minas Veracruz	Col. de Agua Puerto Castilla Los Leones Zamora San Lorenzo Juncal Santa Barbara San Jose La Unión El Porvenir	Bacadiá Pueblo Nuevo El Rosario Chindona La Venta Guarizma Concepción Gussyape San Antonio Conguire
1978	Las Animas El Olingo Quebrada Arena Cifuentes Los Balcones Oropoli	El Sauce Palo Pintado Agua Salada Montañuela	Santa Marta El Llano Yojoa La Tras Cerro Kele Kele Calau Nueva Esperanza	Matapalo Arriba Matapalo Abajo El Conchal San Antonio Flores	San Agustín Concepción Talgua Sensenti Las Flores San Jorge San Juan Opoa Cucuyagua San Manuel San Sebastián La Encarnación Mercedes	San Juan Benque Marenjal Mesape de León Ceibita Santa María	Silca Sta. Ma. del Real Pisijiro Manguilil La Unión Yocón Jane Gusjiniquil Gualaco
1979	La Cebadilla El Crile San Ignacio Cauguira Yahurabilla Tancin Manpusirbe Hauca	Chinacía Flores Los Planes	Tomalá Tepeaca Ocote Paulino Ecaque Casa Quemada San Vicente La Unión	San Isidro Lauterique	Tomalá Virginia Gualeonce San Francisco San Juan El Paraíso Chalmec Dulce M. bre San Pedro La Unión	San Juan Oak Ridge Utila Santa Fé Iricoa	Jutiquila Guaocca

REGION SANITARIA N° 1

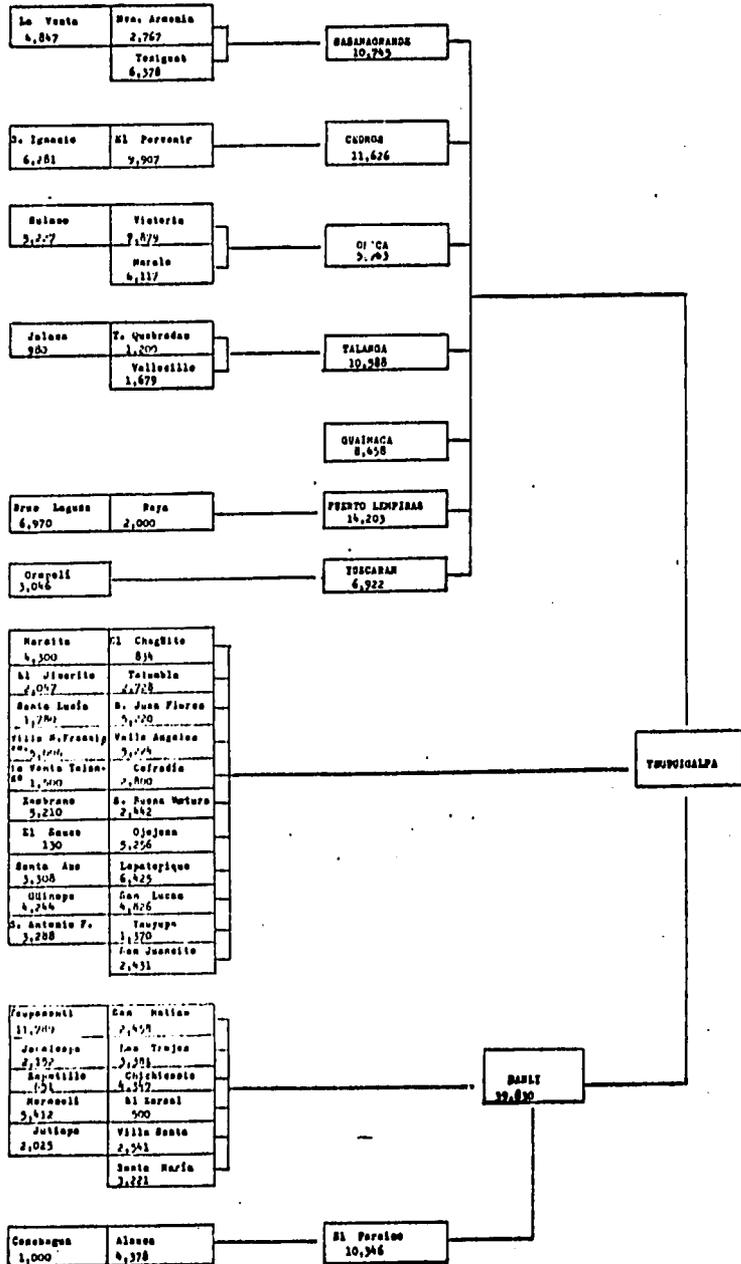
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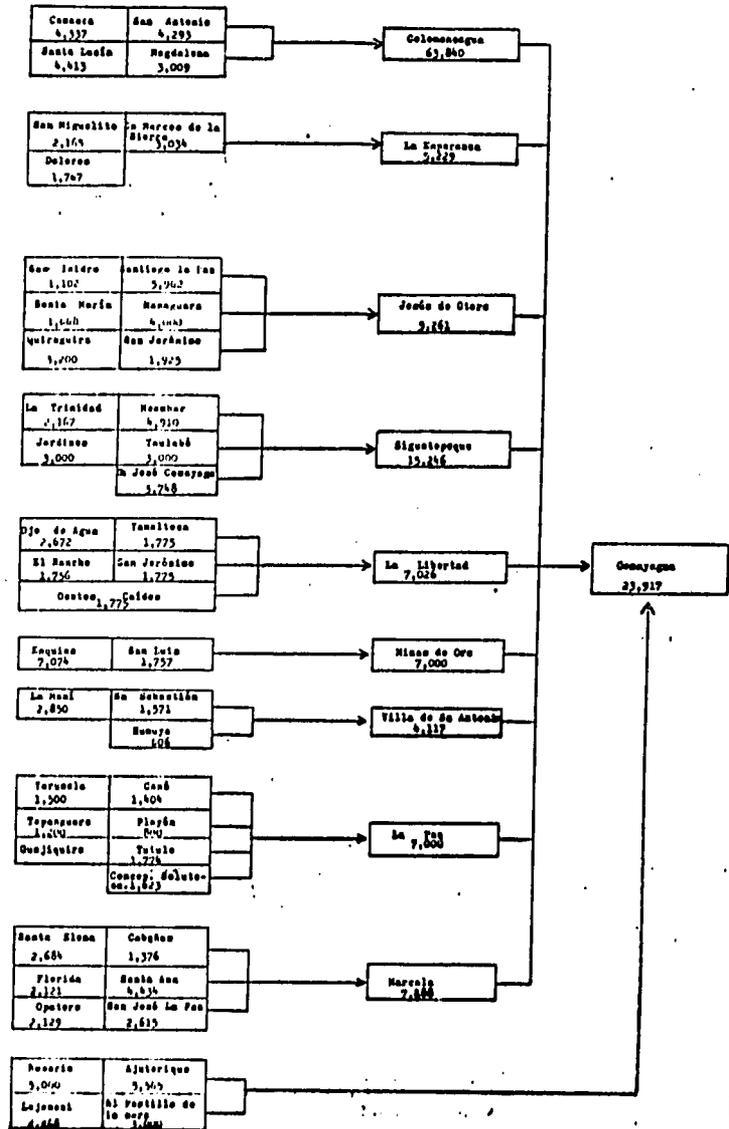
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1976**

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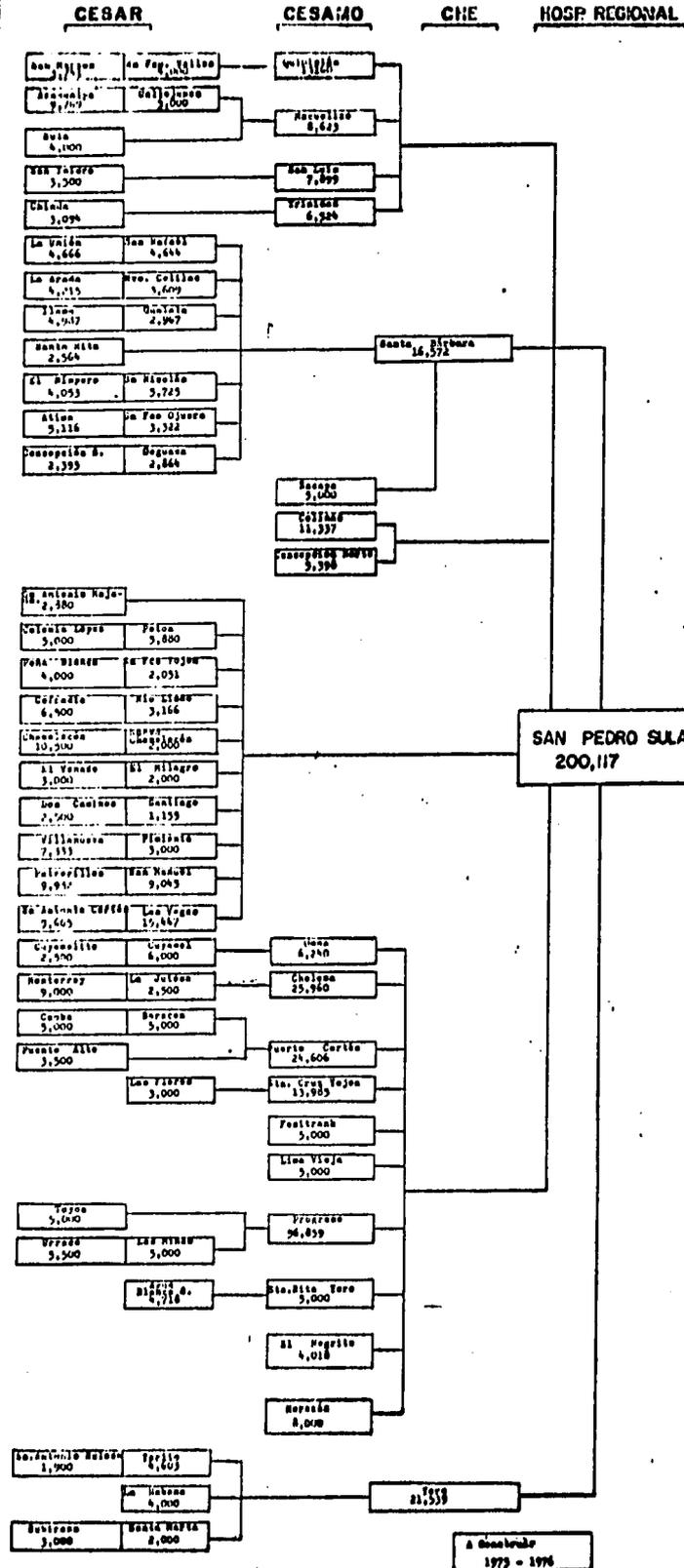
SISTEMA DE LOS SERVICIOS DE SALUD
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SISTEMA DE LOS SERVICIOS DE
SALUD
1976



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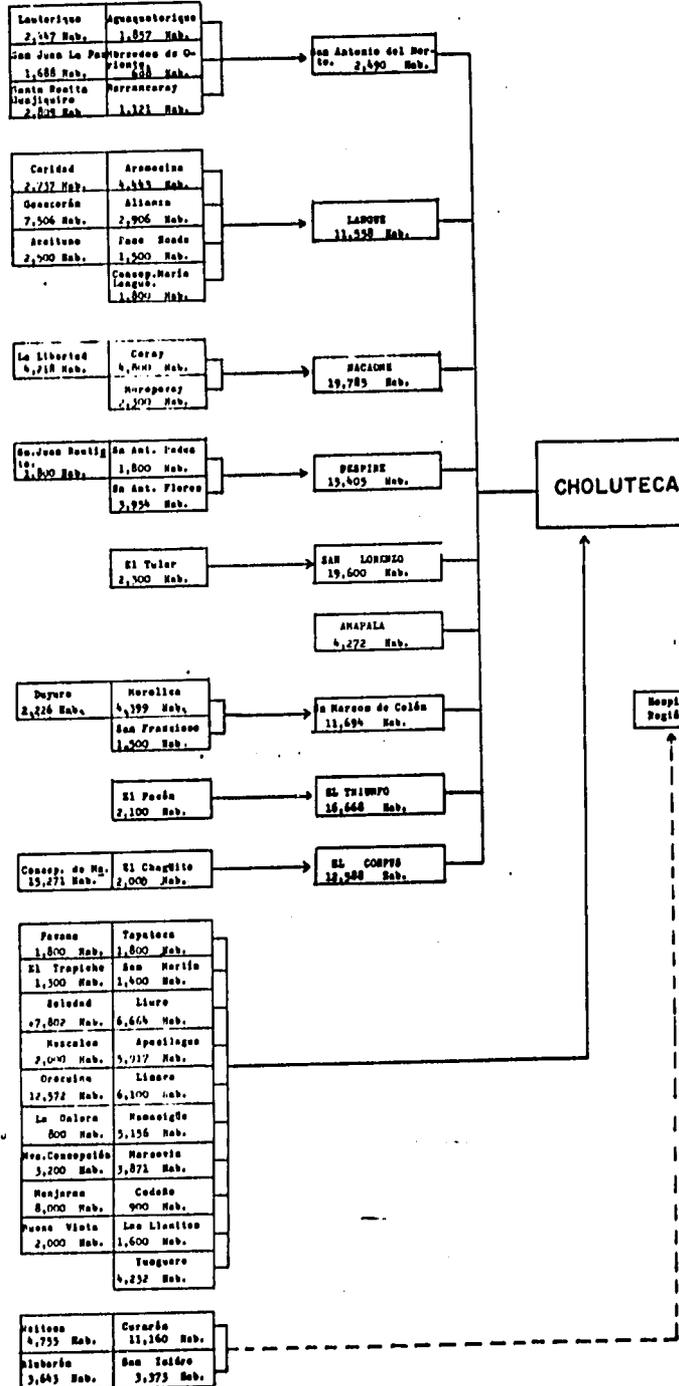
SISTEMA DE LOS SERVICIOS DE SALUD 1976

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CESAR

CESAMO

HOSP REGIONAL



REGION SANITARIA N° 7

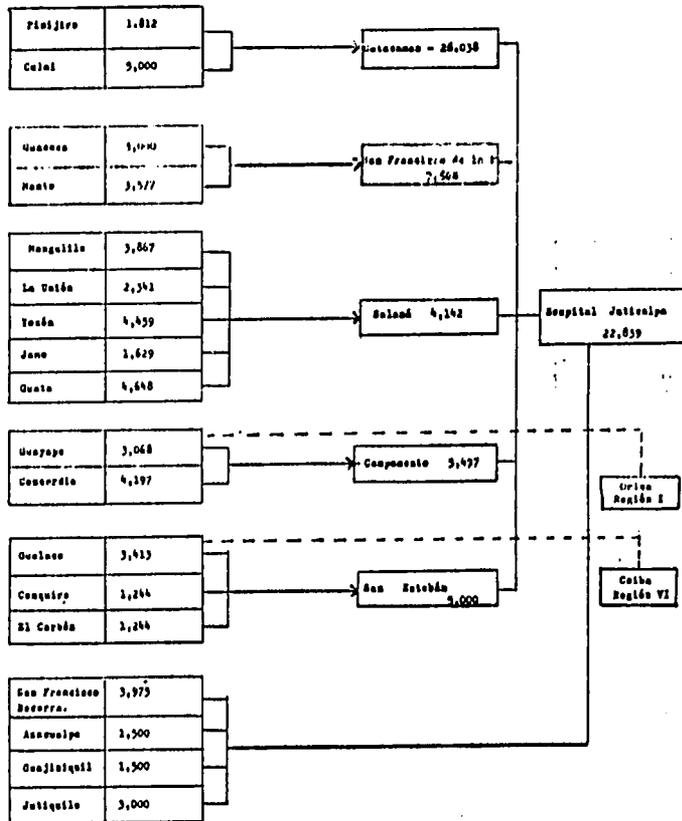
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SISTEMA DE LOS SERVICIOS DE
SALUD
1976

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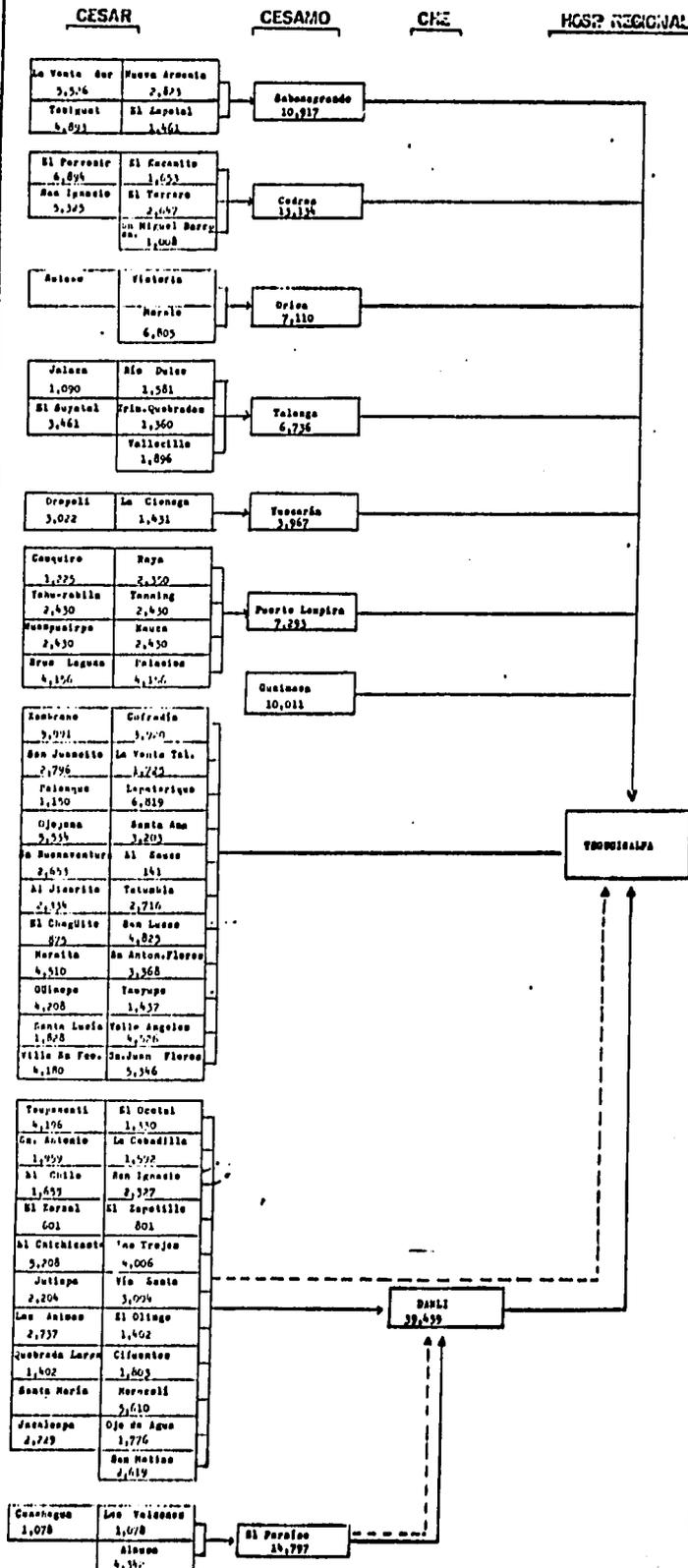
CESAMO

HOSP REGIONAL



Arizono

SISTEMA DE LOS SERVICIOS DE SALUD 1980



REGION SANITARIA N° 2

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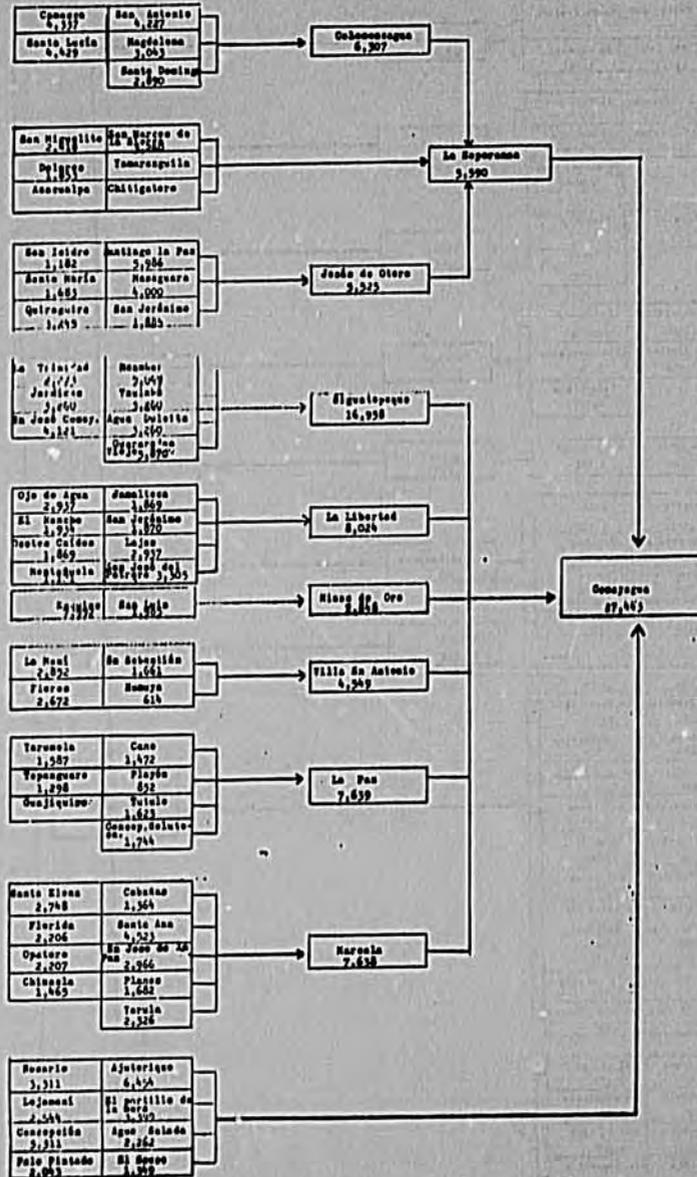
SISTEMA DE LOS SERVICIOS DE
SALUD
1980

CESAR

CESAMO

CHE

HOOR REGIONAL



REGION SANITARIA N° 3

SISTEMA DE LOS SERVICIOS DE SALUD 1980

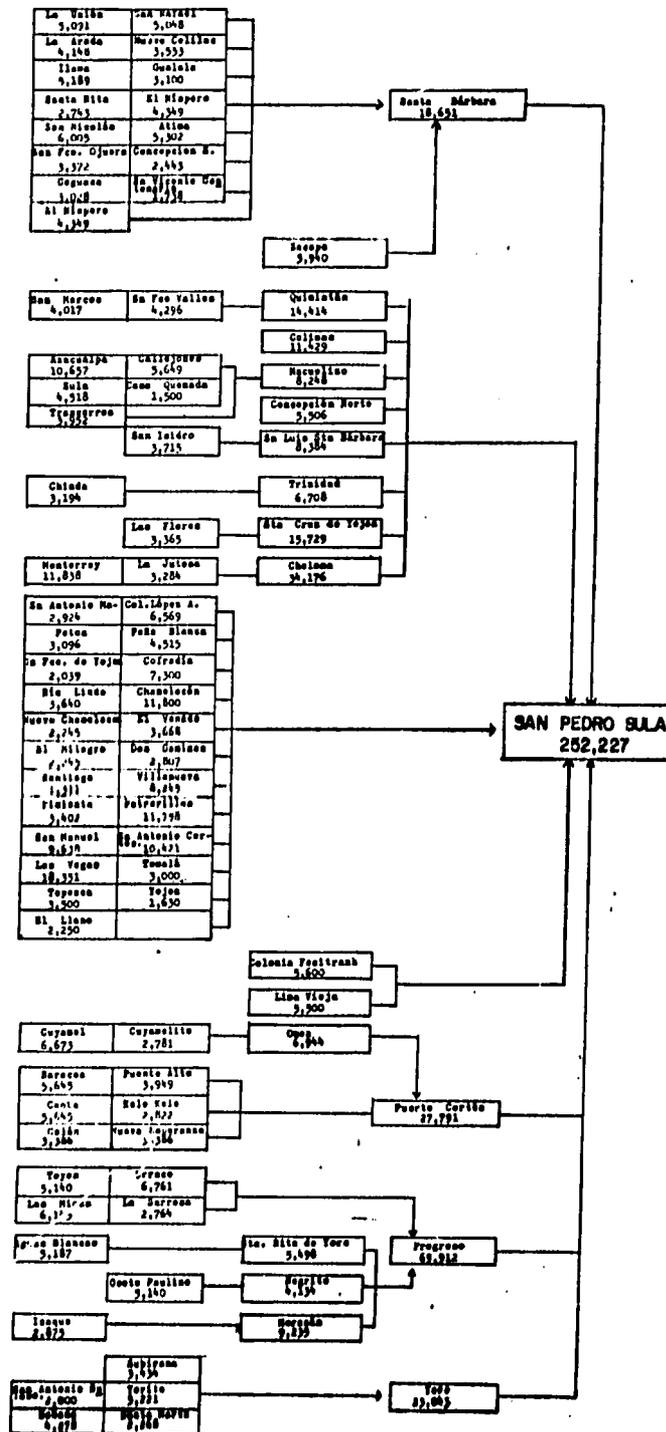
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CESAR

CESAMO

CHE

HOSP REGIONAL

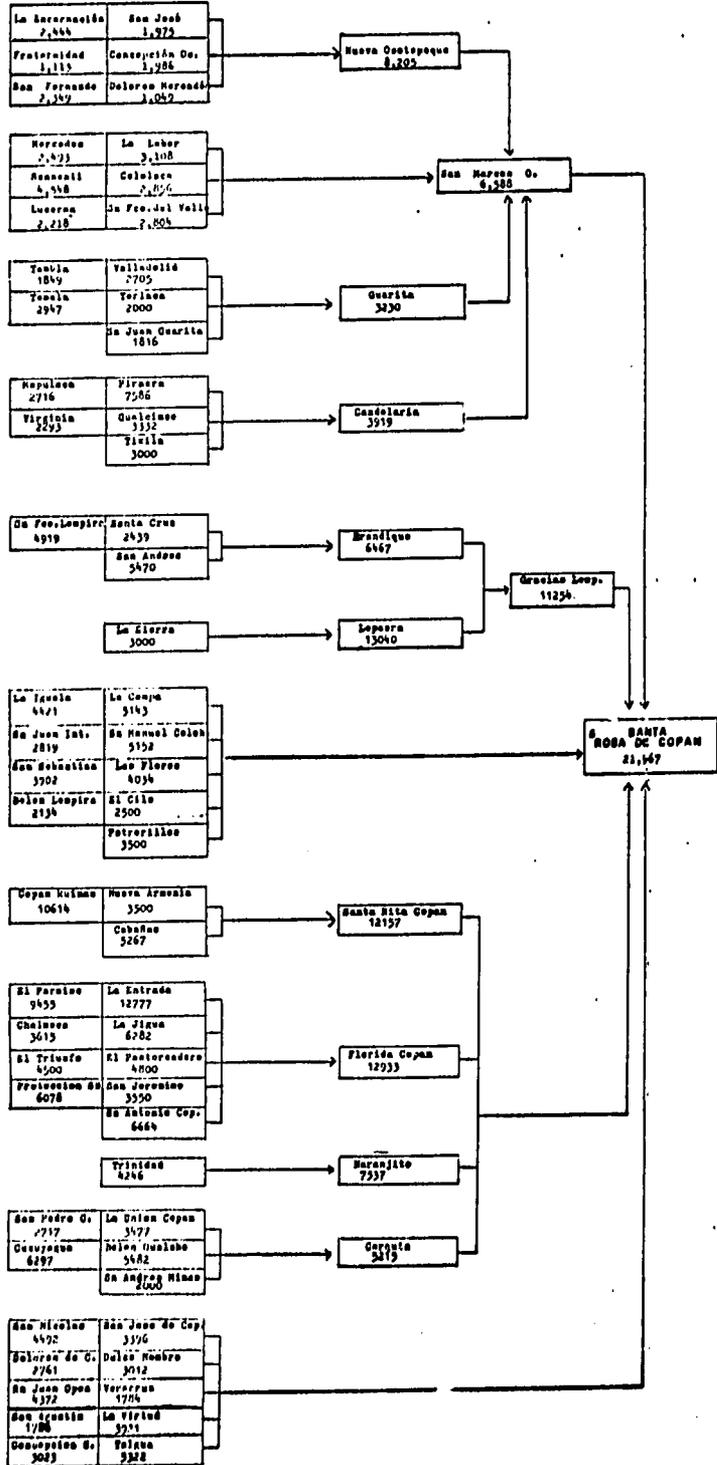


SISTEMA DE LOS SERVICIOS DE
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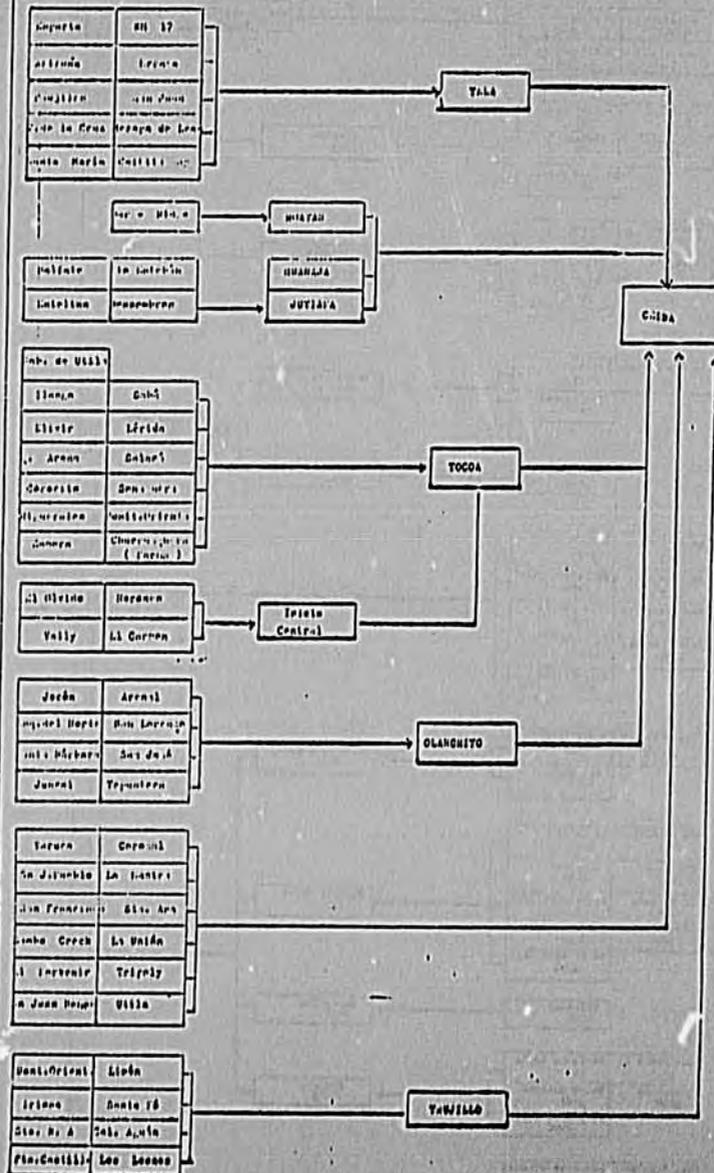
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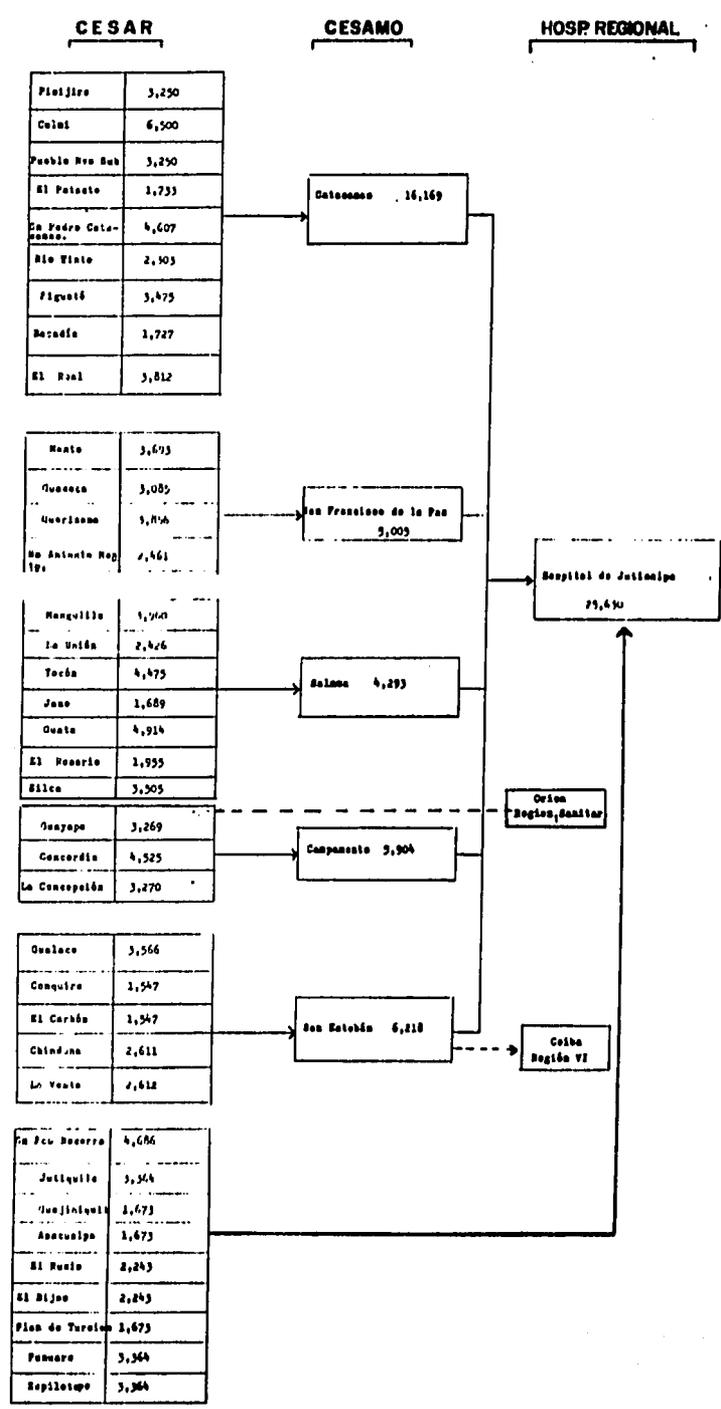
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REGION SANITARIA N° 7

SISTEMA DE LOS SERVICIOS DE SALUD 1980

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Planjira	3,250
Ceint	6,500
Pueblo Pro Sur	3,250
El Patoate	1,733
La Pedro Cota-mano	4,607
Rio Vinto	2,303
Figueté	3,475
Becafia	1,727
El Real	3,812

Nanto	3,673
Guaceta	3,085
Uverlana	3,456
San Antonio Reg-ipe	2,461

Manguillo	1,900
La Unión	2,426
Torda	4,475
Jana	1,689
Quata	4,914
El Rosario	1,955
Blica	3,505

Taraypa	3,269
Concordia	4,525
La Concepción	3,270

Ovalaco	3,566
Conquire	1,547
El Carúo	1,547
Chindana	2,611
La Venta	2,612

La Pca. Borrero	4,686
Juitunipe	3,364
Juitunipe	1,673
Antunipe	1,673
El Rueto	2,243
El Rijo	2,243
Plan de Turcio	1,673
Panare	3,364
Epilotepe	3,364

Catacama 16,169

San Francisco de la Paz 3,005

Salama 4,293

Campanero 3,904

San Estebán 6,218

Hospital de Juitunipe 75,450

Orion Region Sanitar

Coliba Region VI

NUTRITION BUDGET

	GRANT	LOAN	COUNTERPART
I. Planning and Analysis			
A. SAPLAN			
1. Salaries	\$25,300		\$203,700
2. Vehicles			
a. Purchase (2)		16,000	
b. Maintenance			9,000
c. Gds and Oil			12,000
3. Office			
a. Rent			14,400
b. Equipment	1,600		1,600
c. Furniture			3,900
d. Supplies			9,000
4. Travel	3,100		13,400
Sub-total	\$30,000	\$16,000	\$267,000
B. Project Advisor (36 mm)	<u>120,000</u>		
Sub-total	120,000		
C. Income, Expenditures and Consumption Survey			
1. Survey Form Design (3 mm)	15,000		
2. Project Director (18 mm) x 2,500	23,000		
3. Computer Programmer (6 mm)	6,000		
4. Interviewers and Supervisors (300 mm)	43,000		
5. Travel	30,000		
6. Commodities	8,000		
7. Computer Time			40,000
8. Support Salaries			63,000
9. Maps Updating			18,000
10. Pretesting			8,000
11. Printing Costs			6,000
12. Selection and Training			3,500

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	GRANT	LOAN	COUNTERPART
13. Office supplies			\$10,000
Sub-total	\$125,000		\$148,500
 D. Monitoring System			
1. Technical Assistance			
a. Design and Application (5 mm)	7,000		
b. Computer Programmer (6 mm)	6,000		
c. Project Director (24 mm)			96,000
2. Commodities	7,000		
3. Equipment			52,000
4. Computer Time			20,000
5. Travel			5,000
6. Vehicles			
a. Purchase (1)			8,000
b. Maintenance			4,500
c. Gas and oil			6,000
7. Analysts (5)			40,000
8. Training	20,000		
9. Testing of Data			10,000
Sub-total	40,000		241,500
 E. Utilization of Ag. Byproducts			
1. Food technology specialists (6 mm)	30,000		
2. Counterpart personnel			7,000
Sub-total	30,000		7,000
 F. Evaluation - Technical Assistance			
1. Donated Foods (1 mm)	3,000		
2. Water	35,000		
3. Project	25,000		
Sub-total	63,000	16,000	
Sub-total Analysis and Planning	424,000		664,000
Contingencies	16,000		
Inflation	42,000		66,000
	\$66,000	16,000	730,000

	GRANT	LOAN	COUNTERPART
II. Nutrition Education			
A. Graphic Arts			
1. Equipment		65,000	
2. Training (12 mm)		8,000	
3. Printing materials		13,000	
4. Salaries			8,400
Sub-Total		86,000	8,400
B. Design and Production of Text Materials			
1. Technical Assistance in design (6 mm)		7,200	
2. Counterpart Salaries of MOE and MOH			10,000
Sub-Total		7,200	10,000
C. Training in Nutrition Planning (Illustrative list)			
1. 2 one yr. scholarships to MIT		16,800	15,200
2. 3 three month MIT courses		21,000	8,600
3. 7 one month courses at INCAP		12,000	5,600
4. 7 INCAE Planning and Management Seminars		28,000	
5. 18 month training (Caracas)		11,000	8,200
Sub-Total		88,800	37,600
D. Technician Training (6 mm)			
1. Course materials	1,800		
2. Teaching aids	2,100		
3. Instructors Fees	20,300		
4. Travel	28,800		
5. Salaries			60,000
Sub-Total	53,000		60,000
E. Inservice Training			
1. Course materials	1,600		
2. Teaching aids	2,500		

	GRANT	LOAN	COUNTERPART
3. Travel	24,000		
4. Salaries			<u>14,000</u>
Sub-Total	<u>28,100</u>		14,000
F. Radio Messages			
1. Technical Assistance in Design and (4 mm)	18,000		
2. Radio time	<u>50,000</u>		<u>25,000</u>
Sub-Total	68,000		25,000
Sub-Total Education	149,000	182,000	155,000
Inflation	<u>14,900</u>	<u>18,000</u>	<u>15,000</u>
Total	164,000	200,000	170,000
III. Environmental Sanitation			
A. Well construction		1,135,000	
B. Latrine construction		300,000	
C. Maintenance training	18,000		
D. Supervision		65,000	
E. Community inputs			<u>455,000</u>
Sub-Total Environmental Sanitation	18,000	1,500,000	455,000
Inflation	<u>2,000</u>	<u>150,000</u>	<u>45,000</u>
Total	20,000	1,650,000	500,000
IV. Pilot Projects			
A. Sorghum			
1. Salaries		79,700	34,600
2. Production inputs		25,000	
3. Equipment		68,000	
4. Vehicles		14,000	
5. Training		5,300	
6. Fuel and maintenance			7,800
7. Operational Costs			14,800
8. Technical assistance		25,000	
9. Community Counterpart (labor)			80,000

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	GRANT	LOAN	COUNTERPART
10. Subsidies		<u>8,600</u>	
Sub-Total		225,600	<u>137,200</u>
B. Soya Development			
1. Development			
a. Salaries		53,400	60,800
b. Production inputs		43,200	
c. Equipment		31,700	
d. Vehicle		14,000	5,500
e. Training		5,300	
f. Technical assistance		31,800	31,800
g. Fuel and maintenance		6,800	5,600
h. Operating costs		10,700	12,200
i. Economic analysis		13,000	
2. Marketing			
a. Salaries		58,900	14,400
b. Equipment		6,000	
c. Storage		41,200	
d. Vehicle		15,000	7,500
e. Fuel and maintenance		8,100	4,100
f. Training		5,200	
g. Technical assistance		6,000	
h. Operating costs		11,800	2,900
i. Evaluation		7,500	
j. Feasibility study		<u>19,000</u>	
Sub-Total		388,600	<u>144,800</u>
C. Aquaculture			
1. Technical assistance			
a. Long-term (24 mm)		96,000	
b. Short-term (12 mm)		56,000	
c. Equipment		115,000	
d. Vehicles			
Purchase (4)		32,000	
Maintenance			18,000
Gas and oil			<u>24,000</u>
2. Training			
a. Academic training (24 mm)		15,600	
b. Short-term (24 mm)		<u>25,600</u>	
Sub-Total		340,200	<u>42,000</u>

	<u>GRANT</u>	<u>LOAN</u>	<u>COUNTERPART</u>
D. Community Food Projects		<u>546,000</u>	<u>40,000</u>
Sub-Total Pilot Projects		1,500,400	364,000
Inflation		<u>133,600</u>	<u>36,000</u>
		1,649,400	400,000
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	650,000	3,500,000	1,800,000
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B I B L I O G R A P H Y

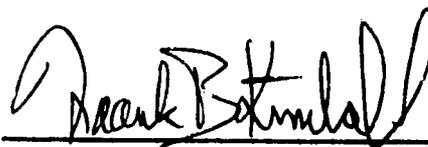
1. Bastiaan Schouten, "Final Report A-10-522-T-287", Multi-Sector Division, USAID Honduras, June 1975.
2. Consejo Nacional de Planificación Económica, Evaluación de las Areas Prioritarias del Problema Nutricional de Honduras y sus Posibles Soluciones, (in two volumes), Tegucigalpa, November 1975.
3. _____, Encuesta de Ingresos y Gastos Familiares, 1967-68.
4. Secretaría de Economía. Dirección General de Estadística y Censos, Encuesta Demográfica Nacional de Honduras (EDENH), 1970-1972.
5. _____, Censo Nacional de Población y Vivienda, 1974.
6. Marina Flores, María Teresa Menchú, Marta Yolanda Lara y Moisés Béhar, Dieta Adecuada de Costo Mínimo para la República de Honduras, INCAP, 1970 (revised 1975).

CERTIFICATION PURSUANT TO SECTION 611
(e) OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, Frank B. Kimball, the principal officer of the Agency for International Development in Honduras, having taken into account, among other things, the maintenance and utilization of projects in Honduras previously financed or assisted by the United States, do hereby certify that in my judgement, the Government of Honduras has both the financial and human resource capabilities to effectively maintain and utilize the Capital Assistance Project entitled Honduras - Nutrition.

This judgement is based upon:

1. GOH recognition of the magnitude of the nutrition problem and the importance of coordinated multi-sectoral efforts to deal with it, and upon the GOH commitment to take the necessary steps to confront the problem.
2. Honduran knowledge of and experience in the types of activities to be included in the Project.



Frank B. Kimball
Mission Director

May 20, 1976
Date



SECRETARIA DE HACIENDA Y CREDITO PUBLICO

REPUBLICA DE HONDURAS

Tegucigalpa, D. C. 7 de mayo de 1976

Nº CP-0337

Señor Frank B. Kimball
Director Agencia para el
Desarrollo Internacional
Presente.

Estimado Señor Kimball:

El problema nutricional de nuestra población, ha constituido una preocupación constante para el Gobierno de Honduras; con el objeto de buscar las soluciones más adecuadas a este problema de tan graves consecuencias, recientemente el Gobierno ha elaborado un diagnóstico detallado acerca del estado nutricional del pueblo hondureño; el susodicho diagnóstico, que es del conocimiento de la A.I.D., señala las pautas para empezar a mejorar esta situación.- Entendemos que para la realización del mejoramiento deseado, habrá primeramente que asegurar ingresos suficientes para que la población hondureña cuente con los medios para alimentarse en forma adecuada.

Muchos de los esfuerzos programados y realizados conforme al Plan Nacional de Desarrollo vigente, están orientados hacia el mejoramiento del nivel de ingresos de nuestros conciudadanos, especialmente de aquellos que viven en las áreas rurales.

Aún mejorando el nivel de ingresos, existen otros factores que influyen mucho en el estado nutricional de nuestro pueblo; entre estos factores están los siguientes:

- 1) La existencia de un ambiente hogareño higiénico ..
- 2) La mayor producción y consumo de alimentos de alto valor nutritivo.
- 3) La introducción de nuevos alimentos de alto nivel nutritivo en la dieta diaria de nuestra población.
- 4) La educación nutricional tanto para niños de edad escolar como para sus padres y familiares.

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- 5) El desarrollo de datos básicos sobre nutrición y el establecimiento de un sistema de análisis y planificación de los mismos y de otros que fueron identificados en el diagnóstico mencionado.

Existe al mismo tiempo la necesidad de analizar más detalladamente el efecto de todos estos factores, identificar y programar nuevos métodos para mejorar la nutrición y evaluar el progreso obtenido a efecto de expandir los programas que tiendan a mejorar la nutrición de manera más efectiva y a un menor costo.

De acuerdo con nuestras consideraciones, tanto a nivel técnico como a nivel político, el Gobierno, desea iniciar un Programa cuyo fin primordial sea el mejoramiento del nivel nutricional del pueblo hondureño, con énfasis específico en la niñez desde su edad lactante, hasta una edad de cinco años y en madres en estado de gravidéz.

Los propósitos del programa son los siguientes:

- 1.- Establecer un sistema de análisis y planificación en Nutrición (SAPLAN) a fin de analizar, planificar y evaluar el mejoramiento de la nutrición de nuestra población.
- 2.- Mejorar la dieta y las condiciones sanitarias de la población rural.
- 3.- Ensayar nuevos métodos para mejorar el nivel nutricional de la población rural e identificar los más efectivos y de menor costo.

El programa incluye la ejecución de cuatro actividades que se detallan a continuación con sus respectivos costos estimados muy preliminarmente y las fuentes de financiamiento propuestas:

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(Costos Estimados en Miles de Dólares)

	<u>Financiamiento A.I.D.</u>			
	<u>Donación</u>	<u>Préstamo</u>	<u>Gobierno</u>	<u>T o t a l</u>
1.- Análisis y Planificación	\$ 466	\$	\$ 730	\$ 1.196
2.- Saneamiento Ambiental	" 20	" 1.650	" 500	" 2.170
3.- Educación sobre Nutrición	" 164	" 200	" 170	" 534
4.- Proyecto Piloto		" 1.650	" 400	" 2.050
T O T A L	\$ 650	\$ 3,500	\$1,800	\$ 5,950

Tenemos entendido que los detalles del Programa todavía están siendo estudiados por la A.I.D. y por el personal técnico del Gobierno. Por lo tanto, los costos anotados están sujetos a modificaciones durante la presentación de nuestra Solicitud formal a las Oficinas de la A.I.D. en Washington y en las negociaciones de los Convenios de Donación y Préstamo.

El Gobierno de Honduras interesado en llevar a cabo el Programa antes descrito, muy atentamente solicita por este medio la asistencia financiera de la Agencia para el Desarrollo Internacional hasta por la cantidad de - - \$ 4.150.000 de los cuales \$ 3.500.000 serán en forma de préstamo y la cantidad restante en forma de Donación.- El Gobierno está experimentando presiones extremadamente fuertes por su presupuesto limitado, debido lo anterior, en gran parte a nuestros esfuerzos para atender las múltiples necesidades de la población rural para recuperarse de los efectos del Huracán Fifi.- Estos esfuerzos favorecen en gran parte al pequeño agricultor del área rural.- Por las razones antes expuestas, solicitamos que el Préstamo sea otorgado en los términos y condiciones más favorables.- Tenemos entendido, que el Préstamo se pagaría en un plazo de cuarenta años, con un tipo de interés del dos por ciento durante los primeros diez años (período de gracia) y del tres por ciento durante los treinta años subsiguientes .

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El Gobierno contribuirá con un mínimo de Lps. 3.600.000 equivalentes a \$ 1,800.000, o sea el treinta por ciento del costo total del Programa.

Si pudiéramos negociar el Convenio del Préstamo durante julio y agosto, sería conveniente para nosotros, ya que así podríamos planificar para el Presupuesto de 1977, satisfacer las Condiciones Previas antes de finalizar 1976 y llevar a cabo el Programa completamente en los años 1977-78-79.

En espera de sus prontas noticias al respecto, me es grato quedar de usted, con muestras de mi más alta consideración y estima.

PORFIRIO ZAVALA SANDOVAL
Ministro de Hacienda y Crédito Público.

DRAFT DESCRIPTION OF PROJECT

This Project has a two-fold objective: (1) to increase the capability of the Government of Honduras (GOH) to carry out the analysis, planning, execution, and evaluation of nutrition programs; and (2) to assist in the development of rural infrastructure necessary for improvement of the nutritional status of rural residents. The Project includes four components which support key national efforts to improve nutritional status. An Analysis and Planning Component (\$466,000) will finance a series of studies about the causes of malnutrition in Honduras, develop a pilot system for monitoring changes in nutritional status, and design systems and procedures for evaluating the impact of program interventions. A Nutrition Education component (\$364,000) will fund both long-term and short-term training in nutrition for GOH staff members and field workers, radio education programs, and the purchase of educational materials production equipment. The Water Supply and Environmental Sanitation component (\$1,670,000) will fund the installation of 9,000 low-cost water wells and 30,000 latrines in rural areas and an education program to promote their use. The Pilot Project component (\$1,650,000) will explore several new avenues to improved nutrition for rural families. Specifically, this component will finance a series of small community-level projects for increasing the availability of food for the families involved; improvement of the facilities for and extension capabilities of the GOH to promote fish farming; research into methods for introducing soya into diets of rural families; and applied research in the use of new varieties of sorghum.

The Project will be implemented over three years. Total Project cost is \$5.95 million, of which the GOH contribution is \$1.8 million.

CHECKLIST OF STATUTORY CRITERIA

In the right-hand margin, for each item, write answer or, as appropriate, a summary of required discussion. As necessary, reference the section(s) of the Capital Assistance Paper, or other clearly identified and available document, in which the matter is further discussed. This form may be made a part of the Capital Assistance Paper.

The following abbreviations are used:

FAA - Foreign Assistance Act of 1961, as amended.

FAA, 1973 - Foreign Assistance Act of 1973.

App. - Foreign Assistance and Related Programs
Appropriation Act, 1974.

MMA - Merchant Marine Act of 1936, as amended.

BASIC AUTHORITY

1. FAA § 103; § 104; § 105;
§ 106; § 107. Is loan being made

- a. for agriculture, rural development or nutrition; **a. This loan is being made for nutrition, and will contribute as well to rural development and agricultural production, with a focus on the rural poor.**
- b. for population planning or health;
- c. for education, public administration, or human resources development;

d. To solve economic and social development problems in fields such as transportation, power, industry, urban development, and export development;

e. in support of the general economy of the recipient country or for development programs conducted by private or international organizations.

COUNTRY PERFORMANCE

Progress Towards Country Goals

2. FAA § 201 (b) (5); (7) & (8); § 208

A. Describe extent to which country is:

(1) Making appropriate efforts to increase food production and improve means for food storage and distribution.

(2) Creating a favorable climate for foreign and domestic private enterprise and investment.

(3) Increasing the public's role in the developmental process.

(1) The Government of Honduras has placed a strong emphasis on increasing food production, and providing enlarged facilities for its storage and distribution. An on-going comprehensive analysis of the agricultural sector was initiated during CY 1972. All the international agencies involved in Honduran economic development are contributing through various programs to the goals of increased food production and improved food distribution.

(2) Honduras is striving to create a favorable climate for foreign and domestic private enterprise. The GOH has an export promotion department in the Ministry of Economy. This department provides assistance to domestic firms entering international markets and foreign companies wishing to invest in Honduras. Firms can obtain loans from several sources including the Government-owned National Development Bank and the Central American Bank for Economic Integration.

(3) Honduras is actively encouraging the participation of its citizens in the development process. The GOH is working with various grant and loan programs designed to strengthen private institutions, including coops. In addition, the GOH's currently developing programs which will draw into the nation's economic mainstream the rural populace which accounts for 70% of the country's total population.

- 3 -

(4) (a) Allocating available budgetary resources to development.

(4-a) Honduras has been allocating approximately 25% of its budget in the recent past for investment purposes.

(b) Diverting such resources for unnecessary military expenditure (See also Item No. 20) and intervention in affairs of other free and independent nations.) (See also Item No. 11).

(4-b) Military spending increased somewhat as a result of the 1969 hostilities with El Salvador. The increase does not appear to be disproportionate to Honduran defense needs. The material obtained has been used only for defence purposes and not to intervene in the affairs of other free and independent nations.

(c) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.

(5) At the present time the GOH is studying ways to improve its land tenure pattern. It recently experimented with one method of land reform. As a direct result of the Pilot and National Cadaster Projects the GOH is revising the property tax law. These projects will assist the GOH develop a more rational land tenure pattern. Honduras does not restrict freedom of expression and of the press and recognizes the importance of individual freedom, initiative, and private enterprise.

(6) Willing to contribute funds to the project or program.

(6) The Government has contributed toward the achievement of Nutrition objectives through efforts to improve and expand rural health services, rural water supply and experimental sanitation infrastructure, and access on the part of small producers to credit and technical assistance for food production.

(7) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

(7) During the present inflationary period the government has sought ways to cushion the blow of rising prices particularly for the lower income groups. It has emphasized the development of the rural sector where both the majority and the poorest segment of the population are found.

8. Are above factors taken into account in the furnishing of the subject assistance?
II. All of the above factors were taken into account.

Treatment of U.S. Citizens and Firms.

3. FAA § 620 (c). If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government? (3) A.I.D. knows of no such indebtedness any U.S. citizen.
4. FAA § 620 (c) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? (4) There is no evidence of any such action.
5. FAA § 620 (a); Fishermen's Protective Act, § 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters, (5) Honduras has not seized or imposed any penalties or sanctions against U.S. fishing vessels because of their activities in international waters during recent years.
- a. has any deduction required by Fishermen's Protective Act been made?

b. has complete denial of assistance been considered by A.I.D. Administrator?—

Relations with U.S. Government and Other Nations

6. FAA § 620 (a). Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba? (6) Honduras neither furnished assistance to Cuba nor permits ships or aircrafts under its flag to carry cargo to or from Cuba.
7. FAA § 620 (b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? (7) The Secretary of State has determined that Honduras is not controlled by the international Communist movement.
8. FAA § 620 (d). If assistance is for any productive enterprise which will compete in the United States with United States enterprise, is there an agreement by the recipient country to prevent export to the United States of more than 20% of the enterprise's annual production during the life of the loan? (8) This loan is not intended to provide assistance to a productive enterprise.
9. FAA § 620 (f). Is recipient country a Communist country? (9) Honduras is not a communist country.

10. FAA § 620 (1). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression?
11. FAA § 620 (1). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property?
12. FAA § 620 (1). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the A.I.D. administration within the past year considered denying assistance to such government for this reason?
13. FAA § 620 (n). Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam?
14. FAA § 620 (1). Is the government of the recipient country in default on interest or principal of any A.I.D. loan to the country?
10. A.I.D. has no evidence of any subversion or aggression or of plans for any such action against any country.
11. During periods of unrest caused by factors such as the latest change of government in Chile where public attention is focused on the U.S., the GOI has at times been unsuccessful in containing demonstrations which resulted in damage to USG property. To minimize this problem the GOI has given the Chancery a 24 hour guard.
12. The OPIC Investment Guaranty Program is in operation in the country.
13. A.I.D. has no evidence of Honduran involvement in such matters.
14. Honduras is not in default on any such loan.

15. FAA § 601 (1). Has the country resumed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?
15. Honduras has maintained diplomatic relations with the U.S.
16. FAA § 620 (1). What is the payment status of the country's U.P. obligations? If the country is in arrears, were such arrears taken into account by the A.I.A. Administrator in determining the current A.I.A. Operational Year Budget?
16. Honduras is not in arrears to the extent described in Article 19 of the U.N. Charter.
17. FAA § 681. Has the government of recipient country failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?
17. The GOH has taken adequate steps to control illegal narcotics traffic. A special Narcotics Investigation Branch was established within the Police (CHS) in 1970. Honduras is not at this time a channel for international traffic in heroin or cocaine, and most cases have been in the area of internal use, sale or growing of marijuana, or the use or sale of amphetamines or barbituates. The Honduran Police have previously cooperated with DNDD. Legislation was recently passed which up-dates a previous law by providing criminal penalties for newer forms of drug abuse.
18. FAA 1973 § 20. Is (a) military base located in recipient country, and was constructed or is being maintained or operated with funds furnished by U.S., and (b) U.S. personnel carry out military operations from such base, has the President determined that the government of recipient country has authorized regular access to U.S. correspondents to such base?
18. No such base exists in Honduras.

Military Expenditures

19. FAA s 620 (4). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC).)

19. According to official released figures, 8.7 of the GOH budget was allocated to military spending during 1975. Only 0.9% of foreign exchange resources are being used for military equipment (1974 figure). The Mission believes the major portion of this fund is used for standard arms and ammunition personnel costs, maintenance, etc. There is no reason to believe the GOH has any sophisticated weapons systems.

Conditions of The Loan

General Soundness

20. FAA s 201 (d). Information and conclusion on reasonableness and legality (under laws of country and the United States) of lending and retending terms of the loan.

20. The proposed loan is legal under Honduran and U.S. law and the proposed terms are reasonable for Honduras.

21. FAA s 201 (b) (2); s 201 (c). Information and conclusion on activity's economic and technical soundness. If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to A.I.D. an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

21. The activity has been found economically and technically sound. The Borrower has submitted a loan application to A.I.D. which contains assurance that the funds will be used in a sound manner.

22. FAA s 201 (b) (3). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.

22. It is reasonably certain that the GOH will be able to repay the loan. See Section 11-C of the CAP.

23. FAA s 201 (b) (1). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.

23. Financing for this project is apparently not available from other free-world sources, including private sources within the United States.

24. FAA s 611 (a) (1). Prior to signing of loan will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the United States of the assistance?

24. The required plans have been completed and a reasonably firm estimate of the cost to the U.S. of the activity to be financed has been obtained.

25. FAA s 611 (a) (2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of loan?

25. Since the GOI will repay the loan, ratification by the Chiefs of State and the Council of Ministers will be necessary prior to initiation of disbursements. A.I.D. loan made to the Government and its agencies in the past have been ratified on a timely basis.

26. FAA s 611 (c). If loan is for Capital Assistance, and all U.S. assistance to project now exceeds \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

26. The Mission Director has signed the certification included in Annex I of this CAP.

Loan's Relationship to Achievement of Country and Regional Goals

27. FAA s 207; a 13
Extent to which assistance reflects appropriate emphasis on; (a) encouraging development of democratic, economic, political, and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the

X 27. (a) The Loan will strengthen the National Ing Council, helping the Council to discharge effectively its responsibilities for recommending national food and nutrition policy, and coordinating multi-sectoral nutrition programming effort. (b) In addition, since project implementation at the community level will be carried out through community groups it will foster the development and strengthening of viable community organizations who will be better equipped to deal with community development problems. (c) The Loan will finance education and training for human resources essential to the achievement of nutrition goals. (d) The Loan will provide water supply and environmental sanitation infrastructure which will address nutritional needs by improving the health status of the rural poor.

(e) other important areas of economic, political, and social development, including; industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (f) integrating women into the recipient country's national economy.

28. FAA § 209. Is project susceptible of execution as part of regional project? If so why is project not so executed?
28. The project is not suitable for execution as a part of a regional project.
29. FAA § 201 (b) (4). Information and conclusion on activity's relationship to, and consistency with, other development activities, and its contribution to realizable long-range objectives.
29. This project is consistent with the Government's development plan and the USAID's chosen emphasis on rural development.
30. FAA § 201 (b) (9). Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth.
30. The provision of improved rural infrastructure through the construction of much-needed water supply systems and environmental sanitation, in addition to the provision of credit and technical assistance aimed directly at helping the rural poor improve and sustain their production of food stuff, both will contribute to the achievement of self-sustaining growth.
31. FAA § 209; Information and conclusion whether assistance will encourage regional development programs.
31. INCAP will be used extensively through a ROCAP regional grant, for the provision of technical assistance. Site visits to nutrition projects in Central America are planned for Honduran technicians.

32. FAA s 111. Discuss the extent to which the loan will strengthen the participation of urban and rural poor in their country's development, and will assist in the development of cooperatives which will enable and encourage greater numbers of poor people to help themselves toward a better life.
32. The target group addressed in the project are the rural poor. Implementation of community level projects, such as food production, and water system and latrine construction, will be carried out through community cooperative groups, and with a large input of community labor resources.
33. FAA s 201 (E). If this is a project loan, describe how such project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development.
33. The project will enable the little-used human resource of the rural poor to be utilized to a considerable degree. This will reduce the burden on Government resources at the same time that it allows greater program coverage in rural areas, and increases the productivity of rural workers.
34. FAA s 281 (a). Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private, and local governmental institutions.
34. A principal focus of the loan is to work through community organizations to draw large numbers of rural families into rural economic development activities.
35. FAA s 281 (b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.
35. The project addresses the fundamental needs of the rural poor to have access to ample quantities of potable water to protect and sustain their families and to have access to viable alternatives for producing food, and the necessary resources -- credit, technical assistance -- to utilize other alternatives.

36. FAA § 201 (b) (1). In what ways does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities?

36. The Loan will contribute directly to increasing the productive capacities of the rural poor through improved health and nutritional status.

37. FAA § 201 (a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

37. A principal focus of the Loan Project is to foster private initiatives at the community level, in self-help projects. This focus is to be implemented through cooperatives at the community level.

38. FAA § 201. If assistance in for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate?

38. Honduras is not a newly independent country.

Loan's Effect on U.S. and A.L.D. Program

39. FAA § 201 (b) (5). Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities

39. This project will have no foreseeable adverse effects on the U.S. economy.

and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.

FAA § 202 (a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.

FAA § 601 (b). Information and conclusion on how the loan will encourage U.S. private trade and investment abroad and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

FAA § 601 (d). If a capital project, are engineering and professional services of U.S. firms and their affiliates used to the maximum extent consistent with the national interest?

40. Approximately 28 percent of Loan funds will go to intermediate credit institutions for use by private enterprise in community food production projects, and for inputs needed in applied research in soya, sorghum and fish culture.

41. U.S. private trade and investment abroad will be indirectly encouraged through improved social and economic welfare of the Honduran population derived from this project.

42. Services of U.S. consultants will be used to the maximum extent.

43. FAA § 602. Information and conclusion whether U.S. small business will participate equitably in the furnishing of goods and service financed by the loan.

43. Any goods to be purchased from abroad under the Loan will be obtained using standard A.I. procurement procedures.

44. FAA § 626 (b). Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?

44. This loan will not promote or assist foreign aid projects of Communist-Bloc countries.

45. FAA § 621. If Technical Assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.

45. Technical assistance to be financed under the loan will be furnished to the fullest extent practicable by private organizations or individuals.

Loan's Compliance with Specific Requirements

46. FAA § 119 (a); § 201 (a). In what manner and will the recipient country provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the loan is to be made?

46. The GOH contribution to each of the four project activities is specifically noted in the PP, and will be reiterated in the ProAg. In each case it is 25% or more.

FAA § 112. Will loan be used to finance police training or related program in recipient country?

47. No such use is contemplated.

FAA § 114. Will loan be used to pay for performance of abortions or to motivate or coerce persons to practice abortions?

48. No such use is contemplated.

FAA § 201 (b). Is the country among the 20 countries in which development loan funds may be used to make loans in this fiscal year?

49. Yes.

FAA § 201 (d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter?

50. The interest rate is 2% per annum during the grace period and 3% thereafter.

FAA § 201 (f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise?

51. **Project activities involving credit will make such credit available to privately owned farmers through cooperatives. Where practicable commodities and technical assistance will be obtained locally.**

FAA § 606 (a). Will all commodity procurement financed under the loan be from the United States except as otherwise determined by the President?

52. Yes.

3. FAA § 604 (b). What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U.S. market price?

53. No bulk procurement of commodities is contemplated.

4. FAA § 604 (d). If the cooperating country discriminates against U.S. marine insurance companies, will loan agreement require that marine insurance be placed in the United States on commodities financed by the loan?

54. The loan agreement will so require.

5. FAA § 604 (e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity?

55. No such procurement is contemplated.

6. FAA § 604 (f). If loan finances a commodity import program, will arrangements be made for supplier certification to A.I.D. and A.I.D. approval of commodity as eligible and suitable?

56. Loan does not finance a commodity import program.

7. FAA § 604 (g). Information on measures to be taken to outline U.S. Government express personal property in lieu of the procurement of new items.

57. The loan agreement will so require.

58. FAA s 611 (b); App. s 101. If loan finances water or water-related land resource construction project or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962?
59. FAA s 611 (c). If contracts for construction are to be financed what provision will be made that they be let on a competitive basis to maximum extent practicable?
60. FAA s 612 (b); s 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the United States are utilized to meet the cost of contractual and other services
61. App. s 113. Will any of loan funds be used to require currency of recipient country from non-U.S. Treasury sources when excess currency of that country is on deposit in U.S. Treasury?
62. FAA s 612 (d). Does the United States own excess foreign currency and, if so, what arrangements have been made for its release?
59. This project is not a water or water-related-land resource construction project.
- 59. No construction contracts are to be financed under the Loan**
- 60. No U.S. owned foreign currencies are available for utilization in the Project.**
61. No such excess currency is on deposit in the U.S. Treasury.
62. The U.S. does not own such excess foreign currency.

63. FAA s 620 (g). What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property?
63. The Loan Agreement will provide for specific use of the loan funds and thereby preclude allocation of the funds for such purposes.
64. FAA s 620 (f). If construction of productive enterprise, will aggregate value of assistance to be furnished by the United States exceed \$100 million?
64. This project will not involve construction of a productive enterprise.
65. FAA s 636 (3). Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States or any guaranty of such transaction?
65. No loan funds will be used for this purpose.
66. App. s 103. Will any loan funds be used to pay pensions, etc., for military personnel?
66. Loan funds will not be used for this purpose.
67. App. s 105. If loan is for capital project, is there provision for A.I.D. approval of all contractors and contract terms?
67. The Loan Agreement will so provide.
68. App. s 107. Will any loan funds be used to pay UN assessments?
68. No loan funds will be used to pay U.N. assessments.

69. App. s 108. Compliance with regulations on employment of U.S. and local personnel. (A.I.D. Regulation 7).
69. This provision will be complied with.
70. App. s 110. Will any of loan funds be used to carry out provisions of FAA s s 209 (d)?
70. No.
71. App s. 114. Describe how the Committee on Appropriations of the Senate and House have been or will be notified concerning the activity, program, project, country, or other operation to be financed by the Loan.
71. The LA Bureau should take immediate action to notify Congress as prescribed under the Act.
72. App. s 601. Will any loan funds be used for publicity or propaganda purposes within the United States not authorized by Congress?
72. No loan funds will be used for propaganda purposes.
73. MMA s 901. b; FAA s 640 C.
73. a) The Loan Agreement will provide for compliance with this provision.
- (a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed with funds made available under this loan shall be transported on privately-owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates.
- b) No such grant will be necessary.
- (b) Will grant be made to loan recipient to pay all or any portion of such differential as may exist between U.S. and foreign-flag vessel rates?

Section 30 and 31 of PL 93-189
(FAA of 1973).

74. No

Will any part of the loan be used to finance directly or indirectly military or paramilitary operations by the U.S. or by foreign forces in or over Laos, Cambodia, North Vietnam, South Vietnam, or Thailand?

Section 37 of PL 93-189 (FAA of
1973); App. s. 111. Will any part of this loan be used to aid or assist generally or in the reconstruction of North Vietnam?

75. No

App. s 112. Will any of the funds appropriated or local currencies generated as a result of AID assistance be used for support of police or prison construction and administration in South Vietnam or for support of police training of South Vietnamese?

76. No

App. s 664. Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to Southeast Asia for use by non-U.S. nationals?

77. No