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INFORMATION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR (LA)

FROM: LA/DR. John R. Breen

SUBJECT: Issues Paper - Chile Nutrition Development
Loan IRR

A DAEC meeting has been scheduled for Friday, December 13 at 2:30 p.m. to discuss the \$8.0 million Chile Nutrition Development IRR. The Borrower will be the Government of Chile (GOC), with the primary implementing and coordinating agency CONPAN (Consejo Nacional Para la Alimentacio y Nutricion). The purpose of the project is to institutionalize the nutritional planning process in Chile through three simultaneous activities: 1) development of a planning information system within CONPAN (\$2.0 million); 2) pilot projects in food production and processing, distribution, nutrition education and development of new technologies (\$2.5 million); and 3) improvement of local water supplies through chlorination (\$3.5 million).

This project was listed in the FY 1975 Congressional Presentation, page 40, at \$5.0 million, but with the project level increased to \$8.0 million, a supplemental Congressional Notification will be required. The GOC contribution is expected to be about \$7.0 million of the total project cost of \$15.0 million, thus exceeding the requirement for host country contributions, Section 110 (A) of the FAA.

The DAEC will consider the following issues:

1. Relationship and Timing of Components

The relationship between the three components (information planning system, pilot projects, and chlorination project) is not clear:

- (a) Why are these considered to be the best possible "mix" of activities to solve Chile's nutritional problems as compared to available alternatives at this time?
- (b) Since it appears that development of an operating information planning system and thorough analysis and selection of pilot projects may extend well beyond submission of the CAP (scheduled for March, 1974), would it be advisable to reduce the loan's scope and funding

to cover just these phases, and consider additional financing when CONPAN is fully prepared to carry out the planning and research functions assigned to it?

2. Organizational Capacity

As CONPAN is a very recent organization with only a small core staff, several questions arise concerning its ability to carry out the programs described and its relative authority/responsibility vis-a-vis other public institutions:

- (a) The IRR proposes a four-year disbursement period for the loan on grounds that additional time beyond the normal three-year period is required to insure the viability of CONPAN as a central nutrition planning organization. In view of current Agency policy on loan disbursement periods in general, and the fact that CONPAN will not be an "operational" organization (i.e. actually carrying out the programs they develop under this loan), is the 48-month proposal justified?
- (b) CONPAN's actual authority over other GOC implementing agencies (which may or may not be represented on CONPAN's Board) is unclear. There is no real assurance that having developed and pilot tested various nutrition theories, CONPAN will be able to persuade the appropriate GOC entities to develop or properly carry out a program based on CONPAN findings. An example is the question of ultimate authority over the proposed environmental sanitation component project to be designed by CONPAN, but implemented by the Ministry of Public Works (MOPT). How should CONPAN's responsibilities and authority be defined during intensive review to clarify control over the carrying out of their policies and programs? What steps, if any, should be taken to make the MOPT a party to the loan, and/or a representative on the CONPAN Board?

3. Target Group

The IRR is unclear on the target group which is to be the focus of the loan. Both the 0-6 and 6-15 years age groups are identified as possible targets, however the latter appears to include non-low income children presently covered by the GOC's school feeding and milk distribution programs. In the event that further research produces evidence of malnutrition in non-low income children, how does the USAID plan to order target group priorities under the loan?

4. Environmental Sanitation

The proposal to install or improve chlorination systems in up to 20 areas raises numerous technical questions, (e.g. cost and probable complexity of doing 20 separate feasibility analyses, appropriateness of the proposed equipment list, and GOC ability to properly maintain and service such systems). Should USAID reduce the project's scope or postpone until FY 1976 (as planned) while further study of alternatives is made?

5. A.I.D. Procurement Requirements

USAID takes the position that the proposed pilot project activities should not be subject to normal A.I.D. requirements, and that waivers should be granted for regulations governing prior advertising, competitive bidding, etc. (IRR page 11). Although replacement procedures adopted by CONPAN "will conform to generally accepted R & D contracting procedures," it is not clear why a precedent should be established exempting "pilot projects" as a whole from A.I.D. engineering construction, and procurement regulations. What is the technical basis or rationale for such waivers with respect to the actual projects being contemplated?

6. Financial Plan

- (a) With regard to development of a "nutrition planning information system," the IRR states (page 4) that the A.I.D. loan will finance normal professional services including office space and logistical support. Should the loan finance the purchase of furniture, and should A.I.D. be involved in paying rent on office space?

- (b) The IRR (page 5) states that "CONPAN will... arrange for contributions from other GOC sources" to help finance pilot projects in four categories. What can CONPAN realistically expect in contributions from such sources in a time of GOC fiscal austerity?

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MEMORANDUM

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December 6, 1974

TO : Mr. John R. Breen, Director, LA/DR
FROM : Stuart H. Van Dyke, Director, USAID/Chile
SUBJECT: INTENSIVE REVIEW REQUEST: CHILE - NUTRITION DEVELOPMENT
LOAN, \$8,000,000.

I. BORROWER & IMPLEMENTING AGENCY

The Borrower will be the Government of Chile (GOC) represented by the Minister of Finance. The Minister of Health will also sign the loan agreement on behalf of the loan implementing and coordinating agency, CONPAN (Consejo Nacional para la Alimentación y Nutrición). CONPAN is a national council, chaired by the Minister of Health, with the purpose of developing policies and programs designed to resolve nutrition problems. CONPAN will carry out some of the various loan activities directly and will delegate to appropriate operational agencies the responsibilities for implementing certain other activities under CONPAN coordination and supervision.

II. LOAN AMOUNT & TERMS

The proposed loan amount is \$8,000,000. The terms will be 40 years repayment including 10 years grace, with interest at two percent during grace and three percent thereafter.

III. RATIONALE

Project Goal - The goal of the project is to support the social and economic development of Chile through significantly reducing the incidence and severity of malnutrition of target groups within the lowest third of the population. With the lowest 21% of the population of Chile described as being in "extreme misery" by the "Map of Poverty in Chile", recently issued by the National Planning Office, and with much poverty above this level, with traditional feeding programs falling short of desired goals, and with malnutrition rates of over 15% for children 0-6 years even within feeding programs, malnutrition is a severe problem within Chile and a detriment to its development.

GOC concern with malnutrition and its social and economic effects has been expressed at the highest levels of government to foreign assistance donors, both multilateral and bilateral. Solution of the problem is of high priority with the present government. The GOC is painfully aware that some \$100 million per year are being spent on programs that apparently are not targeted on the neediest groups and often reach those not needing such assistance.

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The GOC wishes not only to rationalize its feeding programs so that they will directly benefit the neediest people in the society but also to address effectively the entire question of food, nutrition, and nutrition-related disease in Chile. With world food prices continuing to rise and severe economic problems existing in Chile, the GOC is seeking loan funds from the U.S. to support a program of investigating and correcting malnutrition in Chile on an organized, planned, and scientific basis.

Project Purpose - The specific project purpose is to institutionalize the nutritional planning process in Chile. This has two simultaneous phases. The first is to develop an information gathering and utilization capability within the GOC, through CONPAN. Achievement of this phase will have direct bearing on the goal, for it will enable the GOC to determine systematically how to optimize inputs in the field of nutrition and to identify where bottlenecks and opportunities exist in the chain of nutrients from production to consumer.

The second phase, linked directly to the first, is to create momentum in developing and institutionalizing activities leading to the goal through the media of pilot projects and environmental sanitation projects. Nutritionists have already identified certain activities in the fields of food production and processing, food distribution, nutrition education, development of new technologies, and environmental sanitation which are likely to have significant impact on achievement of the project goal. And the momentum created from these first pilot and sanitation projects will enable more effective activities to be initiated than otherwise might have occurred, once more information gained from the project's first phase becomes available.

Sector Problems/Target Man - The GOC traditionally places substantial importance on the need to solve the nutrition and health problems of the younger members of society. Two major child feeding programs have been in existence for the past 15-20 years: a) the National Program of Complementary Feeding (PNAC), which provides free milk to children 0-6 years of age, and b) the school breakfast and lunch program, aimed at school children 6-15 years of age.

While precise data are sketchy, there is enough evidence to indicate that these traditional feeding programs are falling short of desired goals and do not adequately reach the neediest children. As of April, 1974, there were an estimated 1,109,500 children aged 0-6 years in Chile. The GOC estimates that of these, some 330,000 belong to families unable to afford the minimum requirement of nutrients. With PNAC reaching only 57.5% of the children compared to its target of 70%, and with private (i.e. volag) agencies not always reaching their goals, an assumption can be made that many of the poorest 330,000 children are among those not covered. CONPAN has started a study to test this assumption. Furthermore, the distributed milk is not utilized properly by those covered and/or is not adequate for their nutritional needs. PNAC milk provides 200% of the protein requirement for infants 0-3 months, 100% for infants 4-6 months, and a lesser amount thereafter. Yet as the chart below shows, there is substantial and worsening

malnutrition as measured by the National Health Service for children covered by the program. The above statements highlight the need for a more rational nutrition program in Chile and one that more effectively hits this target group.

Malnourished children within the PNAC program

<u>Age Group</u>	<u>1973</u>	<u>1974</u>
0-11 months	14.0%	15.6%
12-23 months	18.2%	19.8%
2 - 6 years	12.6%	13.9%

In addition to the 0-6 age group, other nutritional problems exist among Chile's poorest third. Many experts believe that a fairly large number of school-aged (6-13) children do not regularly attend school and consequently do not get covered by the school feeding program. It is believed that many are malnourished. The high infant mortality rate (65 per 1,000 live births) and the high number of below-normal-sized births point to nutrition problems among pregnant and lactating mothers. CONPAN is studying where nutritional deficiencies lie within the population, and during Intensive Review the target groups will be more specifically identified.

Institutional Structure - In March, 1974, the GOC established the National Council for Food and Nutrition (CONPAN). The CONPAN Board is chaired by the Minister of Health and consists of the Ministers of Economy, Agriculture, Education, Labor and Social Security, the chairman of the National Planning Commission, the Vicepresident of the Development Corporation, the President of the Council of University Rectors, the Director General of Health, and the Director of the National Commission for Scientific and Technological Research. In view of the fact that malnutrition is caused by a number of related factors, the intersectorial composition of CONPAN's board of directors enhances its effectiveness. There is a permanent secretariat presently composed of an Executive Coordinator, an Executive Secretary and an Operations Officer, to which several technical specialists are to be added over the next few months. CONPAN's budget of \$200,000 in FY/CY 74 has been increased to \$1.2 million in 1975.

CONPAN is charged with directing the national nutrition planning function in the GOC and has the authority to contract for technical assistance work on specific problems. The Executive Coordinator of CONPAN is a member of the advisory group which directly advises the GOC's ruling Junta on social matters, giving CONPAN close linkages with the highest levels of government. USAID believes that CONPAN is an efficient organization and will be able to carry out effectively the proposed project.

IV. PROJECT DESCRIPTION

The project financed by the loan can be conceptualized as having three general components:

- a. development and installation of a Nutrition Planning Information System at the CONPAN level.
- b. operational pilot projects and programs designed to attack specific nutrition problems identified by CONPAN; and
- c. an environmental sanitation program aimed at improving water quality, a necessary adjunct to other, more specifically targeted nutrition efforts.

Development of Nutrition Planning Information System - This activity is one of institutional development. It is to develop CONPAN into a scientifically operated nutrition planning organization with the appropriate infrastructure and knowhow. CONPAN has been assigned the functions of nutrition planning (coordinated with other sector planning functions of the GOCC), of control in the implementation stage of projects and programs resulting from the plans, and of evaluation of the plans for their ability to reduce malnutrition significantly and for feedback into program planning. For this to be effectively carried out, an information system must be designed and implemented. This system will collect information (including making measurements) on:

- a. the nutritional status of the Chilean population;
- b. food and nutrient production, imports, exports, transport, storage, distribution, processing, preparation, and consumption; and
- c. the status of the sanitary environment and the health of the population, concentrating on lower economic strata.

This information system will institutionalize within CONPAN a "learning" process allowing CONPAN to improve its nutrition planning capability continuously and to redesign its operational programs.

The AID loan will finance the foreign and local professional advisory services to CONPAN. The foreign consultants will be specialized in information systems and nutrition planning. The local professional services will cover computer rental, computer forms, office space, and logistical support.

CONPAN's Operational Programs - CONPAN is directly responsible for carrying out on a systematic basis project identification and selection activities and for carrying out nutrition projects through the pilot stage. The information system described above will enable CONPAN to identify deficiencies and needs. To attack a particular problem once identified, CONPAN will prepare a request for proposals of projects or approaches to overcome the problem. The proposals will be requested mainly from local research and government institutions and private firms and industries. (Occasionally, some project proposals may be

suitable for requests from foreign institutions). CONPAN will evaluate the responses and determine which entity should perform the analysis. If warranted by the analysis, CONPAN will then arrange for a pilot project or an operational program on a limited scale under controlled conditions to be carried out. This pilot project or program will in turn link back into the information system.

The AID loan will finance foreign and local consulting services as well as part of the costs of the pilot activities and programs. CONPAN will contribute towards the pilot activities and arrange for contributions (e.g. land) from other GOC sources. The four categories for pilot projects and operational programs of limited scale are described below:

- a) Production and Processing of Food: Pilot projects in this category will focus on crops with low cost protein (wheat, oats, beans, barley, soya, lentils, etc.). The processes through which these products pass from planting through delivery to the consumer will be analyzed. For example, on the food processing side, use of potato, soya, sorghum, and oat flours in bread-making will be analyzed. Other pilot projects will be conducted for: (1) other wheat substitutes, (2) meat substitutes, (3) use of fish and marine resources, and (4) centralized processing of foods for institutional markets.
- b) Food Distribution Systems: Chile's peculiar geography makes food distribution a major problem. The present distribution network will be studied, particularly that relating to the problems of the National Milk Program and the School Lunch and Breakfast programs. The objective will be to determine the relative costs and benefits of redesigning the present systems or replacing them with more cost-effective alternatives.
- c) Nutrition Education: Cost-effectiveness analyses and pilot projects are expected to be implemented in the following areas:
 - (1) to increase the number of mothers that nurse their babies,
 - (2) to increase the participation in the milk program (0-6 age group in the marginal areas),
 - (3) to improve family sanitary habits in the homes as a complement to the potable water projects, and
 - (4) to modify the family's behavior in purchasing (or producing in the rural areas) and preparing food for consumption.
- d) Development of New Technologies: Chile has well-developed bases for scientific investigation. Anticipated applied research pilot projects will be directed toward a "problem oriented" research infrastructure in Chile. Performance specifications will be developed for relevant aspects of the nutrition problem in Chile (e.g. which nutrients are required, in what quantities, at what maximum cost, at what maximum loss in storage, etc.). These specifications will be circulated to the research institutions to seek their ideas for meeting the performance specifications and to support those proposals which appear to have the best chance of contribution to the reduction of malnourishment in Chile.

During the period of the loan, CONPAN will conduct some 20-30 nutrition-related pilot projects within the categories described above. Some of these pilot projects can be specified in the Capital Assistance Paper and the costs determined. Annex I contains a list of some 27 projects which are now candidates for pilot project testing. By January, 1976, one could easily expect 100-150 candidates. The proposed method of selecting which pilot projects will actually become implemented will be to conduct a thorough cost-benefit for each project and for combination projects. Briefly, the analysis will attempt to determine which projects will lead to the greatest reduction in the protein-calorie malnourishment rate for the target group in the lower social-economic class for the dollars expended. This is sound nutrition planning procedure. But the procedure makes it difficult to specify in advance all of the pilot projects and thus, to specify the exact expenditures of money by pilot project.

Environmental Sanitation - Improved water quality has been identified by CONPAN as essential for improved nutrition. Waterborne diseases, particularly those leading to diarrhea, cause loss of nutrients that otherwise would be absorbed. A cost effectiveness analysis of this segment of the project will be accomplished during the Intensive Review. Nonetheless, sufficient information is already available to indicate that the proposed investment in water quality is one of the highest priorities that can be identified at this time.

The Department of Sanitary Works of the Ministry of Public Works has requested financing of a chlorination program to improve water quality. (Annex II describes the Ministry's request). The program will involve the modernization or installation of chlorination facilities in 20 systems under the responsibility of the Ministry. These systems cover more than 10% of the Chilean population and are mainly outside the larger cities, since such cities already have accepted systems. The program also involves establishing a central maintenance and chlorine delivery system.

During Intensive Review, consideration will also be given to whether or not limited complementary investments are needed together with the chlorination activity in order to improve cost effectiveness and impact on the target groups. All water improvement projects will include analysis and evaluation of the relationships among potability of water, diarrhea rates, and malnourishment rates in the area served.

If this \$3.5 million component is approved for consideration under the FY 75 Nutrition Loan, it would in effect replace the FY 76 Potable Water Systems Loan identified in the FY 76 Field Budget Submission (with an estimated financing level of \$10 million).

V. FINANCIAL PLAN

The tentative and illustrative financial plan is as follows:

Financial Plan in U.S. \$1,000

	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>Total</u>
Component 1 (Nutrition Planning Information System)					
AID Loan Financing	850	500	300	350	2,000
GOC Financing	600	500	500	500	2,100
Component 2 (Pilot Projects)					
AID Loan Financing	600	600	600	700	2,500
GOC Financing	600	700	700	700	2,700
Component 3 (Environmental Sanitation)					
AID Loan Financing	700	1,500	1,300	0	3,500
GOC Financing	450	750	750	250	2,200
Total AID Financing	2,150	2,600	2,200	1,050	8,000
Total GOC Financing	1,650	1,950	1,950	1,450	7,000
Total Project	<u>3,800</u>	<u>4,550</u>	<u>4,150</u>	<u>2,500</u>	<u>15,000</u>

Within Component 1 (the Planning Information System), AID financing will cover the costs of U.S. and local consultants, short-term training, and necessary commodities and equipment. \$800,000 is expected to be allocated in dollars and the remainder (\$1,200,000) in local currency. The GOC contribution (through CONPAN) will cover such costs as purchase of computer time, certain supplies and equipment, and administrative costs.

Within Component 2 (Pilot Projects), AID and GOC financing together will cover such costs as payment to individuals, universities, or other institutions for development of pilot project ideas and specifications, and payment for personnel, plant, equipment, supplies, and services needed to carry out certain pilot projects. Of the AID contribution, \$700,000 is expected to be in dollars and the remainder (\$1,800,000) in local currency. The entire GOC contribution will come through CONPAN.

Within Component 3 (Environmental Sanitation), the entire AID contribution will be in dollars. Virtually all will cover imported equipment needed to implement the project (See Annex II). The GOC contribution will cover, through the Sanitary Works section of the Ministry of Public Works, local labor and installation costs and certain operating costs, such as transporting chlorine to the plants. CONPAN will also make up a small part of the GOC contribution through projects designed to test the efficacy and success of the chlorinating systems in solving nutritional problems.

Summing up the above, of the total \$8.0 million AID contribution, \$5.0 million is expected to be in dollars and \$3.0 million in local currency. The GOC contribution of \$7.0 million is expected to be 46.7% of the total project costs. There will be further refinement of project cost estimates during Intensive Review, including possible cut-backs in the level of AID loan funding. The goal for local cost contribution is 50% of the project.

VI. BACKGROUND

Though AID has been funding Title II programs in Chile for many years, emphasis on nutrition per se is recent. In October 1974, USAID presented to AID/W a PROP for a technical assistance project in Child Nutrition. The PROP was approved in substance during AID/W Review as Project No. 513-15-560-271.

The Child Nutrition Project is for \$670,000, to be disbursed over a three year period. It has three components. The first is to cover USAID monitoring costs for its child nutrition and volag development activities. The second is to assist U.S. volags and Chilean counterpart agencies to better direct their Title II inputs and to broaden their participation in the field of child nutrition in Chile. The third component is to assist CONPAN in the initial steps of setting up national nutrition planning, and nutrition surveillance and support systems.

This third segment, noted in the PROP as the "most important to the ultimate success of the project", not only ties in directly with the proposed loan project, but is designed in the PROP as a preliminary activity to be followed by the loan. Appropriately, major allocations are in the earliest months of the project: \$158,000 in FY 75, \$73,000 in FY 76 and \$44,000 in FY 77. Almost all first year funding and part of the second year's finance short-term U.S. and third-country consultants to do the assessment and specialized surveys necessary for the analyses needed in the CAP, to assist CONPAN personnel in designing the National Nutrition Information and Surveillance System, to elaborate the National Nutrition Plan, to draw up parameters for a problem-oriented nutrition R&D system, and to formulate a national nutrition education policy. Other first and second year funds provide CONPAN personnel with short-term training and co-sponsor the First National Nutrition Planning Seminar. Small amounts of funds are allocated for short problem-solving workshops, invitational travel, and purchase of commodities and equipment. With the loan expected to be underway by December, 1975, and further technical assistance loan funded, grant allocations after that date are targeted to selective activities directed toward continuous evaluation of the national nutrition planning infrastructure. These include support for the annual national nutrition planning seminars, ad-hoc short-term training, problem-solving workshops, and invitational travel.

The project is proceeding as planned. The short-term consultants are on board and have already identified several areas in which CONPAN must direct its efforts in order to effect a rational and effective nutrition plan for Chile. CONPAN reportedly is pleased with the technical assistance being provided. With the success of the technical assistance project depending on the proposed loan and vice versa, complete coordination between the two will be continued during the Intensive Review.

VII. FEASIBILITY

USAID has not prepared an overall assessment of Chile's nutrition sector, nor does it intend to do so. To the extent such an assessment is necessary, it will grow out of the Nutrition Planning Information System component of the Loan, which is an urgent need if Chile is to have a rational, effective, and efficient nutrition program. In the meantime, however, several immediate opportunities exist to improve child nutrition substantially in Chile, as identified by CONPAN and the grant-funded consultants. These include improving water quality in areas where water-borne diseases cause serious impediments to children's absorption of nutrients, and investigation and initiation of selected pilot projects expected to have nutritional benefits.

CONPAN is a new organization. Nevertheless, USAID believes it is capable of carrying out the project, particularly with the technical assistance provided it under both the grant and loan projects. As discussed in Section III of this IRR, CONPAN's Board consists of 11 high officials of the GOC, including 6 Ministers. Board meetings are being held regularly and participation is active. As also discussed in that section, CONPAN's staff, though still small, appears competent and is growing. CONPAN is receiving generous GOC budget support.

CONPAN and its consultants will have responsibility for assessing the technical feasibility of the individual pilot activities. In addition to technical feasibility, particular emphasis will be placed on economic feasibility, such as providing nutrients at a price level affordable by the target group. The pilot projects proposed in Annex I are all estimated to be both technically and economically feasible by the grant-funded consultants.

The Environmental Sanitation segment of the project is expected to be technically and economically feasible, as similar projects have been successfully carried out in Chile and elsewhere. Final assessment of the technical feasibility will rest with the AID engineer who will participate in the Intensive Review process.

VIII. ENVIRONMENTAL CONSIDERATIONS

The Loan will have negligible negative effects upon the macro-environment. The Loan may indirectly encourage increases in the production of certain crops and/or in the catch of certain fish. It may encourage the construction of certain processing plants. It will directly improve the purity of water supplies in various communities.

There has been recent publicity on the carcinogenic effects of chlorination of polluted water supplies. USAID requests information and guidance from AID/W on this issue.

IX. OTHER INTERNATIONAL DONOR AGENCY PARTICIPATION

Though many agencies have been conducting nutrition activities in Chile for years, the sector is a new one for capital development inputs. The World Bank (IBRD) has provided \$100,000 to the Chilean Development Corporation for various nutrition-related projects. The Interamerican Development Bank (IDB) has granted \$50,000 for nutrition education. Both entities are considering loans for water system improvements in the major cities, which to the best of USAID's knowledge would not duplicate the chlorination program of the AID loan. No other known capital assistance projects in nutrition are being actively considered by either entity.

The Ford Foundation has financed the National Survey of Nutrition through CONPAN. This will be an essential part of CONPAN's Information System to be funded by the AID loan. Other entities conduct small grant activities in Chile, including the FAO, UNICEF, the Pan American Health Organization, the World Health Organization, and HEW. During Intensive Review, the roles of all agencies involved in this field will be examined.

There are three volags active in Chile: CARE, CRS and SAWS. Over the past 10-15 years, the efforts of these agencies have been heavily weighted toward management of Title II commodities for supplemental feeding programs. During the past decade the termination of the family feeding programs and the world-wide policies targeting Title II support have caused significant cut-backs in the outreach of these volags and their Chilean counterparts. Though in 1966 a total of 2 million beneficiaries were reached with 100 million pounds of commodities under volag programs in Chile, present food support levels represent only 37% of this figure. \$155,000 of the recently approved Child Nutrition Grant will be utilized to direct the volags' efforts to the highest priority programs and to enable them to develop nutrition programs outside the strict Title II context.

The Peace Corps currently has one professional nutritionist working as a volunteer with the National Health Service and one other scheduled to start soon. The Peace Corps has indicated willingness to provide further volunteer help in support of the AID project.

X. ISSUES

There are four issues to be resolved during Intensive Review:

1. Need for Four Year Disbursement Period - CONPAN is a new organization. Despite very high level GOC support, its dynamic leadership and the support of the recently approved AID grant, it will encounter the problems of any new organization with growing responsibilities. It will have to develop its own sound operating procedures as a result of experience and, to a certain extent, trial and error. In addition, the very nature of the loan and the linkages between establishing a flow of necessary information and data, identification of problems, and selecting and setting up pilot projects, will probably demand an implementation period greater than the usual types of projects financed by AID.

A detailed time phased implementation plan will be developed during Intensive Review. However, in order to eliminate arbitrary and possibly adverse influence in final project implementation design, USAID requests approval to consider a loan disbursement period beyond the three year maximum presently established. It is anticipated that a 48 month disbursement period may be the most realistic if the project is to be carried out in a sound technical manner.

2. Potential Difficulties with AID Guideline Requirements - The AID financial assistance for the Information Systems component and the Environmental Sanitation component can be provided in accordance with normal AID guideline requirements regarding the contracting of professional consulting services and procurement of goods. Similarly, any professional services required for backstopping CONPAN staff in the operational programs, i.e., pilot project selection, can be arranged for in accordance with AID implementation guidelines. Pilot projects and limited scale programs under controlled conditions, however, will require their own specific procedures for implementation, which nonetheless will conform to generally accepted R&D contracting procedures.

CONPAN's request for proposals attacking identified problem areas will contain certain performance specifications. For example, furnish a protein substitute that costs less than 1/3 ¢ per gram of protein, easily transportable and storable, with certain spoilage and palatability tolerances, etc. The proposals and supporting analyses received will be responsive to the performance specifications but will not necessarily recommend similar solutions. The firm, individual, or institution with the most cost efficient proposal from the point of view of solving the nutrition problem will be expected to carry out the pilot activity. This approach (1) takes advantage of implementing capacity in the private and public sector outside of CONPAN; (2) reduces the need for CONPAN to have a large permanent staff for engineering, construction and procurement; and (3) provides an incentive to the research oriented community to make proposals that may lead to their active involvement in pilot projects.

In most cases, the proposals will be made based on existing, but tentative arrangements necessary to execute the pilot project, including engineering, construction, and procurement of equipment. This invalidates the concept of prior advertisement, competitive bidding, etc. Specialized AID guidelines will have to be developed and adapted to this activity during Intensive Review if it is to be carried out in accordance with the operating procedures envisaged by CONPAN.

CONPAN will, of course, have to meet certain GOC requirements regarding the expenditure of its and AID loan funds. During Intensive Review, assessment will be made of these requirements to determine the extent they can be relied on to replace the safeguards inherent in the standard AID procedures. Moreover, the pilot projects are expected to be largely local costs, and the fixed amount reimbursement method described in AIDTO Circular A-513 of 7-17-74 appears appropriate (with provision, of course, for cost escalation, given Chile's rate of inflation of over 300% a year). The missing element, as explained above, is that awards will generally not be based on competitive

bidding on a pre-determined facility or approach. Rather, the competition element enters with respect to the conceptualization of the best idea for solving an identified problem.

3. Split Implementation Responsibilities - CONPAN will be responsible for implementing the Nutrition Planning Information System component of the project. In the Pilot Project component, CONPAN will have direct responsibility for studying and approving all projects and for overseeing their implementation. In the Environmental Sanitation component, however, there is a potential conflict of implementation responsibilities between CONPAN and the Department of Sanitary Works of the Ministry of Public Works (MPW). Both entities are aware of this situation, however, and USAID believes there will be no difficulty defining responsibilities during Intensive Review. It is envisaged that the MPW will carry out the actual project while CONPAN will oversee and monitor. Indeed, this will be excellent experience for CONPAN in learning how to establish working relationships with other GOC entities.
4. Congressional Notification - USAID recommends the Desk prepare Informal Notification to Congress upon approval of the project. This would notify Congress of the increase of funds from \$5.0 to \$8.0 million, due to the inclusion of the chlorination system element in the Loan (and eliminating at the same time the FY 76 Potable Water Systems Loan identified in the FY 76 Field Budget Submission). Since the project purpose and basic scope remain unchanged, and since Congress has been notified of AID's interest to do chlorination projects in Chile, USAID believes that Formal Notification is not necessary.

XI. INTENSIVE REVIEW PROCEDURES

Intensive Review will be initiated as soon after IRR approval as possible, with the goal of completing the Capital Assistance Paper by the middle of March.

The CAP team will consist of seven persons: a Multisector Officer, who will head the team and will spend full-time on the project from no later than mid-January on; two contract nutrition specialists, already on board and funded by the PROP, who will devote full-time to development of the CAP from early January on; an AID/W engineer, to come for 4 weeks TDY starting mid to late January; the Regional Legal Advisor, to come for 2 weeks TDY during the second half of February; an AID/W Evaluation Officer to come for 3 weeks TDY in February; and a USAID Loan Officer.

The team will work closely with CONPAN to develop cost estimates of the various parts of the project, to work out procedural aspects of the pilot projects segment, and to identify likely initial pilot projects to be financed. An important task of the team will be to formulate a detailed implementation plan for each of the three segments of the project, including flow charting, detailed timetable, a disbursement schedule and an evaluation plan. In addition, the engineer will make detailed workplans and cost studies for the environmental sanitation segment of the loan. The Regional Legal Advisor will work out the procedural aspects needed to implement the pilot projects segment of the loan as discussed above in the Issues section.

The USAID Controller and Program Officer will also participate in the Intensive Review as members of the Project Committee.

List of Proposed Pilot ProjectsA. Projects in Processing and Marketing

- (1) Analysis, design, and evaluation of a pilot plant for the production of potato flour to be used as a wheat extender for bread.
- (2) Analysis, design, and evaluation of a pilot plant for the processing of aljenarias algae, as a source of protein.
- (3) Analysis of the fishing sector, to determine new uses for fish, what technologies might be employed to improve processing and marketing, etc.
- (4) Project to process and market the merluza fish.
- (5) Design and evaluation of a plant to mechanically separate rabbit meat.
- (6) Project to utilize milk whey.
- (7) Project to determine how the grains of legumes (currently not used in Chile) might be utilized for flour, additive to beverages, etc.

B. Projects in Distribution

- (1) Analysis of milk distribution costs in the GOC's National Free Milk program and the search for cost-effective alternatives.
- (2) Study of the distribution of potatoes (and the associated losses) in Chile.
- (3) Analysis and a pilot project for a central kitchen for preparing the food for the GOC's school lunch program.
- (4) Marketing study of low-cost pulses and grains available for Chilean consumption.
- (5) Marketing and distribution of low-cost but high volume fish.
- (6) Pilot project (second stage) on acidified milk to change milk distribution within the family.
- (7) Pilot project to measure the difference in the malnourishment rate between the 0-6 age children within the free milk program and those not within the program.
- (8) Pilot project in supplemental feeding of malnourished children (analysis completed).

C. Projects in Nutrition Education

- (1) Educational plan in support of the PNAC program, to encourage the poor to utilize the service.
- (2) Educational plan in support of malnourished child project described above (Item B.8). This will teach mothers how to prepare supplemental foods, etc.

- (3) Educational pilot project to encourage breast feeding.
- (4) Pilot project in rural areas to promote through education home consumption of locally produced nutrient foods.
- (5) Mass media (radio, T.V., newspaper) analysis and pilot project in nutrition education.
- (6) Pilot project in education for home consumption of soy beans.

D. Projects in Research and Development

- (1) Search for a cost-effective method of measuring agriculture production on a continuous (every 5 to 6 months) basis (the ERTS satellite is one possible method which will be evaluated).
- (2) Search for an alternative method of measuring 1 to 2 million children for malnourishment status.
- (3) Search for low-cost Chilean produced crops of high nutrient value to be used to fortify foods commonly consumed by the poor, especially by their children between 0-6 years.
- (4) Search for Chilean produced substitutes for grains in food supplements.
- (5) Search for new methods of purifying water in remote rural areas.
- (6) Search for low-cost food storage methods for rural area subsistence farmers.

Chlorination System

A. List of items to be financed with loan funds:

1. 20 WT Chlorinators, series V-800, 900 Kg. at \$ 4,810	\$ 96,200
2. 20 WT Chlorinators, series V-800, 180 Kg. at \$4,350	87,000
3. 120 WT Chlorinators, series 20-055 at \$1,260	151,200
4. 400 Masks with filters at \$70	28,000
5. 100 Filters at \$10	1,000
6. 4 10-ton trucks at \$9,200	36,800
7. 50 3/4 trucks, capacity 2,500 Kg. at \$5,200	260,000
8. 15 Panel van trucks at \$4,000	60,000
9. 100 Dose measuring pumps, W.T.A. 7 x 7 at \$1,000	100,000
10. 3,000 Chlorine Cylinders c/v Kerotesb 150 lbs. at \$180	540,000
11. 100 Chlorine Cylinders c/2 v Kerotesb, 2,000 lbs. at \$2,000	200,000
12. 40 Dry dose measurers, W.T.A. 378 at \$2,700	108,000
13. 3 Tank trucks for hypochlorine at \$35,000	105,000
14. 4 Hoisters at \$4,000	16,000
15. 150 Platform scales No. 50345 at \$420	63,000
16. 10 Platform scales No.50350 - 1/v 12.D80 at \$1,680	16,800
17. 2 Suction Pumps at \$200	400
18. 2 Compressors with heaters at \$1,500	3,000
19. 10 Sets Emergency Parts A.492/30100 at \$7,800	78,000
20. 5 Sets Emergency Parts U.22446/6/70 at \$16,000	80,000
21. 3 Shops for repairing chlorinators at \$20,000	60,000
22. Various laboratory equipment	650,000
23. 4 Sets Materials for setting up laboratories at \$12,500	50,000
24. 20 Trucks equipped to extract mud at \$25,000	500,000
25. 40 Sets of Diaphragm Motor Pumps at \$1,500	60,000
26. 2,000 Cylinder valves, 120 lbs. at \$55	110,000
27. 100 Cylinder valves, 2,000 lbs. at \$107	10,700

28. 100 Cylinder valves, 800 kgs. at \$107	\$ 10,700
29. Contingency	<u>18,200</u>
Total	<u><u>3, 500,000</u></u>

B. List of Water Systems to be served by projects

<u>Place^{1/}</u>	<u>Population to be served</u>
Arica	105,827
Iquique	61,304
Antofagasta	118,741
Calama	30,456
Tacopilla	15,652
Copiapó	46,213
La Serena	61,256
Ovalle	26,604
Los Andes	27,244
Viña del Mar/Valparaíso	303,409
San Antonio	38,111
Rancagua	93,653
Talca	92,873
Chillán	75,224
Concepción	118,582
Talcahuano	134,018
Los Angeles	41,202
Temuco	96,616
Valdivia	74,018
Punta Arenas	56,385
Total	<u>1, 617,388</u>

^{1/} In several cities, only part of the urban area is to be served by the project. The other parts are already chlorinated.