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3. AUTHOR(S)
(100) Fauntleroy, P. A.; Smith, Jack; Fox, E. K.;
(101) Nathan(R.R.) Associates, Inc., Washington, D.C.

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AN EVALUATION REPORT OF THE
P.L. 480 TITLE II PROGRAM
IN BOLIVIA

Submitted to
Office of Food for Peace
Agency for International Development
Under Contract AID/SOD-PDC-C-0003

by

Robert R. Nathan Associates, Inc.
Consulting Economists
Washington, D.C.

March 17, 1978

PREFACE: AN EXECUTIVE SUMMARY FOR AID

The salient features of the P.L. 480 Title II Program in Bolivia which are of greatest interest to AID emerge as the following:

1. The AID involvement in the program is well managed and efficiently operated. Its activities are supervised by a dedicated and fully competent locally hired employee who enjoys the confidence of the Mission and the cooperation of the voluntary agencies and the local counterpart organizations.
2. There are, however, a number of policy-related constraints which impede attainment of the program's Congressionally mandated goals:
 - a. Chief among these is the absence of a clear GOB expression of where and how nutrition fits, or could or should fit, into the national social and economic development scheme. There is no evidence of a national concerted effort to improve the nutritional status of the rural population.
 - b. The GOB development policy concentrates on the urban/rural centers along the principal "development axis" of La Paz, Cochabamba and Santa Cruz, thus assigning a relatively low priority to the more remote areas which should receive the primary thrust of the Title II program.

- c. Much of AID's programming is undertaken in support of this GOB policy, and thus is concentrated along this same geographic axis.

This lack of clear GOB commitment to nutrition, and the focus of both the GOB and the AID development efforts along the development axis, necessarily deters the Title II program from its quest to improve the nutritional status of the rural poor.

In this regard, AID should carefully consider how Title II can best relate to the American assistance effort in Bolivia. If USAID can justify an urban-oriented Title II program, then such a program should be clearly articulated, a set of appropriate goals and purposes should be established, and the program operation should be purposefully concentrated in that direction. In the absence of such a clear declaration of a Bolivian Title II purpose, however, the program must be assessed in terms of the Congressional mandate. Such an assessment indicates that the program needs a greater rural thrust than now exists.

3. Logistical constraints also affect the program's outreach activity. The landlocked status of Bolivia and the absence of a comprehensive road network beyond the central development axis are serious obstacles to reaching the rural poor with the desired efficiency.

4. Within the present configuration of the program, it would appear that project emphasis is consonant with overall

Title II guidelines. MCH activities receive the largest share of the Title II foods (other than those destined for emergency relief purposes), followed by Food For Work and school feeding activities in that order. Combined, these three project areas account for around 87 percent of the non-emergency food approved for shipment to Bolivia.

5. In all project areas, more careful attention needs to be given to the criteria by which participants are selected for project activities. This is especially true in the mothers' clubs where there is a serious lack of emphasis on selecting participants from the neediest population groups.

6. Three additional points emerge as salient features of the program in Bolivia:

- a. There is no evidence that the Title II Program has any significant adverse impact on overall domestic agricultural production. There may be some localized distortion of traditional market patterns, but these do not appear to be serious within the context of a national program.
- b. The nutritional data base and classification system are inadequate and should be improved. Such research would greatly benefit future evaluations, as it would enable a more thorough nutritional assessment of the program than is possible at the present time.

- c. A Food for Peace officer should be assigned to the USAID Mission in La Paz to fill the gap between the day-to-day operations of the Title II program and its policy related aspects.

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Addendum

Following completion of this report it was learned that the AID FY 1979 Food For Peace budget identified \$2.8 million for logistical support programs around the world. An additional \$6.6 million is to be committed in subsequent years. The FY 1979 funds may be used to pay for operational expenses such as commodity movement costs (\$1.5 million), storage costs (\$700,000), management and administrative costs (\$500,000) and other (\$100,000), which may be used for special studies of economic or nutritional status and needs. The money is being made available to assist programs in achieving the goal set out by Congress: to reach the population suffering from the greatest poverty. Bolivia would appear to be a country worthy of serious consideration as a recipient of such funds.

INTRODUCTION

In accordance with Phase II of the Robert R. Nathan Associates, Inc. (RRNA) contract with the AID Food For Peace Office, an evaluation team visited Bolivia between January 21 and February 10, 1978 to review the P.L. 480 Title II Program there. The team included Ms. Phylisia A. Fauntleroy, RRNA staff member and mission leader; Dr. Jack Smith, nutritionist and consultant to RRNA; and Mr. Edwin K. Fox, Chief, Policy Review and Evaluation Staff, Office of Food For Peace, AID.

The evaluation was conducted in accordance with the draft conceptual framework prepared by RRNA under Phase I of this contract. Thus, the purpose of the visit was two-fold: to test the proposed scope of work in Bolivia, and to conduct a comprehensive evaluation of the Maternal/Child Health, Food For Work, and school feeding projects operated in Bolivia with the cooperation of the U.S. voluntary agencies.

This report is based on two principal sources of information. The evaluation team gathered and reviewed numerous reports and studies on a broad range of subjects affecting the P.L. 480 Title II Program in Bolivia. Interviews were

conducted with persons in the USAID mission; voluntary agencies (CRS and CARE); counterpart agencies (Caritas and the National Social Action Council); Government of Bolivia, Ministries of Public Health, Education, and Planning; and other participants (mostly mothers in mothers' clubs). A list of all persons contacted during the evaluation mission is also included at the end of the report.

The evaluation team visited activities associated with each of the three P.L. 480 Title II projects -- mothers' clubs, schools, and facilities built under the Food For Work Project. In total, 14 mothers' clubs, two schools, and two Food For Work activities were visited. (No school feeding could be seen in operation during the evaluation team's visit because the schools were closed.)

The team spent 2 weeks in La Paz and 1 week outside La Paz. Other cities and their surrounding areas which were visited included Santa Cruz (3 days); Cochabamba (2 days); and Oruru (1/2 day). The team drove from Cochabamba to Oruru and then to La Paz and thus got some introduction to rural Bolivian life. Another visit was made to the Ingavi area of the Altiplano to make a firsthand observation of rural activities. The team had planned to go to Potosi or Trinidad -- both located in relatively poorer parts of the country -- but during the rainy season these areas are not accessible in such a short period.

The activity visits were distributed as follows:

<u>Area</u>	<u>Mothers' clubs</u>	<u>Schools</u>	<u>Food For Work</u>
La Paz	3	--	--
Santa Cruz	4	1	--
Cochabamba	4	--	1
Oruru	2	--	1
Ingavi	1	1	--
Total	14	2	2

In addition to these activities, the team also visited a senior citizens' home and an orphanage, both operated by Caritas in La Paz.

Although the timing of the evaluation did not permit a full review of P.L. 480 Title II operations, it was especially good from the point of view of program planning, policy, and direction. The World Food Program (WFP) Title II mothers' club concept had just been introduced so this was an excellent opportunity to review its relationship with P.L. 480 Title II. Because the current CRS/Caritas mothers' clubs will be transferred to the WFP within 5 years, Caritas is now mandated to develop new clubs to reach needier rural areas. The team was therefore reviewing the CRS/Caritas system at a critical time in its project direction. Our conclusions and recommendations may therefore be helpful in redirecting the activities of these groups.

The CARE/National Social Action Council (NSAC) system was initiated in 1977. CARE plans its own evaluation of operations to date and possible expansion or reduction in late Spring 1978. This program evaluation ought to provide some assistance to CARE and NSAC in this experimental period.

Finally, USAID is planning to undertake a nutrition survey of all USAID programs including P.L. 480 Title II in March 1978. Ms. Bonnie Towles Stephens, a member of the survey group, travelled with the RRNA evaluation team and participated in interviews. Her experience should be useful as USAID survey questionnaires and materials are being designed.

Organization of Report

The overall report is in two parts -- one describes the structure of the P.L. 480 Title II program and the other describes the decisionmaking flow of the program. Chapter I pertains to the former, Chapters II-IV to the latter. Chapter V analyzes the relationship of the P.L. 480 Title II program with other programs within participating agencies and with programs of other organizations.

In conclusion, the team was able to cover all aspects of the evaluation in the 3-week visit. Much of the credit for this "feat" is due to the cooperation and assistance we received, particularly from Mr. Arnulfo Penaloza, the local Food For Peace officer. His extensive knowledge of every aspect of the program, his efficient and well organized operations, and his personal contact with people from program directors to program recipients were vital factors in the performance of the study.

SUMMARY AND CONCLUSIONS

Bolivia is often considered to be the poorest country in South America. However, there are fewer people, as determined by a 1976 census, than had been earlier estimated, and per capita income now averages about \$550 a year. Thus, compared to large parts of Africa and Asia, it is certainly not among the poorest countries of the world.

There are, however, at least two Bolivias. The Ministry of Public Health has established a dichotomy between the "accessible" and "inaccessible" Bolivias which seems to be very apt. There is general agreement among objective observers that the quality of human life in the inaccessible areas is lower than in the "accessible" areas, although it is not possible to document conclusively this view. Although these categories do not conform exactly to the usual urban/rural distinction, it is probably true that most urban areas are located in "accessible" areas and a large proportion of rural areas are located in "inaccessible" areas. The "inaccessible" areas are generally rural.

Almost all public and private programs and investments are concentrated in "accessible" areas. Most health and nutrition programs are similarly concentrated. Title II

program activities follow a similar geographic distribution, especially along the La Paz, Cochabamba, and Santa Cruz development axis. Such concentration, especially for Title II, is due to the lack of infrastructure, institutional, and transportation network in the inaccessible areas upon which any delivery program must rely.

There is also a general lack of commitment to social service programs on the part of the Government of Bolivia and other agencies, especially outside urban areas. This, together with lack of institutional networks, combine to make it very difficult for new programs to be targeted to the rural poor in these "inaccessible" areas.

Because of the obstacles to redirecting programs to needier groups, there is a generally a negative attitude towards doing so among all participating agencies. More often than not, conversations are in terms of "why we can't" instead of "how can we." Part of this relates to the lack of identification and verification of the needs of the people in these areas. It is easier to assume that these people are not so much worse off than those already reached by the programs and do nothing, than it is to assume they are worse off and design programs to reach them. However, even the latter approach calls for actions to assess needs more carefully so that attainment of the original objectives can be examined.

Malnutrition is a problem in Bolivia although the country clearly is not a "starvation society." In many areas nutritious foods appear to be readily available.

Roughly half of the population in the "accessible" areas has normal nutrition levels. About 35-40 percent of those deemed to be malnourished are in Grade I. Because of lack of data, however, it is impossible to determine whether higher levels of nutritional status are attributable to the programs, including Title II, or not.

Overall, the evaluation team was impressed with several aspects of the P.L. 480 Title II Program. The mothers' club concept, which serves as an excellent vehicle not only for maternal child health care but also for the fostering of economic and community cooperation and activities, is unique to Bolivia. It makes the program more responsive to the needs of the participants and generally performs all functions more effectively and more efficiently than the other Title II projects. The mothers' club concept is a principal reason for the success the Title II program has had in reaching its target groups. It is recommended that this concept be studied for possible introduction in other countries as well.

The CARE/NSAC system, although newly introduced to Bolivia and as yet untested, also has some attractive features. It has a built in phase-over plan for increasing counterpart responsibility and it has a phase-in plan for local foods which will ultimately replace Title II commodities. Therefore, under the CARE/NSAC system, the Title II program will not contribute to Bolivia's dependence on imported foods.

Finally, all relevant services are contained within the system so that integrating them is more manageable. The CARE/NSAC system is health- and nutrition-oriented while the CRS/Caritas system in most parts of the country is centralized around food distribution, with other services supplied by other agencies. When other agencies fail to provide their inputs (as has occurred with the Ministry of Public Health) the entire system suffers. CRS/Caritas also operates under considerable financial constraints.

Although the timing of the evaluation team's visit precluded visits to school feeding and Food For Work activities in operation, comments made in interviews suggest serious supervision and control problems in the school feeding project and a general level of satisfaction with Food For Work activities. The problems encountered in the school feeding project are partly attributed to obstacles facing rural school systems in general. Resources to overcome these obstacles are scarce, so there is little interest in supervising and reorienting the project. In addition, there are so many schools involved in the project that it would be a mammoth job reaching all of them. Thus, although AID would like to phase out of the school feeding program, the government is unwilling to take on responsibility for it and the project seems to exist in limbo.

In the Food For Peace program in Bolivia, there are several principal problems at the operation and management level. Cost, budgeting, and reporting systems are grossly inadequate among all participating agencies and should be a

target for immediate improvement and action. Lack of proper monitoring and evaluation based on appropriate standards and classifications virtually precluded any assessment by the evaluation team of the nutritional impact at the program or individual level even for those groups for which data have been collected. Determination of program effectiveness was therefore impossible, but the team developed a substantial number of recommendations which, if implemented, should allow for impact assessments in the future.

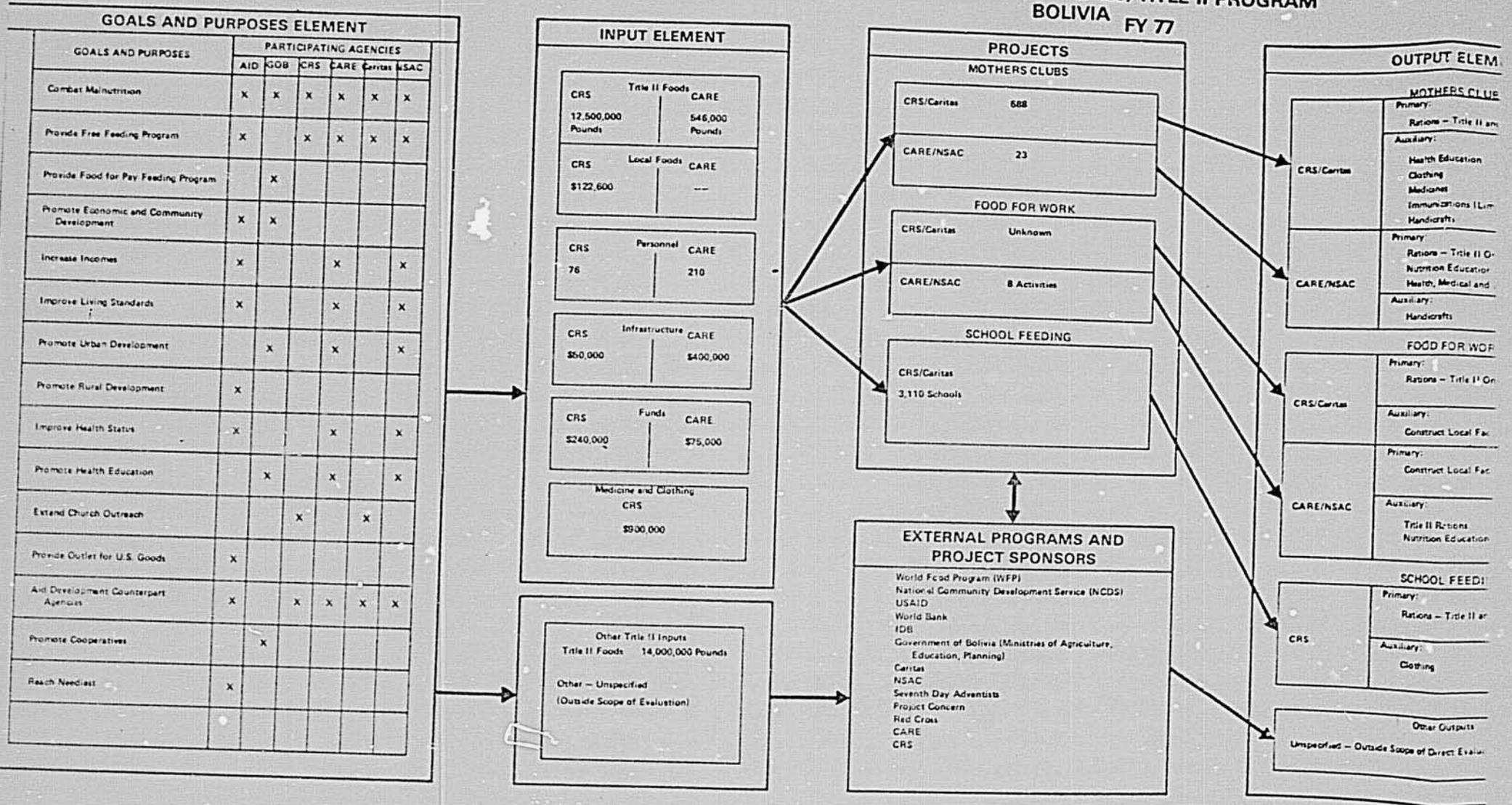
At the policy level, there appears to be a serious gap between the fine-tuned USAID supervision of voluntary/ counterpart agency day-to-day operations on one hand, and general policy determination for the USAID mission on the other. Specific policy guidelines for Bolivian Title II program planning and direction are sorely needed. This will no doubt require the funding of additional socioeconomic and nutritional studies. The survey to be undertaken by USAID's Health and Humanitarian Resource Assistance Division is a step in the right direction and should be supported by the mission. Integration of the survey with the Title II program itself is commendable. The need remains for AID to assist the Government of Bolivia in developing nutrition and health and education policy at the national and local levels.

Such emphasis on policy should facilitate the integration of Title II with other programs within participating agencies and with programs of nonparticipating agencies. This may be one means of obtaining program resources, broadening the program scope, or simply doing a better job on certain facets of the program, without an increase in financial support by the agencies currently participating.

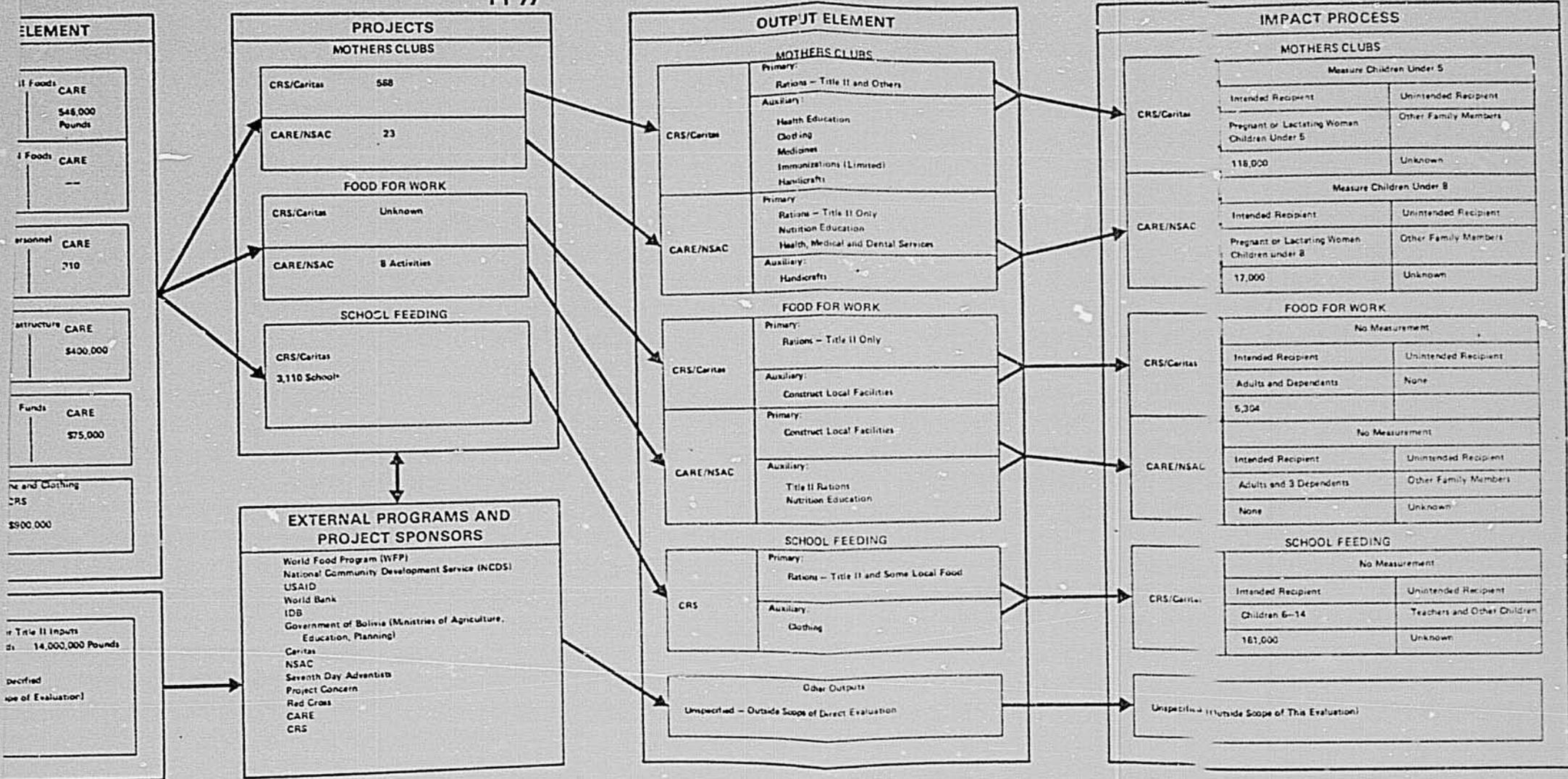
In terms of program direction, a tri-level strategy is proposed. First, efforts should be made to improve programs reaching current recipients based on the specific recommendations which are summarized in the following table. Second, because of the problems encountered in reaching the population in inaccessible areas, better selection criteria should be established to facilitate the identification of needier people in those areas where the program is presently concentrated. Third, studies should be undertaken to determine the needs of the population in inaccessible areas and the cost effectiveness associated with including them in the program scope. Only when results from such studies are available will the AID mission be in a position to determine whether the Congressionally mandated P.L. 480 Title II goals are attainable in Bolivia.

The structure and dimensions of the Bolivian program are summarized on the accompanying flow diagram. Critical issues analyzed, together with conclusions and recommendations, are listed on the summary table following the diagram.

**STRUCTURE OF P.L. 480, TITLE II PROGRAM
BOLIVIA FY 77**



**STRUCTURE OF P.L. 480, TITLE II PROGRAM
BOLIVIA FY 77**



SUMMARY TABLE. TITLE II PROGRAM ANALYSIS

<u>Chapter</u>	<u>Relationship</u>	<u>Issues</u>	<u>Level of Analysis</u>	<u>Conclusions</u>	<u>Recommendations</u>
II. Policy Analysis	Title II and General Economic Policies and Conditions	To what extent are policies consistent with Title II programs?	Program	a. Principal development strategy is urban oriented.	1. Develop nutrition and health policy at national level.
		To what extent are conditions consistent with Title II programs?	Program	b. Low priority on health, education, nutrition, and rural programs.	
		To what extent are conditions consistent with Title II programs?	Program	a. Bolivia is self-sufficient in food except for wheat. Import policy is favorable to Title II.	1. Need greater coordination among agencies institutionalized within program plans.
			Program	b. There is general lack of coordination among institutions' delivery of services which affects more than one sector.	2. Need to increase contact and communication among institutions on a regular basis. Ministry of Planning might take a lead in this exercise.
			Program	c. There is little institutional infrastructure or network beyond 100-mile radius of cities, thus complicating efforts to reach some of the neediest people.	1. Participating agencies might find additional ways to integrate Title II with other programs to be located in these areas. 2. Need to identify and assist other voluntary agencies working in these areas to participate in Title II if a need for program is determined. 3. Given added costs of reaching people in these areas, need specific studies on nutritional and economic status to determine need and insure program will be cost-effective.
B.	Goals and purposes of participating agencies	To what extent are goals and purposes compatible among participating agencies?	Program	a. General consensus to combat malnutrition exists. b. AID is only agency with focus on rural poor. c. CRS/Caritas is more a feeding and distribution program and has less emphasis on other purposes. d. CARE/NSAC is health oriented in urban areas. e. GOB through Ministry of Public Health no longer committed to free food distribution since joining WFP system.	1. If AID is serious about reaching rural poor it must be more aggressive take more initiative and be willing to undertake more of expense. 2. AID needs to undertake studies to better identify location and food needs of these groups. 3. AID needs to hire another staff member responsible for carrying out these recommendations at the policy level for Title II. There is a policy gap between supervision of participating agencies and determination of USAID health and nutrition policy.

Summary Table (continued)

Chapter	Relationship	Issues	Level of Analysis	Conclusions	Recommendations
C. Priorities among projects of participating agencies		To what extent is the priority ranking of projects compatible among participating agencies?	Project	a. Priorities are consistent. Most have same order of preference.	1. Changes are required to make priorities more consistent.
D. Relationship between policies and Title II program		To what extent do projects follow Title II policy guidelines?	Project	<p style="text-align: center;"><u>Mothers' Clubs</u></p> <p>1. Confined to pregnant or lactating women.</p> <p>2. CRS/Caritas feeds children under 6 and CARE/NSAC feeds children under 8.</p> <p>3. Despite the fact that food is to be eaten only by target groups, it is shared among families.</p> <p style="text-align: center;"><u>School Feeding</u></p> <p>5. None observed.</p>	<p>1. Inform clubs that food is to be distributed to all women of child-bearing age and increase rations so all women can participate.</p> <p>2. Limit rations to children under 6.</p> <p>3. No recommendation. This guideline cannot be enforced with present resources.</p> <p>4. Unenforceable without added supervisory personnel.</p> <p>5. None</p>
III. Operations and Management Analysis	A. Inputs and program needs	How do actual levels of inputs compare with amounts needed?	Programs & project by Voluntary/Counterpart Agencies	<p>1. CRS/Caritas projects (all three) lack sufficient personnel and require higher salaries.</p> <p>2. Approved levels of food are sufficient for all projects.</p> <p>3. Facilities are adequate.</p> <p>4. Adequate funds are lacking to pay transport costs, per diem for staff travel to remote areas.</p> <p>5. CRS/Caritas lacks vehicles necessary for transportation and supervision.</p> <p>6. No apparent serious input constraints in CARE/NSAC system.</p>	<p>1. Press GOB to increase Caritas' budget.</p> <p>2. Find alternate ways for Caritas to raise revenue without taxing recipients.</p> <p>3. Improve integration of projects with other projects which might serve as sources of inputs.</p>

(continued) --

Summary Table (continued)

<u>Chapter</u>	<u>Relationship</u>	<u>Issues</u>	<u>Level of Analysis</u>	<u>Conclusions</u>	<u>Recommendations</u>
	B. Inputs & Outputs	To what extent are each of the functions fulfilled?			
	a. Ability to obtain inputs	To what extent is each project able to obtain full range of inputs in adequate quantities?	Project & Activity	CRS/Caritas is not able to obtain adequate inputs. CARE/NSAC obtain adequate inputs.	<ol style="list-style-type: none"> 1. Same as A above 2. Need more local food inputs in school feeding activities requiring greater support for Fathers' clubs and communities.
		To what extent do projects communicate with other possible sources of inputs?	Projects Activity	<p><u>Mothers' Clubs</u></p> <p>Good contacts for food but inefficient for other resources.</p> <p><u>Food For Work</u></p> <p>Not a problem since activities initiated by communities.</p> <p><u>School Feeding</u></p> <p>Fathers' clubs offer alternate source of inputs but extent of participation varies among communities.</p>	<ol style="list-style-type: none"> 1. At the activity level heavy community emphasis facilitates identification and communication with additional sources. 2. At project level, CRS/Caritas needs to communicate on a more regular basis with other agencies.
	b. Establishment of operating regulations	To what extent are there rules and regulations governing operations?	Project & Activity	<p>AID has regulations for all three projects.</p> <p>CRS/Caritas has regulations for both its projects.</p> <p>There are insufficient regulations for school feeding.</p> <p>There are insufficient guidelines for nutrition education services. All have sufficient guidelines for anthropometric measurement.</p>	<ol style="list-style-type: none"> 3. Need better guidelines for school feeding project operations, nutrition education, and anthropometric measurement. 4. AID should obtain funds to print and distribute manual on nutrition education.

(continued) --

Summary Table (continued)

<u>Chapter</u>	<u>Relationship</u>	<u>Issues</u>	<u>Level of Analysis</u>	<u>Conclusions</u>	<u>Recommendations</u>
		To what extent are there criteria for selecting recipients?		Both/CRS/Caritas and CARE/NSAC systems lack adequate standardized criteria.	1. Need nutritional status and economic need criteria for selecting recipients in new mothers' clubs.
		To what extent do participants control operations?		Mothers' clubs have good control.	2. Mothers' clubs need more assistance in using their resources wisely but such assistance should not diminish their control over funds, decision-making power, etc.
C.	Responsiveness to needs	To what extent do persons in community seek to join Title II activity?	Project & Activity	<p><u>Mothers' Clubs</u></p> <p>Very responsive concept. People seem interested in joining new clubs (backlog of applications). Active participation by members and growth of clubs signals positive attitudes.</p>	1. Assist clubs in economic and community activities.
		What are attitudes of participants?	Project & Activity	Members seem to prefer current clubs to WFP but this may be more because they don't want to pay for food. Things are not so bad that they are willing to risk something new.	2. Provide more nutrition education.
		With introduction of a new program (WFP) which is preferred?			3. Target new clubs to the neediest.
		Does the project structure enable participants to obtain the services they prefer and need?		Wheat flour, milk, and vegetable oil most acceptable. WSD is not. Peanut oil congeals. Structure enhances responsiveness -- mothers have control even though there may be divisions among them.	4. No change in project structure.
				Membership fees enable mothers to purchase things they want. Some mothers not classified as "neediest."	5. Drop WSD from commodity list and add more CSB or CSM. Replace peanut oil with other vegetable oil.
					6. Need to increase rations to be given to women of childbearing ages.

Summary Table (continued)

<u>Chapter</u>	<u>Relationship</u>	<u>Issues</u>	<u>Level of Analysis</u>	<u>Conclusions</u>	<u>Recommendations</u>
				<p><u>Food For Work</u></p> <p>Activities initiated by community and therefore inherently responsive.</p> <p>People prefer money to food. Food does not necessarily go to needy groups.</p>	<p>1. Need to study whether food is best means of payment.</p>
				<p><u>School Feeding</u></p> <p>Rates lowest on responsiveness.</p>	<p>1. Need more information on nutritional status of school children to determine if they need amount and kinds of food given.</p>
				<p><u>Mothers' Clubs</u></p> <p>Popular. WEP replicating the structure. Very symbolic for women in Bolivia.</p>	<p>1. No changes.</p>
				<p><u>Food For Work</u></p> <p>Feeding activities small part of total project activities. Not much symbolism in food.</p>	<p>1. No change. Not necessary that the food be viewed as a major factor in activities.</p>
				<p><u>School Feeding</u></p> <p>Very little symbolism because of weakness of activities. Depends on support of teachers and fathers' clubs.</p>	<p>1. Need to strengthen these activities. Link feeding with nutrition education in the curriculum.</p>
				<p><u>Mothers' Clubs</u></p> <p>Activity level -- mothers keep good records of payment of dues, costs of transport, and other expenses.</p>	<p>1. No change.</p>
	d. Effect on community attitudes	To what extent are the projects and activities replicated symbolic in Bolivia? How important is the food?	Project & Activity		
	e. Cost and Budgeting	To what extent are budgets and records kept?	Program Project & Activity		

(continued) --

Summary Table (continued)

<u>Chapter</u>	<u>Relationship</u>	<u>Issues</u>	<u>Level of Analysis</u>	<u>Conclusions</u>	<u>Recommendations</u>
			Program, Project & Activity	<p>Project level -- (all three) CRS/Caritas and CARE/NSAC need considerable improvement in accounting and recordkeeping, if data submitted to evaluation team is accurate reflection of their information.</p> <p><u>Food For Work and School Feeding</u></p> <p>Not observed at activity level.</p>	<ol style="list-style-type: none"> Both CRS and CARE need to conduct some seminars and provide better supervision of Caritas and NSAC recordkeeping system. Need better reporting system to AID including more specific and comprehensive justification to support AERs. Budget information should be more specific to Title II program. AID should establish better guidelines for information it wants.
f. Monitoring & Evaluation		To what extent are recipients monitored and evaluated?	Project & Activity Project & Activity	With exception of children in mothers' clubs, there is no other monitoring and evaluation. Monitoring and evaluation of children is not done correctly.	<ol style="list-style-type: none"> Needs substantial changes. See recommendations in effectiveness chapter. Need to undertake evaluations of mothers, and Food For Work recipients and school age children. These might be done by Nutrition Office of AID in conjunction with GOB. Need to train health auxiliaries in how to take and record accurate measurements. Need better reporting system of results to activities.
g. Logistics		What problems, if any, are encountered in getting food from United States to recipients?	Program, Project, & Activity	<p>Much of delay is responsibility of U.S. in getting food to Bolivia.</p> <p>Caritas and NSAC responsible for food from La Paz, Cochabamba and Oruru to regional warehouses.</p> <p>Recipients responsible from warehouses to own activities. Warehousing at port insufficient. Too much handling of food.</p> <p>Packaging insufficient.</p> <p>Insufficient trucks.</p>	<ol style="list-style-type: none"> Need information system for recipients when food does not arrive on time. Need better warehouse facilities at port and end use checker. Need better packaging materials. Need more vehicles.

(continued) --

Summary Table (continued)

<u>Chapter</u>	<u>Relationship</u>	<u>Issues</u>	<u>Level of Analysis</u>	<u>Conclusions</u>	<u>Recommendations</u>
IV. Effectiveness of Title II	Program inputs to population needs and conditions	To what extent are there criteria for determining need?	Program & Individual	Inadequate nutritional and economic criteria	1. Need studies undertaken, especially in rural areas, indicating nutritional and economic status and further needs.
	Outputs and recipients (impact)	To what extent is there is nutritional impact of the program?		Difficult to verify because of data problems.	1. Once data and statistical problems solved, can measure impact. Need to institute better measurements now especially in new clubs, so baseline data will be available.
				Nutritional status for all ages of population low but not as low as expected. Not a starvation society.	2. Analyze and compare Bolivian standards with new U.S. standards which include height and weight instead of height and age.
				Economically, the neediest are likely to reside in rural areas, especially in southern parts of Altiplano, Beni, and Pando areas. There is less concentration of programs in these areas than in more "developed" areas.	3. Limited nutrition survey be undertaken in existing mothers' clubs by trained teams.
				Food generally available although more so than in some other areas.	4. Upgrade nutritional biochemistry laboratory. Make laboratory more accessible to other groups wishing to conduct nutritional status evaluations.
				Nutritional data and statistics highly unreliable.	5. Develop plan to reach persons in remote areas.
				Food sharing among family.	
				Members do not represent danger to current groups because in most cases malnutrition is marginal as determined by existing data.	
				Incorrect classification or standards used for measures. Title II foods more protein oriented but need is for more calories. People like the wheat.	
				Rations adequate.	

(continued) --

Summary Table (continued)

<u>Chapter</u>	<u>Relationship</u>	<u>Issues</u>	<u>Level of Analysis</u>	<u>Conclusions</u>	<u>Recommendations</u>
	Wheat imports and local wheat production and consumption	To what extent does Title II wheat serve as disincentive to local production?		Title II wheat is small part of total wheat, therefore little likely impact. Nationally, may be small problem in Cochabamba area -- principal wheat growing area for Title II. Does Title II influence consumption preferences for wheat rather than other local grains (rice, quinoa)?	1. Need to determine effect before introducing wheat in new area. Are there local food alternatives? If so, they should be integrated into program.
V. Title II and Other programs	Title II and other programs of participating agencies	To what extent is Title II integrated with other programs of participating agencies?	Program	Insufficient integration especially within AID, CRS/Caritas.	1. Need better integration with socio-economic programs.
	Title II and other programs of non-participating agencies	To what extent is Title II integrated with other programs of non-participating agencies?	Program	Insufficient integration.	1. Need better integration.

I. DESCRIPTION OF AID TITLE II PROGRAM IN BOLIVIA

Participating Agencies

The P.L. 480 Title II program in Bolivia is coordinated among four principal institutions: AID; the Ministry of Public Health (MOH), representing the Government of Bolivia; voluntary agencies -- Catholic Relief Services (CRS) and CARE; and counterpart agencies -- Caritas (working with CRS) and the National Social Action Council (NSAC), which works closely with CARE. Each of these institutions is involved in non-Title II activities as well as other P.L. 480 Title II activities not under the direct purview of this evaluation.

Agency for International Development (AID)

AID is responsible for delivery of P.L. 480 Title II foods to Bolivia as well as coordination of the program on behalf of the U.S. Government. P.L. 480 Title II activities in Bolivia are coordinated by the Health and Humanitarian

Assistance Division¹ (HHA) of AID and account for 80 percent of HHA activities. Within this division, two locally-hired persons are assigned to the Title II program -- a Food For Peace Specialist and an administrative assistant. Together they are responsible for monitoring the day-to-day activities of the program in conjunction with the other participating agencies. They meet with other program agencies, review and evaluate reports submitted to AID by other agencies, visit activities, etc. Because of U.S. restrictions on local employees, the Food For Peace Specialist has less direct influence and role at the policy level than is desirable for program direction.

Ministry of Social Welfare
and Public Health

The Nutrition Division of the Ministry of Public Health is responsible for the P.L. 480 Title II program activities of the Government of Bolivia. It has seven or eight nutritionists who provide nutrition education courses to the mothers' clubs and school feeding projects of CRS and coordinate the nutritional status measurement exercises. To date, it plays no part in CARE/NSAC Title II activities.

Until the introduction of the new World Food Program (WFP) project, the Nutrition Division was heavily involved in Title II activities. However, there has been a recent shift in Ministerial activity toward WFP, with a concomitant decrease in its participation with CRS/Caritas and AID. This shift is of course detrimental not only to the educational

1. In addition to Title II, HHA is responsible for rural sanitation, rural health, and special nutrition planning programs of AID.

aspects, but also to the measurement of nutritional status and program effects. At the time of our evaluation, no substitute plans or ways of strengthening the Ministry of Public Health ties with Title II had been found.

Voluntary Agencies

Catholic Relief Services (CRS)

Catholic Relief Services has been involved in Title II activities since 1958. Two U.S. citizens -- the Program Director and Program Assistant -- supervise the Caritas operation of the Title II feeding program, among other activities.

CARE

CARE was asked by the National Social Action Council, its counterpart agency, to assist with the Title II program in 1976. The program began in 1977 with CARE providing intensive supervision in the design, establishment, and management of NSAC Title II activities. CARE considers its participation to be temporary, with a first review to be undertaken in late Spring 1978.

Counterpart Agencies

Caritas

Caritas has had primary responsibility for the day-to-day operations of the CRS P.L. 480 Title II activities since

1971. Caritas' network of regional and diocesan offices, as shown in the accompanying map, forms the basic infrastructure for its Title II operations. Whereas Caritas is responsible for all aspects of the food distribution system, the Ministry of Public Health is responsible for nutrition education and nutritional status assessment.

National Social Action
Council (NSAC)

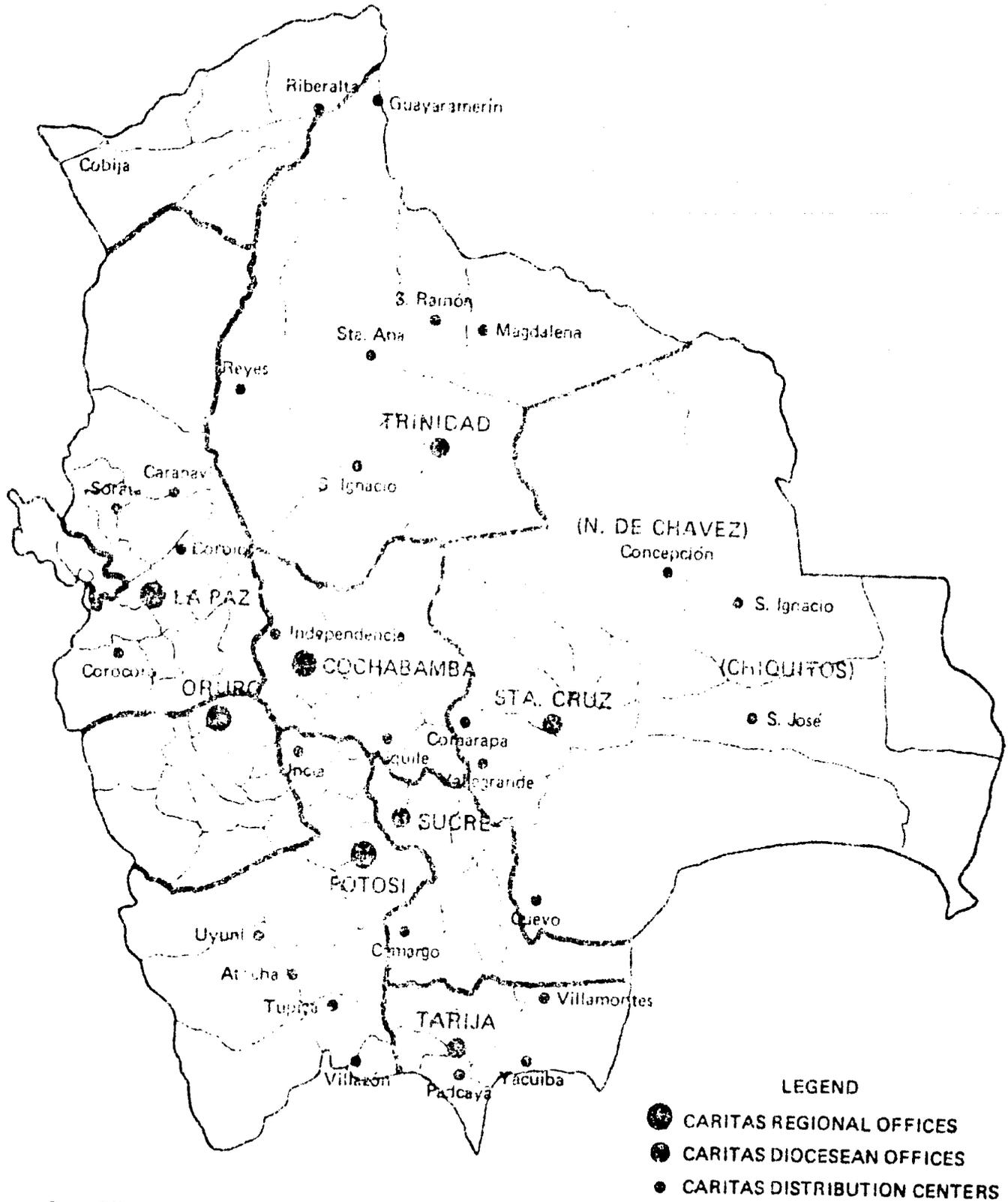
NSAC has been assigned responsibility for implementing the Title II program among marginal population groups in urban and rural areas. At the end of 5 years, projects operated jointly by NSAC and CARE will be phased over almost entirely to NSAC.

Relation of Activities to
Title II Program Under Review

The program covers approximately 340,600 beneficiaries, nearly 18,000 tons of food, and costs AID \$7.9 million, distributed as shown in Table 1.

According to the Department of Nutrition, the Title II program has reached 65 percent of the vulnerable population in "accessible" areas. Among pregnant women, the program reaches 75 percent within accessible areas and 43 percent of children 5 years of age and under. For three of the departments, the following program reach is also provided: La Paz, 80 percent; Cochabamba, 75 percent; and Santa Cruz, 35 percent. It is estimated that 40 percent of the Bolivian population resides in "inaccessible" areas -- or outside the current reach of the program. These statistics indicate that there are still 100,000 needy persons within the accessible areas that ought to be reached as well as about

MAP 1. CARITAS IN BOLIVIA, 1977



LEGEND

- CARITAS REGIONAL OFFICES
- CARITAS DIOCESEAN OFFICES
- CARITAS DISTRIBUTION CENTERS

Source: Caritas Office, Bolivia

Table 1. Selected P.L. 480 Title II Program
Elements in Bolivia, FY 1978

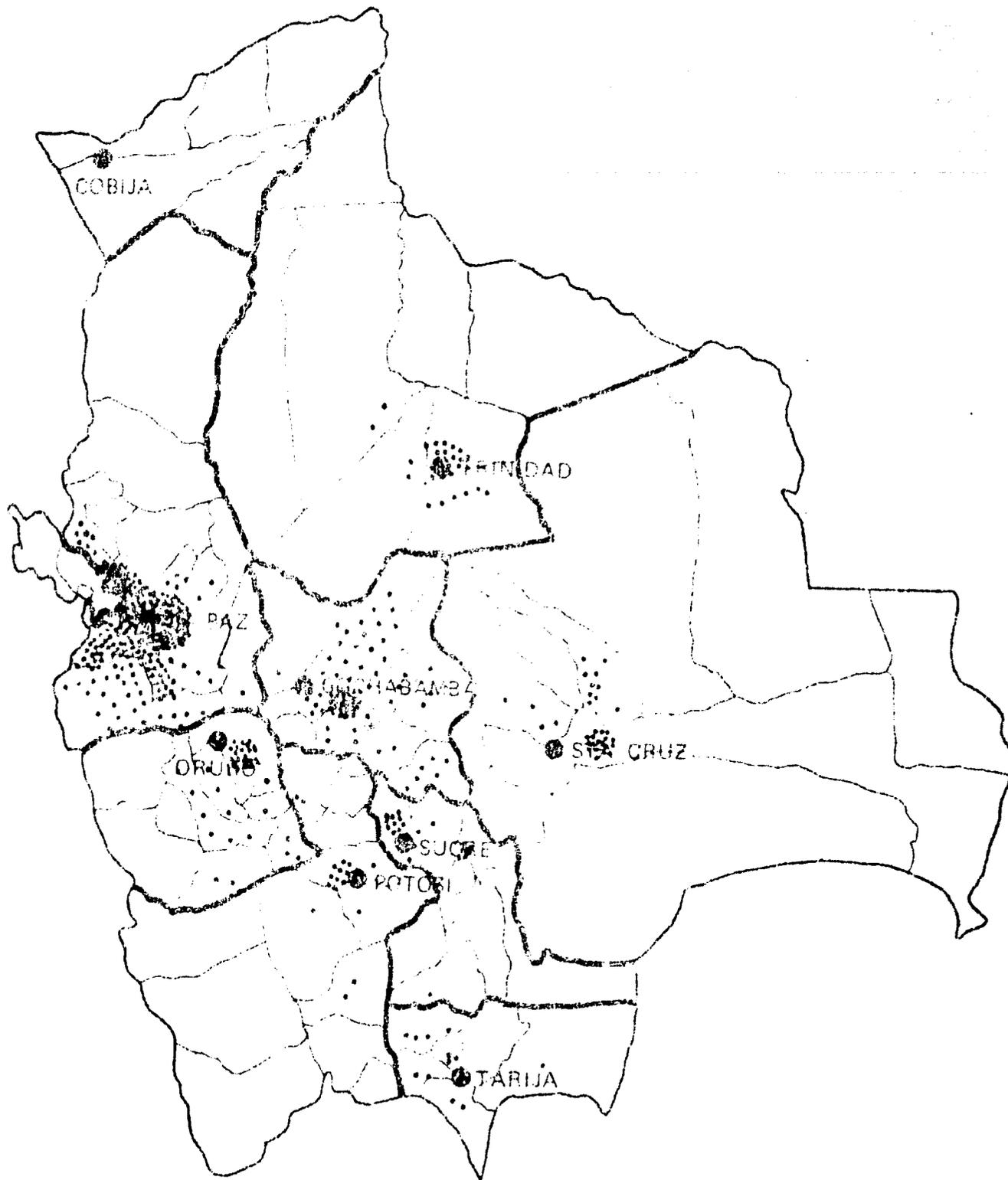
Element	CRS/Caritas	CARE/NSAC	Total
Number of beneficiaries			
Mothers' clubs	117,000	30,000	147,000
Food For Work	23,600	10,000	33,600
School Feeding	160,000	--	160,000
Total	300,600	40,000	340,600
Volume of food (metric tons)			
Mothers' clubs	7,513	1,926	9,439
Food For Work	2,408	1,097	3,505
School Feeding	4,922	--	4,922
Total	14,843	3,023	17,866
AID costs (Millions of dollars)			
Mothers' clubs	3.56	.84	4.40
Food For Work	.85	.37	1.22
School Feeding	2.26	--	2.26
Total	6.67	1.21	7.88

Source: USAID, Food For Peace Office.

600,000 women and children under 5 outside the accessible areas who would also qualify for participation in mothers' clubs and food distribution programs on the basis of economic and nutritional need.

CRS/Caritas. The CRS/Caritas Title II activities are distributed geographically in accordance with the Caritas church network. The maps that follow show the geographic distribution of its mothers' clubs and school feeding

MAP 2. LOCATION OF MOTHERS' CLUBS IN BOLIVIA,
SPONSORED BY CRS/CARITAS, 1976



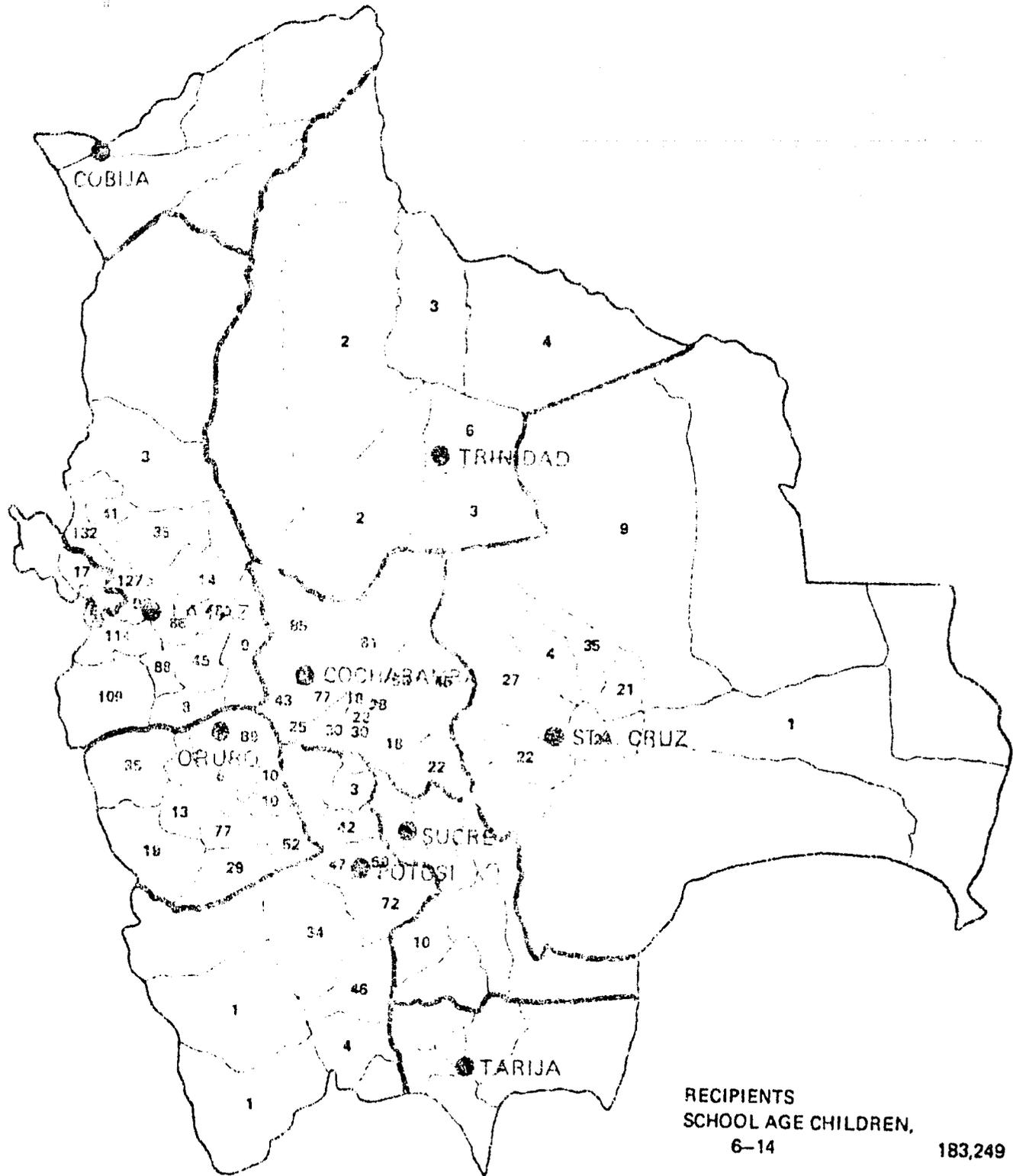
Source: AID Food for Peace Office - Bolivia

MAP 3. GEOGRAPHIC DISTRIBUTION OF 565 PL 480
MOTHERS' CLUBS IN BOLIVIA, SPONSORED
BY CRS/CARITAS, 1976



Source: AID Food for Peace Office - Bolivia

MAP 4. GEOGRAPHIC DISTRIBUTION OF 3,110 SCHOOLS IN SCHOOL FEEDING PROGRAM IN BOLIVIA, SPONSORED BY CRS/CARITAS, 1976



Source: AID Food for Peace Office - Bolivia

activities. The principal geographic concentration of Title II activities is in the geographic vicinity of the principal regional Caritas offices and warehouses in the La Paz, Cochabamba, Oruru, and Potosi civil departments. A further breakdown of CRS/Caritas P.L. 480 Title II activities by project and region is indicated in Table 2 and accompanying maps. The data are based on the period January-June 1976. (Tables for 1977 are in preparation but were not available for the evaluation mission's use.)

Table 2. CRS/Caritas Activities,
by Type and Region

Civil department	Number of schools	Number of Mothers' clubs	Number of Food For Work projects
Cochabamba	1,338	105	n.a.
La Paz	950	299	n.a.
Oruru	340	37	n.a.
Potosi	309	14	n.a.
Santa Cruz	143	37	n.a.
Beni	20	30	n.a.
Chuquisaca	10	21	n.a.
Tarija	0	12	n.a.
Pando	0	0	n.a.
Total	3,110	555 ^a	--

n.a. = not available.

a. In 1977 there were 588 mothers' clubs.

Source: USAID, Food For Peace Office.

CRS/Caritas Title II activities are generally located within a 100-mile radius of provincial capital cities. About 75 percent of all their P.L. 480 Title II activities are rural. By project, 40 percent of the mothers' clubs

are located in urban areas. All of the school feeding and Food For Work projects are in rural areas, but in FY 1978, only 64 percent of the school feeding activities are to be located in rural areas.

The Ministry of Public Health provides the following breakdown of the mothers' clubs by department and by rural/urban status. Although the total numbers differ from the data provided by AID, this can probably be attributed to a different time period base. The relative ranking of departments remains the same.

Table 3 confirms that a high proportion of the mothers' clubs are located in La Paz, Cochabamba, Oruru, and Santa Cruz, the more "developed" regions of the country. About two thirds of the clubs are located in rural areas.

Table 3. Location of Mothers' Clubs Operated by CRS/Caritas with M.O.H., by Department, 1977

Department	Urban		Rural		Total	
	Number	Percent	Number	Percent	Number	Percent
La Paz	70	25	206	75	276	46.9
Cochabamba	60	46	70	54	130	22.1
Oruru	15	31	37	71	52	8.8
Santa Cruz	20	46	24	54	44	7.5
Potosi	8	31	18	69	26	4.4
Chuquisaca	7	33	14	67	21	3.6
Tarija	5	24	16	76	21	3.6
Beni	13	72	5	28	18	3.0
Total	198	33.6	390	66.3	588	99.9

Source: Ministry of Public Health, Nutrition Division.

CRS/Caritas mothers' clubs in the Cochabamba Department contrast considerably with those in other parts of the country due to the unique historical development of the clubs and perhaps the personality of the Caritas director.

In 1971, the Ministry of Public Health and Caritas began organizing mothers' clubs independently of each other. The CRS/Caritas clubs are closely linked to the local Caritas diocese. Meanwhile, the Ministry of Public Health was establishing clubs not associated with the diocese. Both sets of clubs had a health orientation but the Ministry of Public Health provided nutritionists to assist their program while the CRS/Caritas clubs had to use some of their accumulated savings for these services. Hence, to date, even though both groups of clubs now receive food through Caritas, the clubs originated by Caritas have little money saved while the clubs organized by the Ministry of Public Health have accumulated sizable sums. It is the latter clubs which are the likely first candidates for the WFP plan which introduces a third form of mothers' clubs into the Cochabamba region.

In the meantime, the CRS/Caritas-organized clubs are intensifying their focus on health by introducing a fourth type of club. In these clubs, each mother pays 5 pesos for each member of the family per month. The new clubs use the funds to pay for doctors and nurses according to the following schedule:

Club size (Number of mothers)	Doctor fee (Pesos monthly)	Nurse fee (Pesos monthly)
20-50	300	150
51-100	600	300
101-150	1,000	500

The doctors are required to work 3 days a week for several hours a day and the doctors and nurses are responsible for not only providing medical services, but also nutrition and food preparation instructions. The aim is to develop all the CRS/Caritas mothers' clubs into this type over the next few years.

CARE/NSAC. The CARE/NSAC program is avowedly urban. The mothers' clubs originally began in three departments -- La Paz, Cochabamba, and Oruru. However, difficulties surfaced almost immediately after the food distribution program began and CARE insisted that the program be confined to La Paz until seminars could be provided on the rules and regulations of food distribution. As a result, the program was concentrated only in La Paz at the time of the mission's visit. The Food For Work project is also located in the La Paz vicinity.

Program Inputs

There are five principal sources of inputs to the Title II projects -- AID, Ministry of Public Health, voluntary agencies, counterpart agencies, and local communities. Their contributions consist of food, personnel, infrastructure, facilities, and cash funds, and totalled at least \$9 million for three project areas evaluated.¹ As Table 4

1. This excludes inputs of the Ministry of Health, for which data were not available.

Title II Foods, Actual (Thousands of pounds)		
	CRS/Caritas	CARE/NSAC
Wheat flour	2,487	159
CSB	2,925	117
Non-fat dry milk	1,963	--
Whey soy drink	1,748	101
Vegetable oils	1,040	57
Rolled oats	757	59
Wheat soy blend	900	73
Bulgar	283	--
Sorghum	286	--
Total	12,479	546

Non-Title II Foods (Value in dollars)		
	CRS/Caritas	CARE/NSAC
Maisoy	not specified	--
Non-fat dry milk	"	--
Other local foods	"	--
Total	122,600	

Personnel	
CRS/Caritas	76
CARE/NSAC	210

Infrastructure	
CRS/Caritas	\$ 50,000
CARE/NSAC	400,000

Funds	
CRS/Caritas	\$240,000
CARE/NSAC	75,000

Other Materials -- Clothing and Medicine	
CRS/Caritas	\$900,000

indicates, AID's contribution of \$6.7 million for food and transport accounts for about 74 percent of the total cost of the program under review.

Table 4. Sources of Title II Inputs,
FY 1977

Source	Amount (Millions of dollars)	Percent of total
AID	6.7	74
Voluntary agencies	1.0	12
Counterpart agencies	0.6	7
Government of Bolivia	0.5	5
Community	0.2	2
Total	9.0	100

Sources: USAID, Food For Peace Office; CRS/Caritas; and CARE/NSAC.

Title II Foods

AID's contribution is composed almost entirely of the Title II food and cost of transporting it to Bolivia. The latter accounts for 30 percent of the AID total delivered food costs.

AID approved seven commodities for the Bolivian program -- wheat flour, ICSM, whey soy drink, nonfat dry milk, vegetable oil, rolled oats, and wheat soy blend. However, sorghum and bulgar are also distributed. A fuller complement of foods goes to mothers' clubs than to any other project. In the CRS/Caritas system, wheat flour, whey soy drink, and ICSM

are provided in the largest quantities, followed by nonfat dry milk and the others. Whole wheat is not provided. A more detailed breakdown of approved levels of P.L. 480 Title II foods for FY 1977 by project is provided in Table 5.

Actual distributions of Title II commodities have been less than approved levels. The CARE mothers' club system began with borrowed commodities and later distributed its own. However, difficulties in administering the system outside La Paz led to a retraction to the La Paz area alone and thus of the approved level, only 37 percent of the food was actually distributed. CARE's Food For Work activities were initiated much later than had been anticipated, hence only 28 percent of the approved level of food was distributed in FY 1977.

An analysis of data supplied by AID reveals that in 1976 CRS/Caritas distributed about 80 percent of approved levels of Title II foods but the percentages were much lower in 1977 (62 percent for mothers' clubs, 48 percent for school feeding and only 9 percent for Food For Work). The approved levels distributed to mothers' clubs were roughly the same in both years while there was a 16 percent increase in volume of food to be distributed to the schools.

One possible reason why distribution levels are less than approved levels relates to the absorptive capacity of the Caritas network. In 1977 the Ministry of Public Health, although not directly involved in food distribution, did suspend much of its participation, at least unofficially, and this may have caused problems for Caritas. AID plans to expand Title II food distribution through the CRS/Caritas

Table 5. Food Made Available by Food For Peace
to the Various Programs, 1976
(Thousands of Pounds)

Type of food	Maternal child health			Food For Work			School feeding		
	CRS/ Caritas	CARE/ NSAC	Total	CRS/ Caritas	CARE/ NSAC	Total	CRS/ Caritas	CARE/ NSAC	Total
Wheat flour	2,400	346	2,746	1,152	144	1,296	2,144	--	2,144
ICSM/CSB	2,400	256	2,656	432	40	472	3,216	--	3,216
Whey soy drink	2,400	184	2,584	--	--	--	--	--	--
Nonfat dry milk	1,500	--	1,500	--	--	--	700	--	700
Vegetable oil	1,200	132	1,332	144	16	160	536	--	536
Rolled oats	1,200	185	1,385	288	38	326	804	--	804
Wheat soy blend	1,200	173	1,373	288	27	315	1,501	--	1,501
Total	12,300	1,276	13,576	2,304	265	2,596	9,705	--	9,705

Source: USAID, Food For Peace Office.

system but it is recommended that before this is approved, a review be made of Caritas' organizational ability to distribute the food. Caritas already operates under serious financial constraints. Unless these are removed, it will not be able to carry out its functions properly.

The CRS/Caritas system reached more recipients in mothers' clubs and school feeding projects than were estimated but less than half of the estimated 12,000 recipients in the Food For Work project were reached. Actual numbers of recipients for the CAFE program were not available at the time of the mission but we know there were less than 5,000 (which was approved) because of the retracted operations.

Thus, less food has reached more people than was originally intended. This was confirmed by our visit to mothers' clubs. The number of rations actually distributed was less than the number of persons in the clubs and in some instances less than those eligible for the food. This implies that there are other eligible people who would like to receive food if the distribution system can handle more food.

Non Title II Foods

The Government of Bolivia, through the counterpart agencies and the local communities, supplements the Title II foods with local foods, especially for the mothers' clubs and school feeding projects. Maisoy, a national blended food of corn and soy, and local nonfat dry milk are the principal local commodities distributed to the mothers'

clubs only. In the first year of operation there was no local food complement in the CARE/NSAC activities. A local food phase-over beginning in the third year of operations is a key element of the project plan, however. National commodities contemplated for phase-in are wheat flour, vegetable oil, and maisoy.

Personnel

Personnel are provided principally by the counterpart agencies, however, these are supplemented by supervision personnel and some administrative expenses which are contributed by the voluntary agencies. The Government of Bolivia paid salaries to 54 direct full-time employees in Caritas and ten¹ in NSAC in FY 1977. NSAC, from its Government-financed budget, supports an additional 200 persons including regional directors, doctors, social workers, and promoters on a part-time basis. Added to these persons should be the two AID personnel, two CRS program directors, and two CARE officials.

Infrastructure

The CARE/NSAC system has \$400,000 allotted for infrastructure expenses. About \$100,000 is for building improvements and new equipment and \$300,000 is for the construction of new health centers. These are important items in the CARE/NSAC system because of the integrated emphasis on

1. A Director, a nutritionist, two auxiliaries, a warehouseman, two clerks, a secretary, and two regional representatives.

health and nutrition and the linking of the mothers' clubs to a total health oriented program. The CARE/NSAC mothers' clubs are each attached to multifunctional health and education units.

Because the CRS/Caritas program operates on the basis of the Church's local offices, less reliance is placed on construction of feeding facilities than under the CARE/NSAC system.

Funds and Other Materials

Total funds to pay for transport costs and other expenses amount to over \$320,000 for the two systems. CRS/Caritas, with the larger system, has the bulk of these monies -- about \$240,000. CRS also distributes medicine and clothing valued at about \$900,000 through its Title II system. No further breakdown by project was available.

Program Structure: Projects and Activities

In Bolivia, there are three projects under review in this evaluation -- mothers' clubs, Food For Work, and school feeding.

Mothers' Clubs

Bolivia's concept of the mothers' club is unique among P.L. 480 Title II programs around the world. Instead of maternal child health projects where mothers bring their

children for food and in some instances health services, the mothers' club concept allows for an emphasis not only on nutrition and health, but on economic and community development. The belief is that the provision of food and nutrition education can serve as a catalyst for economic and social development of the individual and the community. Both CRS/Caritas and CARE/NSAC systems are based on these premises although the operations of each are quite different. Both provide food on a take-home basis.

CRS/Caritas. In 1977, CRS/Caritas had in operation 588 mothers' clubs. The first clubs were organized in 1971. The Ministry of Public Health, through its nutritionists and social workers from NSAC aided in selecting members of clubs. Field trips and visits to homes were made to determine who needed the food. The nutritionists and social workers often disagreed in determinations of eligibility, however, and the participation of the social workers was thereafter suspended.

The mothers' clubs are geared to pregnant or lactating women and children under 6 years of age. The clubs are organized to assist in the provision of health and medical care including immunization, food distribution, and nutritional, health, and social education extension services.

A club can include between 15 and 100 members who elect a board of directors. A monthly fee of 15 pesos (75 cents) each is required, not for the food, which is free, but to defray operating expenses of the club (such as food transport costs) and to build up capital to be used for activities determined by the mothers.

To organize a club, an ad hoc committee of interested persons can come together and submit a formal application to the local Caritas organization. Men in the community can collaborate with mothers' clubs in local areas. The local Caritas office will approve or disapprove the club and determine whether it qualifies for free food assistance. There are no formal criteria of need, so the decision is left to the discretion of local Caritas officers.

There are two classifications of members. Group A women are pregnant or lactating and/or have children under 6. Group B includes those who do not fit in this group. Only women in the first group are eligible to receive food. However, mothers in both groups must participate in talks and courses on nutrition, health, social services, and can obtain specially priced articles of food and clothing through cooperatives. All members may also receive health checks for themselves and their children under 6 at health centers or on the club premises.

Rations are distributed to pregnant women starting in their third month of pregnancy, and to lactating mothers until the child is 1 year old. Each child between 6 months and 6 years also receives a ration.

The Nutrition Division of the Ministry of Public Health and Caritas determine the food rations for each beneficiary group. They together also assist in registering new members, determining their eligibility, and recording height, weight, and age measures every month for children under 1 year old,

every three months for children 1-4 years of age, every 6 months for children over 4 and under 6 years old and for mothers during the second half of their pregnancy.

CARE/NSAC. Improvement of health, reduction of malnutrition, and provisions for nutrition education are key aspects of the CARE/NSAC mothers' clubs. The mothers' clubs have been in operation as many as 6 years. Each group of 50 to 100 members receives courses in health, nutrition, homemaking and handicraft, and receives food assistance through Title II. Children under 8 must be measured in order that the impact of the food assistance can be assessed. Mothers must also present birth certificates for each child under 8 and medical verification if they are pregnant. Pregnant or lactating mothers and children under 8 are eligible to receive food assistance.

A full-time doctor, nurse, and dentist are located in each health center to which a mothers' club is attached. The mothers elect their own board of directors to implement club activities. Ten of the 23 clubs around the country now manage their own activities. NSAC pays a promoter who coordinates club activities with the NSAC. Although the Title II food is free, the mothers are required to make monthly payments to defray operating expenses of the club. The amount varies with ability to pay. In La Paz, mothers each pay 15 pesos a month (75 cents) but in clubs in other parts of the country, monthly payments are 10 pesos. Each club has a treasurer who collects the money, and deposits it in a regional account controlled by the NSAC from which transport and other costs are deducted. Thus, while every mother pays, not all are eligible for the food, creating active and passive membership distinctions.

Rations are distributed to pregnant women beginning in their third month. They are eligible for food throughout the pregnancy and the first year of lactation. Children under 8 years old are eligible for free food. Children who are deemed to be malnourished are eligible for an extra ration.

Food is generally distributed on a monthly basis. A rotating group of 5 to 10 persons is designated in accordance with the membership list to get the food from NSAC warehouses, and transport it to the clubs. The actual food distribution is supervised by members of the board of directors and promoters.

Food For Work Project

Both CRS/Caritas and CARE/NSAC operate Food For Work activities in Bolivia. Because the team was unable to visit any activities in operation the following discussion is rather cursory.

CRS/Caritas. CRS/Caritas Food For Work activities are located almost entirely in rural areas. Food is distributed to workers for themselves and their dependents on the basis of the number of days they work on an activity. Activities eligible for food distribution include construction of schools, health clinics, latrines, wells, bridges, and other community infrastructure. No church, political office, labor union, or government-owned facility may be built with Food For Work supplementation.

The CRS/Caritas Food For Work project is small although there is interest in expanding it. It did not operate in 1976 but in FY 1977 it reached 5,300 persons.

CARE/NSAC. Food distribution in the CARE/NSAC Food For Work project recently began. CARE has eight pilot projects in Villa Copacobana (near La Paz) which will distribute 4,000 rations to 1,000 workers and 3,000 dependents this year. The NSAC is also preparing two nutrition education courses for workers' wives in how to prepare the newly received Title II foods. The activities are undertaken on Sundays and the workers receive food as an incentive to construct facilities for the local community. The NSAC also plans to begin a nutritional assessment study by next year as part of its Food For Work projects.

Food For Work activities are designed to supplement the employment of rural and urban workers. In the urban areas, participants must work a minimum of 2 days and cannot work more than 10 days per month. In rural areas, participants must work 15 out of 20 days or 10 out of 15 days and never more than 20 days in order to receive food. Each participant receives four rations per day worked, to cover himself or herself and three dependents.

School Feeding

CRS/Caritas operates the only Title II school feeding project in Bolivia. Because the schools were closed at the time of the evaluation, it was not possible to witness their operations.

Originally a school breakfast project was undertaken in rural and urban areas. In 1967 Dr. Abela at the Ministry of Public Health encouraged a shift to school lunch and several pilot activities were initiated. The urban schools however, did not want to participate so the activities were concentrated in rural areas. Every school was required to have an oven, kitchen, and dining space, often built by the local community. About 20 percent of the schools would not participate because they lacked such facilities. In many instances they did continue the school breakfast activities, serving a glass of milk, rolled oats, and bread.

Preparers were hired from the community. In some instances they were members or wives of members of the fathers' clubs which serve as local school boards and supervise all school activities. In some instances preparers were counted as Food For Work participants so they could also receive food.

After 6 years the supervision capacity of the Ministry of Public Health declined and most schools reverted to school breakfast. Only last year was there an official plan to revert back to school breakfast because fewer facilities are required and less supervision is necessary. It was found that only 11 percent of the schools served school lunches. In some instances, schools may serve both breakfast and lunch.

The communities pay for the transport of Title II foods and provide supplementary foods. Often, each child is required to contribute some local food each week, but without adequate supervision, this is unlikely to occur.

Each child is supposed to pay 1.5 pesos (7 1/2 cents) a month, which, in the aggregate, helps to defray the cost of transporting the food from Caritas' warehouses to schools.

Approximately 3,110 rural schools participated in the school feeding project in FY 1977. Unfortunately, there are no comparable data on the number of schools in rural areas that can be used to judge the extent of school participation. However, about 160-180,000 children ages 6-14 participate in the project. There are approximately 450,000 children involved in the rural schools in this age category, hence the project may be reaching as much as 40 percent of children in the 6-14 year age group.

Program Outputs

The P.L. 480 Title II program under review provides a broad range of output services -- rations, both Title II and non-Title II; nutrition, health, homemaking, and social courses and seminars; clothing and medicines; medical services including vaccination and immunization; and economic and cooperative activities. These will be discussed in relation to each project.

Mothers' Clubs

The CARE/NSAC system focuses directly on health and nutrition while the CRS/Caritas system is more narrowly focused on food distribution.¹ This, however, is a function

1. Cochabamba CRS/Caritas clubs are an exception to this general rule.

of the reduced input of the Ministry of Public Health and limited budget for such services whereas the CARE/NSAC budget allows for the full range of medical and health services. Both systems include an economic development component which arises partly out of the capital accumulated from the monthly fees. Little direction has been given to the clubs in either system in finding ways to utilize these funds, however. It is for this reason that the CRS/Caritas clubs are attractive for the WFP system. Where the funds have been used, they have been spent on building mothers' clubs facilities, contributing to the local schools, assisting members in emergency situations, purchasing sewing machines, or participating in cooperative activities.

Food For Work

The Food For Work project distributes P.L. 480 Title II food as part of the construction of local facilities. The food serves as an incentive for community development and cooperation. CARE/NSAC also provides nutrition education services as part of the food distribution.

School Feeding

Title II foods are supposed to be supplemented by local foods but lack of supervision has reduced the scope of the project to school breakfast rather than school lunch, and little if any local food supplementation is provided. Nutrition education aspects of the project have been virtually absent since the Ministry of Public Health reduced its input. CRS does distribute some clothing as part of the project as well.

The following chart summarizes the structure of the program outputs.

CHART 2. OUTPUT ELEMENTS

MOTHERS' CLUBS

CRS/Caritas	CARE/NSAC
<u>Primary</u> Food ration -- Title II and local	Food ration -- Title II only Nutrition education Medical services and immunization Dental services
<u>Auxiliary</u> Nutrition education Clothing Medicines Immunizations (limited) Handicrafts	Handicrafts

FOOD FOR WORK

CRS/Caritas	CARE/NSAC
<u>Primary</u> Food ration -- Title II only	Construction of local facilities
<u>Auxiliary</u> Construction of local facilities	Food ration -- Title II only Nutrition education

SCHOOL FEEDING

CRS/Caritas
<u>Primary</u> Title II and local food rations (mostly for school breakfasts)
<u>Auxiliary</u> Clothing

II. POLICY ANALYSIS

There are four critical policy relationships to be examined, as follows:

1. Relationship between Title II program under review and general economic health and nutrition policies and conditions of Bolivia;
2. Relationship among goals and purposes of participating agencies and the Title II program;
3. Relationship of project priorities of the participating agencies;
4. Relationship between policies and Title II projects.

Within these relationships, the evaluation team identified a number of key issues which are discussed below:

- . To what extent are the Bolivian Government's general economic development and health policies consistent with the Title II programs?
- . To what extent are general conditions in Bolivia amenable to the Title II program?
- . To what extent are the goals and purposes of the participating agencies compatible or supportive of each other?

To what extent is priority ranking of projects consistent among the participating agencies?

To what extent do projects follow policy guidelines?

Correlated with each issue and its analysis are specific recommendations for improving the Title II program.

General Policies and Conditions

Key Bolivian policies and conditions which impinge indirectly on the Title II program under review include the following:

- a. The principal Bolivian development strategy, abetted by almost all foreign donor programs, is the development of urban centers which will serve as magnets to attract poor persons from rural areas who hope to avail themselves of the social services and economic opportunities there.
- b. The Bolivian Government places a relatively low priority on rural health, education, and nutrition programs.
- c. Bolivia is generally self-sufficient in food except for wheat, for which there is a continuing dependency on imports.
- d. There is a general lack of communication and coordination among Bolivian and non Bolivian institutions in the delivery of services which overlap several sectors.
- e. There is little if any institutional infrastructure or network beyond a 100-mile radius of principal cities.

Bolivian Development Strategy

The overall strategy of the Bolivian Government, given its limited resources from foreign and domestic sources, is to promote the development of urban centers which will attract needy people from rural areas as well as serve the needs of the urban population. Both groups together will avail themselves of services and programs. Such a strategy is focused along a development axis from the city of La Paz south to Cochabamba and Santa Cruz and complemented by a parallel link of Oruru, Potosi, Sucre, and Tarija. There is a weighted distribution of all public and private investments with La Paz, Santa Cruz, and Cochabamba together receiving more than half of all investments (52 percent) and the second development link receiving 30 percent. The Beni and Pando areas plus other parts of the nation, although the least developed, share only 18 percent of all investments. The rapid growth of these urban centers in the last 10 years is directly attributable to this development strategy.

Such a policy serves as a constraint to the reorientation of programs to rural areas. This is especially critical for the Title II program which by its nature is supplementary and must rely on other institutional networks if it is to receive the wide coverage and extension desired by AID. It also implies that government commitment is not likely to be as intensive as is probably required by the program format.

Low Priority of Title II- Related Programs

Consistent with the policy stated above, Bolivia places a low priority on rural education, health, and nutrition

programs. The distribution of national budget expenditures provides some verification of this fact.

About 20-30 percent of the national budget is devoted to education but about 90 percent of this amount is used for teachers' salaries, leaving little if any funds for curriculum development, facility construction, or feeding programs. Only a small percentage of the school age population benefits from these programs as less than half of the children are registered for school and only 20 percent of those registered regularly attend.

About 10 percent of the annual budget goes to the agricultural sector. However, within agriculture only 7 percent of these expenditures are used for social services compared to 83 percent for production, marketing, and credit activities. Current Bolivian development policies to reduce consumption expenditures and favor more growth-oriented investment activities imply little change in the sectoral distribution of expenditures in the short and medium terms.

The low priority accorded these programs can be partially attributable to the general absence of nationwide plans and policies. There is no rural development strategy, nor is there a national nutrition and health policy. This lack of direction impedes the further design, planning, and implementation of specific programs and projects.

Bolivian Food Situation and Wheat Priority

Despite the fact that large parts of the country are unsuitable for agricultural production and/or are uncultivated,

Bolivia is currently self-sufficient in most foods. The exceptions are milk, oil, lard, and wheat. According to the Ministry of Agriculture, the country is expected to be self-sufficient in oil and lard by 1980 and at least the urban population will be self-sufficient in milk by 1982. Hence, the only food for which there is a continuing import dependency is wheat.

The Government of Bolivia, with assistance from foreign donors, is attempting to increase domestic wheat production, though the results of these efforts will not be evident for at least the next 5 years. The principal strategy has been to conduct research on new varieties in the Bolivian setting, which may lead to increased yields and output.

Meanwhile, other problems on the supply side, such as the need to introduce expensive technology, the bias of farmers toward producing higher valued crops, the small size of local markets, and considerable transport and marketing barriers all contribute to a desire on the part of the Bolivian Government to continue to depend on wheat imports. The only shift in this importing policy is that the government is developing an intermediate wheat processing capability so that only wheat grain, as opposed to wheat flour, will be imported after 1979. Currently, most of the wheat imported, including all wheat through Title II, is in flour form. Since Title II wheat flour represents a relatively small portion (less than 2 percent) of total wheat imports, such a policy may well exclude the Title II program. Given the nature of the Title II program, it would be unfeasible to ship the whole grain for distribution to people who would have to have it milled before use. This would substantially

reduce the benefits and geographical coverage of the program. (Title I exports to Bolivia will be whole grain and thus consistent with the Bolivian policy.)

The high priority which the government places on wheat imports is thus supportive of the Title II program.

Lack of Institutional Coordination

Each time a new program is initiated in Bolivia, including those which involve foreign donors, principal responsibility for the Bolivian representation is centralized in one organization or agency. This approach may facilitate the decisionmaking process; however, in instances where programs straddle several sectors, it usually results in little coordination with other relevant agencies. Given limited resources, program implementation would benefit from the input of resources by these other agencies. The current approach may lead to program impacts that fall short of potential. It also leads to duplicative, rather than complementary, services by competing agencies.

The Title II program in Bolivia fits into this mold. In order for the school feeding project to be something more than a feeding service, inputs from Ministry of Education and Public Health at the very least are required. Food For Work projects as well as mothers' clubs could benefit from inputs from the NCDS, which has experience in promoting cooperatives and local economic activities in communities. The current lack of coordination constrains the scope and effectiveness of Title II and impedes its supplemental character.

Within USAID there appears to be a policy gap between the supervision of the day-to-day operations of voluntary/ counterpart agencies and determination of overall USAID health policies. AID's two locally hired employees are very knowledgeable and efficient in supervising Title II operations. AID regulations, however, preclude their official representation on policy matters although their opinions are probably sought. Meanwhile, the Director of the Health and Humanitarian Assistance Division has responsibility not only for Title II but all other USAID health policies. He is therefore able to devote only a part of his time to Title II policy matters.

This gap is particularly critical in light of the need for AID to take an integral role in redirecting the P.L. 480 Title II program to the neediest groups. Thus, it is recommended that an AID Food For Peace Officer be employed to handle Title II policy matters and that this individual be given principal responsibility for coordinating the redirection of the program among relevant agencies.

Extent of Institutional Infrastructure in Rural Areas

The low priority on rural development has also led to insufficient extension of institutional networks in these areas. The Church network is the most extensive, which is no doubt one reason why CRS/Caritas has been given the lion's share of the Title II program. However, even their activities have a heavy urban/exurban concentration and efforts to take Title II activities beyond the urban areas are faced with serious infrastructure and cost constraints.

Compatibility of Goals and Purposes
Among Participating Agencies

As Chart 3 indicates, there is general consensus among participating agencies that a principal program purpose is to utilize food to combat malnutrition. The agencies differ, however, in the relative ranking of other purposes and goals which is partly attributable to different determinations of need and identification of target groups.

Among the participating agencies, AID is the only one that places a high priority on reaching the neediest rural population. The CARE/NSAC focus is on urban groups in marginal economic circumstances. Their economic criterion for participation (family earnings of \$45 a month or less) exactly matches the estimated per capita income of the country, but it is high relative to income of rural groups. In some instances, it is also high in urban areas, though perhaps not in La Paz. AID thus cannot expect the CARE/NSAC system to be a vehicle for reaching its high priority groups.

The Ministry of Public Health, although committed to Title II, has shifted its orientation and support to food distribution on a subsidized, rather than free basis. Such a policy shift has led to the virtual elimination of the nutritional education aspects of the program which were formerly the principal responsibility of its Nutrition Division. The analysis of anthropometric measures has also been severely curtailed. While CARE/NSAC has built into its system activities which can replace the former Ministry of Public Health input, the CRS/Caritas system has no such capability. The educational aspects of its system are likely to continue to be minimal unless other sources of funds are found.

CHART 3. GOALS AND PURPOSES OF PARTICIPATING AGENCIES

GOALS AND PURPOSES ELEMENT						
GOALS AND PURPOSES	PARTICIPATING AGENCIES					
	AID	GOD	CRS	CARE	Caritas	NSAC
Combat Malnutrition	X	X	X	X	X	X
Provide Free Feeding Program	X		X	X	X	X
Provide Food for Pay Feeding Program		X				
Promote Economic and Community Development	X					
Increase Incomes	X			X		X
Improve Living Standards	X			X		X
Promote Urban Development		X		X		X
Promote Rural Development	X					
Improve Health Status	X			X		X
Promote Health Education		X		X		X
Extend Church Outreach			X		X	
Provide Outlet for U.S. Goods	X					
Aid Development Counterpart Agencies	X		X	X	X	X
Promote Cooperatives		X				
Reach Neediest	X					

The CARE/NSAC system places a higher priority on health (as well as nutritional status improvement) than the CRS/Caritas system. Thus, CARE/NSAC is likely to go further in measuring nutritional status and program impact than CRS/Caritas. Part of this difference between the two systems is a function of the way each is organized. The Ministry of Public Health was responsible for the health and measurement phases of the CRS/Caritas system, and its retreat has diminished this emphasis. The CARE/NSAC system, with funds from the Ministry of Finance and no connection to the Ministry of Public Health, has a much more inherently centralized health orientation. In addition, CARE/NSAC's budget is larger than that of CRS/Caritas.

With the exception of Food For Work projects, neither of the voluntary agencies nor their counterparts places a high priority on economic and community development at this time, although these remain goals of the United States and the Government of Bolivia. This gap is one reason for the attractiveness of the new WFP Title II system. The concept of the mothers' club offers a particularly excellent opportunity to foster this goal.

There are implicit goals in addition to those which are stated, and these are also likely to have a major influence on programs. Title II has long been a means for the United States to export agricultural commodities in temporary surplus. This purpose has had a direct impact on the Bolivian program. In 1974, during a U.S. grain shortage, AID began pressuring the participating agencies to think in terms of AID phaseout and more Government of Bolivia participation. This policy change made the agencies focus on the possible void that would result, and it was due to this incentive that the

World Food Program mothers' club project was devised. Now that there is no shortage of Title II commodities, AID no longer has a phaseout plan, but momentum was already underway for the WFP system.

Both CRS and CARE are also assisting in the institutional development of counterpart agencies. CARE, however, views its role as being more integrated in the day-to-day operations, while CRS takes more of a back seat position. These different styles are a function of the fact that the CARE/NSAC system is new and that NSAC has had no experience in delivering this type of program while Caritas has long been involved.

There is a symbiotic relationship between Title II and the Catholic Church in Bolivia. Since CRS and Caritas are official arms of the Catholic Church, the Title II program offers the church a means of extending its reach into communities while the extensive Catholic Church network is critical for the distribution of food to Bolivian communities. Such mutuality of interests is to be encouraged as long as neither agency's goals impinge negatively on the program. Although the evaluation team asked many people whether the CRS/Caritas system excluded non-Catholic participants, the general consensus was that no such problems existed in Bolivia. Certainly both parochial and nonparochial schools participate in the school feeding program and members of mothers' clubs are not necessarily Catholic. No churches or religious facilities can be built as part of the Title II Food For Work program.

Priority Ranking of Projects Among
Participating Agencies

With so many participating agencies involved in the Bolivian Title II program, it is to be expected that there will be varied goals and purposes among them. This is not necessarily bad. Different focuses allow the program to reach a broader range of people and alternate operational approaches can be tested and aimed more directly at the specific needs of the target groups. They also ensure that the program is not overly dependent on one system or one organization and prevent the reduction of one input from destroying an entire project. The existence of two voluntary agencies and approaches in Bolivia is viewed as a vital part of program design and effectiveness.

On the other hand, when one organization has a goal or purpose that is not shared by the others, it places greater responsibility and requires greater effort on the part of that agency to achieve its objectives. Such is the case in Bolivia. If AID is serious about reaching the neediest rural poor, as is stated in program documents, it will have to take more initiative and responsibility and bear more of the costs to see that this objective is reached. The simple provision of food may be necessary but is far from sufficient for a shifting of program emphasis to needier rural groups.

As Table 6 summarizes, there is a generally consistent ranking among the three Title II project types. All tend to want the program to focus principally on the mothers' clubs on the assumption that the preschool age child is the most vulnerable to malnutrition and the serious health problems that emanate from it. Pregnant or lactating women are also

considered important since their health status during these times is especially critical for the development of the fetus and infant.

Table 6. Project Ranking By Participating Agency

Agency	Project		
	Mothers' club	Food For Work	School feeding
AID	-----Ranking-----		
Washington	1	2	3
USAID-Title II Office	1	2	3
Government of Bolivia			
Ministry of Public Health	1	--	2
Voluntary agencies/Counterpart agencies			
CRS/Caritas	1	2	3
CARE/NSAC	1	2	--

Source: Prepared by ERNA evaluation team.

School feeding is the largest project in the Bolivian Title II program. However, its development has been stymied by general obstacles facing rural school systems (impractical curriculum, poor facilities, inadequately trained teachers, general inaccessibility, etc.). School garden activities have failed more often than not. Because of the feeling that the project can at best be a feeding service under present limited resources and supervision, a general inertia appears to have set in and there seems to be little incentive

to promote the project further. Although urban schools will again participate in 1978, in general the school feeding project is in a retracted state. This is also reflected in the failure to institute on a broad geographic basis a school lunch as opposed to breakfast system. This is because Caritas lacks the supervision and funds necessary to undertake the large onsite feeding activities. The Ministry of Public Health clearly lacks interest in the program, and the Ministry of Education lacks the resources.

There is great interest in community and economic activities on the local level in Bolivia and the Food For Work project concept, on the surface, would appear to serve this interest well. However, there is a deep philosophical debate about whether the food really is an incentive to local activities or whether it makes the communities less willing to carry on these improvements unless they receive food assistance. Once such a Food For Work activity is introduced in a community, the issue of dependency is raised.

Although some persons interviewed criticized the Food For Work concept, most persons in the participating agencies felt the concept was well suited to Bolivia. No one could identify communities that had refused to undertake improvements because they could not get them approved for food assistance under Title II. On the other hand, examples were given of communities which had participated in Food For Work and then proceeded to construct new facilities without Title II assistance.

In some instances, communities have refused Food For Work participation, apparently because they did not think

they needed the food. The Beni area was cited as one example. Since the evaluation team does not propose that the project be introduced in areas that do not need the food, such action is consistent with the overall purposes of the program.

Extent to Which Projects Follow Title II Guidelines

Both CRS/Caritas and CARE/NSAC confine receipt of Title II food to pregnant women or lactating mothers. Yet, Title II legislation has been broadened to include as recipients all women of childbearing age. There is thus a need to inform the relevant agencies of this policy and make the requisite operational changes.

According to the AID guidelines, children under 5 are eligible for food. However the CARE/NSAC system allows rations to be distributed to each child up to 8 years old. Some respondents indicated that children in the CRS/Caritas system are cut off at age 5 instead of 6, however the evaluation team did not observe this problem firsthand.

Title II food is used for the feeding of non target groups or recipients in each of the project types. In Bolivia people are quite open about the practice. The traditional Bolivian diet even facilitates this practice. Bolivians frequently prepare a soup with corn, quinoa, vegetables, and meat if it is available. The Title II foods mix well with this soup and are served to all members of the family. Recipients usually report that monthly rations are exhausted 10-15 days after their receipt, which is an indication that the food is widely distributed among family members.

It was reported that teachers and older and younger children also tend to share the Title II food in the school feeding project. Sometimes preschool age children come to school with their older sisters and brothers and receive the school breakfast. Teachers often board at the school and they too are served. If a primary school is located next to a high school, students in both schools receive the meal.

There may be less distribution of food to unauthorized persons in the Food For Work project primarily because the project is designed to provide food for not only the worker but also his or her dependents. The CARE/NSAC activities limit the ration to the worker and three dependents even if there are more dependents. The CRS/Caritas program includes any number of dependents.

Whether or not the wider distribution of food is desirable is a debatable point. The policy of limiting the food to a narrow group, however, is not enforceable in Bolivia with current resources. In fact, enforcement might create more problems than it would solve.

Recommendations

Based on the discussion in this chapter as well as on additional documentation provided in the annex, the following recommendations concerning policy are made.

General Policies and Conditions

1. AID should assist the Government of Bolivia in designing national rural development and health and nutrition plans. This would be a follow-up to the assessment done by AID periodically. The work with the Ministry of Planning is a step in the right direction.
2. To extend outreach beyond current participating agencies, AID should be more aggressive in identifying additional agencies and assisting them in preparing Title II program plans. For example, AID should follow up its contact with Project Concern, now working in the Pando area, to see if there is a need for Title II foods and to work out delivery plans using their network and resources.
3. There should be increased coordination among current participating agencies and, indeed, among all relevant agencies in order to magnify the scope of the Title II program while circumventing existing financial and resource limitations. This should be institutionalized in program plans. AID should assist in bringing this about. An emphasis on the supplemental character of this program should be part of any strategy.
4. AID should continue its support of the Food and Nutrition Group of the Ministry of Planning. The evaluation team supports the idea that this group might replace the Ministry of Public Health as an AID counterpart because it is in a position to promote inter-ministerial ties. Such a recommendation does not ignore the continuing need to obtain Ministry of Public Health inputs, but perhaps on a different basis.
5. Because of limited infrastructure, agencies must find new ways to integrate Title II with other programs. Operating in poorer regions of the country, and locating new activities in areas where Agricultural Sector Loan II will be introduced is one such example.

Compatibility of Goals and Purposes
Among Participating Agencies

6. If AID is serious about reaching the neediest rural people then it should pursue a more aggressive role in initiating such a program shift. Obtaining the participation of additional voluntary counterpart agencies working in these areas is one proposal. Now is a good time to begin such efforts since the WFP is beginning to take over existing mothers' clubs and CRS/Caritas is mandated to redirect efforts to needier populations. AID also should undertake studies of economic and nutritional needs of the needier populations.
7. In areas where it is determined that Title II is needed because of low nutritional status and economic impoverishment, there should be greater integration among Title II projects; as for example, the use of Food For Work for mothers' club activities such as building facilities or schools.

Priority Ranking of Projects

No recommendations. Current ranking appears to be reasonable and consistent with Bolivian needs.

Title II Policies and Operations

8. CRS/Caritas and CARE/NSAC need to inform mothers' clubs of shift in policy to give program priority to women of child-bearing ages and follow up with necessary operational changes.

9. There should be greater supplementation of Title II foods with local foods. For this to take place, the nutritional education portions of the projects must be strengthened through establishment of better guidelines and training of program participants who can teach others in their clubs and also in their locales. This approach should be more cost-effective.

III. OPERATIONS AND MANAGEMENT ANALYSIS

There are two parts to the analysis of Title II operations and management. The relationship between Title II inputs and needs can be assessed at the program level. At the project and activity levels, the relationship between inputs and outputs is important. The latter is analyzed in terms of how the various projects and activities perform several key functions.

Relationships Between Program Inputs and Program Needs

To operate a feeding program, certain kinds of inputs are necessary: food, personnel, materials, funds, facilities, etc. The purpose of this section is to analyze the extent to which these inputs are sufficient for carrying on day-to-day activities related to provision of a full range of program services or outputs.

As the microeconomic analysis in Chapter I confirms, commodities have been readily available for the Title II program in the last 2 years. In fact, approved levels have been well above actual distributions. The distribution network, not lack of food, seems to be the major constraint

in Title II food distribution. Actual distribution levels were lower in 1976 than approved levels because CRS, while waiting for a new director, did not put through the call forward.

The CRS/Caritas system suffers from key input shortages. It lacks enough people to provide adequate contact and supervision of the activities. Salaries are also low which might invite stealing of commodities. In the absence of Ministry of Public Health participation, the nutritional measurement and educational services have deteriorated because Caritas does not have replacement personnel. The school feeding project is confined mostly to breakfasts because there are no persons to supervise other activities such as school lunches.

There is also insufficient input of local foods into the school feeding project. This is also a function of lack of personnel and supervision.

Most mothers' clubs meet in rented buildings, community centers, or private homes. Many are now using their accumulated funds to build facilities for themselves. Schools associated with the school feeding project are required to have eating and cooking areas, including ovens. These are often built by the community.

Caritas' operations are conducted in church facilities. NSAC has its own health centers and a sizable budget for new construction so this is not a serious constraint to the operations of either program.

Because of its limited budget, Caritas is forced to find novel ways of raising revenue. AID approved the selling of the Title II containers as a means of raising funds but this practice is not well liked by recipients. They claim the packaging does not hold up well in transporting the food and more durable materials are required.

CRS/Caritas also needs vehicles to improve and extend its distribution network and supervision activities.

Relationship Between Program Inputs and Outputs

The analysis of the operations and management of the Title II program at the project and activity levels focuses on how certain critical functions are performed. Each of these is discussed in turn below.

Ability to Obtain Needed Inputs

Some of the necessary inputs for operation of projects (food, personnel, buildings, infrastructure, etc.) are provided by the participating agencies through the projects but often they need to be complemented with other inputs. It becomes incumbent on the participants themselves to obtain these resources.

1. Project Level Analysis

The CARE/NSAC system is more comprehensive than the CRS/Caritas system. The latter must depend for some of its inputs on the Ministry of Public Health while CARE/NSAC has

funds for all facets of its program. This places CARE/NSAC at a distinct advantage in obtaining the necessary inputs. The NSAC budget for its health activities is rather generous and though it has a smaller Title II system than Caritas, it has access to more personnel.

The CRS/Caritas system suffers from a lack of funds and personnel. Its budget is small (\$150,000 for Title II activities) so salaries are very low. Each time we visited a Caritas office, the staff generally complained, without provocation, about low salaries. With insufficient staff Caritas is unable to make periodic visits to activities and provide proper supervision.

The Ministry of Public Health also has difficulty obtaining the funds necessary to satisfactorily participate in the mothers' clubs. It has only seven or eight nutritionists, too few to provide nutrition and health education courses or lectures and conduct nutritional status surveys for even one of the three project types. There are funds to pay the salaries of the nutritionists but there is no money for travel and per diem. This, coupled with the unwillingness of many nutritionists to go out into the rural areas, seriously constrains the extension of the nutrition education service.

AID has only two employees working full time on Title II and they are both local hires. They each make trips to the activities every 3 or 4 months and know personally many of the program recipients. Their supervision of the program for AID is commendable. The Food for Peace Officer also

maintains contact with all the participating agencies on a regular basis.

2. Activity Analysis

Mothers' Clubs. The mothers' clubs have elected leaders who oversee the club activities. Leaders are recruited or elected among the membership. They therefore have an organizational structure which enables them to obtain needed resources. Because the food is taken home and prepared there, obtaining local foods to supplement the Title II commodities is not a problem. The clubs also invite local health officials to conduct lectures and this supplements some of the nutrition education which the Ministry does not provide. The clubs meet once a week and have an invited guest about half the time.

Food For Work. Food For Work activities arise on the initiative of local community organizations. They become responsible for not only the receipt of food but for all the other materials necessary to construct bridges, buildings, or other facilities. Food distribution is actually a small part of the activities and serves more as an incentive and as physical remuneration than as a real input activity. The groups must be able to obtain all necessary inputs before they can qualify for the food program.

School Feeding. Participants in school feeding are generally local people who volunteer to assist with the preparation of the food for the school children. Fathers' clubs generally supervise all school activities and sometimes

appoint someone in the community to prepare the food for a given period. In some instances, food preparers have been paid with Food For Work commodities.

Each child is supposed to bring local foods to supplement the Title II rations, however Caritas does not have the personnel to supervise this activity. In their absence, breakfasts which can be prepared without local foods, rather than lunches, are prepared. If fuller feeding services are provided, it is generally at the initiative of the fathers' clubs or other local groups who voluntarily take an interest.

In summary, by their very concept, the mothers' clubs are best able to obtain the inputs required for effective operations. The greater the extent of community organization and participation, the less reliant the activity is on the Title II inputs. Because of their own vested interests and through their local contacts, they are also more likely to identify other sources of inputs and follow through to their receipt. Opportunities to supplement or integrate Title II with other programs are best realized through mothers' clubs, then Food For Work and least through school feeding projects.

Establishment of Operating Regulations

Several issues arise in this assessment:

1. To what extent are there rules and regulations governing operations?

2. To what extent are criteria established for selecting recipients?
3. To what extent do participants control the operations?

Rules and Regulations

Both CRS/Caritas and CARE/NSAC have published rules and regulations on the operation of mothers' clubs. There are also printed guidelines for Food For Work projects and AID has regulations influencing the uses to which Title II foods are to be put in each project type.

Nutrition education services have inadequate written guidelines. Recognizing this, USAID has drafted a manual of guidelines but has not found the funds necessary for its printing and distribution. Given the fact that the Ministry of Public Health is not actively conducting the nutrition education phase of the projects, there is an even greater need for distribution of USAID's pamphlet. The voluntary counterpart agencies and USAID should also study the possibility of conducting regional seminars to which participant representatives could come and the possibility of conducting classes in schools and mothers' clubs in their communities. This might be linked with activities of the National Community Development Service (NCDS), Ministry of Education, or Education Division of USAID.

There are also insufficient guidelines for the anthropometric measurements to be undertaken in the schools and mothers' clubs. Nurses in many instances have only 6 months' training and need further instructions in how to take the measurements, record them, and interpret them. We

found on our visits that each area had a different set of forms for recording information. This lack of standardization will preclude the proper analysis of the data and ability to compare results among regions.

Selection Criteria

A critical problem in project operations is the lack of adequate and standardized criteria for selecting recipients. CARE/NSAC uses only family income criterion, but income even in urban areas varies so greatly between cities that this figure may be way too high in many instances and too low in others. CRS/Caritas has no standard criteria. Determination of "needy" participants is made by Caritas or Ministry of Public Health personnel based on their knowledge of the community, which is an inadequate system.

At least some guidelines should be provided if in fact the projects are to reorient themselves to needier groups. For example, with the transfer of some mothers' clubs to WFP in Santa Cruz, the Caritas personnel were able to approve some new mothers' clubs. In the absence of set criteria, they merely selected and approved clubs which had submitted applications at an earlier date. No effort was made to determine whether members were really among the poorer groups in the area or a higher proportion of their children suffered from malnutrition. It is recommended that those groups which are approved be tested for nutrition, health, and economic status. Those data collected should serve as a basis for later important studies. It is up to CRS/Caritas to institute better guidelines and procedures for the new groups which will be approved.

Control

Because they are more organized, the mothers' clubs are in a better position to control all aspects of their club operations than are the other project activities.

Responsiveness to Needs

The responsiveness of programs can be assessed by analyzing a number of issues. How do nonparticipants generally perceive Title II activities? To what extent do persons in the community seek to join Title II activities? What are the attitudes of the participants toward the program? With the introduction of an alternative program, which do they prefer? Are the Title II foods acceptable to the participants? Does the project structure enable them to obtain the services they prefer and need?

Mothers' Clubs. Because of the organizational structure and the extent of control the members have, the mothers' clubs are an ideal means of ensuring that the Title II program is responsive to local needs. The mothers themselves not only receive the food but are in a position to obtain other items they want because of the accumulated membership fees. Some groups have purchased sewing machines which have been used for group handicraft classes. The clothes that are made are sold and this becomes another source of funds for club use.

The CRS/Caritas food distribution system has not grown in recent years but there are many clubs which have sought

Title II participation. The Caritas office in Santa Cruz said that it had approved 39 new clubs in January alone, on the basis of applications which had been submitted in past years. The new CARE/NSAC system has had no problems enlisting new club participation. Finally, in many communities where the WFP system is being introduced, many clubs still prefer to stay under the old system. Skepticism about the new program and preference for free food rather than purchased food may be more important factors for the clubs that do not want to join WFP than is satisfaction with the current system. However, this is still a useful indicator of Title II project responsiveness since if the activities were fraught with problems, then the participants would be eager to join the new system simply to get away from the old problems.

Growth in the size of target groups might also be an indicator of responsiveness; however, in Bolivia lack of money and personnel has until recently constrained the program so that it could not reach additional groups.

Food acceptability is another indicator of program responsiveness. Most recipients prefer the wheat flour, milk, and oil and expressed dissatisfaction with the WSD and CSB. Peanut oil congeals in the can, thus other vegetable oils are preferred. It would be possible to eliminate these from the commodity list without offending recipients. From a nutritional standpoint, it may also be preferable to replace these commodities with added volumes of the preferred items. This will be discussed in more detail later in the report.

Nutrition education in the program is weak and inadequate, as has already been stated. Much progress needs to be made in this area. Many clubs have not even been instructed in how to prepare the foods in ways appropriate to their diets and consumption patterns.

Those activities which are linked to the provision of health services are most responsive to community needs. Nutritional status, after all, is linked to a broad range of health, education, and economic factors.

Food For Work. The Food For Work concept is also conducive to community responsiveness. To the extent that Food For Work activities are oriented around community projects, they rate high in fulfilling the responsive function. The building of latrines can greatly improve sanitation facilities and health status. The building of a bridge in Cochabamba protected farmers in the area from flood and enabled them to get their produce to market throughout the year.

On the other hand, in some instances the people need to be paid in money rather than in food. Food is not always the best means of payment. There was some evidence that the food is distributed in areas where the local supply of nutritional foods is adequate.

School Feeding. Although it is the largest project in terms of number of recipients, there have been many obstacles not yet overcome which have impeded the responsiveness of

this project to the communities. Unfortunately, lack of knowledge of the nutritional status of school age children does not allow us to assess whether or not the breakfast that is distributed is sufficient or whether a more substantial meal is required. This lack of knowledge is one of many areas where improvement could be made in this project.

Effects on Community Attitudes

The introduction of these Title II activities in a community can have positive or negative spillover effects. The project concepts can become so popular that other organizations seek to replicate them. Alternatively, they may be so disliked that communities do not fully participate in them, much less expand their scope.

In Bolivia the spillover effects are generally very positive. The most popular activity is the mothers' clubs. Fathers' clubs have been in existence a long time and have a major influence on many community decisions. The mothers' clubs offer women a means of participating also. The successful operation of these clubs is a reflection of the strength and organizational abilities of Bolivian women. Through these clubs the women are financing the construction of schools, engaging in traditional market activities, and making substantial contributions to the improvement of their societies. The alliance of the Title II program with these clubs greatly enhances this program.

There is less spillover associated with the other two projects. They are perceived to be merely "food" programs which are possibly expendable in many communities. Schools operate and facilities are built with or without the feeding program. The food input is generally important but its absence does not preclude activities being undertaken. Few if any communities have become dependent on either of these projects.

Cost and Budgeting Functions

Every organization, particularly those involving money, must keep records and accounts. This function, while not tied to specific goals or purposes, is required for system maintenance. Because the evaluation team visited only mothers' clubs in operation, comments at the activity level must be confined to them.

a. Program and Project Level. Cost and budgeting practices on the part of the participating agencies are generally weak. Based on information submitted to the evaluation team, considerable efforts should be expended to improve this situation. This includes the reporting mechanism and itemization of specific information which should be shared among the participating agencies. Without this information, program costs cannot be assessed. Without satisfactory cost data, studies of cost effectiveness cannot be obtained. Clearly, a better reporting system and uniform accounting system is required. The voluntary agencies should be supervising these activities more closely.

b. Activity Analysis. The mothers' clubs seem to keep good records of payment of dues, costs associated with transporting food, and bank account balances. In fact, they are very proud of their recordkeeping practices. No problems were encountered at the mothers' club level.

Monitoring and Evaluation Function

With considerable interest in program effectiveness and impact, the significance of the monitoring and evaluation function has heightened. Because much of this interest is fairly recent, insufficient attention was paid to monitoring and evaluation at the outset of these projects or activities. Hence, in most cases there are no baseline data, there are no uniform measurement standards, information which has been collected is inaccurate, collection has been infrequent, and little of the data which are collected have been analyzed. A more detailed critique of the nutrition data is contained in the nutritional impact assessment in Chapter IV.

Most monitoring and evaluation which is being undertaken concerns preschool children. Measurements of school age children have been taken, but have not been analyzed. No one has sought to measure the impact of nutrition programs on productivity of Food For Work participants nor has there been any assessment of the status of pregnant or lactating mothers. Although full programs for measurement should be devised, there is currently a lack of personnel and resources to do this through the Title II system. The increased focus on health in some areas may improve health practices.

One operational aspect which serves as a barrier to effective monitoring is the practice of having the mothers' clubs submit their records to the Ministry of Public Health for ultimate compilation and analysis. Copies are not kept in the club and the members have no way of knowing what progress is being made. The Ministry of Public Health lacks the personnel and resources to undertake the analysis and hence the entire exercise is futile.

Two improvements could be made without delay. The progress of each child who is a recipient of Food For Peace projects through mothers' clubs should be monitored and evaluated. Auxiliaries or promoters who work with the clubs should be instructed in the conduct and analysis of these progress reports. Additionally, project monitoring and evaluation must be undertaken at the voluntary/counterpart agency level. Supplementary funds will be needed to carry out these activities, if such funds are not already included within the program budget.

Logistics

There are three phases of the Title II food distribution network between the United States and recipient groups in Bolivia. A different group has responsibility for each phase. All P.L. 480 Title II commodities are now shipped by vessel from the United States to the port of Matarani, Peru. There is an average of 3-4 ship arrivals a quarter. Usually, the commodities are loaded directly from the ship to the wagons of the Peruvian Railroads System (ENAFER) and moved to the port of Puno on Lake Titicaca. The commodities are

then transferred to a ship and transported down the lake to the Bolivian port of Quaqui, where they are placed on wagons of the Bolivian National Railroad system. If any bags are torn in the unloading and loading process, the commodities are rebagged on the ships. The average shipment time from Matarani to Quaqui is 15 days.

The railroad wagons are then sent to the designated points of entry of La Paz, Cochabamba, and Oruru, where the commodities are placed in Caritas warehouses for the CRS program and Junta warehouses for the CARE program. Each voluntary agency then ships the commodities to regional warehouses by truck. In turn, the recipient organizations (i.e., mothers' clubs, schools, and Food For Work activity) arrange for transportation to move commodities intended for them to their own storage facilities. Map 5 illustrates the Caritas distribution network for Title II foods.

The United States Government has responsibility for moving the commodities to the three designated Bolivian points of entry. Thereafter, responsibility for their transport rests with the voluntary agencies and their counterpart organizations.

Recipients pay for the transport of the goods from the warehouses to their activity facilities. Costs are usually subtracted from the membership fees of mothers' clubs. Children in schools are each required to pay 1.5 pesos a month for this service.

Both CARE and Caritas have attempted to improve the delivery time and lower AID costs by engaging private

enterprise trucks to transport the commodities from Matarani to the points of entry. These are trucks which carry cargos of ore to the ports and attempt to find commercial cargos for the return ship. There is some saving in the use of trucks, inasmuch as they are able to take the cargo direct to the warehouses, while the expense is increased in transferring the cargo from train to warehouse. The real advantage is that the trucks can move the cargo from the port to the entry point in about 2 days; otherwise the costs are the same as by rail. At present, there is not a sufficient supply of trucks to provide a reliable means of transport. However, the number of trucks in use is increasing, and it is expected that more trucks will be used in the future.

In the past, an effort was made by WFP to facilitate the shipment of commodities to the less accessible areas in eastern Bolivia by having the ships use Brazilian ports and trucking the food across Brazil. However, this approach proved to be quite costly both in terms of the price of transportation and because of losses of commodities through spoilage and damage.

A problem sometimes arises in the use of both trains and trucks when the GOB accords high priority to the evacuation from the port of a particular import such as commercially purchased wheat. In such cases all transportation is preempted and P.L. 480 Title II commodities must be warehoused at USG expense.

In discussions at CRS headquarters in New York, it was stated that the inability of the U.S. Government to deliver

commodities on a regular and timely basis was a problem that disrupted orderly programming in Bolivia. The evaluation team did not find any evidence that this problem has caused difficulties recently. Recipients themselves indicated that they were generally receiving the commodities on a regularly scheduled basis. The principal exceptions were in June and July when some foods were diverted to the emergency program. USAID has recommended instituting a permanent shipment order for emergencies because of the frequency and regularity with which they occur. This should ease the immediate burden on normal operations.

Recipients did complain that the packaging of the commodities does not hold up well in transport. Yet they are required to take the bags even if some food has been spilled because of tearing. The packaging does not seem to be suitable for the frequent handling of the commodities.

The evaluation team was informed that storage space in the designated points of entry was adequate and appropriate for Title II commodities. It is our understanding, however, that the quality of warehousing declines in the less developed areas of Bolivia, particularly in the warm, humid eastern sections. Antofagasta, another possible port of entry, is not used because of lack of storage capacity there.

Recommendations

1. Regarding the ability to obtain inputs, more local food supplementation is necessary for school feeding activities.

2. More personnel and higher salaries are needed by Caritas for its outreach with Title II activities. Thus, the Caritas budget needs to be increased or alternate fund raising exercises found.
3. There needs to be greater communication and contact between Caritas' local offices and other organizations which might be able to supply some inputs or resources.
4. Regarding regulations, CRS/Caritas needs to devise uniform guidelines for nutrition education and nutritional status measurement. Better supervision of operations is also required.
5. All project areas need better criteria for selecting recipients. These should take into account both economic and nutritional status.
6. CRS needs to take a more active role in supervising and assisting the Caritas system.
7. Regarding responsiveness, improved nutrition education is needed in the CRS/Caritas system to replace that which is no longer provided by Ministry of Public Health.
8. More assistance should be provided for the economic activities of clubs.
9. Increased rations should be given to all women of childbearing age.
10. Activities should take place in more rural poor areas.
11. There is a need to eliminate WSD from the commodity list and increase rations of some other commodity.

12. Peanut oil should be replaced with another vegetable oil. It should be determined whether food is the best means of payment for Food For Work projects.
13. More information on the nutritional status of school age children should be kept, to determine if the available food is meeting their nutritional needs.
14. Regarding the effect on community attitudes, school feeding should be more integrated into school curriculum.
15. Regarding cost and budgeting, better accounting systems are needed in both CRS/Caritas and CARE/NSAC systems.
16. CRS and CARE need to provide better guidelines and supervision in these activities.
17. Better reporting systems from the activity level to counterpart agencies and AID should be devised.
18. Voluntary agencies must submit more specific and comprehensive justification to support their AERs.
19. Budget information supplied to AID should be tailored more specifically to the P.L. 480 Title II program.
20. AID should establish better guidelines for information it needs.
21. Regarding monitoring and evaluation, a more uniform system of anthropometric measurement is needed.
22. A measurement program for participants in school feeding and Food For Work activities should be introduced.

23. Training should be provided to health auxiliaries in how to take measurements and record and interpret them.
24. A better incentive system should be devised so that mothers will keep records of their childrens' nutritional and health status.
25. A system of reporting the progress of the programs should be devised for the use of the recipients themselves.
26. Regarding the logistical aspect, an information system should be developed so that when food does not arrive, particularly in rural areas, recipients do not make useless trips to pick it up.
27. To resolve the problem of getting the food to principal distribution centers, another end use checker is needed.
28. Caritas needs more vehicles to assist recipients in rural areas in getting food. More supervisory activities are also needed.
29. Better packaging materials are necessary.

IV. EFFECTIVENESS OF THE P.L. 480 TITLE II PROGRAM

The effectiveness of the P.L. 480 Title II program can be broken into three parts. These include the relationship of the program inputs to population needs, and the impact of the program's various projects and activities. Based on analyses of these, the program, projects, and activities can all be reviewed to determine whether they are or are not consistent with their intended goals.

Relationships Between Title II Inputs and Environmental Needs

There are two parts to the issue of need -- what is needed and by whom. The determination of needs for a feeding program must be based on two complementary criteria -- nutritional status and economic status. A group or person can be nutritionally needy but not economically needy. In contrast, a person can be economically needy but not nutritionally deprived. In many instances, however, there is a direct correlation between nutritional and economic need. The evaluation team analyzed the nutritional and economic status and needs of the Bolivian population in order to determine whether P.L. 480 Title II foods are needed in Bolivia and if so, by whom.

Nutritional Status of the
Bolivian Population

In 1976 AID financed a "Nutrition Sector Assessment" which reviewed the nutritional status of the people of Bolivia. Tables 7 and 8 were taken from that study. Table 7 gives an indication of the nutrient intake of Bolivians in comparison with people of other countries and with FAO recommendations. Table 8 shows values for calorie and protein intakes according to geographic location, and compares these values to requirements established by Ministry of Health and a ICNND Survey Report conducted in 1962. These requirements were adjusted to reflect environmental conditions and the fact that the height of Bolivians is generally less than that of most populations in the Western Hemisphere. The methods for making the adjustments are unclear, however. These data indicate a 25-40 percent deficit in calories and protein.

Table 9 contains nutrient intake information on women of childbearing age which would indicate a much lower level of malnutrition. These data, however, represent an average of all Bolivian women. Women of the lower socioeconomic classes are likely to have even lower intakes.

Table 9 also indicates a low intake of calories and protein as well as the other nutrients listed. The level of protein deficiency may be somewhat exaggerated, however, as it is currently believed that protein needs are signifi-

Table 7. Comparison of Average Consumption
of Calories and Animal Protein^a

Nutrient	Bolivian national average	Latin American, average ^b	Average for other Occidental countries	FAO recommendations
Calories	1,890	2,222	2,900	2,550
Animal protein	18	21.7	43	25

a. From Nutrition Sector Assessment, La Paz, 1976, Table 3.

b. Colombia, Chile, Ecuador, Peru and Venezuela, according to Food Balance sheets of the FAO.

Source: "Plan para una Política de Alimentación y Nutrición a ser integrado en el Desarrollo Económico y Social de Bolivia, 1976-80" Ministry of Social Welfare, La Paz, 1976, p. 13.

Table 8. Nutrition Levels for Bolivians by Geographic Area,^a 1970

Ecological zone	ICNND Observed	Calories			Animal Protein			
		Required ^b	Deficit		ICNND Observed	Required	Deficit	
			Number	Percent			Number	Percent
High Plains	1,883	2,274	391	17.2	15	29	14	48.3
Valleys and Sub Tropic	1,894	2,248	354	15.7	16	23	7	30.5
Tropics	1,892	2,117	225	10.6	16	28	12	42.9
National average	1,870	2,213	323	14.6	16	27	11	40.7

a. From Nutrition Assessment, La Paz, 1976.

b. Adapted for the zones studied and based on accepted values cited in the "Nutrition Survey -- Bolivia," Report by the Interdepartmental Committee on Nutrition for National Defense, June 1963. Sources: Ministry of Social Welfare and Public Health (MPSSP) and the National Council of Economics and Planning (CONEPLAN); "Estudio para la definicion de una Politica Nacional de Alimentacion y Nutricion en Bolivia," La Paz, July 1973, p. 2.

Table 9. The Average Diet of Women of
Childbearing Age in Bolivia

Nutrient	Amount consumed	Recommended consumption	Percent deficit
Calories, Kcal	2000	2100	4.8
Total protein, g	73.8 ^a	78	5.4 ^a
Calcium, mg	438	450	2.7
Vitamin A, I.U.	1237	1300	4.9
Vitamin C, mg	45	50	10.0

a. Larger deficit in animal protein.

Source: Table 8, "Nutrition Sector AID Assessment," pg. 17.

cantly less than they were considered to be 18 years ago. These are 1962 data, and the extent to which the figures reflect the current situation is not known.

Economic Status of the
Bolivian Population

As noted above, the 1976 per capita income of \$550 places Bolivia among the poorest nations in Latin America. Moreover, the distribution of economic activity and income in Bolivia is highly uneven. It was estimated that in 1970 almost 60 percent of the wealth in Bolivia was concentrated among the top 20 percent of the population while 80 percent of the people shared only 40 percent of gross national income. The lowest 20 percent of the population accounts for only 4 percent of gross national income. It is also speculated that income distribution became more equal in the late 1950s and early 1960s after which there was a tendency toward greater inequality.

Income distribution is also inequitable by sector and region. Annual remunerated income per worker for agricultural labor was estimated to be as little as \$100 a year in 1972. At the other extreme, income from employment in the mining and petroleum industries can average over \$1,000 a year. The national urban-rural income ratio has been estimated to range from a high of 8.5:1 to a low of 5.35:1. Even the most conservative ratio estimated is high by Latin American standards of 2.5:1.

Utilizing data from the 1976 census, estimated GDP per capita is distributed by department as follows:

<u>Department</u>	<u>GDP per capita, 1973 (Dollars)</u>
Bolivia, average	239
Oruru	296
Santa Cruz	285
La Paz	245
Cochabamba	244
Tarija	232
Chuquisaca	207
Pando	202
Potosi	194
Beni	162

These data are estimates for the entire population, urban and rural, among all sectors. Oruru ranks high because of the predominant mining activity in that department. Santa Cruz's rank can be attributed to the rapid growth and performance of the commercially oriented agricultural sector.

Unlike the situation in most developing countries, incomes in the rural areas are also inequitably distributed on a regional basis. The lowest income rural areas appear to be the Southern Altiplano, the Tropical South and the Central Valleys, all of which are relatively far from major markets and all of which lack good transportation. Rural income appears to be the highest in the Tropical North (Santa Cruz), the Northern Valleys (Cochabamba) and the

Northern and Southern Sub Tropics (La Paz). These results are based on a 1971 IDB study which estimated average remunerated family income in rural areas for 10 geographic regions. The following table summarizes their results.

Table 10. Estimated Average Remunerated Family Income, by Department, 1971

Department	Region/ (Income level)	Remunerated family income	
		Total rural income	Agricultural income
Santa Cruz (isolated)	Tropical South (low)	125	100
Potosi	Central Valley (low)	150	100
Potosi	Southern Altiplano (low)	125	75
Tarija and Chuquisaca	Southern Valley (middle)	250	200
La Paz	Northern Altiplano (middle)	250	150
Oruru	Central Altiplano (middle)	210	180
Santa Cruz	Tropical North (high)	350	300
Cochabamba	Northern Valley (high)	400	275
La Paz	Sub Tropical North (high)	300	250
Cochabamba	Sub Tropical South (high)	300	300

Source: An Assessment of the Target Region for USAID/Bolivia's Agricultural Sector Loan II, AID, July 1977.

It is always questionable whether income measures are a good proxy for indicating welfare or standards of living. In 1977 USAID undertook an assessment of the economic status of a small sample of small farmers in Sucre, Potosi, and Tarija departments in preparation for the Agricultural Sector Loan II. This study provides additional insight into the economic status of some of the poorest rural farmers in Bolivia. The study arose as a result of AID's mandate to locate and design its programs to aid the rural poor.

Four income measures were devised -- net farm cash income, net household cash income, net farm income, and net household income. The first measure relates directly to cash receipts from farmer operations and thus indicates the extent of commercialization. For welfare purposes, this measure is broadened to net farm income to account for certain farm cash phenomena such as the value of production consumed on the farm and a reciprocal deduction of labor services employed by farm households in crop production activities. Household income is derived from agricultural and nonagricultural sources. Thus the last concept -- net household income -- provides the broadest measure of rural welfare.

Mean net household income

<u>Department</u>	<u>Total dollars</u>	<u>Percent cash</u>	<u>Per capita dollars</u>
Chuquisaca	684	77	132
Tarija	532	85	68
Potosi	235	71	49
Regional average	391	77	75

The Chuquisaca figure appears to be relatively large but if the Chaco region is eliminated, then the department estimate falls to \$480 or \$92 per capita. In general, however, per capita incomes in these three departments fall within the lowest range for rural incomes in Bolivia. The general conclusion of the report was that the target populations in these areas are extremely poor, particularly in Potosi, by national standards.

Unfortunately the timing of the evaluation mission did not permit visits to be made to some of the regions acknowledged to be among the poorest in the country. Visits through the more developed regions -- La Paz, Santa Cruz, Cochabamba, and Oruru -- did confirm impressions of relatively higher incomes and probably higher standards of living. For example, an illiterate mother interviewed in the Santa Cruz urban area estimated that incomes averaged \$50 a month or \$600 a year. Another mother estimated earnings were \$1.00 a day or \$300-350 a year. The Caritas director in Cochabamba estimated that average incomes in his area were about \$500 a year. A mother in Vinito estimated average income for families in this active commercial agricultural area at \$100 a month. There were an average of six children per family. The highest estimates were made in La Paz, where government and service workers earn \$100 a month, or more than \$1,200 a year.

Finally, economists at DESEC, a private Bolivian consulting firm, indicated that average per capita gross income in the country is \$500 a year. They noted that there is wide

diversity of incomes, from a low of \$50-100 a year in parts of the Altiplano to much larger incomes in the mining and petroleum producing areas.

Nutritional and Economic Needs

On the basis of the previous discussions, and despite weaknesses in data and measurement techniques, there is a clear nutritional and economic need for a food distribution program in Bolivia. The issue then arises as to who needs the food. The evidence suggests that although women and children are especially vulnerable, malnutrition continues throughout the lives of a significant portion of the population. Hence the full range of Title II projects is appropriate for Bolivia.

Food availability varies among regions. The availability of food does not mean it is equally available to all sectors of the population. The distribution of calories to different socioeconomic groups is presented in Table 11. The basis of these figures is not available. If it is assumed that only adults are represented, the figures would appear to be unrealistic, as there are no other data which would indicate that 50 percent of the population is consuming only 60 percent of the needed calories. These estimates may be correct if one assumes that children are included, since 41.5 percent of the population has been estimated to be under age 15 ("Health Sector Assessment," Figure 1-5). It may also be unrealistic to assume that 5 percent of the population (very high income) consumes 4,800 calories per person per day. This would mean a daily excess of nearly

Table 11. Calories Consumed Per Person Per Day in Bolivia,
by Income Group, 1970

Income level	Percent of population	Calories per day
Low	50	1,356
Medium	30	2,165
High	15	2,861
Very high	5	4,813

Sources: Nutrition Sector Assessment, AID; "Estudio de las Perspectivas del Desarrollo Agropecuario para Sud America," PSWAO/01, FAO, August 1972; Bolivia Health Sector Assessment, AID, January 1975, p. 310.

2,000 calories, a 75-90 percent excess. It is very unlikely that these individuals are expending that many calories. If this estimate is correct, at least 5 percent of the very high socioeconomic class would exceed by 150-200 percent their ideal body weight. The evaluation team did not observe any excessively obese individuals during its visit in Bolivia, except for certain low income women. Obesity, however, is not necessarily directly correlated with satisfactory nutritional status.

Food Availability

An important question has been raised concerning the general availability of food in the country and whether the total food supply has increased or decreased since 1962. It was stated in the "Nutrition Sector Assessment" and the ADP Project report that the actual amounts of nutrients per capita have decreased since 1962. These reports anticipated that the nutritional status would also decline. New food balance data that have been adjusted for the smaller population base, however, indicate that the available food per capita has increased by 10 percent in protein and calories (Trowbridge and Haverberg, "Consultant Visit Report"). Because of the variation in both the food data and population data, and the relatively small size of the change, we were unable to predict what effect these factors would have on the nutritional status of the population. However, there probably has not been a tremendous change in available calories and protein over the last 15 years. Bolivia is most definitely not a starvation society. Food appeared to

be relatively plentiful in all places visited by the evaluation team, although certainly more so in the Santa Cruz and Cochabamba areas than in parts of the Altiplano. In fact, the ADP report comments upon significant spoilage of food in the market.

Title II Program Contribution
to Nutritional and Economic
Needs

The ration for the various Food For Peace programs and its protein and caloric content are shown in Table 12. The ration provides approximately 750 Kcalories and 35 grams of protein a day. This represents a substantial portion of daily requirements if the ration were consumed exclusively by the individual for whom it was intended. A more extensive analysis was conducted of the ration provided for the non-pregnant women of childbearing age by the various programs participating in MCH projects (Tables 12 and 13). In practice, these projects only provide rations for pregnant and lactating women in order to distribute the limited food available to those with the greatest need.

Table 12 shows the nutrients in individual rations provided by CRS/Caritas, CARE/NSAC, and the World Food Program. The protein content of the rations of the three programs ranges from 33.1 to 36 grams per day. The WFP includes more animal protein in the form of sardines, canned meat, and a larger nonfat dry milk ration. However, the combined ration of the Title II foods are soy-fortified and represents mixed grains which should provide protein of good biological

Table 12. Nutrient Content of Ration Provided for a Nonpregnant and Nonlactating Woman, MCH, by Source of Ration

Program/food	Grams/day	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C
<u>CRS/Caritas</u>							
Wheat flour	--	--	--	--	--	--	--
SF Wheat flour	40	143	6.4	84.5	2	352	--
SF Rolled oats	15	56	3.2	12.0	0.8	1	--
SF Bulgar	15	53	2.6	82	0.7	--	--
ICSM	30	114	6.0	270.0	5.4	510	12
WSB	15	54	3.0	112.4	3.1	249	6
WSD	15	65	3.1	42	2.6	290	7
Vegetable oil	15	133	--	--	--	--	--
NFD milk	33.3	120	12	436	0.2	6	0.3
Sorghum grits SF	--	--	--	--	--	--	--
Total	178.3	738	36.3	1,039.9	14.6	1,401	25.3
<u>CARE/NSAC</u>							
Wheat flour	50	182	5.3	57	1.7	442	--
SF Rolled oats	15	56	3.2	12	0.8	1	--
SF Bulgar	15	53	2.6	82	0.7	--	--
ICSM	25	95	5.0	225	4.5	425	10
WSB	15	54	3.0	113.4	3.1	249	6
WSD	10	44	2.0	28	1.8	193	4.7
Vegetable oil	15	133	--	--	--	--	--
NFD milk	33.3	120	12.0	436	0.2	6	0.3
Total	178.3	737	33.1	951.4	12.8	1,316	21

(continued)--

Table 12. (continued)

Program/food	Grams/day	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C
<u>World Food Program</u>							
Wheat flour	80	283	9.0	88	2.6	706	--
SF wheat flour	--	--	--	--	--	--	--
SF Rolled oats	15	56	3.2	12	0.2	1	--
SF Bulgar	--	--	--	--	--	--	--
ICSM	--	--	--	--	--	--	--
WSB	--	--	--	--	--	--	--
WSD	--	--	--	--	--	--	--
Vegetable oil	25	221	--	--	--	--	--
NFD milk ^a	35	127	12.6	457	0.2	10.5	2.5
Sardines oil	15	47	3.1	53	0.5	27	--
Sardines water ^b	15	29	2.8	45	0.8	45	--
Canned meat ^c	20	39	3.7	2	0.5	--	--
Rice ^d	45	163	3.0	11	0.4	--	--
Total (oil)	235	937	34.6	623	4.4	789.5	2.5
Total (water)	235	919	34.3	615	4.7	--	--
Average	235	928	34.5	619	4.6	789.5	2.5

a. Solids and liquid.

b. In brine, solids and liquid.

c. Pork assumed.

d. Unenriched assumed.

Source: Prepared by RRNA evaluation team from Food For Peace Commodity Reference Guide, AID.

Table 13. Portion of Food Provided by Ration for Nonpregnant Women of Childbearing Age, by Source of Ration

Nutrient	Recommended amount	CRS/Caritas		CARE/Junta		WFP/ALDE	
		Ration	Percent of recommended nutrients	Ration	Percent of Recommended nutrients	Ration	Percent of recommended nutrients
Calories	2,100	738	35.1	737	35.1	928	44.2
Protein	78	36	46.2	33.1	42.4	34.5	44.2
Calcium	450	1,039	230.9	951	211.3	619	137.6
Vitamin A	1,300	1,401	107.8	1,316	101.2	789	60.7
Vitamin C	50	25	50	21	42	25	50
Iron	10	14.6	146	12.8	128	4.6	46

Source: Prepared by RRNA evaluation team from AID Food For Peace Commodity Reference Guide and AID Nutrition Sector Assessment.

quality. The caloric content of the WFP ration is nearly 925 Kcalories and that of CRS and CARE is 738 Kcalories. Data is also provided for calcium, iron, vitamin A, and vitamin C.

Table 13 compares the nutrient content of each ration with the recommended amount. The recommendations are taken from the "Nutrition Sector Assessment" report, page 17. Its original source is a paper presented by Dr. Luis Kushner Lopez, Director of the Maternal Infant Division of the Ministry of Health. The figures appear to be in the usual range for most recommendations except for that of protein, which is significantly higher than that recommended by FAO. FAO recommends 0.52 gm/kg of protein per day in the form of milk or egg protein. This is equivalent to 29 grams per day for a woman weighing 55 kilograms. Even though the plant proteins of the Bolivian diet are of poorer biological quality than the animal proteins, they are of mixed sources which maximizes their use. The soy fortification enhances the protein quality. Even if the protein quality of the average diet is considered to be half that of milk or egg protein, the total requirement would still be only 58 grams per day. This is well within the range of the protein consumed without the Title II foods. It must be stressed, however, that this is for the average diet.

There is a greater discrepancy between the recommended caloric intake and the actual average caloric intake. It seems probable that the 2,100 calories given as the recommended allowance is not sufficient for the average Bolivian

woman of childbearing age. Table 14 indicates appropriate caloric intakes for women with various activity levels. Possibly the energy expenditure of most Bolivian women is greater than moderate because of the loads they carry. The extremes of temperature which occur would increase the requirement even more. The high altitude should not affect either protein or caloric requirements significantly except as it is related to extremes in temperature. As it appears that many individuals are deprived of calories, significant amounts of the protein provided in the supplemental foods would be utilized for energy.

The CRS and CARE rations are different but not significantly. The ration provides approximately 35 percent of the daily caloric requirement and about 45 percent of the protein requirement. It also provides over 200 percent of the calcium requirement and 100 percent of the vitamin A and iron requirements. The vitamin A data is based upon Handbook 8 data and does not include the vitamin A fortification of the nonfat dry milk. This level of supplementation would not seem to be appropriate in light of the data provided in the "Nutrition Sector Assessment" which indicates an average deficit is 15 percent of calories and 40 percent of animal protein.

Effect of Family Sharing of Food

The field visits and discussions with local nutritionists indicate that most of the food is consumed by the entire family and therefore represents an economic supplement as

Table 14. Energy Expenditure of a 55 Kilogram Reference Woman and the Effect of Occupation

Activity level	Mean Kcalories	Mean Kcalories per kg body weight
Light activity	2,000	36
Moderate activity	2,200	40
Very active	2,600	47
Exceptionally active	3,000	55

Source: Handbook on Human Nutrition Requirements, Food and Agriculture Organization, Rome, 1974.

well as a nutritional supplement. The ration is given out for one month and is generally used during the next 10 to 15 days by the entire family.

The prevalence of family food sharing does not necessarily preclude a positive nutritional impact on the intended recipients, because their level of malnutrition is acute rather than chronic and because of the nature of the traditional Bolivian diet. A positive nutritional impact implies that the individual is better off than he would be if no supplement were given and the amount of food received, although less than what was intended, should still be sufficient for a measurable increase in the nutritional status of the intended recipient. However, this conclusion may not be applicable for all groups in Bolivia. If the program is redirected to needier persons, the effect of the reduced ration may be quite different. For a population which has chronic malnutrition, food alone, in the amount of the ration, is not likely to result in a marked improvement in health status. In this instance, a combined effort to combine better nutrition with better health care and improved sanitation is also required.

Project Impact of Title II Foods

Very little attempt has been made to provide a scientific evaluation of the impact of Title II foods. In fact, in nearly all cases, Title II foods are only one portion of a more comprehensive program, and it is impossible to evaluate anything other than the entire program.

Mothers' Clubs

CARE/NSAC has taken much more interest in evaluations of the impact of Title II foods but they have the advantage of having these resources contained within their program. In most mothers' clubs, height and weight data are collected for the purpose of evaluating the health status of children. These data should be used only for assessment of individuals' progress, and not for evaluation purposes.

It is recommended that an evaluation of the nutritional status of members of the mothers' clubs operated by CRS/ Caritas be carried out by a trained team and that this data, along with the economic status of the clubs, be utilized as criteria in determining which clubs are to be transferred to the WFP. The new weight for height criteria should be utilized in evaluating the data.

CARE/NSAC has made some evaluations of their program. Data have been collected in several departments but have only been compiled for La Paz. Tables 15 and 16 were provided by the head of the Department of Nutrition of NSAC. The data was collected by the same individuals on the same weighing and measuring apparatus. Table 15 shows data from centers operated solely by the Junta. Those listed in Table 16 are operated jointly by the Junta and other institutions. There are no basic differences in the data and they could be pooled as shown in Table 17.

Table 15.. Weight and Nutritional Status of Children Less Than 8 Years of Age who were Weighed in Mothers' Clubs Sponsored by the National Social Action Council

Location of mothers' club	Total population ^a	Weight group			Grade malnutrition		
		Normal	Overweight	Obese	I	II	III
La Portada	72	43	13	2	11	2	1
San Antonio (Este)	168	107	24	8	29	--	--
El Transito	84	50	12	6	14	2	--
Nueva Potosi	211	129	31	15	33	3	--
Pera Pura	35	20	6	3	5	1	--
Litoral	124	73	13	7	26	5	--
Entre Rios	115	67	10	5	30	2	1
San Antonio #2	130	71	19	6	28	5	1
Los Andes	290	169	37	27	54	2	1
Total	1,229	729	165	79	230	22	4
Percent of total	100	59.1	13.3	6.4	18.6	1.3	0.3

a. Villa Fatima not included.

Source: National Social Action Council.

Table 16. Weight and Nutritional Status of Children Less Than 8 Years of Age who were Weighed in Mothers' Clubs with Multiple Sources of Funding

Location of mothers' club	Total population	Weight group			Grade malnutrition		
		Normal	Overweight	Obese	I	II	III
Fatima #2	160	101	10	17	29	2	1
San Francisco #1	105	54	26	20	3	2	--
San Antonio de la Cruz	200	105	17	7	62	8	1
San Juan	66	43	7	4	12	--	--
San Francisco #2	134	84	18	12	20	--	--
Fatima #1	198	120	27	11	36	4	--
Total	863	507	105	71	162	16	2
Percent of total	100	58.7	12.1	8.2	18.7	1.8	0.2

Source: National Social Action Council.

Table 17. Summary of Evaluation Data on Weight and Nutritional Status
Supplied by National Social Action Council

Total population	Weight group						Malnourished					
	Normal		Overweight		Obese		Grade I		Grade II		Grade III	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2,092	1,236	59.1	270	12.9	150	7.2	392	18.7	38	1.8	6	0.3

Source: National Social Action Council.

It is interesting to note that the individual members of the mothers' clubs range in nutritional status from obese to Grade II or III malnutrition. These data differ from that presented by Nutrition Division of MOH in that only 21 percent is reported malnourished by the clubs in contrast to the approximately 50 percent reported malnourished by the MOH. These mothers' clubs have been in operation for some time, providing food to supplement Title II food and providing health care and education. If both sets of data are accurate, it would suggest that substantial nutritional benefits are being obtained from this program. Additional studies are needed to substantiate this claim, however. Studies are underway by the NSAC to obtain two additional measurements on the same children in all the centers. This study includes other departments as well as La Paz, though only the data from La Paz has been compiled at this point. If the new data show individual or overall improvement in the nutritional status, then more definitive statements about the benefits of the program can be made.

In field visits in the Cochabamba area, a site was visited in the village of Sipe Sipe which was associated with a health clinic. This clinic supported two mothers' clubs. On the wall a chart was posted which listed the nutritional status of the children in both clubs. This is not actually an evaluation as such, but does represent the type of obtainable data. The scales used for measurement were high quality clinical type balance scales. Height was not taken into account in the measurements.

These data are in agreement with those provided by the Nutrition Department of the Ministry of Health. Out of 306 children, 52 percent were normal. Three children had died who probably passed through Grade III malnutrition before death. Cause of death was not asked of the nurses.

Other studies have been carried out in isolated projects but data have not been obtained in sufficient detail. It is unlikely that they would shed additional light on the overall picture of the general nutritional status of Bolivian children.

School Feeding Program

The schools were not in operation during our brief visit in Bolivia, therefore, no school feeding sites were observed in operation. Data have not been obtained on the nutritional status of school age children. The growth retardation which occurred before the age of six is not likely to have changed. However, because a child of this age is better able to obtain food on its own, it is likely that its weight for height is closer to normal and that the child would be at less nutritional risk.

The Title II food ration provided for each child provides 879 Kcalories and 44.2 grams of protein per day. Depending upon the age and size of the child, this should be between half and two thirds of his daily needs. In addition to the food provided by Title II, very often the recipients bring

additional food which should permit one good meal per day supplying nearly all of the required nutrients. This only occurs during 8 months of the year if the child is present.

Food For Work

No evaluation of nutritional or economic impact of the Food For Work activities has been taken and no measurements have been made which can ultimately be analyzed. CARE/NSAC has identified this as a possible task to be undertaken at a later date.

The only indication of the nutritional status of Food For Work participants was a comment made by the CARE director. He noted that in some of their Food For Work activities the workers were too weak to perform work before receiving food. He thus recommended that some food be distributed before the work was undertaken in order that the economic benefits of the activities could be achieved.

Effect of Title II Wheat Imports on Local Wheat Production and Consumption

A familiar complaint about the Food For Peace program (not just Title II) is that it serves as a disincentive to domestic food production. The criticism is often made in light of U.S. exports of wheat through Title I and II activities. The evaluation mission attempted to address this issue in the context of Bolivia.

Wheat has been imported into Bolivia through the Food For Peace Program since 1960. However, as Table 18 indicates, until 1974¹ the vast majority of these shipments were made under Title I, the concessionary sales part of the program. Title I has often accounted for more than half Bolivia's total imports. Title II shipments have ranged between 1,500 and 4,500 metric tons a year, representing less than 2 percent of total Bolivian wheat imports. Thus, on a national basis, any negative impact is likely to be attributed to Title I rather than Title II activities.

Although Title II shipments are small in relation to total Bolivian imports, local conflicts are still possible. Cochabamba, for example is a principal wheat producing area and it receives about 15 percent of the wheat that is distributed in Bolivia. In 1973, Title II imports into the area were about 475 tons compared to local production of about 15,000 tons. This small amount is unlikely to have had a major impact. However, as a recent USAID publication stated, "The ready availability of imported wheat, preferred by millers, tends to lower the mills' demand for locally produced wheat."² Although only 12-15 percent of domestically produced wheat is sent to mills in traditional producing areas, it is not clear that the on farm consumption pattern is due to traditional cultural preferences or to market constraints. Inadequate markets for local production because

1. Except in 1970 when there was no Title I shipment.
2. USAID, "Toward a Wheat Strategy in Bolivia."

Table 18. Wheat and Wheat Flour Imports
(Metric tons)

Years	Title I	Title II ^a	Total	Total imports	Title II as percent of total
1960-64	370,760	7,299	378,059	599,100	1.2
1965	47,990	1,791	49,781	166,700	1.1
1966	122,390	--	122,390	164,800	--
1967	--	--	--	203,500	--
1968	153,000	1,655	154,655	206,700	0.8
1969	135,720	1,947	137,375	193,100	1.0
1970	--	3,801	3,801	207,600	1.8
1971	79,980	3,943	83,923	217,500	1.8
1972	99,990	1,426	101,416	222,100	0.6
1973	43,190	3,118	46,308	153,300	2.0
1974	--	4,341	4,341	198,500	2.2
1975	--	2,886	2,886	193,000	1.5
1976	--	3,825	3,825	n.a.	n.a.
1977	--	7,787	7,787	n.a.	n.a.

n.a. = not available

a. Figures are for fiscal year 1968-1977.

Sources: USDA and AID Food for Peace, Annual Reports for years 1960-76 and USAID Mission to Bolivia, "Toward a Rational Wheat Strategy for Bolivia," 1976 (unpublished).

of low population density and lack of roads and marketing facilities also serve to inhibit the sale of wheat. To reduce the likelihood that imports will further inhibit local production, the government is requiring that mills purchase a certain quota of local produce, or their access to imported wheat will be suspended.

While probably not having a significant impact on wheat supply, both Title I and Title II programs are likely to have had an impact on wheat consumption habits in Bolivia. Imports are distributed in the same areas in which most of the wheat is consumed and where demand has been increasing. It is estimated that nearly half of the preschool children in these areas are receiving Title II wheat as well as other Title II commodities.

Finally, government subsidies for wheat keep Bolivian farm prices higher than world prices in order to stimulate local production. However, local producers have reacted slowly to the price incentive partly because of the continuing competitive advantage of potato and corn production, lack of adequate marketing facilities, and lack of standardized grades and quality criteria which make local produce less preferred by millers and bakers.

Recommendations

It is recommended:

1. That an analysis be performed to compare the official Bolivian standards with the new U.S. Standards and new criteria for defining

malnutrition be explored which would include weight for height standards as well as height for age. Weight for age could be used, but it is not a sensitive measure for differentiating between past and present malnutrition when used alone.

2. That limited nutrition surveys be carried out in existing mothers' clubs by trained teams. The survey teams should evaluate their data using appropriate criteria to determine if any malnutrition is present or if there has been a history of malnutrition. The survey should include limited biochemical evaluations to determine the extent of nutritional anemias, and vitamin A, iron, and possibly zinc nutriture.
3. That transfer of mothers' clubs from the CRS/ Caritas program to the WFP be made based upon the economic stability and absence of malnutrition within clubs.
4. That the Nutritional Biochemical Laboratory be upgraded. Much of the equipment is more than 15 years old and no longer reliable. A spectrophotometer is not operating for the lack of a 6-volt car battery. A power supply could be purchased to eliminate this need.
5. That the Laboratory be made more accessible to other groups in the country to conduct nutritional status evaluations. The staff has excellent training but is underutilized, underfunded, and operating with outdated equipment.
6. That plans be made to reach people in the more remote areas of the country. The plan must include consideration of factors such as:
 - a. ability to transport commodities to the area;
 - b. local storage of the commodities;
 - c. plans for distribution of the commodities;

- d. the ability of the recipients to pay with cash (many of these areas use barter);
- e. improvement of sanitation facilities in the area;
- f. availability of health care;
- g. availability of health and nutrition education; and
- h. availability of potable water.

V. TITLE II AND OTHER PROGRAMS

Combatting malnutrition requires not only food and a food delivery program but improved sanitation facilities, clean potable water, provision of medical services, and adequate employment and wage-earning opportunities. The Title II program alone cannot supply all of these things, but it can serve as an useful adjunct to programs with one or more of these components. It is thus important to look at the extent to which the program is or is not integrated with other programs both within the participating agencies and with programs of other agencies.

Because of the tendency to assign programs to different counterpart agencies, there is a relatively large number of institutions involved in the delivery of health and nutrition services. In addition, each one tends to be involved in a multiplicity of different projects and activities.

It is thus important to examine the extent to which the Title II program is integrated with other activities of participating agencies and with activities of other relevant organizations.

Relationship Between Title II and Non Title II
Activities Within Participating Agencies

Issue: To what extent is Title II integrated with other activities of participating agencies?

Each of the participating agencies -- USAID, the Ministry of Public Health, Nutrition Division; CARE; CRS; Caritas; and NSAC are engaged in activities other than Title II.

The evaluation team spoke with personnel in other departments of the participating agencies. The general impression was that the Title II program in most of the participating agencies -- principally AID, Ministry of Public Health, CRS, and Caritas -- is not well integrated with broader socioeconomic activities. Within AID, the Title II program is generally viewed as a separate entity unto itself. This situation appears to have arisen from a tendency to view the program as being too low-key -- not a part of some of the more dramatic programs of the mission. The program is also thought of in terms of commodities rather than in terms of money. This has been observed by the USAID mission staff and some efforts have been undertaken to reduce Title II isolation. Consideration is being given to introducing Title II foods into the area in which the Montero rural health delivery project is operating. It may be discovered, however, that the area does not need the commodities because there is sufficient food in this relatively rich agricultural region and because the economic status of the population is generally higher than the national average.

The nutrition survey to be undertaken in the ADP project will cover areas where Title II is operating and will hopefully yield nutritional and health status information which will be useful as baseline data for future impact studies. The nutrition advisor in USAID should have further input in the supervision and policy analysis of the Title II program.

AID is also planning an Agricultural Sector Loan for projects to be located in Potosi, Tarija and Chuquisaca departments, some of the poorest in Bolivia. The USAID mission should consider the prospects of linking the Title II program more directly with some of these project areas, thus extending its reach in some of these needy rural areas.

There appears to be no relationship between Title II and activities of the AID Education Office which has a mandate to work with rural school systems.

Because of the deep involvement of the Ministry of Public Health, Nutrition Division, in the World Food Program, integration of Title II with WFP activities are discussed elsewhere in this report.

CRS and Caritas also have undertaken other development activities as part of their socioeconomic department. Plans are underway to locate some projects in the Beni area, which is also highly underdeveloped, based on a socioeconomic survey undertaken there. The linking of Title II programs with their socioeconomic programs, where free food is deemed to be needed on the basis of the nutritional and economic status of the population and availability of local foods, should be further extended.

In contrast, the CARE program in Bolivia is small and there is a linking of its rural development activities with the Food For Work activities. The mothers' clubs are directly associated with the NSAC health centers and activities, thus integration has been established at the outset as a central part of the Title II program.

Relationship Between Title II and Activities
of Other Agencies

Issue: To what extent is Title II integrated with activities of other agencies?

Other relevant programs in Bolivia are sponsored by international agencies such as the World Bank, IDB, World Food Program, UNICEF; other voluntary agencies such as Project Concern and Seventh Day Adventists; other Government of Bolivia Ministries such as Education and Planning and other counterpart agencies such as the National Community Development Service (NCDS). The general conclusion is that there is very insufficient coordination between Title II and activities of these programs, partly because of general patterns of interbureau communication as discussed in the policymaking analysis and because there has been a lack of initiative and orientation within Title II participating agencies to broaden the scope of the program to encompass these other activities. Since they are external to the Title II program in design, they are viewed as being external to the particular responsibilities of relevant personnel and external to the actual implementation and supervision of the Title II program. If the blinders are removed, options for

improving and expanding the Title II program will be increased even with currently insufficient funds.

The Title II program, lacking its own funds to undertake special socioeconomic or nutritional status surveys, could benefit from work done by many of these organizations. In appraising projects in Bolivia, many of these agencies undertake socioeconomic and nutritional status studies which would be most useful to Title II planners and managers seeking new locations for project sites, and attempting to reach needier persons. The opening of regular communication channels among these agencies will facilitate the flow of information which can be of mutual interest.

Similarly, some of these organizations are working in areas that are relatively isolated or inaccessible. Their institutional network would be useful to Title II in reaching those people while the Title II program itself might provide a food component which these agency programs also need.

A more positive attitude about how to further integrate Title II with these programs will no doubt enable additional practical ideas to surface.

Special Case of World Food Program Mothers' Clubs

The World Food Program's mothers' club project concept arose from the already existing Title II program. Spurred by a concern that the AID program would be phased out, the WFP program was developed and ultimately implemented even though the phaseout plans by that time had been suspended.

The World Food Program concept is briefly described here. Over the next 5 years all of the existing 588 mothers' clubs in the CRS/Caritas system will be transferred to the World Food Program. The WFP, with the Ministry of Public Health, will determine the criteria by which the clubs are to be selected for the new program. These now appear to be the amount of money the club has accumulated and its willingness to be transferred. In the WFP system, the members will no longer receive free food but in addition to a 15 peso a month fee they will pay 36 pesos a month (\$1.80) for a ration. Each ration has the following nutritional content:

<u>Food</u>	<u>Grams</u>
Wheat flour	80
Skim milk	30
Vegetable oil	25
Oats	15
Sardines	15
Rice	45
Canned meat	20

A family is eligible for up to 5 rations. The price of the food is considered to be one half the retail price. Members of the club can pay weekly or monthly.

The clubs will be encouraged to sell the food to members and nonmembers at these subsidized prices. Profits will go back into the club fund. It is estimated that through such cooperative economic activities, the clubs will be self-sufficient in 14 months and will therefore no longer receive Title II foods. A club will be deemed self-sufficient

when it accumulates \$5000.00. A French agronomist has been hired by WFP. DESEC, a Bolivian economic consulting firm, will assist the clubs in establishing their economic and agricultural activities to facilitate their self-sufficiency. DESEC plans to channel local foods from some of its agricultural projects through the mothers' clubs' consumption centers so the centers can continue to operate once the Title II foods are suspended. DESEC will also have responsibility for collecting the money from the food sales. DESEC will be paid 2.7 percent of revenue from the sale of goods. About 14 percent of sales proceeds will be used to support the operation of the centers.

The WFP concept in the Bolivian context appears to be sound for three reasons. Many of the current mothers' clubs are in areas and have members who, on the basis of nutritional status and economic status of their families, no longer need the free food and can afford to pay for food, at least at subsidized prices. There is a general consensus among all participants that the program is not reaching the neediest groups. Second, the economic aspects of the mothers' clubs have not been well developed. None of the current participating agencies have the resources to develop them and hence it is desirable that such a transition program has been devised. Third, the shifting of eligible clubs to the new system will free Caritas' resources which can then be devoted to meeting some other objectives of the project.

On the other hand, there appear to be several problems which may ultimately impede the success of the new system. First, the selection criteria for shifting clubs to the new program are inadequate. There is no necessary direct

correlation between the amount of money the clubs have saved and the economic health and nutritional status of the members. Hence, clubs transferred to the new system may not be the ones best able to manage within the system. Already, some clubs have split because some members could afford the new system and others could not. This is not necessarily bad in that those who remain in need may qualify for one of the new CRS/Caritas clubs but such situations can cause deep social divisions within small communities.

A better system would be to measure children for extent of malnutrition and establish family income criteria. Both can then be used as baseline data for later review of program success.

A second area of concern relates to who controls the money. There are possible conflicts which may arise between the mothers on the one hand and DESEC or WFP on the other. In many instances, mothers have admittedly saved a great deal of money because they did not know how to invest it, but they have also exhibited considerable restraint in frittering it away on "white elephants." They are unlikely to relinquish control easily which is probably wise on their part.

A third problem, linked partly to the second, is the lack of concrete plans for establishing these economic enterprises. At the time of the evaluation team's visit, neither WFP, Ministry of Public Health, nor DESEC had specific plans for these activities. Yet the Title II funds are committed for only 14 months. Unless implementation of the economic enterprises begins immediately, it is highly

unlikely that the clubs will be self-sufficient within the stipulated time. Even DESEC felt the time frame was too short. To avoid considerable unhappiness among the mothers, further action is required immediately.

In talking with the mothers in some of these clubs, the evaluation team discovered that none of them was aware that the Title II food is guaranteed for only 14 months. This failure to inform them of the facts could lead to considerable unrest as the end of the 14-month period nears. It is likely that many clubs will request placement back in the CRS/Caritas system when the food is suspended, yet AID has insisted that this will not be allowed. If this occurs, the clubs are likely to be upset not only with WFP but with AID and Caritas as well.

A final concern is that with all the attention on the economic aspects of the system, the continuing need to monitor the nutritional and health status and provide nutrition education activities may be neglected. Because transfer to the new system does not imply that the situation of the members themselves is economically or nutritionally improved, some attention should be paid to continuing these activities if they are required. Perhaps rather than having the nutritionists in the Ministry of Public Health serve as the promoters of the concept, they should continue to provide services more consistent with their specialties and leave the promotional activities to DESEC or WFP.

AID has taken the position that it has no influence in WFP matters. This is based on a very literal and conservative interpretation of AID guidelines. However, in areas

of overlapping interest, there seems to be the need for some official or unofficial communication between AID and WFP. The United States is providing over 80 percent of the food to be distributed in the WFP system and is therefore directly involved whether this is admitted or not. Discussions between USAID and WFP even at the level of the Directors should be undertaken on a periodic basis to monitor these and other situations of mutual concern which may arise.

The introduction of the WFP system had not caused any significant operational problems for the Caritas system as of the time of the evaluation team's visit. Rather, WFP was having some difficulty in convincing clubs they should be transferred because many continue to prefer to receive the free food rather than purchase it. This is a justifiable natural skepticism. Criticism was made by some mothers in the Cochabamba area that the Ministry of Public Health was freezing mothers' clubs funds until they agreed to transfer to the new system. This of course violates the principle of voluntary transfer.

ANNEX A

List of Contacts

AID/State, Washington, D.C.

Richard Webber
Director of South American Affairs

Jack Eyre
Bolivian Desk Officer

Gordon Prouty
Program Officer
South America Food For Development Division

M. Torilla
Bolivian Desk Officer

Voluntary Agencies, New York

CAKE

Fred Devine
Deputy Executive Director

Merlyn Vemury
Nutrition Adviser

Bill Langdon
Program Director

Buck Northrop
Latin American Program Officer

Catholic Relief Services (CRS)

Daniel Santo Pietro
Development Assistant for South America

Helen Bratcher
Adviser, Nutrition Office

Monsignor Roland Bordelon
Regional Director for South America

U.S. Embassy, Bolivia

James Landberg
Political/Economic Officer

AID Mission, Bolivia

Frank Kimball
USAID Director

Amedee S. Landry
Director of the Health and Human Resources Division

Ed Kadrunc
IDI Health Planner

Arunulfo Penalosa
Food for Peace Officer

Futimo Reyes
Food for Peace Inspector

Mr. Harry Wing
Agriculture Officer

John Coury
Montero Rural Health Project

Voluntary Agencies, BoliviaCARE

George Kraus
Project Director

Manny Torrez
Assistant Director

CRS

John P. Conroy
Director

David Loretan
Assistant Director

Eduardo Brockomanto
Director, Socio-Economic Department

Counterpart AgenciesCaritas

Father Blanco
Director

Theresa Calderon
Nutritionist, now with Childrens Hospital
(Formerly with Ministry of Public Health and Caritas)

NSAC

Juan Vargas
Director, CARE/NSAC mothers' club projects

Miriam de Suarez
Nutritionist

Government of BoliviaMinistry of Planning

Jaime Lopez
Chief of National Food and Nutrition Technical Group

Maria Theresa Benavides
Sociologist

Alvaro Perez del Castillo

Ministry of Public Health

Dr. Cecilio Abela Deheza
Chief, Nutrition Division

Blanco de Peredo
Deputy Director, Division of Nutrition

Edna Marquez
Director, Nutrition Division, Cochabamba
Two other nutritionists, Cochabamba

Dr. Bertha Rios Iriarte
Director of Laboratory

Mario Torrico
Nutritional Biochemistry Laboratory

Dr. Castillo
Acting Director of Maternal Child Health Program

Dr. Nivero
Pediatrician in MCH Program

Ministry of Education

Betty de Perez
Chief, Rural Education Division

Ministry of Agriculture

Umberto Gandarillas
Director of Planning

Other Agencies and Institutions

New Trans Century Foundation

Dr. Reinaldo Grueso
Pediatrician and Nutritionist

Bonnie Towles Stephens
Nutrition AFW Project

Joseph Enright
Ministry of Planning Nutrition Advisor

World Food Program

Mr. Emanuel Zaccar
Director

DESEC

Mr. Laguna
DESEC Director

Dr. Bustillo
DESEC Director, La Paz

Jelio Gomez
Director MCH Program, La Paz

Community Development

Willy Alliago Galinde
Chief of Projects for Community Development

ENAFER

Paul Oviedo
Manager of La Paz Office
Peruvian Railroad System

World Bank, Washington

Mario Cortes
Economist for Bolivia

Field Visits to Offices of Voluntary Agencies

Caritas

Santa Cruz

Elio Viricochea
Assistant Director

Mr. Reyes
Warehouse Officer

Cochabamba

Father Mario Santiago
Director

Julio Gomez
Supervisor

Oruru

Lucio Morales
Director

Armando Nunez
Supervisor

CAREVille de Los Andes, MCH

Mrs. Theresa de Jemio
Promoter

Mrs. Carmen de Saravia
Administrator

Mrs. Ernestina de Manning
Regional Director for Social Affairs

Mrs. N. Uscamarita
Mothers' club member

Ville de San Antonio, MCH and Health Unit

Mrs. Marguerito de Oblitas
President, Group I

Mrs. Maria Luiso de Ordoner
Vice President, Group I

Mrs. Herminia Rubin de Celis
Treasurer, Group I

Mrs. Nelly de Flores
President, Group II

Mrs. Lucia de Callisaya
Vice President, Group II

Mrs. Claudina Conde
Treasurer, Group II

Alicia de Chavez
Volunteer

Isabel de Tioche
Volunteer

Caritas, Santa Cruz

Mr. Elio Virecochen
Assistant Director

Mr. Reyes
Warehouse Officer

Mrs. Pura Salazar
President, Mothers' Club, MCH Km 9

Alicia de Arroyo

Maria de Frias
Vice President, Junta Activity, Km 14

LaGuardia

Mrs. Elba de Garcia
Vice President

Edwerto Abaroa

Ignacia Lolos
President, MCH

Caritas, CochabambaMothers' Clubs' Quillacolla

K. Maria
Nurse

Elena Muriel
Nurse

Vinito Mothers' Club

Esperanza Maldonado

Other Nurses and Dentists, Sipe Sipe, MCH Clinic

Fortunato Claros

Dr. Alfredo Rojas
Mothers' Club Psychiatric Hospital

Food For Work

Julio Gomez
Eridge Construction

Caritas, Oruru

Mothers' Club, Socavon

Florencia de Tarqui
President

Angelica de Choque
Vice President

Visits to Activities

Caritas, La Paz

MCH, La Paz

Old age home (institutional feeding)

Orphanage (institutional feeding)

Caritas, Cruru

Latrine building, rural area

Altiplano

Hichuraya Baya School

Hichuraya Baya Mothers' Club
(Fabiana L. de Salazar, President)

ANNEX B: A COMMENT ON NUTRITIONAL DATA
AND ANALYSIS IN BOLIVIA

The last comprehensive and systematic evaluation of nutritional status in Bolivia was performed in 1962 by ICNND. This study included an evaluation of the nutrient content of the Bolivian diet, using anthropometric and biochemical measures of nutritional status. Since that time, most of the data collected have been anthropometric measurements and nutrient intake information based on dietary recall techniques.

It should be noted that the correlation between the measurement of nutritional status by either biochemical or anthropometric data with nutrient intake data is never completely satisfactory.

The practice of consuming a large portion of the daily food intake in the form of soup in Bolivia makes the task of obtaining accurate nutrient intake information even more difficult. Soups do not follow an exact recipe and often differ based on what is available. The micronutrient content of the soup will vary with the cooking and temperature.

In addition, the distribution of family members is unlikely to be equal. The nutrient intake data should be evaluated in light of such difficulties.

The bulk of the most recent information on nutritional status is based upon anthropometric data. This information is not completely satisfactory nor does it give an accurate picture of the nutritional status. There is no statistical data available which will permit a judgment as to the accuracy of the measurements taken in these studies. Another drawback is that none of the studies was done with any type of scientific statistical sampling techniques, which means they are representative of only those individuals measured. As there is no basis to accept one study over another, regardless of any intuitive feeling of their "likely" accuracy, the data must be either totally accepted as indicators of nutritional status or totally rejected and ignored.

Several anthropometric data sets are available from studies conducted over the last 7-8 years and are shown in Table 19. Judgements about nutritional status made from these data are based on weight for age by a modification of the Gomez classification. The standard Gomez classification, which uses the median of the Boston charts as the standard, is given in Table 20. The modification was developed by the Nutrition Department of the Ministry of Health and has been declared the official criteria. These criteria were supplied by Dr. C. Abela, Director of the Department of Nutrition. He indicated that these figures

Table 19. Nutritional Status of Children (Study Results 1965-74)^a

Year	Place	Age group	Number in sample	Percent suffering from malnutrition	Grade malnutrition		
					I	II	III
1965	Tejar y Alto La Paz	0-6 years	702	41	28.0	12.0	0.4
1967	Santiago de Llallagua, La Paz	0-6 years	176	47	42.0	4.0	1.0
1967	3 Rural Areas, La Paz	0-6 years	1,338	44	32.7	9.6	1.6
1968	Tarabuco, Chuquisaca	0-6 years	138	39	32.0	4.0	3.0
1968	Concepcion, Tarija	0-6 years	154	48	41.0	6.0	1.0
1972	La Paz	0-6 years	2,777	42	26.0	10.5	5.5
1973	La Paz	0-6 years	4,810	52	30.4	16.3	5.3
1974	Mineros, Santa Cruz	0-6 years	496	31	22.5	7.4	0.8
1974	Santa Cruz	0-5 years	354	28	24.6	2.8	0.6

a. Table 2.6, "Health Sector Assessment," La Paz, 1976.
Source: Bolivian Ministry of Health, Nutrition Division, unpublished data, 1974.

Table 20. Classification of Nutritional Status

Nutritional status	Percent of Bolivian median	Gomez classification ^a
Obese	more than 120	--
Overweight	110-119	--
Normal	90-109	--
Degree I	75-89	75-90
Degree II	60-74	61-75
Degree III	less than 60	more than 60

a. Adv Pediatrics 7:131 (1955).
 Source: Calculated from growth charts supplied by the Bolivian Ministry of Public Health.

are based upon studies carried out in La Paz 18 to 19 years ago. A total of 8,000 children were followed in a well-child clinic for 30 months. The children were divided into two groups, children of Spanish ancestry, and children of Indian or Mestizos ancestry. Any child developing a serious illness was dropped from the study. A total of 5,000 children between 1 and 15 years were the basis of the charts. The actual data were not presented. The results of the studies indicated that the median for the Bolivian population was equivalent to the 25th percentile of the Iowa standards (weight for age) up to age 6, and the 10th percentile of the Stewart-Meredith standards from ages 6 to 15. The standards used in the modified Gomez classification were derived from the data from these studies.

The most striking feature of all these data is that among the malnourished, there is a relatively high proportion of Grade I and a very low percentage of Grades II and III malnutrition. The data itself and discussions with others suggest several possible explanations for the lack of more severe grades of malnutrition. The explanation most generally accepted is that a malnourished child passes from Grade I to Grade II and III very quickly and then dies. The child suffering Grade I malnutrition is extremely susceptible to any infectious disease and has very little reserve with which to combat this new stress. In addition, nutritious food is often withheld from a child that has become ill, which further adds to his burden. This child is then not

available for measurement but does help account for the very high infant and child mortality rates reported in Bolivia.

Several difficulties arise with the Gomez method of malnutrition evaluation. The standards used in Bolivia were developed from data derived there nearly 20 years ago and possibly have applicability in that country. The extent to which the official growth charts correct for what is considered to be an inherited smaller stature is not known, however. Nor is it known whether this characteristic is uniform throughout the country. It is entirely possible that there is a growth retardation among these people caused by any of a variety of factors. The most likely causes are a lack of calories, protein, iron, vitamin A, zinc, and/or vitamin C in the diet, as well as any illness. The most common diseases are gastroenteritis, upper respiratory infection, measles, and other childhood infectious diseases. If growth retardation once occurs from lack of proper nutrients and/or diseases, "catch up" growth is not likely to occur unless calories, proteins, and other nutrients are supplied in excess of normal needs. Later in life when nutritional demands are less, the child can develop normal body composition (proportion of muscle, fat, etc.) and have a normal weight for his height. The use of a criteria of nutritional status based entirely on weight for age does not discriminate between a past nutritional problem, a corrected problem, or a current problem. It is not known to what extent the Bolivian weight for age standards reflect a shorter population versus a mainourished population. In addition, it is impossible to compare data generated using these standards

with that from other countries. Height for age does identify those with past growth retardation. These data are not provided.

It is recommended that an analysis be made to compare the Official Bolivian Standards with the new U.S. Standards and that new definitions of malnutrition be explored which would be based upon weight for height as well as weight for age. This would focus attention on those currently malnourished and would distinguish between a past history of malnutrition and chronic malnutrition.