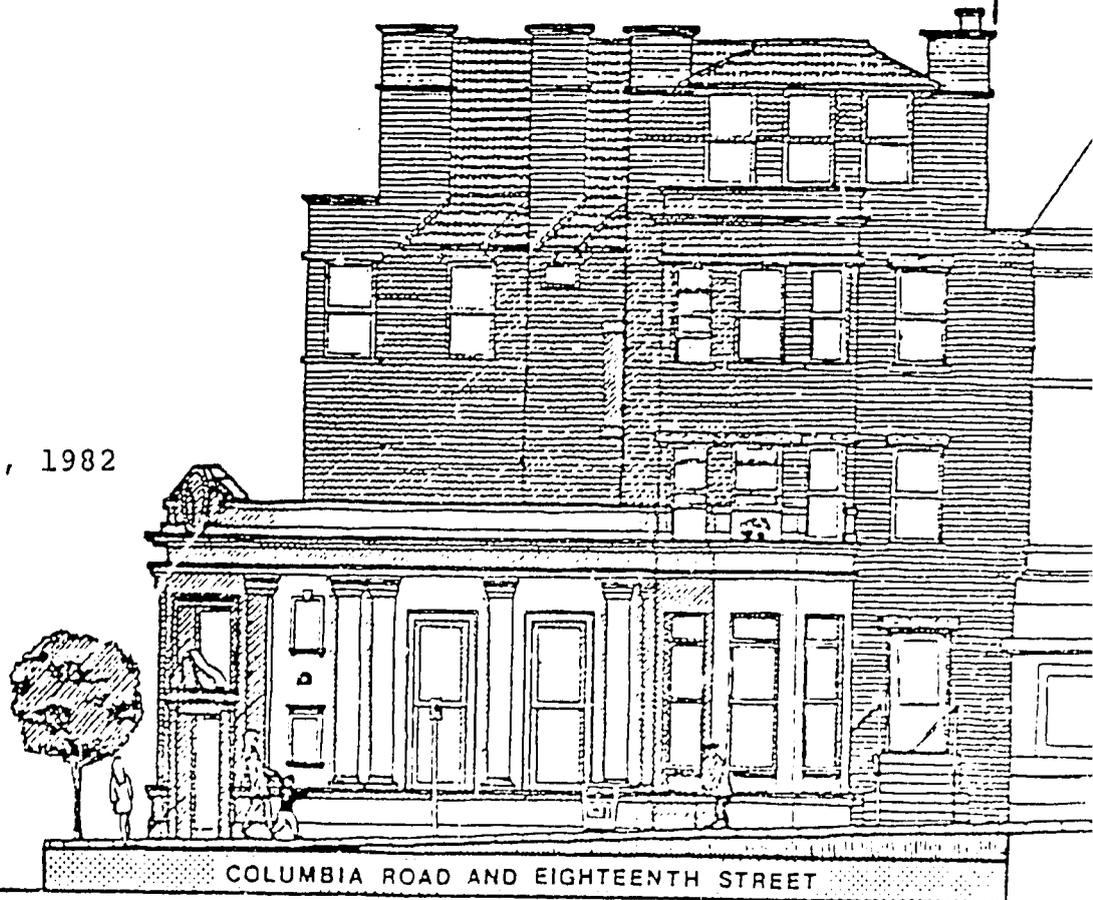


NEW TRANSCENTURY FOUNDATION

BOLIVIA NATIONAL NUTRITION
PROJECT

September, 1977 - May, 1982

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COLUMBIA ROAD AND EIGHTEENTH STREET

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I. INTRODUCTION

The main objectives of this report are:

- A. Describe "Nutritional Improvement" Project accomplishments, as compared with original goals
- B. Make recommendations on future activities for the Nutrition sector on the basis of information collected from studies and experimental projects
- C. Provide USAID with recommendations on future Nutrition project management.

According to instructions from Dr. Lee Hougen, Chief, USAID Health and Humanitarian Assistance Division, the report will cover the period 1 May, 1979 to 31 May, 1982; period during which I was in charge of the Project as Long-Term Advisor, under New TransCentury Foundation's contract. Dr. Reynaldo Grueso, former long-term advisor to the Project had submitted, at the end of April, 1979, a report covering the initial period of the Project (Sept. 11/77 - April 30/79).

Furthermore, since the Mission contracted an extensive project evaluation (Ms. Hope Sukin and Mr. Patrick Marnane) in June-August of 1980, concentrating on the analysis of institutional accomplishments to that date, this report will chiefly emphasize final Project results and recommendations derived therefrom. Comments here will also be made to complement and update the above evaluation (Sukin-Marnane).

This report is organized around two main themes. Chapters II-V describe and analyze main Project accomplishments. Chapters VI-VII contain recommendations from the long-term advisor to the Mission and to the Bolivian Government on the basis of overall Project experience.

II. GOALS, AIMS AND ANTICIPATED RESULTS

The Project's final goal was to improve the nutritional status of the most deprived Bolivian population, particularly children under 5 years of age, children between 7 and 15 years of age and pregnant and nursing women. This goal coincides with the Bolivian Government's goal for the nutrition multisectorial plan.

The Project purpose was to establish a multisectorial system for Food and Nutrition planning, execution, supervision and policy and program evaluation, at the national

and departmental levels, under the direction of the Ministry of Planning and Coordination.

While the original Project proposal was being developed, the Mission identified four major limitations to attaining actual planning and execution of interventions in this field:

- (a) weakness in the coordination mechanisms among Ministries,
- (b) lack of data and basic information
- (c) lack of adequate human resources
- (d) lack of a definite action plan.

To face these limitations, financial resources and long and short-term technical assistance were provided by the Project aimed at the following outputs:

- A. Organizational Development - consisting of (a) development of an institutional infrastructure at the national and departmental levels, designed to promote coordination of all sectors involved in food and nutrition matters, (b) adoption of a standardized methodology for program presentation, supervision and decision-making in activities and interventions regarding nutrition and (c) standardization of budget elaboration for nutritional purposes.
- B. Basic Studies - collection of basic data and information for precise identification of nutritional problems in the country, which will serve as a basis for the design and strengthening of an information system.
- C. Training - execution of an action plan for the training of human resources in charge of the food and nutrition intervention plan.
- D. Policy Development - design, promotion and execution of policies and action plans at the national and departmental levels on the basis of results and experience in the above areas and on the evaluation of the experimental projects financed under the Project. According to the Mission's original plans, the "Nutrition Improvement" Project would be followed by a loan/grant for the execution of some priority interventions, as identified during development of this last aspect.

III. POLITICAL AND INSTITUTIONAL CONTEXT AND ITS EFFECT ON THE PROJECT

The period of the project execution coincides in Bolivia with the longest political instability that the country has lived during the last three decades. Between September 1977 and May 1982, Bolivia had 8 different Presidents for short periods; 6 were military and 2 civilian. Likewise, 8 different persons were successively in charge of the Ministry of Planning and Coordination. During this period, three different Development Plans were adopted: (a) "Five Year Plan" 1976-1980; (b) "Emergency Plan" 1980; and (c) "Triennial Plan" 1981-1983.

This situation, of course, affected the economic development and financial situation of the country, and also negatively affected institutional consolidation and specifically, the development of the project for the following reasons:

- o With each ministerial change - which also implied a change in the Subsecretary of Planning under whose direct authority the project was located - Mission officials, long-term advisors, and Directors of DAN (MPC) and INAN needed to spend considerable time explaining and justifying the multisectorial focus, the need for MPC to maintain the operation and coordination of the Food and Nutrition National System and the technical importance of an entity such as INAN. Each change of authorities represented the loss of all political support obtained with former authorities,
- o DAN has had five different directors and INAN has had 3 during its 2 year life,
- o the institutional plan for Food and Nutrition Departmental Coordinators (within the Development Corporations) that had progressively been consolidated since 1978, disappeared due to a Ministerial decision in 1981,
- o the successive and abrupt governmental changes not only delayed activity for weeks, but also represented a threat of political dismissals and institutional insecurity for the professionals working in the institutions related to the Project. It should be pointed out however, that fortunately most of the personnel working for DAN and INAN were not changed.
- o Finally, as a result of the most recent military coup by Garcia Meza in July/80, all diplomatic and aid

institutions, including USAID, interrupted relations and financial support. Consequently, the Mission had to rearrange some aspects of the Project program as follows:

- (1) Reduction of long-term technical assistance to 50% (one of the two long-term advisors was suspended) during the remaining project life. Short-term technical assistance was cancelled for a 7 month period (July/81-February/81).
- (2) All official contact between Mission officials and long-term advisors with executives of MPC (Minister and Undersecretary) was forbidden for approximately one year.
- (3) The long-term technical assistance to "organizational development" (DAN and the National Food and Nutrition System), and the design of policy and operational plans (DAN) were discontinued. Long-term technical assistance was exclusively concentrated on experimental projects and studies financed under the grant. These measures were criticized by DAN because of the reduced assistance to planning and coordination activities provided by the long-term advisor during the period.

The limitations and difficulties encountered as a result of the political situation justified the project's extension and the additional resources provided to successfully meet the original project goals (Sept/79-May/82). The project's outputs, as described in this report should be considered within this overall, tumultuous context.

IV. OPERATIONAL PHASES OF THE PROJECT

Although the original Project design provided for similar development of the four major outputs (organizational development, training, basic studies, and policy development), in fact, the project execution was done in two different phases.

- A. The first one from Sept/77 to Sept/79 concentrated on the following activities:
 - o role consolidation through DAN as the coordinating agency for multisectorial food and nutrition activity-coordination;

- o design of a National Food and Nutrition System (SNAN) and of the National Food and Nutrition Institute (INAN); legal instruments to support these entities were obtained (Supreme Decree of June/78 for INAN and Supreme Decree of July/79 for SNAN);
 - o short-term training program for personnel within DAN, Departmental Coordinating Committees and different sector agencies of the SNAN;
 - o identification of experimental projects related to future elaboration of national food and nutrition policies.
- B. The most important tasks during the second phase of project execution, from Sept/79 to May/82 were:
- o the beginning of operations by SNAN and INAN (SNAN was officially created in July/79, whereas INAN began operating as an official institution in June/79);
 - o execution of basic studies and experimental projects as planned. This included in-service training for the personnel in charge;
 - o assurance of permanent financing for INAN's budget from the Government Treasury;
 - o national policy execution regarding goiter eradication, nutrition education in primary schools, and non-formal nutrition education.

V. PROJECT OUTPUTS

- A. Organizational Development - Regarding organizational development, the following was accomplished during the reporting period:
1. National Food and Nutrition System. Through official contact with government authorities, approval and legal promulgation of Supreme Decree No. 16756 creating the National Food and Nutrition System was obtained in July, 1979.^{1/} The Sukin/Marnane Evaluation Report of August 1980 mentions the advanced degree of institutional development attained by the System. It points out strengths and weaknesses found during the first year's operation.

The following observations supplement and, in some cases, update the points made in that report.

Strengths of SNAN

- (1) "Components of the SNAN are in place. The MPC's DAN and INAN are moving in the right direction with defined administrative and financial procedures. Staffs have been hired and for the most part are carrying out activities defined by the Decreto establishing the SNAN and by the Nutrition Improvement Project. MINPLAN is supporting approximately eight professionals working in the DAN in La Paz, the operational expenses of SNAN, and three nutrition coordinators in the field. The regional corporations are supporting the other six coordinators".

Comments and present status:

- (a) At the beginning of 1981 the positions of Food and Nutrition Departmental Coordinators that had been established by MPC were abolished. The reasons for such a measure, as well as for changing the structure of the system at regional level are explained further under number 2.
 - (b) From January 1, 1982 up to the present, the GOB has agreed to finance INAN's budget, thus increasing the financial support provided to SNAN.
- (2) "The SNAN has a solid legal base
 - o Decreto Ley No. 16756 establishing the SNAN July 1979
 - o Decreto Ley No. 15996 creating INAN
 - o Convenios signed with nine Regional Corporations, mandating the establishment of Regional Food and Nutrition Councils and designation of a Regional Nutrition Coordinator."

Comments and present status:

- (a) At the beginning of 1981 the attained decentralized structure and the agreements that had been signed with Development Corporations were abolished. The Food and

Nutrition Coordinators were replaced by Ministry Representatives appointed as permanent liaisons with each Development Corporation to work in matters concerning planning and coordination, including those related to food and nutrition. This latter function did not develop beyond theory; in practice, the selection of representatives was subject to political changes. Thus economic planning and coordination aspects had hardly anything to do with food and nutrition aspects. The liaison coordinator was supposed to be the key official in the promotion and coordination of regional policies through the Food and Nutrition Departmental Councils, which in the long run also ceased to exist.

Nevertheless, DAN has succeeded in forming a new decentralized institutional structure which in the near future can serve as the basis for planning and coordinating different activities related to Food and Nutrition policies. This structure consists of the Departmental Committees for Goiter Eradication, created for specific activities under the "Promotion of Iodized Salt Marketing and Consumption", financed by the grant. These committees began operations at the end of 1981; and include the most important political and technical institutions concerned with regional development. In the measure in which these entities perform effectively, it may be possible to increase their responsibilities such that they assume responsibility for nutrition interventions at the regional level.

- (b) The signing of "Agreements" that became a norm to guarantee actual institutionalization and execution of some important intersectorial activities promoted within the SNAN is still in practice. For example:
 - o Agreement MEC-MPS/SP-DAN-INAN signed for the execution of the "Nutrition Integration in the School Curriculum" program (Resolution issued by three Ministries).

- o Agreement DAN-MACA-MICT-INE-INAN-MPS/SP signed for the "Systematic Elaboration of Food Balance Sheets" (Resolution issued by three Ministries).
 - o Agreement DAN-MICT-MACA for the "Wheat and Compound Flours Policy Formulation" (Resolution issued by three Ministries).
- (3) "The SNAN has been action-oriented. Based on available data, activities, studies and projects have been conducted to: a) reduce protein-calorie malnutrition; b) reduce goiter c) reduce anemia; and d) promote the production and consumption of high nutritive value/low cost foods."

Comments and present status:

- (a) It is important to point out that the multisectorial approach for food and nutrition planning within SNAN was made possible through participation and coordination with the different sectors and entities in terms of the need for their participation in specific actions and interventions.

This approach differs in a significant manner from that endorsed by some nutrition planners. The difference lies in the number of food and nutrition sectors and institutions that planning should include. The "holistic" approach propounds the inclusion of the greatest possible number of sectors and institutions, whereas other nutrition schools, such as that embraced by Pines,^{1/} reduce these sectors to two large ones, agriculture and health. The position adopted within the Project is that of endorsing the multisectorial approach, but not as a bureaucratic plan of integration of various sectors around the nutrition global problem, rather as a plan in which the participation of one sector or entity depends mainly on its priority relative to the solution of specific problems. Except for the health sector, for its contributions, knowledge

^{1/} Pines, James: National Nutrition Planning: The Lessons of Experience, Washington, 1982 (mimeograph).

and infrastructure, and except for the MPC, for its all inclusive function and coordination function, the other sectors should be invited to participate in the planning process only when it is deemed necessary for the solution of specific problems. The multisectorial approach adopted in the development of this Project in Bolivia may be considered an example of this thesis, for instance:

- o The "National Program Against Goiter" coordinated by DAN (MPC) includes within its Board of Directors representatives of the following sectors: Health, Industry, Mining, private companies, (iodized salt producers) and INAN.
 - o The "National Program on Nutrition Education in School Curricula", coordinated by DAN, includes representatives from the Ministries of Health and Education, and INAN.
 - o The "Wheat and Composite Flours Policy Formulation" includes, in addition to DAN representatives, representatives from the Ministries of Agriculture and Industry.
- (b) It is evident that SNAN has attained greater success to date in the formulation and coordination of those policies which were action-oriented from a realistic point of view. Action such as the reduction of goiter prevalence, an effort that can show successful results in a relatively short period of time, is an example. Other examples are: introducing nutrition education into school curricula; promoting mass media nutrition education; promoting production and consumption of native products of high nutritive value/low cost (e.g. tarhui, etc.). More complex activities such as introducing food and nutrition criteria systematically into agricultural policies are still at the level of "recommendations" to be implemented by the System, and have had, therefore, no repercussion at present. The difficulties of effective action in this area are obvious,

i.e. the precarious economic situation of Bolivia during recent years. An example is the fact that the study on "Low Cost Regional Diets", produced by INAN to inform GOB agricultural policy and to serve as the basis for mass media nutrition education, was seized by authorities from the MPC and its distribution halted. The reason for this action was the breach between the official minimum salary for Bolivia and the actual salary requirements to satisfy basic nutritional needs. Minimum salary was not even sufficient to cover basic foods needs!

- (4) "Major outputs of the SNAN have included: a) three annual nutrition plans, the last one far superior to the previous two. These were all completed by DAN with little technical assistance; b) development and leadership of PRONAC; c) development of a national program to eradicate goiter; d) projects are now being executed in regions that have been developed and promoted by the regional coordinators, e.g., vegetable garden project in Beni, nutritional education training program to revise nutrition education manual, Chuquisaca."

Comments and present status:

To present, SNAN's major results are:

- (a) Four annual nutrition plans. The last two were completed with little technical assistance. This reflects the appropriate planning dynamic DAN has acquired through execution of the Project.
- (b) After thorough study and review of PRONAC situation, DAN issued a document reviewing the policies for the Program's future.
- (c) The National Program Against Goiter is at the moment an on-going activity, it covers all the nine country departments, and is coordinated by a National Committee. The President is the Nutrition Division Chief of MPS/SP, under DAN coordination. Eight different entities are at present participating, at the national level, in the elaboration of policies and programs against goiter. There is a coordinating

committee in each Department, working in coordination of regional activities.

- (d) Nutrition education has been officially incorporated in primary school curricula and all the necessary educational material has been designed and published. Moreover, a strategy has been put into effect for institutionalization and program supervision by MEC.
 - (e) A methodology for mass media and interpersonal nutrition education has been designed and tested. A large amount of educational material has been produced and a strategy for permanent utilization of this material by the health sector and other interested sectors has been started.
 - (f) Some basic studies for the determination of nutritional problems in the country have been produced and published:
 - o Bolivian Population Nutritional Status - INAN - 1981
 - o Prevalence of Goiter in Bolivian School Population - INAN - 1980
 - o Breast Feeding in Bolivian Urban Areas - INAN - 1980
 - o Low Cost Regional Diets - INAN - 1981
 - o Food Habit Study and Cultural Patterns on Complementary Food, Breastfeeding, Diarrhea, and Goiter - DAN - 1981.
 - (g) Experimental Agricultural projects originally designed or promoted under the Project (Title III funds) are now being totally executed and funded by the Regional Development Corporations, i.e., production and consumption of tarhui, rabbits, guinea pigs (CORDECO) and small fisheries (CODEBENI).
- (5) "It has a directorship within the Ministry of Planning rather than a sectoral ministry and can therefore more easily access other ministries for assistance and coordination."

Comments and present status:

The MPC leadership within SNAN has been consolidated because of (a) major planning and coordinating capability of DAN and (b) technical and research ability INAN demonstrated throughout the development of the studies, and contributions to the success of some experimental projects. This fact was acknowledged by national and regional participating entities, at a Seminar held in May of 1982 (see annex with Seminar conclusion and recommendations). International organizations such as PACT (Cartagena Pact), technically and financially supporting DAN, and the Center for Disease Control (CDC), providing TA to INAN also recognized this fact. Moreover, CDC, a U.S. Public Health Service agency which has provided advisory services to nutritional surveys in several other countries of the developing world, has officially stated that the Bolivian nutrition study is one of the few in which technical leadership has been taken by nationals, specifically by technical personnel from INAN, with such efficiency and only minor technical assistance requirements. The results of the research under these circumstances were excellent.

- (6) "It is capable of initiating activities and in seeing them through implementation. There are several studies now underway and there are experimental projects for which Regional Corporation participation has been obtained."

Comments and present status:

Except for the Subproject on Experimental Anemia Treatment and Analysis, all other subprojects under the grant have been implemented and 100% completed through different SNAN national and regional institutional mechanisms. The Anemia Subproject presented political, administrative and technical problems beyond the supervision of the SNAN and USAID, and beyond the control of TA. On the other hand, SNAN generated several institutional initiatives that had not been planned within the Project, such as the creation of a permanent nutritional surveillance system within the Nutrition Division of MPS/SP for children under 5 years of age and the implementation of a system for the prevention of

endemic cretinism through oral administration of iodine potassium to pregnant mothers.

- (7) "DAN provides a single organization for interacting with external donor agencies and should thus be able to coordinate better the contributions and participation of outsiders."

Comments and present status:

As a result of the excellent work performed by DAN during the Project implementation period, there was no objection to the priority assigned to nutrition problems within the socio-economic development programs contemplated in the Bolivian Development Plan, and to the leadership assigned to MPC.

- (8) Other strong points of SNAN that are not mentioned in the Sukin-Marnane Report are:
- (a) SNAN was able to attract professionals, provide in-service training to them and assure permanent appointments and job continuity to these persons within the System, mainly within DAN and INAN. Both entities still maintain most of their professional staff.
 - (b) In planning and executing policies, experimental programs, and basic studies, SNAN made full use of available institutional, human and economic resources. A good example of this fact are the Basic Studies completed by INAN in which more than forty national and regional institutions were involved in investigation efforts. INAN also set a precedent for intersectorial and inter-institutional joint program development by successful coordination efforts in areas such as design, planning, logistics, execution, processing and analysis. This experience can be used in future investigations in the broad field of food and nutrition problems.
 - (c) Supported investigations were clearly and coherently aimed at planning and provided the basis for drawing useful practical recommendations to be submitted to the

political decision-making levels and for programming actual interventions (See reports of the studies in the attached annexes to this report).*

Weak Aspects of SNAN:

Some of the weaknesses enumerated in the Sukin-Marnane report have been improved but there are others with which the present report does not concur. The following points are quoted from Sukin-Marnane's report, followed by a discussion of SNAN's weaknesses, which should presently be given more attention. Points are mentioned in the sequence they appear in the evaluation report.

- (1) "The leadership of the DAN and INAN have changed within the last year. Both are subject to political appointment and can be expected to change when a new government is installed. This contributes to a sense of instability."

Comments and present status:

Due to the present continuing political instability of the country, changes in leadership have not only been characteristic of SNAN but of the whole governmental system. Nevertheless leadership at DAN and INAN remained unchanged during the last military coup (July/80).

- (2) "Partly as a result of the changing leadership within the SNAN, and partly due to the fact that they are probably trying to do too much with the staff available, there has been difficulty in coordinating the different parts of the operation. As a result there has been some duplication of effort, and activities have often been carried out on an ad hoc basis rather than in line with an overall planning strategy."

Comments and present status:

Progress has been made in keeping the programs and activities at manageable levels with available staff within DAN and INAN. Grant Project reprogramming (Sept/80) reflected this effort and the subsequent Implementation Letter also shows this change.

* Due to the length and number, they are not included. For copies, contact NTF or USAID/Bolivia.

- (3) "Continuity of quality staff has been a problem in DAN and INAN. Because of low salaries INAN has had a problem in attracting senior people with experience and its staff appears always to be "job hunting", looking for higher paying jobs."

Comments and present status:

Complaints about low salaries occur at all levels in Bolivia; it is not only a problem within SNAN, nevertheless, as mentioned before, SNAN was successful in assuring project continuity and in securing permanent office tenure.

- (4) "The linkages and relationships with the other ministries at the central level have not been actively reinforced. Ministries are not certain what the role of DAN and INAN is or what their relationship should be with them."

Comments and present status:

It is the opinion of this author-writer that the linkages and relationships among ministries at central level of the System cannot only exist because SNAN's interinstitutional scheme so declares; there should exist actual policies or actions requiring coordination at a given time. On the other hand, priorities should be established among the Ministries and institutions according to planning or implementation requirements of a given policy or program. Coordination of activities intersectorially developed up to now at the central level, would have to be consolidated within the present status, without expanding the institutional network. However, Sukin-Marnane's observation in the sense that "Ministries are not certain what the role of the DAN or the INAN is or what their relationship should be with them" is still valid.

- (5) "The inability to develop and maintain an integrated overall strategy within which the annual nutrition plan and all the activities of the various parts of the SNAN are coordinated is probably the most serious weakness of the SNAN. This has resulted in providing less than adequate support to regional nutrition coordinators and councils, and lack of promotional efforts

that would insure greater contribution and support from other agencies within the government. It has also resulted in more or less ad-hoc approaches to studies and projects rather than establishment of clear priorities."

Comments and present status:

The main problem or failure within SNAN - specifically within DAN - is the lack of sufficient knowledge and ability to handle the political and decision-making levels. This is the reason why a large part of the policies and programs set up in the different Food and Nutrition plans have never become effective. Documents represent outlines but little effort is made to identify officials actually making the final decision to execute policies and programs. Often there is divorce between the statements of the "plan" and the decision made every year when the national budget is planned. Little attention is given to this essential financial decision process. If we examine such plans and identify the aspects actually attained during recent years, we will note that those which were financed through outside grants ("Nutrition Improvement Project" under USAID or PL-480 Title III) were the ones that succeeded.

- (6) "During 1979 and 1980 there has been little emphasis on promotional efforts to sensitize (raise the consciousness of) the Bolivian population to the problems of malnutrition, necessary actions to overcome the problems, and of the role of DAN and INAN".

Comments and present status:

This situation, which is one of the major SNAN weaknesses still prevails and is closely related to the failures of the political strategy mentioned above. The fact that during the last two years INAN was the only institution devoted to creating national consciousness about nutrition through mass media and that it was also the one that was strongly criticized by DAN and other health sectors is paradoxical. One of the reasons for this contradiction may be jealousy of the outstanding image INAN was projecting; thus it was said to be projecting an "exclusive"

image, disregarding the SNAN. Other institutions within the System hardly made any effort to reach the population.

- (7) "SNAN has not generated plans for follow-on activities to many of the pilot projects, surveys and studies."

Comments and present status:

This situation is only relatively true under the present situation. As mentioned before, several experimental projects supported by the Project, are on their way to institutionalization and they are progressively becoming national policies. Studies that have just been concluded are expected to follow the same course; however, experimental projects developed in the agricultural sector failed to gain support and to develop follow-up, except for the Tarhui sub-project.

- (8) "INAN's total operational budget is supported by Title III. Although the GOB is contributing to specific projects, these represent small amounts and do not provide evidence that the government is committed to picking up the program in the near future."

Comments and present status:

Beginning on January 1, 1982, the GOB assumed responsibility for financial support to INAN's operations.

- (9) Other weaknesses of SNAN, not mentioned in the Sukin-Marnane Evaluation Report are:
- (a) Despite the fact that according to the SNAN law, the Economic and Planning National Council (CONEPLAN) is the entity with the highest decision level within the System, up to the present this function has not been assumed because the Council has been devoted, since 1980, to solving the country's pressing economic problems. It is necessary to find an alternative to the scheme, to make institutionalization possible and consequently systematize implementation of political and economic decisions and monitor actual implementation at the highest level.

- (b) Participation of the Ministry of Agriculture in the System was only tangential when it should have been fully related to the System. If the GOB complies with the recommendations given in the "Bolivian Population Nutritional Status" study, and if the proposed nutritional strategy is implemented, this Ministry will have to play one of the major roles. DAN will also have to make an effort to incorporate nutritional considerations and criteria to the main activities of the agricultural sector.
- (c) The rivalry and jealousy among DAN, INAN and the Nutrition Division of the MPS/SP have negatively affected the SNAN's efficiency. Even the reason seems to find an explanation in the personalized manner in which some of the officials involved act; it also seems that the lack of a clear division of functions within the three institutions generates conflict among them. This conflict will persist until a clear agreement and consensus on the matter is attained.

2. Food and Nutrition Department - DAN (MPC)

During the project extension period (Sept/79-May/82), the MPC has significantly consolidated its leadership as a planning and coordinating organization of the SNAN. This was mainly accomplished thanks to the dynamism and professional capacity of the last two DAN Directors, Lic. Manuel Pacheco (Economist), and Lic. Magili de Yale (Nutritionist), as well as the technical staff. It should be mentioned that other MPC employees expressed the opinion that DAN is the most dynamic Division within the Ministry. Reduction of the long-term technical assistance to DAN as the result of the July military coup had no significant effect on SNAN and the Project.

3. National Food and Nutrition Institute - INAN

INAN made a fresh start in June of 1979, under the long-term technical assistance of New TransCentury Foundation. Today INAN is the most important institution providing technical and

scientific support to SNAN. Despite the fact of being a relatively new entity within SNAN, it has provided up to now the most relevant technical and scientific contribution ever produced in the country, in the field of food and nutrition. The following facts support this opinion:

- a. For the first time there is available in the country: National representative studies on the nutritional status of the child under five; Prevalence of Avitaminosis A; Prevalence of Goiter in school children, and Situation of Breast Feeding in urban areas.
- b. The experimental projects executed on the promotion to marketing and consumption of iodized salt were pivotal to the final take off of the National Program Against Goiter (coordinated by DAN). This was one of the most important efforts aimed at goiter eradication. This program had started in January, 1980, under the NTF long-term technical assistance.
- c. For the first time in Bolivia, a nutrition education program in primary school curricula has been introduced. Technical and administrative support was provided by INAN during the experimental phase of institutionalization. Professionals from DAN, MEC and MPS/SP also participated actively in the work.
- d. Most of the experimental projects supported by INAN, within the agricultural sector through the Development Regional Corporations, specifically CORDECO and CODEBENI show positive results in terms of improving nutritional problems at the community level. Reference is made to tarhui, rabbits, guinea pigs, and small fishery projects. The important point is that once the experimental phase was concluded and once the financial resources contributed by INAN were exhausted, projects have continued with resources coming totally from the regions. The tarhui project received an additional contribution from INAN, i.e. the design and production of graphic and educational material to be used for community promotion.

Professional personnel in charge of the above studies and experimental projects were given long-term technical assistance as an important in-service training. Bolivia now relies on a valuable professional group for future investigation or desired experimental interventions through different sectors to solve food and nutrition problems.

The adopted cooperation and interinstitutional scheme developed into an interesting institutional model which allowed maximum use of existing resources at a national and regional level. More than forty institutions were involved in these joint efforts. As a result of this coordination, human resources at a technical level are available for future activities.

It should be mentioned that the first decree which created INAN enumerates a large list of activities to be fulfilled by this Institute, thus creating confusion among ministry and MPC authorities as to the exact role the entity should play. However, role identification became more clear as the Institute began operations. INAN's responsibility has mainly become oriented to the elaboration of technical assistance to SNAN. The only program in which INAN maintains a role as executing agency is the PMA (World Food Program) which is still under its administration. To date it has not been possible to find an alternative to relocate this program, a situation aggravated by the current critical political and economic situation of the country. Administration of the PMA in the near future may, on the other hand, support the execution of some experimental projects in the country, such as development of nutritional education and surveillance activities for food distribution programs through mothers' clubs.

B. Training

During the time covered by this report the following activities were accomplished with respect to the training aspect of the Project:

1. At the National Level

In accordance with the terms of the Project extension, "a Food and Nutrition Planning Course

sponsored by DAN must be conducted for Sector Coordinators of the technical working groups established in MACA, MPS/SP, MEC and MICT. The course will last five days and will cover Food and Nutrition policy and program formulation, execution and evaluation."

This course had not been held by July 1980 at which time Mission policy changes curtailed all institutional development support and training for officials at the central level. Thus the planned course was cancelled from the revised program at that time.

2. At the Departmental level

- a. "A Food and Nutrition Departmental Coordinators Workshop with the 9 Departmental coordinators will be implemented...DAN will conduct the workshop.

This Workshop was held in June 1980.

- b. "INAN will develop and coordinate three nutritional courses for Primary and Secondary Teachers. Approximately 90 teachers of the 9 Departments will participate in these courses."

Under the Subproject "School Curriculum Nutritional Education" 90 teachers were trained on two different occasions (July 1981 and April 1982). Educational material printed under the subproject was distributed to the teachers. In addition, 60 teachers from the urban and rural normal schools of Bolivia were trained.

- c. Although it had not been originally planned, 1000 persons from different sectors (health, education, community development, voluntary agencies) were trained in the use of the Goiter Flip Chart designed under the Mass Media Nutrition Education Program. Moreover, 45 persons from the Sanitary Units at national level, CARITAS Boliviana, Bolivian/British of Chuquisaca Project, Menonite Community and Appropriate Technology for Campesino Women (OEA Project) have been trained.

3. Overseas Training

It was planned that "three teachers from Cochabamba, La Paz and Sucre Bolivian Universities will receive long term training 12 months-overseas. This training, planned to be held between September 1980 and September 1981, was frustrated when the universities were closed after the military coup of July 1981 and the Mission changed its original policy. Likewise, the training that had been planned for "eight members from Ministries, sector entities, INAN and/or DAN to receive short-time training (three months) in specific subjects related to their area of responsibility" was curtailed. The mission decided to support short-time training for four persons who had been working in experimental projects at the community level and who were not at the decision-making level. Those responsible for experimental projects such as tarhui, small fisheries, rabbits and guinea pigs were selected; only those in the tarhui, small fisheries, rabbits and guinea pigs projects were interested. Mr. Paul Meneses had short-term training on tarhui in Peru and Chile for 3 weeks, and Mr. Jose Luis Aquin received short term training in Peru on fishery aspects.

C. Basic Studies

The original extension project provided for five basic studies, but subsequently, through an Implementation Letter, one of them was cancelled ("Comparative Evaluation of Nutrition Interventions"), as it was considered that execution would imply and require the participation of Food and Nutrition Department Coordinators, who had been excluded from SNAN by a GOB decision. The remaining four basic studies, published and distributed during the extension period, are attached to this report as annexes; these are:

1. Food consumption survey in urban and rural areas (Original title). A subsequent Implementation Letter changed the approach to the subject, and as a result two publications were produced: "Nutritional Status of the Bolivian Population - INAN - 1981" (includes data on malnutrition and Avitaminosis A at national and regional level); "Goiter Prevalence in the Bolivian Population" - INAN - 1981

2. Present tendency and practice in breast feeding and weaning in marginal urban areas (original title) Published under the title: "Present Status of Breast Feeding in Bolivian Urban Areas" - INAN - 1980.
3. Determination of Low Cost Regional Diets (Original Title). It was published under the same title by INAN in 1981. GOB prohibited distribution, as explained before, because it was considered politically "explosive".
4. Food Habits Study (original title) Published and distributed by DAN, 1981, under the title: "Food Habits and Cultural Patterns Related to Complementary Feeding, Breastfeeding, Diarrhea and Goiter."

D. Experimental Projects

The original Project covered three experimental projects:

1. Promotion and Marketing of Iodized Salt,
2. Mass Media Nutrition Education,
3. Analysis and Experimental Treatment of Anemia.

The first two subprojects were completed within the grant extension period. The results obtained in both subprojects are not only considered successful but extraordinary, as they progressed beyond the "experimental" phase to become a matter of national policy of great projection. Attached herewith are copies of the evaluation conducted on these two subprojects. The first one is the "National Program to Fight Endemic Goiter" (DAN-MPC) and the second is the Mass Media Education Program, presented by the short-term consultant, Ms. Marcia Griffiths. With respect to the latter subproject, the evaluation states the following in the Introduction: "What had been accomplished is impressive under any circumstances, and in Bolivia, with uncountable difficulties, the fact that all plans were carried out demonstrates the excellent management and the hard work of everyone involved."

The third project on "Analysis and Experimental Treatment of Anemia" was the least successful of all and could not be completed under the extension period. Several factors affected its conclusion:

- (a) Project responsibility was given to the Faculty of Medicine of the San Simon University, Cochabamba. The design and the direction had originally been assigned to Dr. Arturo Bautista, a Bolivian physician researcher of international prestige. After the military coup of July 1980, he had to leave not only the project direction but the country itself for political reasons. Within a very short period of time he was replaced by another physician and researcher, Dr. Eduardo Zegarra, who had been directly involved in the project but who also for political reasons was released from this position. For the rest of the extension period this subproject did not have adequate direction nor an appropriate national counterpart.
- (b) During the period July 1980 to February 1981, the Mission decided not to support short-term technical assistance scheduled for the Project, which included several short-time advisory services for this study. Thus the field work was totally paralyzed during this period.
- (c) The completion of this study included, in its original design, the importation of certain equipment, materials and reactives, to be purchased by the Mission in the USA. Acquisition was started with delay and the processing of the requisition encountered many complications, to the extent that when the project grant terminated May 31, 1982, it had still not been possible to acquire all the necessary equipment; some equipment had arrived in conditions such that it was not immediately operable.
- (d) Given the degree of specialization of this study in the field of hematology and above all due to the national director's lack of experience, the study depended directly on the short-time project advisor, Dr. Joseph Edozien. Dr. Edozien had been chosen by NTF to provide advisory services to the project at the suggestion of the Mission, as he had already worked in Cochabamba with the San Simon University on a soybean project. Unfortunately, due to Dr. Edozien's academic responsibilities as Chief of the Nutrition Division at the University of North Carolina, it was difficult to assure all the advisory services planned for this subproject.

- (e) Finally, obvious mistakes were made in the technical direction of the subproject field work. Communications and human relations between Dr. Rios, the study director, and the biologist, Percy Zegarra, the laboratory chief and field work director, were hostile, deeply affecting the quality of the work accomplished.
- (f) San Simon University itself, has entered into an agreement with the Mission to complete this subproject in an adequate manner and with the university's own financial resources.

VI. RECOMMENDATIONS FOR FUTURE ACTIVITIES IN THE BOLIVIAN NUTRITION SECTOR.

- A. With regard to the National Food and Nutrition System DAN has considerably advanced coordination within the National Food and Nutrition System by integrating different sectors and entities to carry out specific actions. It is necessary to consolidate this process through the following strategies:
 - 1. The relationship between DAN and INAN should be improved through the establishment of a clear decision making mechanism in aspects related to both entities within the System. One of the rules of the game to be remembered is that decision should be adopted by mutual agreement between the two entities and not by claim of higher or lesser hierarchy of one or the other entity. Moreover, it is necessary to agree on a clear division of functions between both entities.
 - 2. DAN should adopt a strategy of political-institutional character in order to gain much better access and national financial support for the policies and programs that are at present being carried on or for those that may arise from the recommendations of the studies made by INAN. The formation and functioning of a National Food and Nutrition Committee could be promoted through a Regulating Decree within the SNAN law. The Committee could depend on CONEPLAN; and participating entities could be authorities from the MPC and the Ministries of Finance, Agriculture, Health and Education.
 - 3. Greater efficiency can be attained if DAN would almost exclusively devote its efforts to planning

activities, to finding financing sources, and to initiating and coordinating food and nutrition programs at the national and regional levels. Research and implementation should be discontinued, as these should be the responsibility of either INAN (research) or the ministries and implementing entities (implementation).

4. The tendency of INAN to split into different "departments" is hindering a more efficient division of labor among available technical personnel. For instance, the Research Department has eight professionals, whereas the Training and Publications Department has only two persons. Human resources could be better utilized if each professional would be assigned specific responsibilities in relation to concrete projects. As it is now, responsibilities are concentrated by Departments. Another important measure would be to reduce the number of Departments to three: an Administrative Department, a Technical Department, and a Supplementary Feeding Department.
5. A practical strategy for an interinstitutional infrastructure at the regional level within the SNAN would be to give support and reinforcement to the existing Department Committees of Campaign Against Endemic Goiter. A certain minimum budget could also be assigned to these committees for operating expenses. Under short-term advisory services (Dr. Thomas Cooke), DAN and INAN developed a tentative Project to be presented to international financing institutions. These committees could afterwards become the coordination infrastructure for other SNAN activities.

B. In relation to basic studies:

1. Execution and publication of these studies would have no practical significance to SNAN if the results were not used for a systematic and broad campaign of sensitization and mobilization at decision-making levels: politicians, technicians, and the Bolivian society in general. Scientific conclusions should become tools to influence and motivate action. Results should be spread in such a way that these can be easily understood by the different groups to which they are addressed. The INAN should become conscious of the fact that the research efforts cannot

remain at the academic level. These were originally conceived to contribute to different aspects of planning and decision-making; therefore, the goal has not yet been attained.

If the above additional steps are not taken into account, it may be difficult in the future for the entity to justify its present position as a research and technical institution supporting food and nutrition planning.

2. For a country like Bolivia which had no representative data on the nutritional problem up to the present time, the great financial and human resources efforts required to accomplish basic studies were widely justified. Nevertheless, the goal from now on should be to mount a practical system, simple and low cost, for permanent information collection and updating. This system will allow follow-up on the evolution of problems, and consequently decision-making, at national and regional levels. INAN has the technical capacity to design and coordinate such an information system in collaboration with relevant public entities and voluntary organizations.
3. The recommendations resulting from the studies are specific and coherent enough to become a nutrition policy strategy. This strategy can then be translated into sectoral and intersectoral programs, thus contributing in a significant manner to efforts to reduce nutritional problems. The author of this report contributed to the discussions that resulted in the adoption of said recommendations and endorses them. Therefore, these will not be repeated in this report but are part of it. In general, USAID should consider these recommendations as an important point of reference for future support to a Food and Nutrition Plan for Bolivia, or to other priority interventions.
4. The Studies conducted under the Project demonstrated that the problem of endemic goiter should receive greater priority. Infant nutrition in the Altiplano area follows in the order of priorities. Avitaminosis A in the Llano area is another priority. Although the decline in breast feeding seems not to be a real problem in Bolivia, there should be preventive attention to this phenomenon to avoid a decline as has happened in several other developing countries.

C. With respect to the Experimental Projects:

1. Mass Media Nutrition Education

Recommendations made in the Final Report of this experimental Project, published by DAN (MPC), as well as recommendations made in the Final Evaluation Report by the short-term consultant, Ms. Marcia Griffith, were discussed extensively with the NTF long-term consultant. Repetition of these recommendations is not deemed necessary, but they should be considered as part of this report. (See corresponding annexes to this report).

2. Marketing Promotion and Iodized Salt Consumption

- a) There is an evaluation report on the National Campaign Against Endemic Goiter Program submitted by DAN and the long term advisor in September, 1981. A short and long-term programming strategy is proposed in this document, taking into account future financing of programs aimed at goiter eradication (See Annex No. 3).
- b) During his last visit, Dr. Thomas Cooke, short-term consultant, together with DAN and INAN designed a proposal directed at financing the consolidation of a programming strategy for the National Committee the Departmental Committees Against Goiter. This proposal is contained in Annex No. 4 of this report.
- c) During May, the long-term advisor and technical personnel from INAN designed a project proposal for an experimental intervention in three departments having the highest goiter prevalence. The proposal was prepared as a result of QUIMBABOL's offer to INAN to finance such a project. An innovative aspect of this experiment is the way in which the creation of a community participation dynamic for goiter eradication was created. QUIMBABOL does not seem to be in a financial position to support the submitted project at this time, but USAID could use this project as a model to be applied progressively throughout the country's Departments and assign in the near future the necessary funds for financing it (See Annex No. 5).

- d) The PAHO office, at the request of the Nutrition Division of the MPS/SP, provided during the month of May, the advisory services of a short-term consultant to study project feasibility. Such a project would allow integration by the small-scale salt producers in the production and marketing of iodized salt. The feasibility study is available to DAN. We strongly recommend that USAID examine the possibility of financing such a project.

3. Analysis and Experimental Treatment of Anemia

- a) Given the importance of this subproject from the nutritional point of view and given the financing efforts provided by USAID up to the present time, it is imperative that the project be completed.
- b) As was evident during the most recent evaluation performed at the San Simon University, the direction of the subproject at the direction of the laboratory should be entrusted to competent professionals.
- c) Since the equipment, material and reactivities, necessary for completion of the work are now available, completion costs would primarily consist of the payment of salaries to participating personnel. Discussions with University authorities have been concluded, with the University agreeing to finance these expenses.

D. Recommendations on other experimental projects outside the grant, but related to SNAN:

1. Integration of Nutrition Education within the School Curricula

Even though this project has already taken the first steps towards the final incorporation of the curricula within the MEC, it would be necessary to take certain measures, including financing and short-term technical assistance, to attain full institutionalization.

- a) It is recommended that support and financial assistance be given for mass production of educational materials produced within the

Project: the Education Program, Scientific Information Manual and educational guides.

- b) Support and financing is also recommended for a systematic training program for rural and urban teachers on technical subjects related to nutritional problems. Such training should include the rural nucleus, directors and district supervisors to assure a follow-up and monitoring program.

2. Tarhui production and consumption promotion

- a) One of the future possibilities for enlarging this project depends to a great extent on the demand for processed flour. Given the fact that USAID has been supporting the "Wheat Fortification" project under MICT, it would be convenient to explore the possibility of incorporating this product in such a project. This would require: (1) a cost study for production at small-producer scale and at large-scale agricultural marketing; (2) a processing and production marketing cost study; (3) technological tests to examine incorporation of tarhui flour with wheat flour during baking processes and noodle production processes. Data obtained during the experimental phase of the CORDECO project are already available to accelerate this analysis.
- b) Another alternative for USAID to help move forward this project is to initiate the progressive incorporation of the project within the supplementary food programs. Bromatological analysis of tarhui processed flour demonstrates its high nutritional value. Furthermore, there is already a good quantity of educational material and recipes to back product distribution with nutritional education activities in Mothers' Clubs.
- c) It is advised that USAID explore possibilities for extension and financial support of this project through PL-480 Title III resources and through programs with private sector agencies.

3. Promotion of the production and consumption of rabbits and guinea pigs

Even though these two subprojects under CORDECO in Cochabamba had encountered several difficulties at the beginning, their potential contribution as nutrition and income generation resources for rural lower-income families is now more clearly evident.

It is recommended that a small-scale credit program to farmers be adopted to finance cage construction for reproduction and raising of minor species in different regions of the Cochabamba Department and later extend the program to other Departments of the country.

4. Small fisheries promotion

The fishing resources of the Amazon region in Bolivia are one of the most abundant feeding resources for the country. This experimental project originated as an effort to promote and facilitate capture and marketing at small-scale fisheries. It has not been possible to make an evaluation of the results. Nevertheless, on the basis of initial observations, the following recommendations are made:

- a) Reinforce cooperatives through credit and equipment supply to cooperative members;
- b) The great fish-capture potential of the region makes it necessary to find alternative solutions to the main marketing bottleneck, i.e. the high air-transport costs (the only transport means to consumption centers up to now). One alternative worth examining would be the adoption of deviceration and dehydration technology at the capture site and rehydration at the marketing site. This would reduce transportation costs up to 60%. This technology is being successfully used in countries such as Colombia, and could also be adopted in Bolivia.

VII. RECOMMENDATIONS TO USAID TO IMPROVE FUTURE NUTRITION PROJECT MANAGEMENT

A. At institutional/infra-structural level - GOB

1. Given the multisectorial character that a project of this nature would probably have in the future, it is recommended that budget decision-making mechanisms be centralized at MPC (DAN). A decision instrument and control mechanism of this sort would ease and propitiate actual coordination and supervision of programs.
2. DCCP constitutes an expeditious and adequate mechanism for bookkeeping and auditing of these projects.
3. Extensive use should be made of the existing infrastructure of SNAN, avoiding excessive fragmentation of responsibilities in project implementation among too many entities.
4. Actual participation during the project planning process by national and regional executing agencies needs to be assured.
5. Administrative capability for project management should be improved through long-term technical assistance to different responsible entities. "In-service" training for personnel certainly seems to be more effective than overseas training. Moreover, this type of training secures greater continuity of local personnel in their functions.

B. At the mission level:

1. Excessive bureaucratic processes in effect at present for the disbursement of funds should be simplified.
2. Greater congruence with GOB's own basic regulations for contracting the acquisition of services or materials should be sought by USAID with a global and systematic procedure established rather than ad hoc application of procedures as each case occurs. Efforts should be made to avoid instances in which small expenditures such as the purchase of stationary, office supplies, etc. have to go through a long process to obtain approval from the Mission, as was the case in the Nutritional Improvement Project.

3. An agreement should be sought with GOB and compromise within the Mission regarding reasonable time limits for a response to a given request. Avoid cases such as those encountered when approval for one simple purchase or for contracting services took several weeks, and even more than a month, despite continuous requests and urging by GOB.
4. Delays in acquisition and delivery of physical resources, materials and supplies requested by projects should be avoided.
5. Direct contact between responsible GOB personnel and USAID related personnel should be supported. This will allow a better understanding of projects by Mission personnel of the actual complexity and details in project management. This will also facilitate more compromise between national and Mission personnel. A positive example of this fact was evident in the efficient management by the Health and Humanitarian Assistance Division of the Nutrition Improvement Project. The Division maintained close contact with the GOB personnel in charge of Project administration.

C. At project selection and management levels

1. Resources should be concentrated on implementation of a few priority projects, rather than a wide variety of subprojects, as impact can be diffused while administration becomes complex. An outstanding priority within the nutritional panorama of the country is the eradication of goiter. This is one of the most serious problems and also one of the easiest to solve. A program for education and treatment of child diarrhea constitutes another priority. It can be either integrated with health activities or within other programs such as supplementary feeding.
2. Realistic goals attainable in the short-term should be adopted. Given the constant political changes within the country, it is more feasible to endorse short-term planning horizons, so as to allow demonstration of successful results within a short period of time. This might better guarantee program survival.

3. A flexible project planning and implementation scheme should be adopted to reinforce success and allow prompt correction of problems or failures.
4. Area and priority groups should be selected for intervention purposes. The basic studies produced during the Project perhaps represent the best data source for such selection.
5. A simple evaluation scheme to facilitate the use of information for decision-making at the regional and local levels should be integrated within the projects and given adequate financing.
6. Agreement should be made with the GOB from the beginning of project implementation on a standardized system for submission of reports by GOB officials in charging Project activities.

- ANEXO No. 1: HABITOS ALIMENTARIOS Y ALGUNOS PATRONES CULTURALES FRENTE A: LACTANCIA MATERNA, ALIMENTACION COMPLEMENTARIA, DIARREA Y BOCIO
- ANEXO No. 2: PROYECTO EXPERIMENTAL BUENA MADRE EDUCACION NUTRICIONAL POR MEDIOS DE COMUNICACION SOCIAL
- ANEXO No. 3: PREVENCIÓN DEL BOCIO ENDEMICO EN TRES DEPARTAMENTOS DEL PAIS: CHUQUISACA, SANTA CRUZ Y POTOSI
- ANEXO No. 4: PROGRAMA DE ALIMENTACIÓN Y NUTRICIÓN
- ANEXO No. 5: SINTESIS EVALUATIVA PRELIMINAR SOBRE ALGUNOS PROYECTOS EXPERIMENTALES PARA LA "PROMOCIÓN DE LA COMERCIALIZACIÓN Y EL CONSUMO DE SAL YODA" BOLIVIA-1982
- ANEXO No. 6: SITUACIÓN DE LA LACTANCIA MATERNA EN AREAS URBANES DE BOLIVIA
- ANEXO No. 7: ESTADO NUTRICIONAL DE LA POBLACIÓN BOLIVIANA
- ANEXO No. 8: PREVALENCIA DE BOCIO ENDEMICO EN POBLACIÓN ESCOLAR BOLIVIA - 1981
- ANEXO No. 9: SEMINARIO NAL DE ALIMENTACIÓN Y NUTRICIÓN CEREMONIA DE INAGURACIÓN

Footnote: Copies of these studies and documents can be gotten from New TransCentury Foundation or from USAID/Bolivia, Health and Humanitarian Assistance. All publications are in Spanish. At NTF contact Ralph Bates or Sandra Callier.