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**PROJECT ASSISTANCE COMPLETION REPORT
USAID/Guatemala**

**COMMUNITY BASED INTEGRATED HEALTH AND NUTRITION SYSTEMS
PROJECT No. 520-0251**

1. INTRODUCTION

The present report covers the results of the Community Based Integrated Health and Nutrition Systems Project No. 520-0251.

1.1 This project was initiated in 1980 with the signature of a Loan Agreement on September 18, 1980 and a complementary Grant Agreement signed on September 30, 1980. The project was significantly modified in March, 1985 and concluded in September 18, 1990.

1.2 The initial part of the project consisted in implementing an integrated environmental sanitation and primary health care program in small rural communities of three departments in the western highlands of Guatemala. The Directorate General of Health Services (DGSS) of the MOH was responsible for the implementation of the project.

The Environmental Sanitation Component included the creation of a regional service center responsible for the installation of approximately 95 water systems, 7,000 latrines in households of the communities which benefitted from the water systems and improvement in approximately 1,400 households, including 400 demonstration models. These activities were to be based on funding loans to the communities that had to repay approximately 40% in 10 years. Loans for home improvement were limited to Q150 per household and were to be repaid over a 10 year period at 5% per annum interest. The above activities were to be accompanied by health education in environmental sanitation. The communities would provide labor.

The Primary Health Care Services component included the construction and renovation of health posts and centers; the provision of equipment and vehicles, training materials and supplies; and the financing of training of health professionals.

An additional component of the project was the Support Systems Component which included an Information System to provide data for decision-making, data related to supply and distribution of drugs, epidemiological factors, supervision of health practitioners, staff training and placement, and local food supplement requirements. A Logistics System was designed to provide an inventory of drugs in the regional warehouse and of transportation costs. A Maintenance System which represented the initial implementation phase of the National Health Maintenance Program was designed to include financing a regional shop and warehouse in the regional service center. Also included were financing for vehicles, equipment and training.

1.3 The project was amended in March, 1985. With this amendment the goal of the project was health focused on the improvement in status of the rural poor in six Western Highland Departments of Guatemala through the provision of potable water, excreta disposal facilities, and health education. The implementing unit of the project was the División de Saneamiento Ambiental (DSA) of the MOH. The targets were increased by 135 potable water systems with approximately 8,500 new household connections and 10,000 latrines. In each of the 135 beneficiary communities a health education program was to be implemented, a local committee for the operation and maintenance of the water systems was to be organized, and two persons from each community were to be trained in basic operation and maintenance of rural water systems.

2. ORGANIZATION

2.1 To implement the project an operational unit under the Directorate General of Health Services (DGSS) was established and headed by the Vice-Minister of Health, the Director and Deputy Director of the DGSS, the Chief of the Health Sectorial Planning Unit, and an AID representative. The DGSS would provide the Administration and control of the program. The program did not have a separate implementing unit and functioned with many difficulties as a dependency of the DGSS subjected to all the regular bureaucratic procedures. Implementation was carried out by a medical coordinator who also had other responsibilities, and three health areas whose responsibilities were undefined. At the local level, the environmental sanitation construction, even if initially subdivided by health areas, worked as a unit with its base at the regional center.

2.2 After the evaluation was performed during the second semester of 1983 it was decided that the program should be reorganized and the environmental sanitation component was separated and located under the direction of DSA of the MOH in April 1984. Other activities continued until December 1985, joining the Primary Health Care Services and the Support System Components of the project.

2.3 Based on an amendment to the Project Paper approved in March 1985, a Loan Agreement Amendment and a Grant Agreement Amendment were signed on March 25, 1985 to concentrate efforts on the Environmental Sanitation Component. The organization adopted for the project became a unit under DSA (later DSM) of the MOH; the geographical area was expanded to six departments and the target increased by 135 communities for a total of 230. The Regional Center in Totonicapán became the center of the implementation, improving the design sections, the warehouse operation and its physical area, and the administration of the project. The central main administration unit was installed in the DSM, using the DGSS audit services and cashier for support to project implementation.

3. PROJECT IMPLEMENTATION METHODOLOGY

The methodologies selected for implementation were initially based on using the regular MOH institutional levels of Health Areas, Health Districts, and Health Posts to reach the communities with the various components of the project.

3.1 Primary Health Services

a. The construction and renovation of health posts and the provision of equipment was not implemented.

b. For the training of the paraprofessional personnel a cascade approach was utilized from the central level to the midwives and community health volunteers through the Areas, Districts, and Posts. The selection of health promoters and identification of midwives was based on standards established by the Division of Human Resources Formation. In the training, educational contents for oral rehydration, immunization, nutrition, and health education were included.

The training was reinforced with retraining of the personnel, especially the health promoters.

c. In the aspect of provision of equipment and vehicles for this component, motorcycles were procured for use by the Rural Health Technicians.

d. Although not mentioned in the Agreement as activities under this project, Immunization, Oral Rehydration Therapy, and detection of malnutrition cases and food distribution were carried out.

Immunization was included as part of a service package to the community. Initially the health promoter identified in a family file the children under five. A date and place was selected for vaccination and with the previously prepared files, the children that did not assist were identified for a follow-up activity.

Oral rehydration therapy was also implemented by the health promoters, and also through rehydration units in 23 health centers and 75 health posts.

Nutrition activities were based on the detection by the Rural Health Technician of malnutrition cases. For this purpose the personnel were trained in the use of the tape for taking anthropomorphic measures of children under 5 and pregnant women. The cases detected were subject to a monthly food ration, a diet complement (iron and other vitamins) and nutritional education.

3.2 For the Support Systems Component the following methodologies were used:

a. The information system was included in the project to provide data for decision making related to supply and distribution of drugs, epidemiological factors, supervision of health practitioners, training and local food supplement required. A standard set of forms, files and coupons were used to report activities from the community level up to the Chief of the Health Area. The initial information was generated by the Rural Health Promoter with a family file and by the midwives with the birth coupon. Other basic field data were condensed in a final project report.

b. The logistics system was intended to provide an inventory of drugs in the regional warehouse with distribution of drugs to the Rural Health Promoters. Places selected to sell medicines were operated independently and in a decentralized fashion. An initial lot of medicines was supplied as a grant to establish these points of sale.

c. In relation to the maintenance program a shop was established in the regional center to provide maintenance to vehicles.

3.3 Environmental Sanitation Component

a. To create a regional service center in Totonicapán, the MOH obtained an old hospital building from the local municipality and repaired it.

b. For the installation of the water systems and latrines a design center as well as warehouses were established in the Totonicapán Regional Center. Regional supervisors were in charge of construction. The project provided skilled labor and materials while the community provided all the unskilled labor and some local materials. The concept of cost recovery was implemented after a

study established a fixed monthly fee. A part of the fee was designated for the local community committee and the rest was for a Community Revolving Fund established in the MOF. As part of this component, the community committees were trained in the operation, maintenance and administration of fee collection of the systems.

c. The household improvement activity was not implemented.

d. For this component the agreement indicated that the construction activities would be accompanied by health education focused on improving environmental sanitation practices.

The methodology selected during the initial years was to train institutional personnel in training techniques so that they in turn could train the health promoters and midwives. Additionally radio messages, puppet shows, community focus groups, films, videos and slide shows were planned. However, the activities were not focused on the communities where construction was taking place but rather these education activities were a general effort carried out in the region.

After the 1985 amendment the health education activity was transferred to the Human Resources Division of the MOH. The methodology used was the same process of training MOH field personnel to prepare them in turn to train community members.

A February 1989 evaluation indicated the need to modify this methodology for greater impact. Therefore the activities became the responsibility of the DSM in coordination with the Health Areas. A focus on direct community involvement in the activities from design to implementation was implemented.

4. SPECIFIC OBJECTIVES AND ACCOMPLISHMENTS

The project was actually implemented in three phases: the initial part until the evaluation of August, 1983; the transitional part that divided the project in two activities; and the final part which concentrated on the environmental sanitation component.

4.1 The objectives for the project as included in the agreement and accomplishments by the end of July, 1983 are presented in the following table. Data presented is from the August, 1983 evaluation.

TABLE I

<u>Activity</u>	<u>Schedule LOP</u>	<u>07/30/83 per Eval- uators</u>	<u>Actual Percentage Completed</u>
A. <u>Environmental Sanitation</u>			
i. Water Systems	114	8	13.0
ii. Latrines	7,000	582	23.0
iii. Housing Improvements	1,500	0	
B. <u>Primary Care Component</u>			
i. Promoters trained	1,500	577	38.5
ii. Promoters retrained	600	0	
iii. Midwives trained	950	610	62.1
iv. Trainers trained			
- TSRs (Rural Health Technicians)	75	48	64.0
- Auxiliary Nurses	95	60	63.2
v. Health Posts constructed	13	0	0.0
vi. Health Posts renovated	44	0	0.0
vii. Health Posts equipped	123	0	0.0
C. <u>Support Component</u>			
i. Regional Service Center in Totonicapán			
- First Phase Renovation	1	1	100.0
- Second Phase Renovation	1	0	0.0
ii. Information System	1	0	0.0
- Complete Baseline Surveys	1	1/2	50.0
iii. Maintenance System Initiated	1	0	0.0
- Purchase of Maintenance Equipment for Regional Service Center	1	0	0.0
iv. Logistics Improved Medication Supply System	1	0	0.0

4.2 The 1983 evaluation found that because the project had so many components, activities and sub-activities, it was a very difficult project both for the MOH and the Mission to manage. Based on this finding and the limited advance in activities, a decision was taken to focus project activities exclusively on the environmental sanitation component.

The modification was agreed upon in an Implementation Letter and later by amendments to project agreements. With these actions the Environmental Sanitation Component was separated and became the responsibility of the DSA. The other two components continued until December, 1985 under the original administrative unit.

According to the report presented by the MOH for the Primary Health Care component the following activities were carried out from the beginning of the project until 1985.

TABLE II

	<u>Objs.</u>	<u>Actual</u>
- Training and Retraining		
Rural Health Promoters		1,590
Midwives		922
Rural Health Promoters retrained		1,210
Midwives retrained		556
- Immunization (Polio, DPT, Measles BCG, Tetanus)		
- Oral Rehydration Therapy		
- Nutrition (brachial measurement)		
New born measured		6,615
undernourished detected		362
Children under 5 measured		433,527
undernourished detected		19,515
Pregnant women measured		1,444
undernourished detected		
- Nutrition (complementary food and vitamin distribution) persons		15,673
- Health Education		
Rural Health Promoters		408
- Information System		
- Medication Distribution		

By comparing the EOPS in the Agreements with this report, it was found that a) Training activities were included in the agreements as part of the primary health care component; b) the Information System was included in the support component; c) the health education activities, according to the agreement, were in the Environmental Sanitation Component; d) the other activities performed were not included in the activities described in the agreements (except for some indication of drug distribution to health centers, but the selling of medicines seems to be a different activity). Rural Health Promoters received a donation (in kind) of medicines to establish community pharmacies, some of those are still in operation (San Marcos, Totonicapán).

4.3 After the Implementation Letter separated the components, the Environmental Sanitation component under the DSA (later DSM) was regionalized in Totonicapán and the administrative actions to support construction activities improved. After the amendments of the agreements, the activity was increased in geographic area and in targets.

The specific objective of this component, including the increase in targets, was to supply water systems and latrines to 320 communities and support the activity with health education.

During the period before 1985, some health education activities were performed but not specifically in the localities under construction. In the period from 1985 to the end of the project, two different approaches were used. The first actions were assigned to the Division of Human Resources of the MOH who were directed to train the MOH field personnel, who would, in turn, train community volunteers. After the February, 1989 evaluation the health education activity was modified and reassigned to the DSM. Coordination with health areas was initiated to carry out health education activities in the localities that had received a water system. It was possible to perform this type of activity in tow departments. This decentralized focus on health education as an integral project component has been the basis for the design of a new project which intends to double impact on health status. Another important aspect of the project was community participation which has been carried over in the new project.

The construction of systems, even with numerous problems such as the scarcity of counterpart funds and/or the untimely disbursement of these funds by the GOG plus the turn over of construction engineers, kept its pace. By the PACD on September 18, 1990 the targets in water system construction were met. The accomplishments of this component for the life of project were:

TABLE III

Communities with water supply systems completed	302
Communities with water supply systems under construction	25
Latrines	29,033
Communities with water committees	327
Persons trained for water M&O	782
Health education volunteers	510

Besides meeting the targets at the PACD, this component left an organized unit under the DSM for future water supply and sanitation construction projects. Due to the shortage of counterpart funds during the last two years of operation, the targets were not exceeded, but the materials for the planned systems as well as the designs are ready to continue the activities in this component as soon as local operational funds are obtained from the GOG budget.

Evaluations

This project was evaluated on two occasions. The first was an intermediate evaluation covering all the components of the project as were included in the initial agreement. The second evaluation was another intermediate evaluation close to the end of the project which covered the environmental sanitation component.

The results of the first evaluation in November 1983 were the basis for the modification of the targets and the extension of time as well as to increase funds and coverage area of the project.

The second evaluation was completed in February 1989. Among other important recommendations, this evaluation made apparent the convenience of financing an additional water and sanitation project in the same geographical area to assist the GOG in institutionalizing the process established. This permitted a way to solve the high deficiency of water services and latrines in the rural area. This evaluation also recommended not to increase the construction targets which at that time were close to being met, and instead recommended the improvement in the health education activities. Based on these recommendations, the Mission decided to develop a new project building on this project. Also an additional evaluation was not found necessary considering that the last evaluation was close to the project completion date and that the analyses required for the project paper of the new project would contribute to the evaluation of the different areas of this project.

Expenditures

The funding for the project was from AID Loans and a Grant; the GOG counterpart came through annual budgets; and the communities contributed labor and materials.

TABLE IV

Project Expenditures

	<u>Planned</u>	<u>Expended</u>
AID	\$10,774,000	\$ 9,465,219
GOG	Q 9,315,000	Q10,946,102
Communities	Q 2,125,000	Q 2,150,500

The detailed expenditures of AID by line item are included in Annex 1. The yearly expenditures of the GOG are included in Annex 2, the equivalent in US\$ at the average yearly exchange rates is included.

CONCLUSIONS

The project was originally designed with many components, activities and sub-activities, which made it very complex to implement. The administrative organization contemplated did not function well, as the DGSS, that had the responsibility to carry out the project, did not have the required personnel to permit the efficient and timely execution of the program.

A very significant result of the above administrative situation is reflected in the activities that were performed for the Primary Health Care Services Component and the Support Systems Component as compared with the EOPS in the Agreement. Another aspect of the project is that it was initiated with a medically oriented administration when the project had planned outputs principally in engineering fields. After the separation of components occurred by transferring the Environmental Sanitation Component to the Division of the MOH that has a sanitary engineering oriented administration, both parts of the project improved in activity. In Primary Health Care the training performed during the last year represented more than 75% of the total project activity in this area.

COMMUNITY-BASED INTEGRATED HEALTH AND NUTRITION SYSTEMS

ANNEX I

U.S. DOLLARS

Line Item	LOP BUDGET Total	EXPENDITURES 06/18/91	OB.-EXP. 06/18/91
GRANT AGREEMENT 520-0251			
1 PERSONNEL.	467,672	432,272	35,400
2 PER DIEM	36,501	25,651	10,850
3 TECHNICAL ASSISTANCE	335,627	294,789	40,838
4 TRAINING	38,444	38,444	0
5 CONTINGENCIES	30,062	18,062	12,000
6 VEHICLES	83,054	76,431	6,623
8 EVALUATION	56,096	50,096	6,000
9 TRAINING AND TECH. ASSISTANCE.	100,264	27,409	72,855
10 COMMUNITY HEALTH EDUCATION	118,280	39,611	78,669
12 INFLATION	8,000	0	8,000
TOTAL FOR GRANT	1,274,000	1,002,765	271,235
AID LOAN 520-U-033			
30 ENVIRONMENTAL SANITATION CONSTRUCTION	425,920	425,920	0
32 HOME IMPROVEMENT	34,496	34,496	0
33 EQUIPMENT AND VEHICLES	88,051	88,051	0
40 PRIMARY HEALTH CARE	6,915	6,915	0
41 EQUIPMENT AND VEHICLES	81,242	81,242	0
42 TRAINING	64,533	64,533	0
43 MATERIALS & SUPPLIES.	175,696	175,696	0
50 REGIONAL CENTER CONSTRUCTION.	27,982	27,982	0
51 EQUIPMENT AND VEHICLES	71,608	71,608	0
60 CONTINGENCIES	0	0	0
80 COMMUNITY TRAINING, PROMOTORS AND MIDWIFE	190,265	190,265	0
81 IMMUNIZATION	9,000	9,000	0
82 ORAL REHYDRATION THERAPY	6,357	6,357	0
83 EDUCATION.	19,697	19,697	0
84 MISCELLANEOUS	8,556	8,556	0
85 IMMUNIZATION PERSONNEL TRAINING	11,451	11,451	0
86 NUTRITION	488	488	0
90 HEALTH EQUIPMENT MAINTENANCE.	16,702	16,702	0
Subtotal	1,238,959	1,238,959	0
70 AQUEDUCTS-LATRINIZATION	7,263,896	6,414,984	848,912
71 TRAINING	1,776	1,776	0
72 EQUIPMENT	159,837	130,541	29,296
73 VEHICLES OPER. & MAINT.	72,443	44,610	27,833
74 REGIONAL COMPLEX	686	686	0
75 VEHICLES	251,312	180,477	70,835
76 PER DIEM	0	0	0
77 ADMINISTRATION EXPENSES	55,607	55,607	0
78 SUPPORT SYSTEMS	430,497	388,959	41,538
79 INFLATION-CONTINGENCIES	0	0	0
92 MAINTENANCE MATERIALS	24,987	5,855	19,132
Subtotal	8,261,041	7,223,495	1,037,546
TOTAL FOR LOAN	9,500,000	8,462,454	1,037,546
PROJECT TOTAL	10,774,000	9,465,219	1,308,781

ANNEX II

GOG EXPENDITURES FOR PROJECT 520-0251

	QUETZALES	RATE /EX.	EQIV. US\$
1980	0		
1981	*		
1982	285,974	1	285,974
1983	444,775	1	444,775
1984	967,803	1	967,803
1985	1,110,630	1	1,110,630
1986	1,185,102	2.5	474,041
1987	1,669,886	2.5	667,954
1988	1,732,997	2.7	641,851
1989	1,722,938	2.7	638,125
1990	1,825,997	5	365,199
Totals	10,746,102	2.0	5,596,353
PLANNED GOG OBLIGATIONS (Q)			
	AGREEMENT	6,181,000	
	AMENDMENT	3,134,000	
Total		9,315,000	

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