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PROJECT ACTIVITIES COMPLETION REPORT
Rural Water and Sanitation

522-0166

I. BACKGROUND

Much of the morbidity and mortality suffered by the rural population in Honduras is in the category of water and fecal-borne gastro-enteric and parasitic infections and infestations. In order to help reduce the morbidity and mortality in the Honduran population, the Rural Water and Sanitation Project (522-0166) was developed in 1980 to provide potable water and sanitation systems to prevent these problems.

II. PROJECT GOAL AND PURPOSE

The project goal was to improve the quality of life, and especially the health status, of 500,000 poor rural Honduran inhabitants. The project purpose was to expand access to and use of safe water and human waste disposal systems.

III. PROJECT DESCRIPTION

A. Date of initiation of Project PACD

The project agreement for the Rural Water and Sanitation Project was executed on March 15, 1980 for a total funding level of \$10,500,000 (\$10,000,000 loan and \$500,000 grant).

The original Project Assistance Completion Date (PACD) was December 31, 1983. Subsequent amendments 1 through 4 to the Project Agreement added an additional \$10,200,000 to the Project for a total amount of \$20,700,000 (\$19,500,000 loan and \$1,200,000 grant). Amendment 1 provided for the participation of Private Voluntary Organizations in the Project and increased outputs to be provided through the Project as described below. The PACD was likewise extended three times and the Project ended on December 31, 1988.

B. Components

There were four major Project activities: (1) water and waste disposal systems: self-help construction of gravity-flow aqueducts, excavation of hand-dug wells to be furnished with hand pumps, well rehabilitation, construction and repairs to piped water systems, installation of pit and water-sealed latrines; (2) establishment of functioning water maintenance systems; (3) development and implementation of education activities to promote community participation, improved health behavior related to water and sanitation facility use, and systems maintenance; and (4) training of promoters and field agents to improve implementation, supervision and overall project monitoring. These activities were carried out

in the Departments of Copán, Lempira, Ocotepeque, Santa Bárbara, and Cortés in the Northwest region of Honduras, and the Northern Departments of Atlántida, Yoro, Colón and the Bay Islands.

C. Administration

Three Honduran entities were delegated responsibility to implement the Project. They were the National Water and Sewer Agency (SANAA), the Ministry of Health (MOH), and the Office of Health Education (OHE) established under the MOH. The combination of these entities formed the project implementation unit known as PRASAR, a Spanish acronym for Rural Water and Sanitation Project. PRASAR/SANAA was principally responsible for the construction and maintenance of safe drinking water systems. PRASAR/MOH dealt chiefly with the installation of human waste disposal systems, and PRASAR/OHE provided community promotion and training support. The mechanism for integrating the three units within the project was the project coordination committee. A project coordinator was contracted by USAID to assist in integrating PRASAR activities.

The promoters, trained and supported by project funds, were the key connection between the communities and the Project. They were to work directly with the selected communities to achieve community participation in the construction, operation, maintenance, and correct use of the water and sanitation systems.

IV. PLANNED OUTPUTS

PRASAR/SANAA: The original targets for P/SANAA included construction of 180 gravity-fed water systems and 21 sewer systems, rehabilitation of 50 existing water systems, and strengthening of the Operation and Maintenance Department of SANAA. Project Amendment No. 1 of July 1983 increased the water system construction and rehabilitation targets to 355 and 150, respectively. The goal of 21 sewer system was reduced to 6. Amendment No.1 also included the following activities: (1) windmill development; (2) installation of 20,000 water-seal latrines; and (3) 75 water systems built by Private Voluntary Organizations (PVOs).

PRASAR/MSP: The original P/MSP targets included construction of 3,000 excavated wells, 25 windmills, 18,000 pit latrines, and 14,000 water seal latrines as well as the rehabilitation of 800 existing wells. Project Amendment No. 1 of July 1983 reduced the targets for hand-dug wells and windmills to 2,000 and 10 respectively, and added a category for "other" water systems. Targets for pit and water-seal latrines were raised to 20,800 and 54,000 respectively.

The Project failed to accomplish the outputs for windmills and water seal latrines and tanks for the following reasons:

1. The Ministry of Health did not carry out all of the necessary wind pattern studies for potential sites due to insufficient time to install the remaining three windmills .
2. SANAA was unable to install all of their water seal latrines because of the lack of promoters to promote and guide installation of such latrines.

PRASAR/OFFICE OF HEALTH EDUCATION: Specific numerical targets were not stated for the P/OHE in the Project Agreement. The objective was to conduct health education activities in communities in an effort to change health habits. The training of all health promoters and the development of radio messages and materials to support promotions and health education in communities were targeted as the responsibility of P/OHE.

Initially the Project was limited to the northwest region of Honduras serving the Departments of Copán, Lempira, Ocotepeque, Santa Bárbara, and Cortés. Amendment No.1 expanded the target area to include the Departments of Atlántida, Yoro, Colón and the Bay Islands in the Northern region of Honduras, and presented the possibility of expanding the Project to cover additional areas through the PVO's.

Planned Outputs Accomplished Under the Project were:

<u>OUTPUTS</u>	<u>LOP TARGET</u>	<u>ACCOMPLISHED</u>
New aqueducts	430	430
Aqueducts rehabilitation	50	68
Windmills	10	7
Sewer System	6	6
Wells	2,000	2,000
Pit Latrines	20,800	38,000
Water Seal Latrines	54,000	48,139
Septic Tanks	49	49

V. OTHER ACCOMPLISHMENTS

1. Beyond the 430 water systems that were scheduled to be designed and constructed under the project, an additional 162 systems were designed. These systems will be built under the Health Sector II project.

2. SANAA and the MOH gained a depth of experience through implementing this project that would not have been provided by a rural water and sanitation project of lesser magnitude.
3. This was the first project in Honduras to install water seal latrines in rural homes. The water seal latrines proved to be popular among the users, because they are easy to clean and maintain. The fact that the latrines also seal off bad odors make them even more popular than the dry pit latrines.
4. Another first accomplished by this project was the successful integration of water, sanitation and health education components in rural Honduran communities. CARE, IDB and the EEC have since replicated the project design and are currently implementing similarly integrated projects in Honduras.

VI. INPUTS

Technical Assistance and Training

A total of 200 person-months was provided from loan funding and 110 person-months from grant funding to be used in technical assistance and training. The original Project Agreement funded the following technical assistance activities: special studies for health education, computerized database of target communities, a project coordinator, a long-term consultant in management and training, and long-term consultant from the Academy for Educational Development (AED) to develop health education materials. Additional technical assistance designated by Amendment No. 1 included the provision of specialists in: water systems technology and design, health education, rural water system maintenance, project planning and management, data processing, finance, and watershed conservation practices.

The total technical assistance budget allocated was \$1,691,000 (\$891,000 from grant funds and \$800,000 from loan funds). Of this amount, a total of \$962,000 of grant funds was used during the LOP.

VII. OUTPUTS PLANNED BUT NOT ACCOMPLISHED

Several factors hampered the timely accomplishment of outputs throughout the Project:

- Procurement related problems resulted in a 1 1/2 year delay in the initial implementation of the Project.
- Complex and lengthy disbursement and reimbursement procedures resulted in considerable delays in project activities e.g. late salary and per diem payments to employees undermined employee morale.

There was considerable difficulty in obtaining community participation in the construction of sewage systems. The originally planned output of 21 sewerage systems had to be amended to six when it became evident that the communities would not provide the required inputs of labor and local materials. Only with the support of an independent project, the Employment Generation Program, was community labor made available. Under Project Implementation Letter No. 120, it was agreed that the Rural Water and Sanitation Project would provide skilled labor and materials for the construction of systems in Western Honduras and unskilled labor would be provided by the Employment Generation Program. Under this shared arrangement, four of the six sewerage systems were built.

One shortfall of the Project was the water supplied by the Project. The Project generated water was rarely subjected to water-quality analysis or treatment with chlorine. The loan agreement stipulated that, to assure water quality, the Project would finance laboratory equipment for eight Health Regions. Because of problems in procuring the laboratory equipment from the United States, this equipment was never purchased.

VIII. EXTENT TO WHICH ORIGINAL PROBLEM HAS BEEN SOLVED

The problem addressed by the Rural Water and Sanitation project was the limited access to safe water and waste disposal systems endured by rural Hondurans. The project contributed greatly to solving this problem by reaching approximately 500,000 rural Honduran inhabitants with safe water and waste disposal systems.

Although this project made large advances in increasing the access of water and waste disposal systems for rural Hondurans, much work remains to bring the same benefits to the 50 percent of rural Hondurans lacking such access.

IX. RESULTS OF EVALUATIONS

Two major evaluations of the project were carried out, both by the centrally funded Water and Sanitation for Health Project, (WASH). In a midterm evaluation conducted in December 1982, principal WASH recommendations addressed (a) the inability of the project committee to function as originally intended in the project design; (b) cumbersome procedures required for expending project funds; and (c) general administrative problems, mostly affecting procurement and personnel.

Most of the recommendations were incorporated into the amended Project Agreement as redesigned elements or as conditions precedent.

The WASH evaluation of June 1986 reported that the PRASAR project management structure was still unable to establish an effective mechanism for integrated program implementation among the three GOH implementing agencies. The report cited the following: (a) the lack of a single

government official with overall authority for the project was a principal obstacle to the coordination of PRASAR activities; (b) disbursement and reimbursement procedures should be studied by PRASAR management to develop mechanisms to ensure the availability of project funds year round; (c) Private Voluntary Organizations could expand project coverage, often in remote communities, and an effective system for the recruitment, orientation, monitoring and payment of PVO assistance needed to be established; (d) the impact of PRASAR health education activities on behavioral changes in water use and sanitary habits was not adequately studied; (e) the promotion, health and construction capacities of the promoters and other personnel needed to be strengthened in order to be trained to mobilize communities in construction, operation and maintenance and proper management of the water and sanitation systems.

X. FINANCIAL STATUS

	LOAN	GRANT
AMOUNT AUTHORIZED	\$19,500,000	\$1,200,000
AMOUNT OBLIGATED	19,500,000	1,200,000
AMOUNT COMMITTED	16,755,937	1,116,881
AMOUNT DISBURSED	16,755,937	1,116,881
UNEXPENDED OBLIGATION	2,744,063	83,119

* NOTE: On August 26, 1988 US\$2,000,000 was deobligated from loan funds. On September 26, 1990 \$744,063 from loans funds were deobligated; US\$83,119 were deobligated from grant funds in April 1990.

XI. SUMMARY OF OBLIGATIONS

DATE OF OBLIGATION	AMOUNT OF OBLIGATION	
	LOAN	GRANT
March 31, 1980	\$10,000,000.00	\$500,000.00
July 30, 1983 Amendment #1	3,800,000.00	-
April 4, 1984 Amendment #2	-	500,000.00
July 3, 1985 Amendment #3	3,313,000.00	200,000.00
Aug. 22, 1986 Amendment #4	2,387,000.00	-
TOTAL	\$19,500,000.00	\$1,200,000.00

XII. CURRENT PROJECT STATUS

1. Of the target of 430 water systems, 430 water systems were completed under the Rural Water and Sanitation Project of which 420 are working satisfactorily. The remaining water systems are not working satisfactorily because of watershed deterioration at their respective sources.

Worth noting is while the 420 water system listed above are delivering water to the villages, the chlorination of these systems requires more attention from SANAA's Department of Operations and Maintenance.

2. Approximately \$5 million in surplus materials purchased under this project has been turned over to the Health Sector II Project 522-0216.
3. The entities charged with implementing this project are also responsible for executing the rural water and sanitation component of the Health Sector II Project.

XIII. LESSONS LEARNED

1. Projects should not be designed with a management structure dependent upon a committee of decision makers unless a single member of the committee is granted the authority of final say and the authority to enforce decisions. This lack of a single overall authority greatly impeded project integration, which in turn caused duplication of activities and overlapping areas of responsibility.

2. Projects should not burden communities with labor or financial commitments that are beyond the means of the communities. The Rural Water and Sanitation project originally required communities to provide labor and local materials for the construction of sewer systems. When participating communities were unable to provide this input other means of obtaining the resources had to be explored.
3. Project designs that call for an input of community participation in the construction of water and sewer systems should also include a strong emphasis on education of the communities well before scheduled construction dates. Lack of proper education of the need for the sewer and water systems contributed to the reluctance of beneficiary communities to commit the time and resources necessary to carry out the construction projects.
4. Communities should have the responsibility, authority and control for the management of the water and sanitation systems. SANAA is finding itself more and more unable to maintain the more than 1,000 rural water system in Honduras under its jurisdiction. The fees collected by SANAA from the communities for the use for the water and sanitation systems were supposed to be used for the operation and maintenance of such systems. However, these funds were used in Central SANAA for other purposes.
5. The implementation delays resulting from the GOH's requirement that the project revolving funds be liquidated annually is a generic problem affecting many USAID/Honduras projects. The problems created by this GOH policy impeded implementation of the Rural Water and Sanitation project in particular. Although several accounting mechanisms designed to alleviate this problem have been incorporated into the Health Sector II project agreement delays still persist. The Mission must continue to work with the GOH in search of an overall solution to the problem.