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PROJECT ASSISTANCE COMPLETION REPORT  
USAID/Guatemala

WATER, WOMEN and HEALTH  
CARE WATER SUPPLY PROJECT 520-0336

1. INTRODUCTION

The present report covers the results of the Water, Women and Health, CARE Water Project No. 520-0336.

2. PROJECT DESCRIPTION

2.1 This project was initiated on March 27, 1985 with the signature of Grant No. 520-0336-G-00-5079, for US\$1,000,000 with the Cooperative For American Relief Everywhere (CARE).

2.2 On July 31, 1989 the Agreement was amended to increase the obligated funds by US\$300,000 for a total obligated amount of US\$1,300,000, as part of a planned increase of US\$500,000.

2.3 On March 21, 1990 Amendment No. 2 was signed obligating additional US\$200,000 bringing the total obligated to US\$1,500,000.

2.4 The project goal was to increase the standard of living of Guatemala's rural inhabitants. The purpose was to provide these rural inhabitants with improved health conditions.

2.5 The Agreement planned to benefit 54,000 inhabitants of the Departments of Huhuetenango, San Marcos, Quetzaltenango, Sololá, Quiché, Totonicapán and Baja Verapaz in a three-year period by working in 60 villages. The project was designed to provide water supply through individual house connections, family latrines workshops for village women with the goal of improving health conditions, and establishment of community water committees responsible for collecting managing established maintenance tariffs.

2.6 The experience gained during the first several years of Project Implementation signaled the need to reduce the estimated coverage targets because of higher than anticipated construction costs. Additionally, it was necessary to redefine the health education targeting rural women. In 1989, Amendment No. 1 reduced the targets from 54000 to 26000 beneficiaries and from 60 to 47 systems. The additional US\$300,000 added to Project permitted a simultaneous increase in targets from 26000 to 30500 beneficiaries and from 47 to 57 communities.

2.7 The Amendment defined three areas of activity for the 10 new communities: 1) provide water systems and organize operation and maintenance community committees, 2) household latrine construction, and 3) health education.

2.8 The Project ended on December 31, 1992.

### 3. ORGANIZATION

3.1 During the initial part of the Project the implementation was under the responsibility of CARE in a joint action with Desarrollo de la Comunidad, a GOG agency, and the participating communities. DESCOM later became a part of the Ministry of Development and continued with the project activities. However, after eighteen months of operation, deficiencies in water system designs and difficulties encountered in the construction phase, led CARE in 1987 to sign an agreement with UNEPAR, an Implementing Unit of the Ministry of Health with previous experience in the water sector. UNEPAR remained the official counterpart for CARE for the rest of the project.

3.2 The implementation of the project was based on a 42% contribution by CARE in non-local construction materials, project promotion, supervision and direct support of the health extension workshops; a contribution of 31% by DESCOM including non-local construction materials, and technical, administrative and health education personnel; the communities' contribution, estimated at 22%, consisted of skilled and unskilled labor in addition to local materials, water rights and the right of way for pipes. When the counterpart was changed to UNEPAR, these conditions remained constant except that UNEPAR provided the skilled labor.

3.3 After the Amendment No. 1 the activities were modified to provide more effective health education. These activities were undertaken directly by CARE since UNEPAR lacked implementing capacity in this area. A team of project funded personnel were trained and assigned to work in the communities, directly with the families and community volunteers to expand community level impact.

### 4. PROJECT IMPLEMENTATION

4.1 To achieve its purpose the project had three components:

1. Water supply systems. The basic criterion for community selection was the availability of a spring that could feed a gravity fed system with safe drinking water. The systems provided one water tap per home. The field surveys and system designs were by the official counterpart of CARE. CARE

provided materials and was responsible for promotion, community organization, and some supervision. The communities provided all the unskilled labor. Every community had to obtain the source and the right of way to lay the pipes. They also had to form a committee for the construction phase and later on to operate and maintain the system. CARE organized the training of these committees. The committees were also responsible for managing a fund of user fees used to cover maintenance costs.

2. Latrine construction. One simple pit-type latrine was constructed for each household that received the water supply service. The Project supplied the materials for the concrete slab and seat as well as molds to produce them in the community. The house owner had to dig the pit and put up the walls. Some of the health education efforts focused on the operation and maintenance of the latrines.

3. Health Education. This component was initially undersized and considered only as a series of village workshops. Initially, these activities were considered a responsibility of the CARE counterpart (DESCOM) but after the initial years it was apparent that DESCOM lacked resources, experience and know-how. In the Grant Amendment, this component received special attention and additional funding. CARE contracted health education experts and field personnel that was trained for this activities. Basically an extensionist was assigned to two communities where he/she stayed for two weeks every month. The extensionist's responsibilities included direct community education and training community health volunteers to continue education activities after the project. To strengthen the participation and the education of the mothers and young women, the project required that at least two members of the village committee be women. Most of the volunteers were women.

#### 4.2 During the life of the Project the outputs, as defined in the Agreement Amendment No. 1, were met or exceeded.

1. Following Amendment No. 1, the Project target was 57 communities. In total 59 communities received complete water systems. In total 32,104 persons were directly served, (the target was 30,500), through 5,883 water connections. The quality of the water system was found "very good" by the evaluation firm. All the water systems were organized to operate under a local committee in charge of operation and maintenance. A manual for these committees was produced by the Project. The satisfaction of users was reflected by their willingness to pay the monthly fee; arrears were uncommon.

2. All the houses that received a water connection had a latrine built under the project. A total of 5,773 latrines were built. The evaluation by an independent consultant reported that latrines were being used and their functioning was acceptable.

3. For the health education component, the target was to reach 600 women in the 10 communities that received the newly focused education. The evaluation of this component found that 560 women and 57% of the households were directly reached by Project personnel. The report on the percentage of women with adequate knowledge and appropriate health practices showed improvement. Therefore in the relatively short period of action of this component, limited to the construction period, an improvement was detected. The ongoing activities by the volunteers will enhance long term effectiveness.

4.3 Financially, the project was completed within the estimated budget. The following table provides the data by donor.

	( US\$ )				
	AID(1)	GOG(2)	Commun.(3)	CARE	Total
Agreement	1,000,000	796,000	505,000		
Amendments	<u>500,000</u>	<u>99,000</u>	<u>82,000</u>	<u>30,000</u>	
Total Planned	1,500,000	895,000	587,000	30,000	3,012,000
Actual Cost	1,498,765	513,105	313,300	75,902	2,401,072

M(1) The AID expenditure is the Mission data.

M(2) The GOG figures include the costs in kind and in cash, from DESCOM and UNEPAR

M(3) The data for the communities does not include the costs of the water sources nor those of the right-of-way.

The difference of the actual cost to the planned is due to several factors, the most important being fluctuations in the exchange rate. The non-AID costs were recorded in Quetzales and the equivalent value in US\$ was calculated at the prevalent rate of exchange. The cost of labor is perhaps the largest contributor to this cost reduction as expressed in US Dollars.

4.4 The AID contribution was used mostly for materials, equipment, and operating expenses, with some CARE indirect cost recovery according to the Grant conditions. The breakdown by line item and donor, reported by CARE/Guatemala is the following. (The AID cost is actually less as CARE central offices refunded \$11.68 and \$1,223)

DONOR:	AID	COMMUN.	GOG	CARE	Total
ITEM					
Mat. & Equip.	871,362		37,554	5,723	914,639
Oper. Expen.	506,748		72,451	70,179	649,378
In kind		313,300	403,100		716,400
Indirect Cost Recovery	121,890				121,890
Totals	1,500,000	313,000	513,105	75,902	2,402,307

4.5 In addition to the specific accomplishments of the Project, it improved the capability of UNEPAR to effectively participate in the rural water supply sector. The methodology of strong community participation makes it feasible to capitalize on available manpower in the communities for their own benefit.

## 5. EVALUATIONS

5.1 The project was evaluated by components. The health education component was evaluated in two phases initially as an in-house activity by CARE, from where the new methodology evolved, and later by an independent firm.

5.2 The construction activities were evaluated by an independent engineering firm, Cordon y Merida Ingenieros, in late 1989. The January 1990 report indicated that the quality of construction was good and included suggestions for improvement. The non-ventilated pit latrines used in the Project were found adequate. The construction evaluation pointed to the need to improve health education.

5.3 The health education component was evaluated in June 1991, by DataPro, focusing on changes in knowledge and practices. An increase was observed in the percentage of women with adequate knowledge and sanitary practices. Not a single latrine was found to be abandoned or to be used for another purpose. The report also indicated that almost 90% of the latrines were free of odors. Even if the men were not the target group, they were found well-informed and expressed interest in receiving instruction similar to that

received by their wives. Children demonstrated a high level of understanding of the messages and lessons that their mothers had begun to perform in the home. The evaluation identified a lack of sufficient coordination with other organizations working in health education, suggesting the need to work more closely with other NGOs and the Ministry of Health.

## 6. AUDITS

The Project was audited along with all other CARE projects funded by USAID/Guatemala. The last audit was performed by Arthur Andersen in June, 1992. The audit found no errors of material substance, according to the CARE report.

## 7. CONCLUSIONS

7.1 The CARE participation in this AID funded Project was successful and encouraging.

7.2 The project met its targets in terms of community organization, water supply construction, provision of latrines, establishment of functional community water committees, and to some extent the improvement of family health states through education.

7.3 The methodology of strong community participation in all phases of the process of developing rural water systems and latrines proved to be successful. Likewise, the community contribution (female volunteers) in the education process was an important tool for improving knowledge and practices in relation to the sanitation area, with emphasis in women.

7.4 The type of water system adopted, providing water in the home as opposed to a lower cost system of public standpipes, gives better chances of impact in the family health and was found as an important element in the sense of ownership that promotes to operate and maintain the systems and better conditions for women.

7.5 Construction of water systems is a key to promoting community interest and acceptance of latrines and better health practices.

7.6 The importance of health education in improving community health status was highlighted by the project, especially during the last years when the health education methodology was improved.

7.7 As CARE was an efficient administrator, it was not necessary to develop an administrative unit in the GOG capable of continuing this methodology after the CARE intervention ended. Another bilateral donor provided CARE with funds to develop a similar project in another geographical area of the country.

7.8 The health education actions were developed mostly by CARE personnel. However, activities ended when the construction phase was completed. The advantages of latrines had to be explained before they were available for use. Appropriate use of water could not be practiced and, therefore, the adoption of these practices could not be observed by the project personnel. This strategy left a high responsibility in the volunteers' participation. These considerations were taken into account when AID authorized a new project with CARE in 1991. The new Rural Water and Health Project builds on the experience and administrative structure of the Project and extended for a period of 18 months the support of community volunteers by CARE extensionists in 12 WWH sites.

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