

1. BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS.  
2. USE LETTER QUALITY TYPE, NOT 'DOT MATRIX' TYPE.

IDENTIFICATION DATA

A. Reporting A.I.D. Unit: Mission or AID/W Office <u>Dominican Republic</u> (ES# _____)		B. Was Evaluation Scheduled In Current FY Annual Evaluation Plan? Yes <input type="checkbox"/> Slipped <input checked="" type="checkbox"/> Ad Hoc <input type="checkbox"/> Evaluation Plan Submission Date: FY ____ Q ____		C. Evaluation Timing Interim <input type="checkbox"/> Final <input checked="" type="checkbox"/> Ex Post <input type="checkbox"/> Other <input type="checkbox"/>	
D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date of the evaluation report.)					

Project No.	Project /Program Title	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (000)	Amount Obligated to Date (000)
517-0232	CARE Rural Water	1985	8/89	430	430

ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director		Name of Officer Responsible for Action	Date Action to be Completed
Action(s) Required Emphasis should be given to the development of a comprehensive operations and maintenance program and assistance should be provided to communities in terms of hand pump maintenance as necessary.		CARE	8/31/89

(Attach extra sheet if necessary)

APPROVALS

F. Date Of Mission Or AID/W Office Review Of Evaluation:	(Month) 03	(Day) 07	(Year) 89
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G. Approvals of Evaluation Summary And Action Decisions:

	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
Name (Typed)	Tim Lee Tritt Hougen	Michael Bowman	Thomas F. Cornell	Raymond F. Rifenburg
Signature	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Date	06/28/90 6/28/90	7/13/90		7/31/90

**ABSTRACT**

*Evaluation Abstract (Do not exceed the space provided)*

purpose of the project is to increase the quality and quantity of water supplies and sanitation facilities and to educate communities in their proper use and maintenance. The expected number of beneficiaries is estimated to be 33,000-41,000 persons in 30-40 communities located in the Southwestern provinces of the Dominican Republic.

Implementation plans, reports and other relevant data were reviewed, and an engineering survey, a household survey, and a water committee questionnaire were administered in a sample of the communities served by the project. Following are the prominent major findings and recommendations of the evaluation team.

Major Findings

In addition to installation of handpumps, in April of 1988 CARE with A.I.D. expanded the description of the project and extended the agreement for an additional year to include the installation of gravity flow and photovoltaic systems. The change in project design, allowing for a diversification of technology to better meet the needs and desires of the project participants has had a positive effect on performance at all levels.

Establishing improved water supply was more successful in communities where piped water distribution systems were installed than in those provided with handpumps, primarily because of increased communal interest, reinforcement of the perception of community ownership, and a more adequate operation and maintenance program.

Project health promoters gained the trust of the communities and made some progress in health education and in improving health practices. However, the original project design did not allocate adequate resources for technical assistance in health education and training materials nor was an appropriate health education strategy developed.

In all communities visited by the evaluation team there are functioning water committees and water system caretakers who have received training through the project.

**COSTS**

Evaluation Costs		Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. \$)	Source of Funds
<b>1. Evaluation Team</b>				
Name	Affiliation			
Homero Silva	WASH	28	11,600	WASH
Geri Burdman	WASH	28	16,312	WASH
Peter Buijs	CARE	28	N/A	CARE
<b>2. Mission/Office Professional Staff</b>		<b>3. Borrower/Grantee Professional Staff</b>		
Person-Days (Estimate)	8	Staff Person-Days (Estimate)	60	

# A.I.D. EVALUATION SUMMARY - PART II

## SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)

Address the following items:

- Purpose of evaluation and methodology used
- Purpose of activity(ies) evaluated
- Findings and conclusions (relate to questions)
- Principal recommendations
- Lessons learned

Mission or Office:

Dominican Republic

Date This Summary Prepared:

April 11, 1989

Title And Date Of Full Evaluation Report:

Evaluation of the CARE Water Supply and Sanitation Project/ Feb. 1989.

### Recommendations

1. CARE should strive to obtain funding in order to continue this activity.
2. Continuation of the water project should focus on: a) health education; b) an information system; c) a comprehensive operation and maintenance program (for both handpumps and pipe distribution systems); d) use of WHO and INAPA design standards; e) excreta disposal; f) waste water drainage; and, g) water quality monitoring.

### I. Summary

This report presents the finding of the final evaluation of the CARE Rural Water Project (517-0232) in the Dominican Republic authorized under WASH Activity No. 522 and carried out from January 26 to February 17, 1989, by a three-person team.

The project, funded by a \$430,000 Operational Program Grant (OPG) from USAID in August 1985 and a \$375,000 contribution from CARE, was intended to improve water and sanitation facilities for 33,000 to 41,000 people in 50 to 70 communities and to teach them proper use and maintenance of the water system installed. The OPG was amended in April 1988 to reduce the project area to 30 to 40 communities and to extend the project for one year. The final project activity completion date was August 31, 1989.

The purpose of the evaluation was to review the project in terms of implementation strategies, inputs, outputs, functioning, utilization, and selected socioeconomic effects; to identify lessons learned; and to make recommendations for future programming.

The evaluators gathered information from meetings with USAID, CARE, SESPAS, INAPA, the Peace Corps, CEA, and FUNDASUR, as well as with all project field staff. They reviewed implementation plans, reports, and other relevant data and, conducted engineering, household, and water committee surveys through questionnaires administered to a sample of the communities served by the project. The major findings and recommendations of the evaluation team follow.

### II. Major Findings

Overall, the project has been a worthwhile activity and much progress has been made towards achieving its objectives. Valuable lessons have been learned and in many instances the acquired experience has been applied to improving implementation.

In addition to the installation of handpumps, in April 1988 CARE with A.I.D. agreement expanded the description of the project to include the installation of gravity flow and photovoltaic systems. The change in project design, allowing for a choice of technology by project participants, has had a positive effect on performance at all levels.

Establishing an improved water supply has been more successful in communities where piped water distribution systems were installed than in those provided with handpumps primarily because of increased communal interest, reinforcement of the perception of community ownership, and a more adequate operation and maintenance program.

The project promoted latrines, but only two more were constructed, suggesting that promotion alone is not enough in low-income areas. Project health promoters gained the trust of the communities and made some progress in health education and in improving health practices. However, the original project design did not allocate adequate resources for technical assistance in health education and training materials nor was an appropriate health education strategy developed.

...ation team found functioning water committees (there are a total of 38 committees) and water system caretakers who have received some training through the project. Most committees are active in overseeing the operation of the water supply systems and collecting funds for maintenance.

Communities are aware of the role and purpose of the committees and the foundation has been established for community-based maintenance programs.

In many instances, however, the communities will not be able to perform all maintenance tasks and a comprehensive operation and maintenance program should be defined.

The initial project design had many weaknesses that created problems in project implementation. Most of these were ultimately overcome, albeit with difficulty at times.

Project management generally has been satisfactory. As a result of its own contributions, sound fiscal management, and the proper utilization of outside resources, CARE has achieved considerable results with limited USAID funds.

After initial difficulties with recruitment and performance, the field staff is now one of the project's greatest assets.

### III. Recommendations

#### A. General:

1. The project merits continuation beyond the current project activity completion date. CARE should develop a multiyear proposal to seek new funding for the next phase, avoiding some of the pitfalls of the original project design process.
2. This phase should build on the experience gained, strengthening

those areas for which adequate resources were not available during the past three years. In particular, health education and information systems should be given greater attention. INAPA's design standards and WHO recommendations should be used in the future for the design of water and excreta disposal systems. Moreover, in areas with impermeable soils, drainage systems for waste water should be improved by using mound systems or evapotranspiration beds. Additionally, use of test wells to assist in the design of water wells before drilling should be seriously considered. Finally, a water quality monitoring program for water supply sources as well as for water containers at selected homes should be instituted.

3. The remainder of the current project should be devoted to the development of a comprehensive operation and maintenance program, especially for communities with handpumps.

B. Health Education and Community Participation:

1. Any future water supply and sanitation projects, whether by CARE or other agencies should permit a flexible approach to the choice of technology.
2. CARE should provide technical assistance in health education at the outset of projects such as this, and there should be follow-up for staff training, materials development, implementation, and evaluation. Health education strategists, if not available locally, should be drawn from other CARE projects. CARE should further refine its community selection and preparation strategies by developing a phased approach to community identification, project feasibility, and negotiation, particularly if more handpump systems are installed.
3. The contracts signed by CARE and the community should clearly spell out the responsibilities of each party. Communities should be fully prepared to make their own technology selection.
4. An assessment of community needs (KAP survey), clearly established goals, and adequate materials and resources are necessary if health education is to produce results.
5. The approach to health education should encompass the school, the community, and mass communication and social marketing.
6. The community outreach staff should be increased to match the scope of the program defined through the needs assessment. Community members should be involved in health education efforts from the inception of a project.
7. Twenty percent of present and future project funding should be allocated to health education.
8. CARE should provide technical assistance and funds to promote and construct latrines in interested communities.

C. Water Systems Development and Operation and Maintenance:

1. For handpump systems, the community should be required to purchase enough tools and materials to last at least one year from the time of pump installation.
2. CARE should use INAPA design standards because by law all water

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3. systems in the Dominican Republic must be approved by INAPA. Percolation trenches of suitable size should be constructed around standpipes to dispose of waste water. Where this is not possible, adequate surface channels should be provided.
4. Test wells should be drilled for the correct design of gravel pack and slot size as well as to determine the quality and quantity of water available.
5. Professional assistance should be sought in deciding upon the range of slot sizes most suited to the soils in the project area, and factory-made well screens should replace the improvised screens used at present.
6. A monitoring system should be established for the bacteriological analysis of at least one sample per quarter from each system. Where successive positive samples are obtained, a sanitary survey should be conducted to determine the sources of pollution.
7. CARE should develop a comprehensive O&M strategy, using WASH Technical Report 35, and decide which entity is responsible at each level.

**Project Management and Design:**

1. CARE should conduct an in-depth training needs assessment for water committees and local technicians and use this to improve the current training programs for community members.
2. CARE should improve the coordination of the water project with other organizations, particularly INAPA and SESPAS, at the local and national levels.
3. During the next phase, CARE should establish a simple but comprehensive information system, and should seriously consider the use of short-term technical assistance for this purpose.
4. CARE should further develop its human resource base for the project in Barahona and identify and budget for future training opportunities.
5. CARE should ensure that the skills and experience of the project design team include long-term with CARE project planning and implementation, and knowledge of the socioeconomic situation in the country and, if possible, the project area to be served. Any new water and sanitation project design exercises should also involve CARE-Dominicana's present project field staff.

**V. Lessons Learned**

Projects often have to be designed in short periods of time. If sufficient time and information are not available when deadlines have to be met, the result can be a less than optimal project design. The reality of development financing, however, often makes it necessary to rapidly design projects. When this occurs, appropriate strategies for projects can overcome difficulties brought on by poor design and can still become successful. Resource and technical assistance requirements for the health education components of water and sanitation projects are often underestimated. Health education is a critical component and should

be carefully planned and budgeted in order to ensure lasting effects and sustainability of projects. Simply designation of individuals to carry out health education in the communities is not adequate. They must be trained in methods and techniques and they should have resources and materials to support their activities. WASH experience suggests that 20 percent of project resources should be allocated to health education. Technical assistance in developing and implementing a comprehensive community and school health education approach is necessary. Organizations attempting, for the first time, to integrate a health education component into a WS/S project should plan long-term technical assistance for this purpose.

Staff members who are committed to development work in the areas served are essential to the success of a project. The sense of teamwork and the interdependence of the community health promotion, engineering and support personnel provides cohesive bond for all project activities and enables the staff to plan and problem-solve with confidence. Management support of the team dynamics and process positively influences the staff's sense of purpose and commitment to the communities served.

The assumption that people will construct latrines on their own if a project promotes them, usually is proven wrong in low-income areas. While promotion and education are necessary pre-conditions to latrine construction, use and maintenance, project planners should also make provision for training, equipment and subsidized construction materials in these circumstances. In future projects, financial support (along with the promotion of latrines) is essential.

When community members are involved in decision making regarding the type of water supply system to be constructed and their preferences regarding the level of service are taken into consideration at the time of the feasibility study and design, the chances of sustainability and project success increase considerable. The appropriateness of this principle was proven again during this project following the modification of project strategies regarding technology selection.

The Southwest is a difficult area for water development because of natural resources limitations and lower availability of services. Flexibility and creativity are required because of the relatively low success rates of wells.

ATTACHMENTS

Attachments (List attachments submitted with this Evaluation Summary; always attach copy of full evaluation report, even if one was submitted earlier; attach studies, surveys, etc., from "on-going" evaluation, if relevant to the evaluation report.)

Copy of WASH Field Report No. 261, Evaluation of the CARE Water Supply and Sanitation Project in the Dominican Republic, under WASH Activity No. 522.

COMMENTS

Comments By Mission, AID/W Office and Borrower/Grantee On Full Report

Mission Comments: The report in general represents an adequate evaluation of the Project. The Mission has no current plans to provide funding for a continuation of this Project. Some funding may be available through the Local Currency Program and the PVO Co-Financing Project to finance activities in WS/S, and CARE should carefully take the findings of this evaluation into consideration for any future activities in this area.