CLASSIFICATION

Report Control Symbol U-447

LAC-33714

PROJECT EVALUATION SUMMARY (PES) — PART I

1. PROJECT TITLE	2. PROJECT NUMBER	3. MISSION/AID/W OFFICE
Siliana Wells/Rural Hygiene (OPG AID/NE-G-1641)	664-0312.5	USAID/TUNIS

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) 664-83-3

TERMINAL

☒ REGULAR EVALUATION ☐ SPECIAL EVALUATION

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION
A. First PRO-AG or Equivalent	B. Final Obligation Expected	C. Final Input Delivery	A. Total	$ 880.2	From (month/yr.) 8/79
FY 79	FY 79	FY 82	B. U.S.	$ 491.8	To (month/yr.) 12/82
					Date of Evaluation Review

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. CARE to submit to USAID/Tunis Controller revised voucher for spare parts.	Coppold, CARE/NY	prior to TDD 9/30/83
2. Spare parts to be (a) shipped to Tunis (b) cleared through customs, and (c) delivered to Siliana. Shipment is combined with 664-0312.14 spare parts shipment; see separate face sheet.	(a) Coppold, CARE/NY (b) Atallah, Min of Health, Tunis (c) Jaoua, Genie Rural, Tunis	12/83
3. Ministry of Public Health to distribute health education coloring books to Siliana for use in primary schools.	Santé de Base, Ministry of Health	1983-84 academi year

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS — NA

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☐ Project Agreement
- ☐ Implementation Plan e.g., CPI Network
- ☐ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT — NA

- A. ☐ Continue Project Without Change
- B. ☐ Change Project Design and/or ☐ Change Implementation Plan
- C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

D: Dorothy YOUNG, Rural Development Officer
E: Leonard Coppold, Director
T: Sadok Atallah, Min. of Public Health

12. Mission/AID/W Office Director Approval

Signature

Typed Name: James R. Phippard

Date: September 29, 1983

AID 1330-16 (3-78)

13. Summary

The project was completed December 31, 1982, and was evaluated February 15 - April 30, 1983 along with the second CARE OPG water project in Central Tunisia. Revised project output targets were reached by the PACD. The principal achievements and problems encountered are discussed under the items which follow.

14. Evaluation Methodology

CARE conducted a project completion evaluation for two rural wells/hygiene OPGs in Central Tunisia to study "planned versus actual achievements." An evaluation plan for the health education component of the OPGs was produced in September 1980. In the course of project implementation, it became apparent that the KAP (Knowledge, Attitudes, Practices) component of the plan had to be curtailed due to heavy demands on CARE staff, cost factors, and the considerable time (one year plus) required to analyze the first KAP survey. In addition, actual project implementation was compressed into a two-year period which appeared to be too brief a time frame during which to measure significant changes in user knowledge, attitudes, and practices. Therefore, the original project evaluation plan has been modified. During project implementation, CARE submitted to USAID the standard CARE Planning, Implementation and Evaluation (PIE) Report on a trimester basis as part of on-going project monitoring.

The following were the steps involved in the final evaluation:

1. CARE, with the assistance of a consultant hired under short-term contract, produced an Operational Plan for Evaluation;

2. USAID provided comments and input to the Plan;

3. CARE, assisted by the consultant and a CARE/Bangladesh staff person, produced four questionnaires covering the different project components, reviewed these with Tunisian Government officials, and pre-tested them in the field in early March. The indicators of project effectiveness measured were water quantity and quality, population served, structural soundness, pump functioning, site cleanliness, and user attitudes and characteristics;

4. The field evaluation was carried out by the individuals identified in the evaluation report (Appendix A) at 28 randomly-selected CARE and control sites;

5. The CARE Health Coordinator prepared a final evaluation report on the health education activities. (Report received at USAID April 27);

6. CARE submitted a final project evaluation report; USAID received the report May 23.

The estimated cost of the evaluation (CARE has not yet submitted final vouchers) for both the Siliana and Kasserine projects is $23,000.

15. External Factors

a. The project sites were proposed by local Tunisian officials and then reviewed and approved by the Ministry of Agriculture's engineering division (Genie Rural) and the Ministry of Health. As in the case of previous CARE water improvement projects, CARE was not responsible for selecting sites. Beneficiary involvement in site selection and development was limited to their exposure to health education messages carried to project sites by health officials. This top-down approach to implementation is standard in Tunisia. Lack of consultation with beneficiaries prior to project implementation weakens the prospects for well maintenance and protection by users after site completion.

b. Some populated sections of the project area have no known water sources within 2-3 hours one-way walking distance. In these locations, CARE improved 22 existing below-ground water catchment basins ("cisterns") which are fed by rain during the wet season and by reservoir truck in the dry season. The systems cannot deliver potable water; however, as no other options exist, the population and the GOT feel that any water is better than no water at all in these locations. While CARE's intervention improved existing infrastructure and gave people access to a water supply, it is impossible to apply "WHO standards of water purity" to these sites.

16. Inputs (Problems)

CARE intalled handpumps on the cisterns (see above). The design and construction of the CARE handpump evolved during earlier CARE water projects in Tunisia. The pump is made of locally available parts with the exception of drop rods and pistons which are imported from the U.S. CARE is providing the GOT with a supply of spare parts; however, until all handpump parts are locally available, the already-weak GOT maintenance system is further weakened. A shipment of spare parts for the project is expected by 12/83 (see facesheet).

NOTE

The GOT, CARE and USAID recognized the importance and need to have locally available spare parts for handpumps. To this end, AID financed project 664-725 to test the feasibility of locally manufacturing a handpump and, after the pump (the AID handpump) was successfully produced, to field-test it in Tunisia. These activities were carried out by Georgia Tech University during a period which coincided with the implementation of the CARE OPGs. All parties hoped that the locally manufactured AID handpump would replace the CARE pump and be installed at all sites. However, despite reenforcing and redesign in the field the AID pump appeared to be even more susceptible to breakage than the CARE pump and more expensive. Therefore, the project was abandoned with the removal of all of the AID pumps from test sites in September 1982. No better alternative than the CARE handpump is available.

17. Outputs

Target	Actual
A. Construction	
(1) 50 water points constructed	48*/ constructed (16 springs, 22 cisterns, 10 motorized surface wells)
(2) 24,000 people provided potable water	estimated 24,000 beneficiaries
(3) introduce self-help construction of family latrines	130 latrines installed at public schools and private homes
B. Training	
(1) improved sanitary and hygienic practices	
a. health education team under MOPH	MOPH mobile team of driver and two sanitat technicians conduct regular health sessiou at CARE sites.
b. disinfection team under MOPH	MOPH team disinfect sites regularly with javel and chlorine-dispensing ceramic jar
c. health education training	10 workshops completed. 208 MOPH personnel trained. Measurable and measured gains in knowledge.
(2) masons, mechanics trained in construction, repairs, maintenance.	
a. construction teams	9 teams of local masons/laborers trained.
b. maintenance teams (GOT responsibility)	Experienced CARE technician remains on Governorate payroll to maintain hand and motor pumps. Governorate committed to maintaining sites.

*/ Number of sites reduced by Amendment No. 4 from 50 to 48 and spare parts purchased for handpumps with resulting savings.

18. Purpose

"The general purpose of this Grant is to improve the basic health conditions in the delegations of Makthar, Kesra, Rohia, Govenorate of Siliana, Tunisia." (OPG)

Progress towards EOPS

a. EOP: Improve 40 presently contaminated water points and 10 motorized systems. Partially achieved.

Status: CARE made physical improvements to 48 existing water points consisting of cisterns(22) springs (16) and surface wells (10). The improvements consisted of cleaning and renovating cisterns; capping and thereby protecting springs and constructing fountains and animal troughs; cleaning,lining, deepening, and covering surface wells and constructing an on-site distribution system consisting of a reservoir, 4 public taps, an animal trough, a pump house and a diesel pump and motor. As improvements were made to existing systems, the project did not aim to increase the quantity of water available; however access to water was facilitated by the physical improvements made. Despite the physical improvements made,tests made at surface well sites indicate that the project had limited success in improving water quality. The evaluators reported that four of the 15 wells tested were found to have water suitable for human consumption based on bacteriological analyses. Water tested at eight non-project (unimproved wells) showed that water in only one well was fit for human conspmption.

b. EOP: (i) Improved sanitary and hygienic practices among the target population (especially women) through health education efforts and (ii) the encouragement and mobilization of community participation in actual site construction.

IF

Insufficient data to assess/EOP (i) achieved. EOP (ii) not achieved.

(i) CARE originally intended to attempt to improve the health of the beneficiary population directly through the efforts of health personnel. As these personnel lacked the training necessary to carry out the work, the approach was abandoned in favor of training front line health personnel in conveying health and sanitation messages to the population. (see d below).

The evaluation did not measure the impact which training had on improving the health practices of the beneficiary population. Moreover, as the KAP survey was not repeated, there is insufficient data available to measure changes in beneficiary knowledge, attitude, and practices during the relatively brief life of the project. However, the report states that the beneficiaries "appeared to place a high value on having a covered well, drawing clean water, clean surroundings and ease of access to the well." (p.38).

(ii) Community particiaption in site construction took the form of CARE hiring some of local population as laborers.

c. EOP:"A permanent maintenance unit organized under the regional Ministry of Public Health structure which will chlorinate water at all project water points."

EOP achieved.

Status: Permanent disinfection units exist and are standard part of MOPH staff nation-wide. However, bacteriological tests during the evaluation suggest that (i) inadequate chlorination is taking place and (ii) if physical maintenance is defective (pump breaks, users open the trap door, drop contaminated buckets into well) it is impossible to maintain water potability at WHO or GOT standards.

d. EOP: "A rural health education team organized under the Ministry of Public Health which will disseminate health information."

EOP partially achieved.

Status: Healh education teams trained by CARE staff exist and have developed an itinerary to visit each water point periodically, emphasizing water hygiene and other health messages to the population. This work, which should have preceded construction at each site, began late in the project and after construction had begun or had been completed at most sites. The access of the health education teams to women was limited for the first year of field work as there were not female team members. The evaluation did not assess the impact of the health eduction team on improving the health practices of the beneficiaries.

Health team members were among the personnel trained by CARE during the project; the CARE-trained personnel scored a higher number of correct answers (80%) on an evaluation questionnaire related to health education than did health personnel who had not benefitted from CARE training (72%). In addition pre and post training tests administered during the life of the project showed that CARE health trainees averaged a gain of 10-12% as a result of the training CARE provided in health education techniques and messages.

e. EOP: "Mason and mechanics whose training...can be used by the Governorate (through Genie Rural) in... maintaining and repairing." EOP partially achieved.

Status

Maintenance personnel were trained and the Governorate of Siliana hired an experienced CARE technician to provide maintenance of handpumps. The report states that at the sites visited, 90% of the physical well infrastructure (concrete structure) was in good condition. However, the health benefits of a sound physical structure are minimal if the water lifting devices (handpumps, motor pumps) are not working. The report states that only 23% of the handpumps visited were operative.

In general, motorized sites are better maintained than handpump sites as a permanent, paid guardian/pump operator is assigned to each motorized

site and the Government has experience in maintaining diesel pumps. Spring sites are also relatively well maintained as there are no mechanical parts involved. The problem is handpump maintenance: the Governorate is unable to provide the frequent preventive maintenance required and the population is not motivated to take responsibility for maintenance itself. Neither the population nor the government sense that a handpump represents an improvement or an advantace over manually lifting water from wells with buckets.

f. EOP: "...The project will seek to instill among the target population a sense of responsibility for its water points. One person from the area will be selected at each site where a pump is installed. This person will be equipped with hand tools...."

EOP not achieved.

Status: See 15a. This EOP was dropped as CARE had attempted to implement the system of local repairmen under previous projects and it did not work. By the time implementation began on this OPG, CARE had abandoned the approach in favor of working with GOT agencies to develop an alternate maintenance strategy and plan. A maintenance plan was developed; however, as concerns handpumps, it has not been put into effect. Until the GOT budgets adequate funds for personnel, parts, transportation and fuel, maintenance of rural water points for dispersed population will remain inadequate. Adequate maintenance of handpumps which require frequent attention is currently beyond the capability of the GOT and rarely do user populations take any action to protect or maintain a handpump.

g. EOP: "Exchange of information about construction costs with the CTDA." EOP achieved.

Status: The exchange of information took place with USAID assistance. CARE provided valuable technical advice to the CTDA Potable Water subproject manager on issues of structural design and pump specifications.

19. Goal/Subgoal

1. "To provide water to 24,000 people in the poorest rural areas (average income less than $200 per capita per annum) of Siliana Governorate."

Comment

While it is difficult to obtain precise demographic data for each water point, CARE and GOT studies estimate 200-400 users at springs and cisterns and as many as 2000 users at motorized sites. The figure of 24,000 appears reasonable and correct. (Evaluation report estimates 462 users at handpump sites. p.52). To these figures should be added at least 1,000 small and medium-sized animals per site which represent an important part of the livelihood of the families. As the EOP aimed at improving existing water points (springs, wells, cisterns) there is no evidence that the quantity of water available was increased as a result of the project, and, aside from spring sites, it appears doubtful that the quality of water was improved at project sites.

2. "To strengthen local water supply institutions so that water improvement, maintenance, and hygiene education programs function on an on-going basis."

Comment: Although maintenance is not yet adequate, CARE training of pump installation and maintenance personnel contributed to the Governorate's ability to install and maintain handpumps. The training of health education personnel in communication and in subjects related to rural water hygiene, the preparation of training materials and numerous reports and a national health education plan for the MOPH, the production of a coloring book for primary school children, etc. have all contributed to reenforcing the MOPH efforts directed at reaching the rural, dispersed population.

20. Beneficiaries

The direct beneficiaries are approximately 24,000 people and their animals living in rural, dispersed areas of the one of the poorest parts of Tunisia. In addition, local unskilled and some skilled labor benefited from employment at CARE work sites for periods of up to six months, earning approximately $3/day (laborers). Additional beneficiaries are the 208 MOPH personnel who received training in health education techniques and substantive information, which in turn will increase their effectiveness in conveying health messages to the rural population. Finally, the Ministries of Agriculture and Health benefitted from CARE assistance in developing health and maintenance policies. The Ministry of Health adopted the CARE-proposed health education plan related to rural water supply as national plan and policy.

21. Unplanned Effects

Evaluation report, p.46: "While users on the whole do not chlorinate water at home it is interesting to note in Table 16 that six users of unimproved wells stated that they chlorinate the wells themselves. Thus it appears that these users take more responsibility for the potability of the water at their wells [than do users at improved sites]. Although improved well users seem to have received more health messages from health personnel, they seem to take less responsibility for well cleanliness." (That is, they rely on government action).

The experience of CARE in Tunisia and the unresolved problems of providing potable water in dispersed areas encouraged the GOT to organize an international water and sanitation colloquium in Central Tunisia in November 11, 1982. CARE and USAID played important roles in the Colloquium. A follow-up seminar was held in 3/83. The GOT continues to explore institutional options for developing and maintaining rural water points. Through this and earlier projects, CARE played a role in obliging the GOT to focus on these unresolved problems.

22. Lessons Learned

A. Given the importance of beneficiary participation and given the lack of any Government service in Tunisia staffed, equipped and oriented to interfacing with future beneficiaries, the number of sites should have been reduced and CARE, with GOT concurrence, should have identified, selected, and proceeded at sites where the population demonstrated a keen interest in the improvement of a water point and were willing to make some contribution towards developing and maintaining it.

B. Promoting "community" participation is difficult when there is no community. That is, the majority of water points improved by CARE serve a population scattered over a wide area radiating out from the water point. There is frequently no dwelling at the water point itself or rarely more than 1-4 dwellings within 500 meters-1km. USAID and the MOPH have discussed this problem and it was examined during the two conferences (see No. 21); however, successful approaches to overcoming the problem have not yet been found.

C. In the view of the Government and the population, more access to water is as good or may be even better than improving existing water resources. That is, quality is not a major concern at the water delivery point. (See also Report of Community Water Supply Conference, Mariottsville, Md. Jan. 24-28, 1982).

D. Handpumps should not be installed in Tunisia at public water points until the GOT has developed a system for maintaining them. Handpumps require substantially more frequent attention than do motor pumps.

E. Regional governments and the user population place a higher value on motorized systems than on handpumps. The latter are seldom perceived as an advance over having no lifting device at all.

F. CARE should have considered alternate approaches to construction, such as contracting with local firms. A great deal of CARE time and energy went into carrying out the duties of a constructing/contracting firm: e.g. hiring and supervising labor, acquiring and transporting materials. There are few reliable and well-equipped small rural construction firms in the country. However, CARE may have been able to work with them to improve their level of performance and leave in place a needed service. CARE's role as a constructive company may have prevented it from focusing on more fundamental issues of project implementation.

G. It is essential that the CARE Director be able to communicate in the local language. CARE was represented in Tunis for two years by a person who spoke neither French nor Arabic.

H. There needs to be more sharing of experiences and lessons learned among the CARE programs in different countries.

I. In latrine construction projects, priority should be given to school sites where the project can be supported by a health education program.

J. Health education activities should precede construction activities.

21. Special Comments or Remarks

In addition to the facesheet, this report includes 9 attachment pages. An AID Impact Evaluation (Report No. 10: Tunisia: CARE Water Projects) was carried out by AID/W, USAID, and CARE in March 1980; the final report was produced in October 1980 and is useful reference in connection with this evaluation.

PROJECT TITLE(S) AND NUMBER(S)	
OPG AID/NE-G-1641 Siliana Wells/Rural Hygiene	USAID/Tunis

PROJECT DESCRIPTION

Improve the basic health conditions in the delegations of Makthar, Kesra, Rohia, Governorate of Siliana by improving potable water supplies for 24,000 inhabitants. Activities include the reconstruction/renovation of 48 water points, improved water well maintenance and repairs and a health education program.

AUTHORIZATION DATE AND U.S. LOP FUNDING AMOUNT	PES NUMBER	PES DATE	PES TYPE
8/9/79	664-83-3	9/28/83	[X] Regular [ ] Other (Specify) [ ] Special [X] Terminal

ABSTRACT PREPARED BY, DATE	ABSTRACT CLEARED BY, DATE
Dorothy Young 9/28/83	James R. Phippard USAID Director 9/30/83

This was an end-of-project evaluation to study planned versus actual achievements. The project achieved most of its construction objectives. However, efforts to improve health, maintenance, and community participation were not achieved or only partially achieved. By the project completion date of 12/82, 16 spring and 22 cisterns had been improved, 10 surface wells renovated and motorized, and 130 latrines installed at schools and homes. In addition, CARE provided training to 208 Ministry of Public Health (MOPH) front line workers through 10 workshops and trained 9 construction crews and two three-man maintenance teams. The project did not increase the quantity of water available to rural, dispersed populations as no new water points were developed. Moreover, at handpump sites in particular and due to maintenance problems, the project had limited impact on improving the quality of water available. Health education efforts focused on training MOPH personnel to prepare them to convey health education messages to the population. Pre and post training tests indicated that these trainers averaged a gain of 10-12% in their understanding of rural health and sanitation issues. However, there is insufficient data available to determine to what extent the trained personnel and others have had an impact on improving the knowledge, attitude, and practices (KAP) of the beneficiary population at water points improved by CARE. There was minimal beneficiary involvement in the project. Problems of maintenance of handpump sites have not been overcome as a result of the project. However, spring and motorized (diesel pumps) surface well sites are relatively better-maintained.

Lessons Learned:

1. The number of sites should have been reduced to those where the population wanted to have its water point improved and was prepared to participate in the improvement and management of the site.
2. Handpumps are at present inappropriate for public use among rural, dispersed populations in Tunisia.
3. Health education activities in direct contact with the beneficiary population and in tandem with the training of health education personnel probably would have had a greater impact on improving beneficiary KAP concerning water hygiene than the approach taken in the project.
4. CARE should make a greater effort to learn from its experience in other countries in terms of project design, implementation, and management.