

**UNCLASSIFIED**

**DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, D. C. 20523**

**OPG PROPOSAL**

**TUNISIA - CARE/MEDICO Kasserine  
Water Improvement Sub-Project**

**664-0312.14**

**UNCLASSIFIED**

**7/30/79**

AGENCY FOR INTERNATIONAL DEVELOPMENT <b>PROJECT AUTHORIZATION AND REQUEST          FOR ALLOTMENT OF FUNDS PART I</b>				1. TRANSACTION CODE <input checked="" type="checkbox"/> A    A - ADD C - CHANGE D - DELETE		PAF 2. DOCUMENT CODE 5			
3. COUNTRY/ENTITY TUNISIA				4. DOCUMENT REVISION NUMBER <input type="checkbox"/>					
5. PROJECT NUMBER (7 digits) <input type="checkbox"/> 664-0312		6. BUREAU/OFFICE A. SYMBOL    B. CODE NE            [ 3 ]		7. PROJECT TITLE (Maximum 40 characters) <input type="checkbox"/> Siliana Wells/Rural Hygiene-CTRD					
8. PROJECT ACTION TAKEN APPROVAL DECISION <input checked="" type="checkbox"/> A    A - APPROVED D - DISAPPROVED DE - DEAUTHORIZED				9. EST. PERIOD OF IMPLEMENTATION YRS. <input type="checkbox"/> 0 <input checked="" type="checkbox"/> 2    QTRS. <input type="checkbox"/>					
10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 79		H. 2ND FY		K. 3RD FY	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1)	510	545	-	492					
(2)									
(3)									
(4)									
TOTALS				492					
A. APPROPRIATION	N. 4TH FY		Q. 5TH FY		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED		
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	(ENTER APPROPRIATE CODE(S)) 1 = LIFE OF PROJECT 2 = INCREMENTAL LIFE OF PROJECT	A. GRANT B. LOAN	
(1)					492			1	
(2)									
(3)									
(4)									
TOTALS					492				
12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000)					13. FUNDS RESERVED FOR ALLOTMENT				
A. APPROPRIATION	B. ALLOTMENT REQUEST NO. *				TYPED NAME (CHA, NRR/PM/PS)				
	C. GRANT	D. LOAN							
(1) IE	492				SIGNATURE _____ DATE _____				
(2)									
(3)									
(4)									
TOTALS					492				
14. SOURCE/ORIGIN OF GOODS AND SERVICES					<input checked="" type="checkbox"/> 000 <input type="checkbox"/> 341 <input type="checkbox"/> LOCAL <input type="checkbox"/> OTHER _____				
15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED									

\*Funds allotted at beginning of Fiscal Year 1979 and are available.  
 This is a Project Authorization and not a request for allotment of funds.

FOR PFC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE	18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE
		MM DD YY		MM DD YY

PROJECT AUTHORIZATION  
AND  
REQUEST FOR ALLOTMENT OF FUNDS  
PART II

Name of Country/Entity: CARE/MEDICO (Tunisia) Name of Project: CTRD - Siliana  
Wells/Rural Hygiene  
Number of project: 664-0312.5

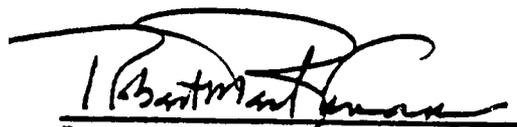
Pursuant to Part I, Chapter 1, Section 104 of the Foreign Assistance Act of 1961 as amended, I hereby authorize a Grant to CARE/Medico in Tunisia through CARE/New York, of not to exceed Four Hundred and Ninety Two Thousand United States Dollars (492,000) (the "Authorized Amount") to help in financing certain costs of goods and services required for the project as described in the following paragraph.

The objective of this project is to decrease the incidence of water-borne diseases within the 24,000 target population in the province of Siliana. The project includes renovation/reconstruction of approximately fifty water points, construction of self-help demonstration latrines, and provision of health education and maintenance teams to provide for project continuity and follow-up. The entire amount of the A.I.D. financing herein authorized for the project will be obligated when the Grant Agreement is executed.

I hereby authorize the initiation of negotiation of the Grant Agreement by the officer to whom such authority had been delegated in accordance with A.I.D. regulations and delegations of authority subject to the following condition together with such other terms and conditions as A.I.D. may deem appropriate:

a. Source and Origin of Goods and Services

Goods and services financed by A.I.D. under the project shall have their source and origin in Tunisia and/or in the United States except as A.I.D. may otherwise agree in writing.

  
Robert W. Beckman  
Acting Director, USAID/Tunis  
June 7, 1975

## MULTI-YEAR PLAN - PROJECT PROPOSAL

Country TUNISIA 20

Project Title Siliana Wells/Rural  
Hygiene Project

MYP Period 1979-1980

Written by Mark Oppen

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### 1. INTRODUCTION

Certain areas of Makthar, Kesra and Rohia suffer from a lack of surface water and the goal of the project will be to provide increased quantities of water to these specific areas. This can be accomplished in some cases by gravity flow pipe lines of existing water. In other cases creation of new wells or large scale deepening and total rebuilding of other wells with a motor pump installation would be necessary. In still other areas, water does not exist in sufficient quantities and rain storage cisterns will be constructed in these areas. This involves a large cement surface for catching water and a cement reservoir for storage. In some cases, the storage reservoirs already exist but need to be repaired and cleaned and the cement catchment area needs to be constructed to eliminate the practice of channeling muddy rain water into the cisterns. This project attempts to distribute potable water interventions and technologies in such a way as to meet the needs of the greatest number of people at the least cost.

The Governorate of Siliana has made improved access to potable water a priority goal of its Rural Development Program. CARE has successfully implemented a program for improving a total of 80 water points in the delegations of Makthar and Rohia under contract with the GOS and the Ministry of Public Health. Makthar, Kesra and Rohia lie within the area of the Central Tunisia Rural Development Program. AID assistance to the Central Tunisia Development Authority (CTDA), which has been entrusted by the GOT with leading the development effort in this area, includes technical assistance for elaborating a potable water strategy for the area and development assistance for a number of other interventions in the potable water field.

Choice of sites will be accomplished during a survey of 75 potential sites from which at least 40 sites will be selected for well rebuilding, well creation or construction

of rain cisterns. In addition 10 sites will be constructed utilizing diesel motor pumps or gravity flow pipe-line systems so that water can be supplied in abundance to these larger villages. Together with the 40 wells mentioned earlier, a total of 50 wells will be renovated. This project will last two years. The Ministry of Public Health teams which have been already trained and institutionalized will be augmented or trained further so that they can keep a well organized maintenance system functioning for repair of wells with hand-pumps and motor-pumps. The existing health education team will be further trained and new personnel added to upgrade their activities in the area of hygiene and health education. Genie Rural will provide supervisory and maintenance inputs under the Ministry of Agriculture.

In addition to closing public water wells and periodically disinfecting them, thereby greatly diminishing incidence of water-borne diseases, CARE-Tunisia will add another aspect to its attack on poor rural hygiene through the construction of self-help demonstration latrines.

The expected duration of the project will be two years and will aim at an improvement in quality and availability of potable drinking water and improved hygienic practices for approximately 24,000 inhabitants of rural Siliana.

## 2. PROJECT DESIGN

A. Statement of the Problem: The area of southern Siliana which includes the delegations of Makthar, Kesra and Rohia has long been considered one of the country's poorest regions, and one most in need of development assistance. The vast majority of people within this area suffer from a lack of sufficient quantities of non-contaminated drinking water. Bacteriological testing has indicated extremely high rates of fecal contamination in existing wells and disease rates

are high. The possibilities of a cholera epidemic in the area of extreme danger as are other diseases such as typhoid, dysentary, and other intestinal parasites which can decrease productivity of workers.

The problem has been compounded within the past three years by the prevalence of drought conditions and has compounded health problems as people drink from rivers and other contaminated sources of water which are not normally used. The water supplies for animals are also very scarce in summer time and it is not unusual for cattle to lose weight from the long distances travelled to the nearest dependable water supply. Since these sources are often contaminated, animal diseases are common and constitute a major problem for subsistence herders and farmers.

Unemployment is also a severe problem in the area as the lack of cash in the area is due to a subsistence economy and barter system of exchange. There is a severe lack of trained masons and especially masons with abilities to work on wells and water systems.

#### B. Final Goals

1. Improvement in quantities of water available to the rural population by upgrading existing sources of water and creation of new sources where applicable.
2. Improvement in the health of the rural population by construction of improved water sources.
3. Stimulation of the local economy by employment of large numbers of Tunisian workers (masons, drivers, laborers and depot personnel).
4. Improved sanitary and hygienic practices among the population (especially women) through health education efforts and the encouragement and mobilization community participation in actual site

construction.

5. To improve handpump installation and maintenance capabilities by training local government personnel.
6. To assist local population in construction of self-help demonstration latrines.

C. Intermediate Goals

1. Availability of improved water sources in at least 50 villages.  
Indicators 80% improvement in before-after coliform tests.
2. Establishment of an effective maintenance and disinfection program.  
Indicators 95% of pump systems functioning 1 year after installation.
3. Increased effectiveness of the health education team  
Indicators 80% improvement on responses to education team questionnaire for a sample group.
4. Adoption of hygiene practices by target population.

D. Project Activity Targets

1. To construct or renovate at least 40 water points into closed systems capable of providing potable water to approximately 16,000 rural inhabitants of Siliana.
2. To reconstruct or create up to 10 community water delivery systems for high population density areas within the delegations of Makthar and Rohiã, capable of supplying potable water to approximately 8,000 inhabitants.
3. To expand the existing pump maintenance component with the retraining of the existing teams thereby insuring the incorporation of newly constructed sites into

the maintenance and chlorination activities carried out by MOPH.

4. To provide employment and training for up to 100 workers per year including masons, laborers and drivers.
5. To provide training for Tunisian supervisory personnel who will assist in project implementation and extend project activities upon project completion within the structure of Genie Rural.

### 3. PROJECT OVERVIEW

#### A. Project Development

This project is a continuation of the program conducted by CARE and the Ministry of Public Health in cooperation with the Governorate of Siliana in the same area. Earlier projects in Bizerte and Siliana received Operational Program Grants from AID. The Ministry of Public Health and the Governorate of Siliana have both requested this new project in the delegations of Makthar, Kesra and Rohia. These delegations are included in the Central Tunisia Rural Development Program area.

The project is being prepared due to the continued interest by all parties for a continuing project for well and spring improvement in the remaining areas of the Governorate of Siliana.

#### B. Project Strategy

The Governorate of Siliana as well as all the interior areas of Tunisia, places a special emphasis on encouraging the rural inhabitant to settle in or near small villages so that services such as water, electricity and health can be more easily extended to rural areas. Of course, in a semi-arid land such as Siliana, the water point is a natural center for a small village and therefore, water supply improvements is of high

priority to the Tunisian Government as it forms a base for all of the other rural development programs involving groupings of inhabitants.

C. Project Impact

Since water is an essential commodity for human life, any water improvement program will effect all members of society not only these who are employed during the project. Women gain from easier access to safe drinking water by a reduction in time spent carrying water or by increases in quantities of water used per Capita. Women also benefit from the health education component of project which puts them in contact with available public health services that they may be unaware of. Improved water supplies should lead to an improved sense of community involvement through cooperation on site construction and maintenance. Community identification may be improved as villagers work together to solve problems. It is anticipated that the effects of this project will not negatively alter the local ecology.

A project of such size and scope conducted in a poor rural setting invariably produces effects outside the immediate target area. Because the work is labor intensive employing between 70-80 people, it can have a quick and substantial impact on income and employment. Furthermore, it offers a chance for workers to learn such skills as masonry as it applies to the construction of rural water systems skills that may well be used in similar efforts in the future.

D. Project Continuity

CARE will ensure, by means of contractual arrangements with the appropriate GOT authorities, that maintenance of all pump systems, regular chlorination of all sites, and health education services are continued after completion of the project. The CARE

input will be limited to evaluation and control functions and no financial inputs will be required. It is agreed that CARE will be allowed to make site inspections, after the completion of the project, to insure that proper maintenance is being carried out.

**E. Project Potential**

The project will improve host-government capabilities to continue work in the improvement of rural water resources by demonstrating new technical and logistical support methods; a long term impact will be achieved by the improvement in public health services to rural areas.

**F. Project Constraints**

- Poor road conditions and severe winter weather (Rain and cold, sometimes snow) will make it desirable to slow down or stop construction activities during the winter months - A 9 or 10 month work season is normal for this area.
- The unavailability of continuous supplies of well construction materials.
- The possibilities of continuous drought conditions might make the number of good sources of water quite scarce in summer time. Supply of water is usually quite variable from winter to summer due to climatic factors.

**4. PROJECT IMPLEMENTATION**

- A. Pre-Implementation Conditions** - Project Implementation will depend largely on the timely approval of the

project proposal by CARE, USAID, the Governorate of Siliana, and the Ministry of Public Health.

A survey of water points has been undertaken and a list compiled of those wells and springs destined for reconstruction. Such survey and the subsequent wells list are carried out and formulated at a grass-roots level. The input of communities and their local representatives form the criteria on which site selection is based.

#### 1. Implementation Plan and Schedule

A detailed survey of the sites has been completed and construction work is expected to begin in June 1979 using available equipment. The reactivation of pump repair and health education teams and the procurement of necessary equipment and materials will begin upon signing of the contract between CARE/Medico and the GOT.

The reconstruction work will follow a logistical plan developed in order to determine how best to proceed with construction, taking such factors as terrain and weather into account.

The health education teams are deployed ahead of construction activities in order to both sensitize beneficiaries to the dangerous linkage between poor communal hygiene and serious illness, and to mobilize these communities to contribute.

The health education activities will include: training and orientation of school teachers and community leaders; demonstrations of improved methods of water storage and purification in the homes and the hygienic disposal of human and animal wastes.

Each well will be drained, cleaned and when necessary its walls rebuilt or relined. Wells with limited yields or prone to seasonal water table fluctuations will be deepened. The well is then covered, a platform poured, and a trough area built to accommodate sheep and cattle. In the case of motorized water systems, a poured reservoir will be constructed. Also envisioned is the piping of spring water to isolated rural village communities.

During the life of the project, CARE will be responsible for the installation of all hand pumps, and the maintenance and periodic chlorination of all delivery systems.

A joint program review will be conducted every 3 months by CARE, GOS, MOPH to ensure that the project activities fall within the framework of the CTDA's evolving potable water strategy, and to compare the cost effectiveness of the various potable water use interventions employed in the project with those in use in other programs in the CTRD area.

### C. Technical Considerations

Construction design and technical information of this sort should be readily available from the numerous previous wells projects in Tunisia. Construction designs and hand-pump designs will be carried over from earlier projects along with a group of experienced and trained masons. CARE will train GOT personnel in pump maintenance.

Emphasis will be placed on technical improvements which will increase the cost effectiveness of the program. Special attention will be paid to the following:

1. Development of lower cost site construction techniques.
2. Improvement of latrine construction.
3. Continued development and refinement of handpumps.

To the end of (1), above, special attention will also be given to building into the project a statistical and data analysis component. Results will be disseminated in a timely manner.

### D. Procurement Requirements

Procurement of tractors and Land Rovers will be initiated as soon as a firm agreement is obtained from each of the contracting parties. Procurement of a generator and electrical motor pump will also be initiated as soon as feasible.

The following is a breakdown of the major material and equipment purchases to be made during the course of the project.

<u>Construction Materials</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Total</u>
Cement, Cement Prompt, Rock, Gravel, Sand, Wood, Steel, Wire, Pipe, Sheet Metal, Manufacture of Steel Doors	52,500	58,800	111,300
<u>Equipment</u>			
Mason and Laborer Tools, Tents, Tarps, Drainage Pumps, Lanterns, Pulleys, Boots, Buckets, Rope, Drainage Pumps w/ gene- rators, Mechanical Bucket, Mechanics Tools	11,500	6,400	17,900
<u>Mobile Water Cistern Pumps and pump parts</u>	38,700	39,200	77,900
<u>Education Team Aids and Demonstration Materials</u>	22,400	34,500	56,900
<u>Vehicles +</u>			
1 Truck	17,000	-	17,000
1 404 Pick up	5,500	-	5,500
4 All Terrain Vehicles	<u>44,000</u>	-	44,000
<b>TOTAL</b>	<u>191,600</u>	<u>138,900</u>	<u>330,500</u>

+ To be purchased from CARE Funds.

## E. Personnel Requirements

-12-

An important aspect of the staffing pattern is the opportunity it gives for local Tunisian project staff to be trained and to assume greater project responsibility. While the Assistant Project Director for Education and Evaluation is an American Peace Corps Volunteer, a Tunisian Education Coordinator will be trained to assume this position prior to the end of the project.

In the area of construction activities the construction and training supervisor, a Peace Corps Volunteer is responsible for supervising and training the Tunisian construction teams and that eventually this role can be assumed by one of the team members.

Prior to the conclusion of the project, CARE will take steps to integrate all project staff members in appropriate Tunisian government institutions where they will be able to further use the expertise developed during the course of the project.

The following staff will be required for the execution of the project:

<u>Position</u>	<u>Source</u>
Project Director	CARE
Ass't Project Director	LOCAL
Ass't Project Director (Education & Evaluation)	PEACE CORPS
1 Education Coordinator	LOCAL
Construction and training Supervisor	PEACE CORPS
4 Ass't Social Workers	LOCAL
2 Drivers	LOCAL
3 Construction Teams	LOCAL
Depot Staff	LOCAL

## 5. PROJECT EVALUATION

The evaluation activities are closely associated with those of the health/sanitation activities of the project. By having one Assistant Project Director responsible for both an effective integration can be accomplished.

Two major evaluation activities will be:

- 1) A site by site study of the water-utilization practices of the community and existing health/sanitation beliefs and practices prior to the project activities. This information, as well as being used as a departure reference for the community health/sanitation awareness activities will also be used as base-line data for measuring the effectiveness of project activities.
- 2) Monitoring of water consumption and seasonal variation of each site before, immediately after and at regular intervals thereafter- will supply data for measuring changes in household water consumption. This activity will also provide for periodic evaluation of maintenance activities.

During the project steps will be taken to introduce this evaluation methodology into the on-going activities of the government agencies which will ultimately be responsible for the maintenance of the wells and continuing community education activities.

### Indicators

1. The primary Indicator will be the number of wells reconditioned and the number of hand and motorized pumps installed.
2. The water from each well will be examined both before and after construction.

3. The existence of a health education teams.
4. The hiring of 10 trained guardians for the pump/cistern systems and one local beneficiary equipped with the tools necessary for simple maintenance and repair at each site having a hand-pumps(s).
5. Creation of self-help demonstration latrines.

#### Methods

1. Tabulation of well-completion reports both by CARE and the Ministries of Public Health and Agriculture and by physical count.
2. A potable water laboratory (Millipore) and the services of the regional MOPH laboratory in Kef will be relied upon to furnish analyses of well water.
3. Examination of records at the regional MOPH office will be relied upon for statistics dealing with the incidence of water-borne diseases in target areas.
4. CARE inspection through periodic field visits will aim at supervision of the two existing pump maintenance team. Their performance will be evaluated on their initial installation of project pumps and in their subsequent effectiveness in maintaining them.
5. Inspection of the education component and the receipt of their reports on the number of people reached and problems incurred. Direct observation of, and discussion with, beneficiaries on their use and treatment of water.
6. Individual inspection of the family latrines and a gauging of their usage.

#### 6. PROJECT FUNDING

- A. See form MYP 1.2A (attached)

B. Non-CARE managed Inputs

CARE will work in close collaboration with technical agents from the MOPH and Ministry of Agriculture. It is nearly impossible to put figures for these inputs. However, they should be listed and they include:

a. Public Health - access to laboratory facilities; previously formed pump maintenance personnel; one previously formed health education team; various cadre inputs.

b. Ministry of Agriculture (Génie Rural) - 10 salaried guards; fuel for 10 diesel pump systems; various and sundry data and reports; salaries of 2 supervisors.

FINANCIAL PLAN - OPG PROPOSAL

CARE Managed Inputs

	<u>Firm 1st. Yr.</u>	<u>Projected 2nd. Yr.</u>	<u>Total</u>
<b>A. <u>In Kind Contributions</u></b>			
1. Peace Corps	12,500	15,000	27,500
2. Government of Tunisia	<u>71,000</u>	<u>3,400</u>	<u>74,400</u>
	<u>83,500</u>	<u>18,400</u>	<u>101,900</u>
<b>B. <u>Materials &amp; Equipment</u></b>			
1. U.S. Purchases	6,000	6,700	12,700
2. In Country Purchases	119,100	132,200	251,300
3. 3rd Country "	<u>66,500</u>	<u>-</u>	<u>66,500</u>
	<u>191,600</u>	<u>138,900</u>	<u>330,500</u>
<b>C. <u>Personnel &amp; Operations</u></b>			
1. Int'l Personnel	16,500	19,000	35,500
2. Nat'l Personnel	93,700	108,500	202,200
3. Int'l Travel	2,000	2,200	4,200
4. In Country Travel	2,000	2,200	4,200
5. Office Costs incl; Equipment & Maintenance	30,000	33,400	63,400
6. Vehicle Maintenance & Repair	30,000	33,400	63,400
7. Other Support Costs	--	--	--
	<u>174,200</u>	<u>198,700</u>	<u>372,900</u>
<b>D. <u>Training Costs</u></b>			
1. Trainee Costs in Country	10,400	13,400	23,800
2. Trainee Costs 3rd Countries	--	--	--
3. Training Materials	10,000	5,000	15,000
4. Tuition & Other Fees	<u>          </u>	<u>          </u>	<u>          </u>
	<u>20,400</u>	<u>18,400</u>	<u>38,800</u>
<b>Grand Totals Excl of Overhead</b>	<b>469,700</b>	<b>374,400</b>	<b>844,100</b>

E. Summary Funds Requested AID/OPG

	<u>Firm 1 str Yr.</u>	<u>Projected 2nd Yr.</u>	<u>Total</u>
1. Material & Equipment	125,100	138,900	264,000
2. Personnel & Operations	84,600	68,300	152,900
3. Training Costs	20,400	18,400	38,800
4. Overhaead at 7.92%	18,200	17,900	36,100
	<u>248,300</u>	<u>243,500</u>	<u>491,800</u>

II. Summary of CARE Managed  
Input Sources

A. CARE Generated

1. General Public, principally from North America & Europe	102,100	20,200	122,300
2. Host Government	125,000	113,600	238,600
3. Other donor government agencies Peace Corps	12,500	15,000	27,500
4. Private & U.N. Agencies	--	--	--
5. Other	--	--	--
	<u>239,600</u>	<u>148,800</u>	<u>388,400</u>

B. AID/OPG 248,300      243,500      491,800

C. Other Inputs managed  
but not generated by  
CARE