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BIZERTE

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

DD-ABA-993

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MAY 30 1975

(81)

Mr. F. Morton Cregger  
Assistant Executive Director  
Committee For American Relief  
Everywhere, Inc. (CARE)  
660 First Avenue  
New York, New York 10016

CERTIFIED A TRUE COPY THIS

66th DAY ON June '75  
BY: (Carol J. Brooks)

Subject: Grant No. AID/NESA-G-1168 (Tunisia), PIO/T No. 664-286-3-50041

Dear Mr. Cregger:

Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "A.I.D." or "Grantor") hereby grants to the Committee for American Relief Everywhere, Inc. (hereinafter referred to as "CARE" or "Grantee") the sum of \$104,486 to provide support for a program in well water supply rehabilitation/reconstruction in Bizerte Governorate, as more fully described in the attachment to this Grant entitled "Program Description".

This Grant is effective and obligation is made as of the date of this letter and shall apply to commitments made by the Grantee in furtherance of program objectives during the period May 19, 1975 through June 30, 1977.

This Grant is made to CARE on condition that the funds will be administered in accordance with the terms and conditions as set forth in Attachment A entitled "Program Description" and Attachment B entitled "Standard Provisions", which have been agreed to by your organization.

Please sign the Statement of Assurance of Compliance, enclosed herein, and the original and seven (7) copies of this letter to acknowledge your acceptance of the conditions under which these funds have been granted

Please return the Statement of Assurance of Compliance and the original and six (6) copies of this Grant.

- Attachments: A. Program Description
- B. Standard Provisions
- C. Payment Provisions

Sincerely Yours,

ACCEPTED: [Signature]  
BY: [Signature]  
TITLE: \_\_\_\_\_  
DATE: MAY 30 1975

[Signature]  
Franklin H. Moulton  
Contracting Officer  
Regional Operations Division-NESA  
Office of Contract Management

PROGRAM DESCRIPTIONI. OBJECTIVESA. General Objectives

A major health problem in rural Tunisia is the prevalence of water-borne diseases such as typhoid fever, cholera, amoebic dysentery, and shigellosis, which reduce agricultural labor productivity and contribute to high rates of morbidity and mortality among infants and children under five. The Bizerte Governorate (BG) leads the country in some of these diseases and their frequency is predominantly greater in the undeveloped delegations of Joumine and Sedjenane in the southern areas of the Governorate. The vast majority of the population of these delegations depends upon open water sources which appear to be highly contaminated.

The Government of Tunisia (GOT) is concerned about the lack of potable water in these delegations and has requested the assistance of CARE to improve 100 rural water sources. CARE has assisted in several other potable water projects. CARE plans to assist the Ministry of Public Health (MOPH) and the BG to provide potable water in these areas by renovating and/or capping 100 rural water sources, i.e., 75 springs and 25 wells.

The purposes of this grant are three-fold: (1) to improve the potable water supply for 60% of the population of Joumine and Sedjenane in Bizerte Province, (2) to increase awareness of basic water sanitation among the people of Joumine and Sedjenane and (3) to create a permanent capacity within the BG for improving and maintaining potable water systems including necessary public information support systems.

B. Detailed Project Description1. Construction/renovation of potable water sources:

The Grantee, in cooperation with Peace Corps Volunteers and GOT personnel, will select 100 rural but readily accessible water sources already in use as public water facilities, i.e., 75 natural spring sites and 25 open well facilities. A sanitary survey of each site including bacteriological and chemical tests will then be conducted and the turbidity, color and threshold odor of the water will be ascertained. The Grantee will develop a plan for renovating and/or reconstructing each of the water sites, and will ensure that each water source is then protected from surface pollution. For purposes of comparison and to protect the water source, additional bacteriological and chemical tests will be conducted one month after construction. The "after" water samples should show a significant drop in bacteriological content from the "before" samples.

The BG has agreed to provide 10 well mason teams and 5 digging, terracing teams of 6 men each, on a 9-month work season schedule, under the direction of 6 Peace Corps Volunteers and 2 Tunisian supervisors. For each spring, an average of 35 days is estimated for construction. To prevent seepage of run-off and spilled water around a spring, the covering of the water source will be completely water-proofed and sealed to prevent contamination. The walls of the water source will be carefully inspected for cracks and necessary repairs effected. Gravity-type springs will be measured to insure that the water table is at least 10 feet below the earth's surface to insure minimal percolation filtration of the water before it enters the source.

Wells will be renovated by draining, cleansing and deepening. If required, walls will be re-lined, a 2-meter platform will be constructed around the well, the cement will be strengthened, the well will then be covered and a pump installed. For both the wells and the springs, animal drinking troughs will be placed 15 meters away from the water source. It is planned that all water

sources will undergo regular disinfection at the captage site. Each facility is expected to serve an average of 500 people and 1,000 hooved animals.

## 2. Sanitary Education:

The Grantee will recruit a mobile, two-person sanitary education team. During a one-year campaign, the team will be expected to make a total of 121 village visits, reaching approximately 12,000 villagers. The team will educate villagers to use only potable water, i.e., their well; and will attempt to enroll villager interest and cooperation in maintaining the source properly through discussions of the relationship between good water and good health.

The sanitary education team will consist of a Peace Corps Volunteer fluent in Arabic and a Tunisian graduate of the Public Health School. The Grantee will secure the services of female "animatrices" from the Public Health Office to assist the sanitary education team in reaching women, who are the principal water-gatherers in rural Tunisia.

The sanitary education team will also enlist the support of local political leaders to publicize the importance of potable water and gain the cooperation of these rural leaders in the maintenance of the potable water source.

## 3. Establishment of Permanent Institutional Capacity:

The Grantee will train mason teams to construct/renovate water sources and help to establish a mobile well disinfection maintenance team. These teams will be integrated permanently into the structure of the local Public Health Department and serve both the project area and the Governorate of Bizerte.

A field representative of the Grantee will direct the operation of this project and be responsible for major and minor purchases and overall financial

administration and reporting. The Grantee will use Grant funds to purchase construction materials, equipment for activities outlined above, vehicles, pumps, and payments to two Tunisian supervisors and one warehouseman, as shown in Annex A. Two one-ton pickup trucks and one tractor with appropriate spare parts will be purchased in the US. The Grantee is required to obtain USAID approval before initiating procurement of vehicles under the Grant agreement. Vehicles acquired by the Grantee will be initially consigned to and titled to CARE. CARE will transfer title to the GOT during the life of the project or upon completion of Grant activities.

All possible purchases will be made on the local market. Upon receipt of the dollar Grant funds, the Grantee will transfer these funds to CARE/Tunisia, the implementing agent. CARE/Tunisia will purchase the necessary Tunisian dinars for local costs from the U.S. Disbursing Officer at the Regional Finance Center in Paris. Commodities and equipment procured locally under this Grant will be purchased in adherence with provisions of this Grant. They will be titled either to the MDPH or the BG, as appropriate, but retained during the period of the Grant for the use of CARE/Tunisia in accordance with its sub-agreements with those entities.

The BG will be responsible for all labor costs involved in the construction/renovation of the 100 water sources. The MDPH will provide all tractor and truck drivers' salaries, as well as project vehicle fuel, maintenance, and repairs, and project administrative costs. The Tunisian Rural Hydraulic Equipment Service (H.E.R.), the BG bureau responsible for the renovation and maintenance of public water sources, will pay the salaries of two construction supervisors to monitor well renovation design.

### C. Evaluation

To achieve more effective evaluation, CARE will provide to USAID/T and NESA/TECH/PSD (AID/W), within three months after this Grant agreement is signed, (1) a more definitive plan for accomplishing village health education, and (2) a better and simpler method for ascertaining the impact of the wells on health in the concerned villages (perhaps in conjunction with the sanitary survey). In other words, CARE will develop a survey instrument for obtaining baseline data and measuring subsequent changes in health status.

In conjunction with this evaluative process, CARE/Tunisia will also develop and provide a logical frame-work to help in defining the evaluation and education components of the project.

It is A.I.D.'s intention to support a post-project evaluation to be separately funded and implemented approximately one year after the Grant project is completed.

### II. REPORTS

The Grantee and CARE/Tunisia will provide the following reports in duplicate to the GOT, USAID/Tunisia, and NESA/TECH/PSD (AID/W):

1. A report of the pre-project sanitary survey, which should include the "before" chemical/bacteriological analysis and source of contamination of each water source, to be submitted within 60 days after Grant signing.

2. Quarterly progress reports - Plan Implementation and Evaluation (P.I.E.), which will include the number of springs/wells constructed/renovated during the quarter, quantity of materials used, financial inputs, the activities of the mobile sanitary education team, and a chemical/bacteriological analysis of each completed water source during the life of the project.

3. An Annual Report of Progress (A.R.P.) measuring actual versus planned achievement indicators, which will also be used in the overall evaluation

4. A final evaluation report at the end of the springs/wells construction/renovation activities to be carried out by CARE/Tunisia personnel and the Peace Corps Volunteers assigned to the BG. Each water site will be revisited to ascertain the continued potability of the water source, and an evaluation of potability submitted. The final report will also include discussion and comments on project implementation and achievements and will follow the general format of the informal Le Kef 240 Wells Evaluation Report prepared by CARE/Tunisia. Among the attachments will be the complete "before" and "after" chemical and bacteriological data with comments and explanation as well as spring/well completion reports on all 100 sites. This report should be submitted within 90 days following project completion.

### III. BUDGET

1. Construction Material	\$ 81,050
2. Planks and Warehouse Lumber	3,630
3. Mechanics' Tools	1,815
4. Mason Team Equipment	7,250
5. Sanitary Education Team Equipment	6,050
6. Drainage Motor Pumps	1,450
7. Per Diem for 2 Site Supervisors and 1 Warehouseman	8,305
8. Vehicles (1 U.S. five-ton Tractor and 2 U.S. one-ton pick ups)	16,940
9. Ten-ton Tractor Trailer	<u>3,630</u>
Subtotal	\$ 130,120
20% price fluctuation	26,024
TOTAL	\$ 156,144

A. The above budget is illustrative only and the Grantee is found only by the total dollars made available by A.I.D. hereunder.

B. The total amount obligated by this Grant, \$104,486, is allocated to the period 5/19/75 - 6/30/77. These funds may be attributed to any of the above budget categories. Should additional funds become available, A.I.D. may contribute an additional \$51,658 to the Grant. (This is not to be construed as a commitment of any kind by A.I.D.).

#### IV. PROJECT SUPPORT

CARE will be expected to operate in the field with no administrative or logistic support from the AID Mission or Embassy. CARE will consult as requested with AID/W and with AID personnel in the country of operation, in addition to submitting reports as required under Article II.

B. Technical Problems (Continued)

I. Source of Water Contamination not Clear.

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Originators of project are aware of the possibility of other than surface water pollution. Survey personnel have the capabilities of determining the origin of pollution and should other than ground pollution be encountered, of dealing with it. It should, however, be noted that experience indicates that ground pollution is the predominant problem.

The sanitary survey of the project area is due to commence during the month of February. This survey will determine the cause of pollution of all sites; the construction stage of the project will address the problem at its source.

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II. In order to have desired impact, all drinking water sources in village area must be treated; we assume that this is planned strategy. However, not apparent that volume available water in wells/springs can adequately serve target population, how was this assessed, estimated?

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It is necessary to understand that each site will be different and that the project will be undertaken in a rural area which is lightly populated. In most instances, the project site will be the only public water source in that immediate area. If more than one public source is available the project will address itself to treating all available public sources in that area.

Population figures for Joumine and Sedjenane were submitted by Government of Tunisia officials (H.E.R.). Our proposal for constructing/renovating 100 springs/wells covers approximately one half of the total number of open public water sources in the area. On that basis it was estimated that the project would benefit one-half of the population. Furthermore, construction efforts considerably increase the amount of water available at the source, justifying, we believe, increasing the total to 50% of the population. If more water is available more people will use the source.

B. Technical Problems (Continued)

III. Incidence illness, or lack thereof, in project area cannot be measured by Bizerte provincial hospital records; more responsive indicators should be sought such as incidence diarrheal diseases and resultant days lost from work.

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Accurate and up-to-date statistics covering health conditions in Tunisia and especially rural Tunisia are frequently non-existent. At present statistics gathered at regional hospitals are the best that are available. As stated in the attached letter, available statistics are felt to be significant. The possibility of doing a follow-up study of linking potable water, intestinal diseases and nutrition, is under study.

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IV. Since long-term success this project will depend on village's understanding and appreciation of value potable water, the relationship, role and function of education team should be more clearly defined.

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Project authors are fully aware that the above questioned facet of the project as presented was somewhat vague. The project's educative component must be developed from the groundup. Little has been done in rural Tunisia to try and educate the rural population along the lines of sanitary education. This aspect of the program has JOT support as indicated in the attached letter from Engineer Atallah. Regional medical authorities in Bizerte have been contacted and have shown interest and support for an education team. The land-based HOPE Project heavily involved in water sanitation and teaching in this area, has agreed to assist, advise and help train the team.

As indicated, overall supervision of the team will be handled by a Peace Corps Volunteer. However, the actual campaign will be carried out by Tunisian nationals equipped with audio-visual apparatus, posters and where applicable, written literature. The mobile team initially seeks to gain the support of rural leaders. The campaign itself will center around the well sites themselves, schools and public meeting places. It is anticipated that this team will commence field work one month after the beginning of the construction aspect of the project. This slight delay will permit enough time for the arrival of vehicles, selection of the team, purchasing of equipment and the printing of educational materials.

TRANSLATION:

2/7/75  
Tunis, February 4, 1975

The Head Engineer  
Chief  
Service of Sanitation and  
Environmental Hygiene

to

Mr. John H. Packard  
Field Representative of  
CARE/MEDICO-Tunisia

SUBJECT: 1975 Bizerta Project

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the  
During/initiatory phase of survey the objective of which should be the selection of water sources to be improved within the 1975 Bizerta project, it would be useful to include a survey for the determination of possible sources of bacteriological water contamination.

Through these surveys, two possibilities may be encountered.

1 - Surface contamination: This is the case of a well/source improperly protected above the ground. Well/source water may then be contaminated by surface waters or by the means of drawing the water. In this case, an improvement of the well structure, essentially above the surface, i.e. capping, in order to protect the water of the well/source is, in general, sufficient if, at the same time the means of drawing the water are also improved. Add to these operations the regular practice of continued disinfection.

2 - Underground contamination: This is the case of a well/source receiving its water from a contaminated water table. Such contamination may have various origins:

The nature of the ground, the depth of the water table, the proximity of sanitary installations, etc...., it is understood that this kind of contamination is easily determined by combining the following information: bacteriological analyses, test of filtration rate (permeability), geological knowledge of the ground, coloration tests and site inspection.

If the water table is proving to be contaminated, an improvement of the surface structure of the well/source and the means of drawing the water would evidently be insufficient.

The protection will take into account the probable origins of contamination and an adequate solution will be applied.

As to the incidence of illness, to me, the statistics gathered at various hospital services throughout the Governorate

by the Regional Sanitary Services, are sufficiently significant. It is true that, for the absolute, these figures are far from being realistic for many reasons; the principal reason being the negligence of the private medical sector in declaring the diseases. However, the statistics do have a relative value, sufficiently dependable, as to the predominance of diarrheal diseases in the Governorate.

The improvement of wells/sources does, just like any other sanitation program, encompass a phase of sanitary education which must be undertaken and the collaboration of the population is of prime necessity.

In order to ensure the success of the program, it is necessary for the population to accept the idea that these wells/sources may represent a source of danger and that, therefore, their participation is needed in the arrangement and keeping up of these wells/sources.

Thus, it is necessary to clearly define these objectives and to establish a program which takes into account all appropriate parameters (factors) ensuring the success of the operation. Following schedule could be adopted:

- Preparatory phase: collecting of information, evaluation of this information, study of the habits and customs of the population.

- Program plan: actions to be undertaken, personnel needed, necessary material and equipment. At this stage, the participation of leading citizens of the village is generally of assistance (i.e.: teach Omda, Delegate, etc.).

- Implementation and evaluation: the implementation of the program must, above all, commence with educating the officials at all levels and obtaining active participation of influential officials in the village.

Signed: Sadok ATALLAH  
Head Engineer