

~~PD-AAI-721~~

FDL
~~CARE OPG~~
PRM

Mil term
anal.

75-1

F476
file

6150166:001701

An Evaluation
of
CARE - ASSISTED
VILLAGE WATER DEVELOPMENT ACTIVITIES
IN KENYA

Duplicate
already
abstracted

PD-AAI-721

ISN-13657

performed by
Huntley Biggs
John R. Schott

for
U.S. AID Mission to Kenya
as
Work Order No. 8 of AID/csr-C-1379

ATAC

August 28, 1976

INTRODUCTION

Under a contract between the Agency for International Development (AID) and the American Technical Assistance Corporation (ATAC), an evaluation was undertaken of an Operational Program Grant to Cooperatives for American Relief Everywhere, Inc. (CARE) for assistance to self-help village water projects in various parts of Kenya. The evaluation was performed by Dr. Huntley Biggs, and Dr. John R. Schott, from June 22 to July 23, 1976.

The evaluators have based this report on eight selected site visits, a review of documentation pertaining to the grant's implementation, and discussions with officials of the Government of Kenya, CARE, and AID in an effort (a) to assess, at the end of the first year of the grant's implementation, the degree to which CARE has -- in a general way -- been able to fulfill the grant's conditions, (b) to identify the problems it should address in the second year of the grant, and (c) to make recommendations accordingly to USAID/Kenya and CARE.

BACKGROUND

The CARE/AID Water Development Program for Kenya became effective on 1 July 1975 under an Operational Program Grant. Under the two-year agreement, AID is to provide \$150,000 annually for the purchase of materials and equipment for community self-help rural water supply projects identified for assistance by the CARE/Kenya staff in accordance with the grant proposal and criteria established under the Foreign Assistance Act.

The Government of Kenya is supporting the CARE effort primarily in three ways; (1) an annual cash payment to CARE/Kenya for personnel and operational expenses; (2) provision of CARE office space and fuel for CARE vehicles; and (3) provision of trained manpower. The Government's direct manpower input is provided in the form of personnel attached to the Ministry of Water Development

(MWD) and the Ministry of Housing and Social Services (MHSS). The former is responsible for the technical design of projects, the supervision of their construction and the follow-up inspection upon completion. The latter assists the local community in organizing, attaining legal status for the local project committee, meeting the necessary requirements in handling the community's financial contributions to the project, and guiding the project proposal through governmental channels.

The local community or village is expected to provide partial financing and labor for the construction of the water system, in a gazetted amount of fifty percent of the project's total cost. The operation and maintenance of the system is left in the hands of the village, which may consult and sometimes receive assistance from the local MWD officer. Eventually, these various small water schemes are supposed to become part of a government-controlled and managed national water supply grid.

PURPOSE

The purpose of the Water Development Project is to render water more accessible to rural inhabitants who constitute the poorest majority in Kenya. This is supportive of the GOK's goal of "... bringing to the entire population a safe supply [of water] sufficient to the requirements for domestic and livestock consumption. It has been the stated intention of the Government to achieve this objective by the year 2000."^{1/}

TARGETS

Under the Operational Program Grant, CARE expects annually to complete thirty projects serving a total of some 300,000 persons. This amounts to three-fourths of the annual increase in rural people to be served by water as targeted in the Government's development plan.^{2/} A total of three million

^{1/} Republic of Kenya, Development Plan 1974-78; p. 327.

^{2/} Ibid., p. 330.

rural people are expected to be served by 1979, slightly over 25 percent of Kenya's rural population:

The importance attached to providing water to rural peoples is evidenced by the fact that 48 percent of the development expenditures in 1975/76 for water were for rural areas.^{1/} This rural water supply development plan, for which K £ 15,564,975 has been earmarked, consists of five programmes, listed below along with the percentage of development allocation for the Government's five-year plan period:

- (1) Water supplies for rural areas involving major schemes (67.9%);
- (2) Water supplies for settlement schemes (9.6%);
- (3) Livestock schemes as a part of the Ministry of Agriculture's plan period (17.4%);
- (4) Gradual take-over of existing County Council schemes (3.4%);
- (5) Self-help water schemes (1.7%).

In the past, self-help water schemes were assisted both by the Ministry of Health (in cooperation with the World Health Organization) and the Ministry of Housing and Social Services. The value of these projects has increased by 85 percent between 1971 and 1975, with 80 percent of the total value being supplied by the beneficiaries.^{2/} Government budgetary development allocations for self-help water schemes through the Ministry of Agriculture's Water Department (reconstituted as the Ministry of Water Development in 1974) have increased from K £ 174,760 (1974/75) to K £ 1,132,000 (1976/77).^{3/} External donors to the MWD self-help water schemes include The Netherlands, UNICEF, (which sponsored a pilot training program for local operators of systems), the Peace Corps (which is to supply seven technicians beginning in the fall of 1976), Freedom from Hunger, OXFAM, various missionary groups, and CARE. A special office in the MWD, Minor Rural Water Schemes Section, coordinates the activities of these various donor organizations, and provides technical

^{1/} Republic of Kenya, Ministry of Finance and Planning, Economic Survey 1976, p. 55.

^{2/} Ibid., p. 163.

^{3/} Republic of Kenya, Development Estimates, various years. The latter figure probably reflects the large increase in assistance from The Netherlands according to A.E. Farrant, Deputy Director of the Water Department, Operations and Maintenance Division, MWD.

assistance to the projects they support.

END-OF-PROJECT STATUS

CARE's proposal suggests that the conveyance of water to rural communities will greatly benefit women who CARE states, currently spend an average of three to six hours daily fetching water. It is presumed that by devoting less time to hauling water, women will spend more time in such pursuits as child care, family betterment, agricultural production, and education, thereby enhancing their status in society. Other anticipated benefits of the schemes are (1) to improve health and sanitation; (2) to make rural areas more attractive places to live and thereby curb rural-urban migration; and (3) to develop local leadership and institutional arrangements which will promote further development based on self-help community efforts (see Attachment to Appendix A of CARE's Water Development Project proposal of 16 December 1974).

INPUTS

According to CARE/Kenya officials, as of 30 June 1976, the following financial expenditures and commitments have been made:

	<u>Allocated</u>	<u>Committed</u>	<u>Disbursed</u>
AID - materials and equipment	\$140,000.00	\$140,000.00	\$106,317.34
AID - est. overhead retained by CARE/New York	10,000.00 ⁽¹⁾	10,000.00	10,000.00
CARE - materials and equipment	50,000.00	50,000.00	11,142.02
CARE - personnel and operations	14,000.00	35,333.47 ⁽²⁾	35,333.47
GOK - personnel and operations	<u>43,750.00⁽³⁾</u>	<u>43,750.00</u>	<u>43,750.00</u>
TOTALS	\$257,750.00	\$279,083.47	\$206,542.83

(1) A portion of direct costs are retained for overhead at the CARE/New York office in accordance with grant provisions. The exact amount has not yet been determined. The above figure is an estimate by the CARE/Kenya staff.

(2) It should be noted that CARE has committed some \$20,833.47 in excess of its original allocations for personnel and operations.

(3) This is the annual GOK contribution of K Shs. 350,000 converted at the rate of 8.0 per \$ US 1.00. Due to the currency devaluation in the Fall of 1975, this dollar amount is less than originally projected.

In addition to its annual cash contribution, GOK inputs also include provision of office space and utilities, vehicle fuel, technicians, project materials, and ministry overhead expenses. Contributions have also been made by other donors and by the various communities in the form of land, their own labor, and cash payments for materials and skilled labor. The values of direct inputs to the projects by the GOK, communities and other donors were only available for the eight projects for which Site Completion Reports had been filed by CARE. These inputs were valued as follows: GOK (\$8,361.94), communities (\$97,822.87), and other donors, excluding CARE (\$112,873.17).

Until May 1976, the professional staff time which CARE allocated to the water development project was as follows: Director (50 percent), Program Officer (50 percent) and Program Coordinator (100 percent). In May 1976, an expatriate (U.S.) water engineer was added to CARE's staff on a full-time basis. CARE is requesting additional funds for the coming year from the GOK to meet this added personnel expense. Approximately forty-five percent of CARE/Kenya's local personnel (twelve Kenyan nationals) and overhead costs are charged to the water development project; the balance is charged to a community development program, which CARE is also implementing in Kenya.

OUTPUTS

To date, 25 individual projects have been identified for assistance. For ten of these, CARE materials have been installed. However, it is not clear whether all the systems to which CARE has contributed are as yet delivering secure water (irrespective of quality), nor whether the portion of the system which CARE has supplied is as yet operational. For example, in one case for which a Site Completion Report (SCR) had been filed (Sarma), the CARE portion of the system (pump, engine, and rising main) has been installed, but operating distribution lines only serve five families. To our knowledge, only one project (Isiolo) is serving all the beneficiaries which CARE alleges it is serving in the eight Site Completion Reports filed to date.^{1/}

^{1/} According to CARE/Kenya, ten projects are completed and nine of these (Sarma being excluded) are serving the beneficiaries projected. However, of the eight projects visited by the evaluators, two of those (Riuri and Kaptel) which CARE had reported to be complete were not serving all the beneficiaries originally projected.

One of the major difficulties in performing this evaluation has been determining (a) at which stage a CARE-supported project is to be considered as completed; and (b) the number of beneficiaries actually served by the CARE-contributed portion of a given village water system.

The problem basic to these difficulties is that CARE supports only a portion of a total project or water development scheme; it does not finance construction of the entire system. Hence:

- CARE's portion of a total project can be completed and in place, but the total system is not yet installed. For example, CARE's pipes may be installed, but the pump and/or engine may not be operable as yet. CARE will legitimately file a "project completion report" with its home office (copy to USAID), but in fact its contribution is not necessarily operable owing to other parts of the system not yet being in place.
- The total number of beneficiaries of a "CARE water development project" under this grant is liable to misrepresentation or misinterpretation. If CARE supplies a water main leading from a pump to distribution lines (the latter of which are being supplied by other donors) is it fair to say that the beneficiaries of the CARE-funded portion of the project are the total number of beneficiaries of the entire system? If this is considered proper, what should be the case if CARE supplies only one of the distribution lines serving a small percentage of the beneficiaries of the entire water system?

Project documentation presently provided USAID by CARE fails to take account of both these problems, and therefore tends to be misleading. Failure to address these issues and establish a reliable, consistent, and clearly-articulated basis for data relating to "project completion" and "beneficiaries served" will also have serious consequences when and if a final evaluation of the grant's implementation is conducted. It has already caused problems in attempting to compute per capita costs of in-place systems.

According to the eight Site Completion Reports received by USAID to date together with a cost/benefit information for a ninth,^{1/} the total number

1/ A tenth is to be filed with CARE's fourth quarterly report due July, 1976.

of beneficiaries to be served by present installations of all types is 30,729, only slightly more than one-tenth of the first year's target of 300,000. This shortfall can be attributed to inadequate research when preparing the grant proposal, which overestimated the feasible target population given the total funds to be applied to capital expenditures, ^{1/} and with the fact that non-domestic supply projects (i.e., irrigation, schools, and cattle-dips) have been implemented which have relatively few beneficiaries per unit of capital outlay.

To clarify this point, the data in the eight Site Completion Reports (SCRs) can be analysed, focusing first on the figures for the five domestic water supply projects, and subsequently on those for projects of all types.

The following figures were compiled from the SCRs for the five projects which were to provide water exclusively for domestic use:

	<u>Value</u>	<u>Percent</u>
CARE/AID		
Material: and equipment (1)	\$ 44,285.83	18.2
Personnel and operations	<u>12,842.88</u>	<u>5.2</u>
<u>Subtotal</u>	57,128.71	23.4
Government of Kenya	8,361.02	3.4
Other donors	97,741.87	39.9
Community	<u>81,676.02</u>	<u>33.3</u> (2)
<u>Subtotal</u>	187,778.91	76.6
<u>Grand Total</u>	<u>\$224,907.62</u>	<u>100.0</u>

(1) All of this total was financed by AID monies.

(2) In the project proposal it was anticipated that the community input would be approximately 80 percent of total, based on CARE's past experience with water projects in Kenya. The figure of 80 percent is that which has recently been experienced on the other self-help water projects in Kenya (see Economic Survey, 1976, p. 163).

^{1/} For some guidelines as to capital costs of various types of village water supply schemes, see: World Bank, Village Water Supply, March 1976.

The number of reported beneficiaries for these five projects is 27,000, giving an average project cost of approximately \$49,000 or \$8.87 per capita. The actual AID contribution per capita is \$2.07, compared to an estimate of \$0.01 contained in CARE's OPG proposal.

On an annual basis, the total contributions planned by AID and CARE is approximately \$190,000 (\$150,000 less an overhead charge by the CARE/ New York office, plus \$50,000). Based upon the above proportions of expenditures (23.4 percent for CARE/AID), the total potential capitalization in a year would be approximately \$812,000. Using the average costs experienced to date, this means that the potential capitalization could support only 16-17 projects per year, serving a total population of 92,000, compared with the planned 30 projects serving 300 000 beneficiaries.

The conclusion to be drawn from this is either that the target figures were too ambitious or that the actual average project costs are unexpectedly high. Although comparisons are risky, the average per capital costs actually experienced to date are more or less in line with World Bank figures.^{1/} Consequently, the deduction would be that the planning figures used for number of projects and number of beneficiaries were unrealistic.

If it is still deemed appropriate or desirable to meet the target number of beneficiaries (300,000 per year), the logical recommendation is either additional funding or the concentration of projects in densely populated areas so as to serve large numbers of people with relatively low capital outlays. This is supported by the World Bank findings which indicate that there are significant economies of scale in village water schemes.

If the total figures for all types of projects are examined, the picture is even worse. There the CARE share is 33.6 percent, which would yield a potential annual capitalization of \$464,476. Based upon the average project costs of \$36,385 experienced to date, the total number of projects which could be implemented each year is only 15-16. The per capita cost of all

^{1/} See World Bank, Village Water Supply, (March 1976).

CARE-funded water projects to date is \$9.60. This yields a potential number of beneficiaries of only 58,900 per year.

This would suggest that CARE avoid assisting non-domestic water supply projects which are relatively high-cost if the annual target is to remain 300,000 beneficiaries per year, given the prevailing level of capitalization.^{1/}

On the surface, it is difficult to quarrel with the work undertaken by CARE under the OPG agreement: helping to provide more accessible water to those who must otherwise expend much time and effort to obtain it. Yet, a closer examination of the design and implementation of this project indicates that it was naively designed and imperfectly implemented — and that the GOK, CARE, and USAID are in almost equal measure responsible for a noble impulse being undermined by poor management.

From a substantive point of view, implementation of the overall grant has been deficient in a number of ways and for a variety of reasons, the most important of which are the following.^{2/}

- (1) The effort to meet the objective of implementing thirty projects annually has resulted in a proliferation of widely scattered and very different types of water supply projects per year, rendering managerial control difficult and costly;
- (2) Projects do not necessarily involve any "self-help" factor and, when this is in fact present, varies widely with no consistency;^{3/}

^{1/} It should be noted that if the contribution from other (non-CARE) donors falls, the annual potential capitalization falls. About 75 percent of the present donor contribution is for a single project, Kandara, leaving one in doubt as to whether such a large donor participation can be expected in the future.

^{2/} Each of the following points will be discussed more fully in various parts of this report.

^{3/} Although it is gazetted that fifty percent of the cost of a self-help project must come from local (village) contributions before the GOK will contribute anything to the project or permit external donors to contribute to it, neither the GOK nor CARE adhere to this rule owing, it may be suggested, to differing income levels of villages in various parts of Kenya. In some cases, CARE will fund a project when the self-help component is as low as 10 percent. (As noted earlier, however, one project CARE funded under this grant had no self-help component, although this was the result of administrative error.)

- (3) No articulated criteria govern decisions as to whether or not CARE will provide assistance to a proposed project;
- (4) Careful attention is not paid to meeting the needs of Kenya's "poor majority," and some projects clearly do not serve them;
- (5) Projects are concerned solely with increasing the accessibility of water, with no professional regard for the water's quality;
- (6) Considerable effort is being expended in the collection of base-line data designed, inter alia, to show how projects will affect or involve women -- data which, despite methodological naivety in its collection, may prove of some academic interest but which have little or no bearing on project selection or determination of project "success";
- (7) No criteria for the realistic evaluation of a project's success have as yet been developed by CARE;
- (8) No systematic attention is being given to the development and utilization of local (village-level) institutions in designing or implementing projects -- let alone for the purpose of assuring the continued maintenance of in-place systems;
- (9) More assistance was expected from the Government of Kenya than a careful assessment of the GOK's financial and administrative constraints would have warranted.

These deficiencies are not simply attributable to the improper administration and implementation of the grant; rather, many of them can be traced back to the original CARE OPG proposal and the resulting grant instrument. Although OPG guidelines were not very explicit at the time this grant was being negotiated, and although this was the first OPG in which the Kenya Mission became involved, it appears that the basic problem was that CARE's proposal -- and the grant agreement -- were not thoroughly reviewed and analyzed by qualified persons. Too much credence was placed on CARE's experience in water development projects in Kenya (which was largely irrelevant for a variety of reasons) and too much reliance was placed on AID/W and CARE/ New York officials to negotiate an agreement acceptable to USAID/Kenya and implementable by CARE/Kenya.

Nevertheless, there is little excuse for a project of this magnitude and potential complexity being agreed upon without a more realistic assessment

of the problems, prospects, and expected results of undertaking support of sixty such projects over a two-year period, and without a more rigorous and analytical review of the substantive aspects of the proposal by USAID and AID/W officials.

Little purpose may be served by belaboring past history, but a description of the major problems currently confronted by the GOK, CARE, and USAID/Kenya in seeing this grant implemented may suggest some modifications in this (or any revised) agreement which AID and CARE may wish to conclude in respect to water development in Kenya.

THE GOVERNMENT OF KENYA

As often the case in Third World rural water projects, government ministries are immersed in jurisdictional disputes and tangled lines of communication. Although eighteen months ago a new Ministry of Water Development was created from a department in the Ministry of Agriculture and given primary responsibility for rural water supply projects, it is plagued by:

- (1) Lack of trained personnel, particularly in technical design, supervision and inspection of construction, operations and maintenance of small self-help water schemes;
- (2) Insufficient budgetary support (which places a constraint even on the operation of vehicles);
- (3) Bureaucratic (and sometimes personal) disputes at various levels with personnel of the Ministry of Health (which was responsible until recently for all small village water supply systems);
- (4) Inadequate coordination of its activities with other ministries, particularly the Department of Community Development and the Ministry of Health.

These problems are exacerbated (rather than relieved) by popular pressures for the improvement of water systems throughout rural Kenya — reinforced by almost daily articles in the popular press — and by politicians

who agree to supply it with little concern for the financial and administrative obstacles which must first be overcome.

A complicated but potentially effective institutional structure exists in Kenya from the ministerial level down to the local (village) level for the initiation, technical review, and eventual approval of water supply (and other rural development) activities, contingent upon their consonance with district, provincial, and national plans. However, procedures within this structure are entangled in a variety of financial constraints and arrested by the bureaucratic inertia which, inter alia, comes of insufficient and ill-trained manpower.

Village water supply projects inevitably run afoul of this official system and consequently CARE finds itself caught on the horns of the aged development dilemma: Does an external donor implement the entire project itself in order to get the job done, or does it work within the existing system, recognizing that less will be accomplished and such wastage of money and effort will occur. CARE has not yet resolved this dilemma, nor has the GOK taken many steps toward resolving it for CARE. It can only be suggested, rather lamely, that it is undoubtedly a question of time..

In the meantime, however, the Ministry of Water Development has not provided CARE with the promised technical personnel, ^{1/} nor are its district water officers expeditiously drawing up the technical project designs which CARE requires, nor are they providing the supervision of system installations and follow-up inspection which CARE was led to expect of them. ^{2/}

^{1/} Eleven MWD personnel were to be at the disposal of CARE to provide technical support for its water projects. Owing to the workload of the MWD these were not made available to CARE except so sporadically that their help was in fact a hindrance.

^{2/} Among the problems observed during visits to eight project sites were: two engines improperly installed; storage tanks and water source inadequately protected; delays in repairing a pump which had broken down shortly after its installation; trenches for piping dug at insufficient depth; a pumphouse inadequately ventilated and exhaust not vented to the outside; and a system which -- without notifying CARE -- had been totally redesigned after CARE had provided materials. In another case it was clear that the original design did not properly take into account potential demand: the source being inadequate and/or the water main of too small a gauge, the system is now being redesigned.

Indeed, the Deputy Director of Water Development admitted under questioning that because of these problems he would not care to see any expansion of CARE's present program for the next 12-18 months, and the only reason he could give for not reducing CARE's present level of involvement was that it would be an "embarrassment" to the Government, because it could not meet its commitments.

As a result, CARE last month hired (with non-OFG funds) its own expatriate water engineer.

Correspondingly, the Department of Community Development (of the Ministry of Housing and Social Services) is being relied upon to ensure the requisite community organization and, ipso facto, the "self-help" element which should be an inextricable part of each project. Yet, although the concept of Harambee — the people pulling themselves up by their own bootstraps — is widely heralded and precipitates an astounding amount of local-level, largely unguided, self-help effort, government community development personnel are insufficient in numbers to encourage and monitor such efforts, let alone direct and institutionalize them — and 75 percent of their vehicles were even grounded in a recent austerity drive.

Although Community Development Officers appear to be articulate, knowledgeable, and well-educated, they and their Assistant Community Development Officers are usually responsible for too many projects spread over too large a terrain to provide the kind of oversight to CARE-supported water projects that is required to ensure their long-term viability, let alone get either a multiplier effect from them (in the sense of precipitating similar projects in neighboring villages) or the spin-off benefits (in health, agriculture, etc.) which might be anticipated. And Community Development Assistants, who work most closely with village self-help groups, are a dynamic group but rather inexperienced.

As a result, CARE now seems willing to accept the fact that it must

itself systematically provide a community development input^{1/} into future water supply projects if a serious effort is to be made to institutionalize the procedures necessary to maintain the water systems whose installation it supports.

Finally, there is a problem about health, the improvement of which among target groups is an objective of this project. To date, the quality of water has not been a concern of CARE — nor of the Ministry of Water Development. Instead, it is supposed to be a concern of the Ministry of Health, which at various levels is not coordinating its activities with the Ministry of Water Development.

Under the dubious assumption that increasing the quantity of water will (a) alone improve health and/or (b) inevitably lead to a desire for — and the eventual ability to provide for — safe water, neither CARE nor the MWD has given any attention to the quality of the water they help to make more accessible. (Indeed, it is a deficiency of the grant instrument that this is not even implied as being a concern of CARE.)

This "quality vs. quantity" debate, which frequently embroils water experts, need not be indulged in here. However, there is no question but that CARE should pay at least some attention to whether or not it is simply supporting the greater distribution of contaminated water in funding some of the projects under this grant. Indeed, Kenya's Development Plan specifically states that its development goal is to bring "to the entire population the benefits of a safe supply [of water] sufficient to their requirements for domestic and livestock consumption." And this same emphasis on safe water is to be found in the recent World Bank Sector Paper "Village Water Supply" (March, 1976).

The matter of quality or safety is raised at this juncture because CARE's lack of attention to this matter is in part attributable to competition and lack of cooperation between the Ministry of Water Development

^{1/} CARE's intention is not itself to organize communities, but to provide assistance to GOK community development officers in the initiation, supervision, and follow-up inspection of CARE-supported water development projects.

with which CARE is most closely associated in implementing this grant) and the Ministry of Health (with which CARE has no direct involvement, but which is supposedly responsible for the quality of water). CARE officials say they are trying to remedy this situation by encouraging meetings between officials of both ministries as often as possible. But what CARE has not yet done, and what it may be necessary to do if safe water is to become an objective of this project, is (temporarily) to do the job itself (i.e., have the water tested; ensure that its safety is an inextricable part of all CARE-funded projects; refuse to support a project providing water which does not meet a certain "reasonable" quality standard) until such time as the Ministry of Health assumes an operational responsibility for the safety of water supplied by CARE-supported projects. This is, in effect, what CARE has done to overcome difficulties with the Ministry of Water Development (hire its own water engineer) and what it contemplates doing in consequence of deficiencies in the operations of the Department of Community Development.

It is important to note that it has only been in the past year that many District Development Committees (wherein the most effective and regular coordination between various ministerial officers in the field takes place) are beginning to perform an effective function as operational units of local government. It is admitted by the Department of Community Development, however, that it will be some time before long-standing jurisdictional disputes and personality conflicts among district and provincial ministerial field representatives can be resolved. CARE itself, working through provincial officers and the Department of Community Development is now making an effort to bring together on various occasions relevant district and provincial ministerial representatives with responsibilities affecting CARE's village water supply projects, but admits that this is a difficult task requiring patience and perseverance.

CARE/KENYA

The current CARE Director and Program Officer inherited this grant from their predecessors and are now making an effort to cope with a series of problems which can be traced back to CARE's original proposal and the resulting grant agreement. They are, however, having troubles.

All development projects (and those professing to be) are (or should be) learning experiences — experiments which sometimes work, but usually do not, but which hopefully lead to better future experiments. It is clear that given the host of variables governing the success of such a vast number of individual projects, and the need for coordination between so many parties to assure its success, that this grant must be considered, at least to a degree, an experiment allowing CARE and others (especially the GOK) to learn by the experience in hopes that future village water projects will prove more successful. This in part accounts for many of the troubles CARE has had in administering this project; it does not, however, excuse all of them.

CARE, however, apparently entered into this grant without fully understanding the difficulties involved in implementing it, despite statements in their proposal that they had been assisting water supply projects in Kenya since 1969.^{1/} They also failed to draft a proposal which reflected the variety of inputs required to achieve the purported objectives of the grant.

The most flagrant of these errors is an emphasis on the purported

1/ A review of the history of self-help water projects in Kenya would itself have been instructive to CARE when drafting its proposal — but such a review, if it took place, is not reflected in the document. Among other things, such a review would have revealed the serious technical and administrative problems associated with projects undertaken up to that point in time by the GOK and other donors. See: Robert E. Wignot, "A Report on the Condition of UNICEF-Assisted Demonstration Rural Water Supplies in Kenya," UNICEF Regional Office (Nairobi, December 1974) (Mimeographed), and IBRD/IDA, "Agricultural Sector Survey - Kenya," Report No. 254a-KE, 2 Vols. (December 20, 1973, esp. Annex 17, pp. 10-21.

benefits to accrue to women; although some of the projects will clearly reduce the number of hours women spend carrying water (provided consumption remains constant), there is no reason, except an untested hypothesis, to believe that the time saved will be put to productive of other beneficial purposes. Senator Percy to the contrary notwithstanding, this project does not need this sort of justification to be deserving of AID funding; simply making water more accessible to rural populations is itself a benefit, if improving the quality of life is (as it should be) an objective of AID and CARE programs. Indeed, the extraordinary time CARE expends gathering base-line data and expects to spend gathering post-project data on these benefits to women (which are mostly indirect and scarcely quantifiable or reliable) is mostly money wasted on a questionable research -- not operational -- project, since the inputs to enable women to use their freed-up time productively or in other beneficial ways are not yet available to any degree in rural areas. It should be noted in this regard that the GOK's own Development Plan addresses this problem of needed additional inputs. As the Plan states:

15.14. There are four basic types of benefits to be derived from investments in water development. These are higher cash incomes, more secure subsistence, improved health, and increased leisure. In each of these areas the realization of full benefits depends upon the implementation of programmes and projects in other sectors such as agriculture, health, and transportation. To these programmes and projects water development stands in a complementary relationship. Although this complementary relationship is essential to the fullest realization of benefits, it must be noted that the grossly inadequate water supply facilities in many parts of the country mean that a significant social benefit is attached to a water supply project even where complementary programmes are not well advanced. In recognition of this fact, the strategy for water development in rural areas requires that water development proceed hand in hand with programmes and projects of other sectors, so that a fuller realization of potential benefits can be achieved [italics added].

Hence, although more accessible water is in itself desirable, to achieve the benefits which CARE projects requires additional inputs which neither CARE nor the GOK is presently making available in the amounts required.

When the present CARE director came on the Kenya scene in May 1975, he was faced with a fait accompli. Gradually he realized, as the project moved forward, that he was faced with excessively burdensome bureaucratic paperwork requirements from AID, lack of cooperation from relevant government ministries, and personnel changes as well as deficiencies in technical capabilities within his own organization. To his credit, and that of his new Program Officer (who arrived in November 1975) CARE/Kenya has begun sorting out the mess — its most positive single accomplishment to date being the employment of a Swahili-speaking, former Ministry of Water Development engineer (and former Peace Corps Volunteer), who can review plans and inspect installations from a technical point of view.^{1/} CARE's biggest headaches now are: (1) establishing a set of project selection criteria to be consistently applied in the evaluation of project proposals; (2) re-orienting project objectives to better reflect a concern for long-operations, maintenance, and capital replacement problems; (3) the need to develop an evaluative methodology and framework which makes sense from a development perspective; (4) staffing requirements to provide more regular, consistent, and professional supervision of project implementation; and (5) ridding itself of some of AID's more unnecessary requirements (such as cost/benefit analyses for individual projects) while enhancing the substantive quality of what it does and should report to AID (e.g., regular and detailed site visitation and quarterly reports together with end-of-project reports which describe completion of the total project, not just the installation or expenditure of CARE's contribution).

Immediate attention should be given the critical need for CARE to develop firm and clearly articulated project-selection criteria which do not involve highly suspicious counts of intended beneficiaries (which the

^{1/} The Director also prevailed upon a local consultant firm to show a member of his staff how to do a project-specific cost/benefit analysis (which was nevertheless inadequate and about which more is said below) and gained the assistance of the University of Nairobi, Bureau of Educational Research, to assist CARE in the design of an improved base-line survey instrument (which is considerably better than the one CARE initially used, but which is insufficiently sophisticated to be of more than minor academic interest).

evaluators found would vary widely depending on to whom one talked) or dubious notions of what women would do with their freed-up time and what non-quantifiable and rather questionable benefits might accrue to local communities in the way of health, nutrition, family life, and increased production of food-stuffs. Instead, CARE should worry about the cost-effectiveness of proposed projects (the provision of water at a low per capita cost), ensuring that they be supported once constructed, the percentage and type of self-help input to the project (given varying income levels in the community), the availability and integration of other advisory, educational, and technical inputs which provide the potential for spin-off benefits to the greater accessibility of safe water, and the existence of functioning (and functional) self-help harambee committees at the local level to assure the proper operation and maintenance of in-place systems and the collection of fees to support them.^{1/}

USAID/KENYA

USAID's patience with this project shows admirable restraint. AID/Washington's insistence upon cost/benefit analyses and frequent waivers to allow CARE to procure materials locally, however, is insupportable and would try the patience of Job. Released of preparing and reviewing these unnecessary documents and memoranda, the USAID officer responsible for PVO liaison might then be able to focus on the deficiencies of this grant and CARE's implementation thereof, and hence monitor it in a more responsible, exacting, and effective way than hitherto.^{2/}

Considerable perception was involved in the USAID monitor becoming

-
- 1/ See section on "project selection criteria" below for a fuller explanation of these considerations.
- 2/ USAID/Kenya notes, however, that the AID program in Kenya has doubled in the past two years, and the program office staff is sorely overworked; according to the Mission, without staff additions, careful monitoring of OPGs may not be possible.

suspicious of two projects which, from very brief project descriptions provided by CARE, did not appear to be explicitly adhering to AID priorities. Visits to both sites indicated that one (Madzau Girls' School) clearly was improperly undertaken, and the other (in Isiolo) was adhering only marginally to the grant agreement (although it was sufficiently consonant with AID objectives to be acceptable).^{1/}

Yet perception ought not be required of an AID monitor to determine whether projects are being performed in accordance with the grant. Despite the degree of independence and flexibility which OPGs were to provide PVOs, there is clearly a need for a far more thorough and rigorous review of OPG proposals and grant agreements in missions than the one in question was given, and a far more exacting periodic review of well-documented descriptions from the grantee as to what it has done, is doing, and expects yet to do under the grant. This ought not entail thumbing through inarticulate, sometimes factually inaccurate, and almost totally useless site visitation reports, but reviewing substantive issues and occasionally making personal visits to project sites.

Two matters have particularly concerned USAID officials, and both with justification: (1) requiring cost/benefit analyses from CARE for each individual project supported under the grant, even when CARE's contribution may be as little as \$2,000; and (2) being required by an insensate AID/Washington to issue CARE frequent source waivers to permit local procurement of materials.

^{1/} Although it was not possible to visit the sites of all CARE projects, an examination of CARE's quarterly reports (in which individual projects are briefly described) together with CARE's project completion reports would indicate that a number of projects do not explicitly address either CARE's stated grant objectives nor, possibly, AID program emphases. In particular, the evaluators are especially suspicious of projects which are described as serving irrigation schemes, cattle dips, and schools. This criticism may only indicate that a more detailed description of each project should be developed by CARE prior to any funding commitment. On the other hand, it may re-emphasize the need for the establishment by CARE of more explicit criteria governing project selection, which in the future may be used as a touchstone to determine project appropriateness and consistency with the grant agreement.

COST/BENEFIT ANALYSES

In accordance with the Foreign Assistance Act, Section 611(a), cost/benefit analyses (CBs) are required to be conducted for all federally-funded water projects in excess of \$100,000 in accordance with guidelines set forth in instructions from the White House in 1962.^{1/} The requirement that costs and benefits be computed for the individual projects to be supported under this grant is found in the Program Description (page 2) attached to AID's letter to CARE of 25 June 1975, which states that "Using the information available from 3 above [i.e., base-line data], the Grantee shall prepare a computation of individual community project costs and benefits made insofar as practicable in accordance with the procedures set forth by USAID/Kenya" [italics added].

Despite USAID/Kenya's protests to AID/W, it has been insisted that CARE conduct these CBs for each individual project, irrespective of how small CARE's contribution to the project may be. Owing to CARE's lack of technical competence to undertake them, only one has thus far been done -- and this by a local management consulting firm which CARE finally engaged in desperation to show its staff how to do them.

However, owing to the nature of this OPG (in particular, the number of individual projects to be supported) and the high relative cost of conducting such analyses, AID ought not to have insisted that CBs be submitted for each of the self-help water projects being assisted under this grant.^{2/}

The more salient reasons for not requiring CBs are as follows:

While the total amount of the grant funding of \$300,000 exceeds the

^{1/} "Letter of President John F. Kennedy to the Secretary of the Interior; the Secretary of Agriculture; the Secretary of Health, Education, and Welfare; and the Secretary of the Army" (The White House, May 15, 1962) concerning the formulation and evaluation of water resources projects, with attachment headed "Policies, Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources."

^{2/} This does not mean, however, that CARE should not give careful consideration to the cost effectiveness of each project in terms of providing accessible water at low per capita cost.

amount for which CBs are required, the funds are not to be used in the construction of a single, discrete water project per se. Rather, the funds are to be used to supplement the financing of the Government of Kenya as well as CARE's own funds in the purchase of materials and equipment for some sixty different projects. The average expenditure by CARE is anticipated to be \$5,000 and none were expected to exceed \$10,000. Therefore, the individual projects to be supported do not fall within the dollar limits requiring cost/benefit analyses. To require them under these circumstances is to render them absurdly costly.

Should this not be reason sufficient to reject the notion that CBs be prepared for each project, it can still be argued on other grounds that CBs for each project is neither appropriate nor practicable. First, it takes an inordinate amount of time to collect the data and make the computations for the CBs. If they were to be conducted prior to the commencement of each individual project, significant delays could be expected in launching these projects, which would likely cause frustrations at the local level and dampen a community's self-help initiative — which it should be a purpose of the grant to encourage. Already delays are being experienced due to insufficient M&D personnel to carry out the technical design for proposed projects. Community Development (and other GOK) Officers have expressed concern over the impact of these delays on community enthusiasm for self-help projects. Therefore, to require pre-project CBs would only exacerbate an already-bad situation and, most importantly, reduce CARE's flexibility and speed of response to expressions of local initiative.

Second, it is difficult if not impossible to quantify precisely the benefits which are expected to accrue to target beneficiaries. For example, a principal beneficiary group is rural women who currently spend a number of hours daily fetching water. The question of quantifiable benefits amount to evaluating in monetary terms the use of the time which will be freed-up from the task of drawing water. One could argue that even if the women do nothing "productive" with the extra time, an economic benefit has been rendered since

even leisure does have utility to the consumer. However, attaching a monetary value to leisure time is difficult and subject to endless debate. (It should be pointed out that watercarrying itself may also provide the individual with utility through providing the opportunity for socializing, an activity of high value where entertainment opportunities are limited. Thus the provision of accessible water may even imply negative utility by limiting the opportunities women have to socialize.)

In the one CB conducted to date, the benefits were determined by attaching a monetary value to the freed-up time, which it was assumed women would spend in agricultural pursuits. The extra work was valued at the legislated minimum daily wage of K Shs. 5/-. For many of the areas visited, plot sizes and/or traditional technologies placed serious constraints on the possibilities of raising output by means of increased labor inputs. Indeed, the marginal product of labor may currently be zero, or close thereto — a common phenomenon in similar circumstances throughout the world. Also, the assumption that the marginal product, if positive, is valued at K Shs. 5/- per day is clearly open to debate.

More accessible water may also promote better hygiene and health. However, it would be excessively costly to measure and evaluate the decrease in productive time currently lost from ill health or the greater intensity of productive effort. The use of assumptions may facilitate the computations; however, this leaves one open to justifiable criticisms and raises doubts as to the reliability of the results.

Third, the staff at CARE/Kenya currently and admittedly does not have the capability for conducting CB analyses. The analysis submitted by H.P. Gauff, K.G. Consulting Engineers, on the Kaptal project, should not be used as a general framework for conducting future CBs owing to the firm's use of incorrect procedures and assumptions therein.^{1/} Indeed, it is also clear that

^{1/} For example, the expenditure for replacement of the pump after twelve years should not be included with the annual recurrent expenditures but treated as a capital cost discounted separately from the twelfth year and the twenty-fourth year. Also, valuing the marginal product of the additional labor inputs at the official minimum wage rate for agricultural

the data collected in the base-line survey is not sufficient to conduct a sound CB, as suggested (quite incorrectly) in the grant agreement (see item 4, page 2).

Finally, the AID/W requirement for CB analyses imposes an unjustifiable burden on CARE's local staff time, which could be employed more productively to project identification, implementation, and evaluation. Indeed, the imposition of this requirement may also not be in keeping with the spirit of preserving the independent identities of the agencies participating in the OPG program.

In brief, the phrase "insofar as practicable" cited in AID's instructions to CARE for the administration of this grant (see above) should by itself enable AID/W and/or USAID/Kenya to dispense with this requirement. Besides, CBs -- as presently required -- serve no useful purpose insofar as they are conducted after funds are committed to a project and, at most, can therefore provide only a post-facto justification for having undertaken any project. As presently being conducted, they serve only to comply with an irrelevant bureaucratic requirement which has no program significance.

LOCAL PROCUREMENT OF MATERIALS

To date, it has been necessary for USAID/Kenya to issue six procurement source waivers in order to permit CARE to procure materials locally in accordance with standard AID procedures.

These impose a time-consuming burden on USAID/Kenya (despite the mechanical way they are now churned out) -- time which could better be employed monitoring the grant's implementation from a substantive point of view. The matter of obtaining waivers also constitutes a concern to CARE.

(con't) labor is arguable particularly in light of the available technology, resources, and wide variety of environmental conditions affecting agricultural productivity throughout the country. Typically, in overcrowded areas, where traditional technologies are employed, the average productivity of labor (represented by minimum daily wages) exceeds the marginal productivity. Thus, to use the minimum wage would grossly overstate marginal output and, hence, benefits attributable to the project.

The arguments in favor of these waivers have, in major part, been adequately covered in various internal AID memoranda and so need not be recapitulated here. Suffice it to say that, on request of USAID, a review of this matter was undertaken and discussed with CARE, USAID, and GOK officials. On the basis of this review, USAID's arguments for these waivers appear warranted. Additionally, however, three points should be underscored:

- (1) The unique role which CARE (or any PVO) can play in the context of building small village water systems is almost entirely contingent upon the agency's ability to respond quickly to material requirements lest villagers become frustrated and local committees become discouraged in the wake of long delays caused by the GOK's often painfully slow response to locally-initiated project proposals. To wait three to six months to procure equipment and materials from the U.S. — a process which can be begun only after all GOK technical design inputs have been made — would significantly undermine the possible success of each project.
- (2) Each water system is unique; standardized equipment serving all (or even a small proportion) of CARE-supported projects is not possible. Hence, warehousing of materials — in which the loss factor from pilferage is exceedingly high in Kenya — is not just costly, but wholly inappropriate, since specific system needs cannot be anticipated.
- (3) Service and spare parts for U.S. pumps and machines are not available locally; of the twenty-five suppliers of pumps canvassed by CARE staff, only one stocks a U.S. make, and this is a submersible pump which is a type for which CARE hardly ever has any use.^{1/} Since the major problem which the project faces is the continued operation and maintenance of in-place systems, the availability of service and spare parts is critical to the long-term success of projects; inextricably involved in this is the training of operators who (if a UNICEF-sponsored training program for operators becomes regularized, with GOK and CARE encouragement) will be trained on the non-U.S. machines presently installed by the GOK and found throughout the country. Under these circumstances to insist on the use of U.S. equipment in CARE-supported projects is, quite frankly, ridiculous.

^{1/} The Director of Water Development, MWD, confirms CARE's canvass. He writes: "Incidentally, United States of American (sic) small pumping equipment are not commonly available and their servicing and spares facilities are almost non-existent in Kenya." Letter, requested by the evaluators, forwarded to The Director, CARE/Kenya of 16 July 1976 (MWD Ref. No. WD/2/7/369/II/13).

Individual waivers can be issued by USAID/Kenya only in sums not to exceed \$25,000. It appears to be a nonsensical bureaucratic requirement that these source waivers be issued only in these small amounts and hence as frequently as they must. It would be far easier for everyone — AID/W, USAID/Kenya, and CARE — if a blanket source waiver covering the entire grant were once-and-for-all made. Perhaps then, greater concentration could be given by CARE and USAID to the very real substantive problems associated with this grant's implementation, rather than expend time on needless bureaucratic paperwork.

PROJECT SELECTION CRITERIA

A major fault of CARE's implementation of this OPG is that no clearly-articulated criteria exist for determining which projects ought to be supported. Proposal come to CARE in various ways — through the Ministry of Water Development, directly from representatives of local "self-help" committees, or indirectly by word-of-mouth or sheer happenstance. Indeed, lack of criteria allowed an inexperienced staff member — in an extemporaneous speech — to commit OPG funds for a water storage tank (at Madzua Girls School) which was inconsistent with grant objectives.

The variety of ways in which potential projects are identified renders it of special importance that established standards exist for reviewing proposals and selecting projects. This concern is reinforced by the fact that many, if not most, of the deficiencies discovered during this evaluation are the result of inadequate planning; these range from CARE's significant over-estimation of the number of target beneficiaries to be served under the OPG to the fact that a water supply system, to which CARE's contribution has already been made, may not become functional for a considerable period of time owing to administrative, technical, or financial problems faced in the non-CARE-supported parts of the project.

The scope of this evaluation does not entail the development of appropriate project-selection criteria. But it is clear that both technical system requirements as well as local institutional impediments must be

analysed more carefully and systematically by CARE than has hitherto been the case before it hereafter embarks on a given project.

It might be suggested, however, that among factors to be given special attention in project selection would be: the proportion of the local self-help contribution, based upon a thoroughly verified range of local per capita incomes; a local income level above which a project would not be considered for funding; the certain availability of a villager (and a back-up assistant) trained to operate and maintain the completed system; the actual number of beneficiaries (with a cut-off point below which a project would not be supported and with perhaps greater attention being given to high-density, low-income areas in order to reach more easily the total number of projected beneficiaries and better realize economies of scale); assessment of population projections for the area to be served (in order to avoid construction a system which will soon be overloaded and hence rendered obsolete); and the availability and commitment of complementary technical and administrative inputs (which would precipitate spin-off benefits in the areas of health, nutrition, child care, agricultural production, and local institutional development).

A major consideration in selecting projects must be the degree of village need, which may be indicated by the interest and involvement of the village, the adequacy and proximity of the existing supply, and the expressed willingness of individual users to pay for water.^{1/} CARE should also insist upon the pre-project assessment of the presence of water-borne diseases and, if present, the design of a system which will treat the water as well as protect the source. The cost effectiveness of the system should also be explored prior to any commitment of funds, and the presence of sufficiently strong local self-governing institutions or organizations to ensure the long-term management of the system should be assessed.

^{1/} Appraisal of these factors by expatriate CARE personnel would be exceedingly difficult, particularly as water projects are becoming so greatly embroiled in politics. This underscores the recommendation that CARE employ a highly trained local community development worker, knowledgeable of the country, perceptive of the nuances of local organization and attitudes, and committed to development, not just relief and good works. CARE/Kenya already has one such person on its staff, although assigned to other projects; another such person should be sought.

The final ranking of project possibilities will, of course, be dependent upon the weight to be given these (and perhaps other relevant) factors. These should be promptly worked out by CARE, in consultation with USAID/Kenya and GOK officials.

CONCLUSIONS AND RECOMMENDATIONS

The Water Development Operational Program Grant to CARE for the support of self-help village water supply projects became effective on 1 July 1975 for a two-year period. The grant agreement targeted the completion of thirty projects serving 300,000 rural Kenyans by 30 June 1976. As of that date, all of the AID/CARE funding allocated for the effort in FY 1975/76 had been committed in support of a total of twenty-five projects. At the time of this evaluation, CARE indicated that nine of these projects had been completed, benefiting 30,729 persons. (A tenth project was completed during the fourth quarter and was to be cited as completed in CARE's next quarterly report to USAID.)

General Assessment

It is clear that CARE has not undertaken the targeted number of projects nor reached the anticipated number of beneficiaries for the various, interdependent reasons discussed in this report. By failing to do so, CARE has not fulfilled its obligations per the grant agreement.

The merit of these individual water projects, however, should not be measured by numbers alone. Although, as described above, there are many problems confronting CARE in performing this work and serious deficiencies in the original CARE proposal and the resulting grant agreement (and, hence, the implementation of the grant), there is no reason to believe that the project cannot be redirected in its approach, emphases, and goals in order to serve more effectively and efficiently the overall objective of enhancing the well-being of Kenya's rural poor.

Indeed, it is a conclusion of this evaluation that, in preference

to being terminated, AID's grant to CARE should be continued, contingent upon, inter alia, changes being made in the agreement and CARE committing itself to managing more responsibly the grant's implementation. Briefly stated, this conclusion is based upon the fact that rendering water more accessible is an effective way to improve the quality of life of a significant segment of Kenya's poor majority. Additionally, more accessible water may be a sine qua non for initiating other development activities of both a social and economic nature.

It should also be mentioned that many of the problems identified by the evaluators were administrative or managerial. These have been acknowledged by CARE, USAID/Kenya, and GOK officials, and in some cases steps are already being taken to cope with them. Therefore, despite the serious deficiencies cited above in the way in which work has been performed to date, the recognition of these shortcomings on the part of both CARE and USAID and their joint willingness to consider revisions in the original grant agreement to overcome them, augurs sufficiently well for the future of this project to justify its continued funding.

Finally, this evaluation has demonstrated that assisting PVOs to improve their capacity to undertake development projects of this nature can enable a more flexible and effective approach to "grass roots" development to occur than can be expected from most bilateral, government-to-government programs; the problem still to be resolved is determining the proper extent to which PVOs should be regularly held accountable for the implementation of such grants and the degree of control which USAIDs should exercise in monitoring them.

In the following paragraphs, the conclusions and recommendations of the evaluators are summarized; these are based upon findings described at greater length in the main body of this report.

CONCLUSIONS

I. Target Accomplishments

1. Progress to date indicates that it will not be possible for CARE to serve the 300,000 beneficiaries per year as targeted in its OPG proposal, owing to unreasonably high estimates as to the average number of beneficiaries that could be served per project (i.e., 10,000).

2. Actual capital costs per capita significantly exceed that which was estimated in CARE's OPG proposal, in part owing to the inadequacy of initial planning and overly-ambitious statements as to the number of project beneficiaries.

II. Management

3. Prospects for the maintenance and longevity of the village water systems being funded under this agreement are not impressive owing to the lack of training of those managerially and technically responsible for them at the local level, and to the lack of organizational arrangements to assure adequate funds for operation, maintenance, and capital improvements.

4. In light of the relatively small amounts of money involved in each project and the need for locally obtainable spare parts and service, the bureaucratic requirement of AID/W that the Mission issue periodic waivers to allow the local procurement of materials is needlessly time-consuming, administratively costly, and technically insupportable.

5. Little if any effort has been made by CARE to ensure that individual projects contribute to the development of local self-governing ("self-help") institutions; each project is considered a discrete activity and its possible multiplier effect (in the encouragement of subsequent activities in the same or neighboring village) is not given any (let alone analytically systematic) consideration in the design or selection of projects.

6. Despite the failure of CARE to provide USAID, on a timely basis, with required cost/benefit analyses and base-line survey data on individual projects, AID has not seen fit to withhold disbursements for these projects.

thereby indicating that they are either considered meaningless to USAID (which would appear an understandable reaction) or that the Mission did not consider these analyses critical to the grant's implementation and was uncertain as to the extent FVO independence in the administration of these grants was to be respected.

7. Although CARE's dependence upon the Ministry of Water Development for the technical evaluation of a project's design and implementation has been partially remedied by the employment of a former water supply engineer, the widespread scatteration of individual projects at various stages of design and implementation renders it difficult for CARE to exercise proper controls over project implementation.

8. The Ministry of Water Development, Operations and Maintenance Division is, by its own admission, seriously understaffed and therefore unable to respond promptly to requests for detailed technical analyses of proposed village water supply systems; this — and such other administrative factors adversely affecting GOK interest and involvement in this program — has rendered it impossible for CARE to base project selection on solid technical data and degree of financial involvement of local villagers and government agencies.

III. Project Selection

9. Project funding has been agreed to prior to the receipt, review, and appraisal of detailed GOK (Ministry of Water Development) technical reports as to the design, feasibility and total funding requirements of individual projects.

10. At least one project has been funded where per capita income is, by the evaluators' independent observation and CARE's own declaration, above the average per capita income level of Kenya, suggesting that contrary to Congressional intent projects are being funded for other than Kenya's "poor majority".

11. Projects do not necessarily entail a "self-help" component — in one flagrant case CARE funded under the OPG a project for which the

Ministry of Education (with technical assistance from the Ministry of Water Developments) provided all other inputs.

IV. Project Justification

12. AID/W's insistence (despite USAID objections) that cost/benefit analyses be performed for each individual project is absurd: It is possible that the cost of doing a detailed and thorough cost/benefit analysis could exceed the USAID/CARE contribution to the project. In all cases, both social and economic benefits can only be quantified by resorting to arguable assumptions, making the results of dubious value for project justification purposes.

13. Stated objectives of the OPG agreement are inadequately specific, apparently contrived to address AID program emphases rather than based on realistic objectives whose attainment is objectively verifiable (e.g., verifying at intervals that safe and secure supplies are being delivered by the system).

14. CARE's overweening preoccupation with the benefits of these projects upon women and — as stated in the OPG agreement — upon agricultural productivity and health, is unjustified: (a) CARE's assumption that the time women need no longer spend carrying water will be used productively is an as-yet untested hypothesis; and (b) for such benefits to be realized, additional technical inputs (e.g., from community development specialists, agricultural extension officers, health officials, etc.) will be required but cannot be expected, owing to management, administrative, and financial constraints currently affecting the GOK ministries which would be involved.

V. Reporting

15. CARE is not providing USAID/Kenya with sufficiently descriptive and meaningful information on individual projects (including base-line data) to enable AID properly to monitor the grant.

16. Survey format and methodology to obtain base-line data are

not professionally sound and, despite attempts by CARE to improve both format and procedures, they are not yet such as will allow a satisfactory determination of a project's "success".

17. Contrary to the OPG agreement, only one (of 19) pre-project cost/benefit analyses has been provided USAID. This one was made after the completion of the project and is unacceptable for reasons cited in the text of this report; even if completed prior to project selection and appropriately provided USAID, it does not appear possible that these analyses could serve any useful purpose either to USAID or CARE.

RECOMMENDATIONS

1. That AID no longer require CARE to provide cost/benefit analyses for each individual village water supply project which they decide to support, as these are unjustifiably costly to produce, serve no useful purpose, and are of dubious validity owing to the assumptions necessary to quantify benefits. Hereafter, under this grant, CARE should encourage the design and implementation of systems which will provide safe and secure water at low per capita cost.

2. That AID provide CARE with a blanket waiver of U.S. procurement requirements, permitting local procurement of all materials (pumps, engines, and pipes) required to satisfy the conditions of this grant, thereby increasing CARE's flexibility and speed of response required by the work being undertaken, as well as the ability of local authorities and trained village level operators to service and maintain equipment once installed.

3. That CARE limit the geographical spread of projects supported under this grant in order to increase their advisory inputs and to strengthen their management control over projects being funded as well as to take advantage of the more effective local governmental support systems existing in some provinces or districts.

4. That the grant agreement be modified to require that CARE establish specific criteria for the selection of projects consonant with AID's OPG

development emphases which should be applied consistently prior to any commitment for funding of projects.

5. That (a) CARE cease the pre-project collection of irrelevant data and instead focus pre-project surveys on the collection of quantifiable data which is part of a clearly conceived evaluative framework and mechanism, and (b) CARE's objectives reflect explicit attention to enhancing the GOK's ability to develop an institutional capacity at local levels capable of ensuring the long-run operation and maintenance of each village water system.

6. That CARE's objectives under this grant become no less the provision of safe water than the provision of more accessible water, and that CARE not support projects unless it is assured of the reasonable quality of the water and, as part of the proposed project, adequate provisions will be taken to prevent its contamination.

7. That CARE staff resources be so allocated as to dovetail attention to the technical prerequisites of water supply projects with assistance to the GOK in developing an institutionalized "self-help" capacity at the local level where projects are being implemented to ensure the continued utilization and maintenance of in-place systems.

8. That in accordance with a modified grant agreement, USAID/Kenya and CARE establish new reporting procedures which will minimize paperwork but will regularly provide AID with more comprehensive and meaningful progress-to-date descriptions and post-project analyses (specifically pre-project surveys, site visitation reports, and post-project evaluations).

9. That the funding of this OPG beyond June 1977 be contingent upon project objectives being changed, requisite CARE personnel being on-board, and an evaluative framework and mechanism having been devised which fully reflect the considerations raised in this report.