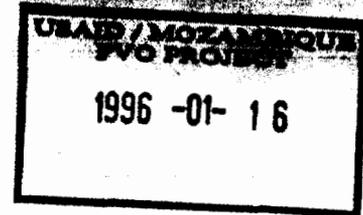


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9 January 1996
C/21/96

Mary Schwarz
PVO Support Project
USAID Maputo

SUBJ: Grant No. 656-0217-G-00-4005-02/FSCIR



Dear Mary,

Please find a copy of the final evaluation of the Machaze Food Security and Community Infrastructure Project, as well as a memorandum summarizing the status of recommendations from the final evaluation.

The final report, which will incorporate specific details of the last quarter, will be submitted to you before the end of January.

Please contact us should you have comments or questions regarding the evaluation document and CARE's response to the evaluation.

Best Regards



Nina Bowen
Deputy Director Program

cc: CARE Manica
420.20.4
1503.2

CARE INTERNATIONAL - MOZAMBIQUE

FOOD SECURITY

AND

COMMUNITY INFRASTRUCTURE REHABILITATION PROJECT

FINAL EVALUATION REPORT

NOVEMBER 1995

**By: Ann Wigglesworth
and Helen Stappers**

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EXECUTIVE SUMMARY

Introduction

The Food Security and Community Infrastructures Rehabilitation Project's outputs of rehabilitation of 7 schools, 2 health posts, 150 km of roads and nutritional monitoring and education, cannot directly lead to food security. The project title stems from the historical development of the project resulting in other complementary activities being carried out by other projects operating from the same base camp in Machaze. The official project start date is November 1993. The project has been extended from 18 to 26 months to finish in December 1995.

The goal of the project is:

to improve the food security of a selected rural population of Machaze District in Manica Province through the development of a community based nutritional monitoring and education program and the rehabilitation of essential infrastructure.

The outputs are:

- 1) Rehabilitation of infrastructures including:
 - 7 schools,
 - 2 health posts,
 - 7 other community structures,
 - 150 km of dirt roads;

- 2) Nutrition monitoring and education including:
 - Community based food security monitoring system;
 - A nutritional behaviour survey;
 - A nutritional education program in three localities targeting 60% of mothers;
 - 60% of participants can identify malnutrition and treat it with locally available products;
 - Two community animators trained in nutrition education.

- 3) Community Organisation, including:
 - Seven communities participated in rehabilitation activities, each providing 25-50 workers
 - Seven community organisations meet on a regular basis and deal with food security and rural rehabilitation activities.

CARE established the project under very difficult working conditions. Project management suffered from many staff changes and included the fact that some expatriate staff had insufficient language and skills for the job.

Outputs

Rehabilitation of 150 km of roads: Since the start of the project opening of roads has led to the establishment of trading activities in all the locality centres. CARE contributed to this, opening and upgrading more than 150 km of roads. Tertiary road rehabilitation was undertaken in coordination with CARE's water project to provide access for the borehole drilling rig.

Seven schools and two health posts rehabilitated: The planned school and health post infrastructures were built in areas of key importance. The final handover has been delayed to January 1996, while complementary staff housing is being completed.

Seven public structures rehabilitated and used by the community: The construction of 7 houses for school and health post staff were funded from this component. These offer an important service to the community in terms of staffing the schools and health posts, but the team felt that they are not strictly structures for community use.

Community participation was limited by the output oriented consultative process. To some extent this was a result of the different time-frames demanded by the emergency (UNHCR funded) rehabilitation program and a community development program.

Also, the separate management of different activity components and projects made a variety of different demands on the communities which did not facilitate community participation or empowerment.

Nutritional monitoring: this activity refers to community-based food security monitoring using the monitoring system developed by MSF-CIS. In practice the monitoring never passed the stage of data-collection, and was limited by the following facts: the data is too complicated and extensive for the level of data collectors; and the areas to visit are distant.

Nutrition education: 10 nutrition animators were trained by the program, who are the key-persons in the transmission of nutritional messages to the community. They do home visits and participate actively in all the other activities executed by the nutrition programme. Key issues in this program are:

- The development of creches was a good initiative and a direct response to the communities' expressed need: the need to provide adequate nutrition to young children. The mothers themselves have taken principal responsibility for the creches.
- Starting vegetable gardens to provide nutritious foods for the creche was a positive initiative, although ultimately unsuccessful due to the drought and the subsequent unavailability of water.

- The participation of both the nutrition coordinator and the animators in health education in schools is an important initiative. In order to make this work sustainable, much more work should be done training teachers to make health education part of the school curriculum.

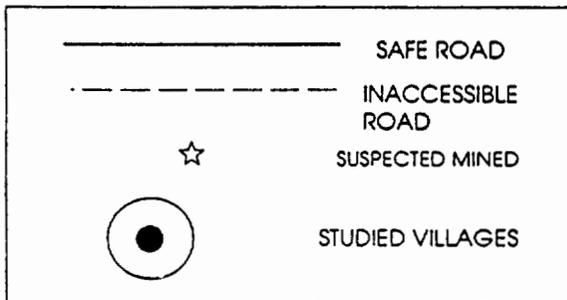
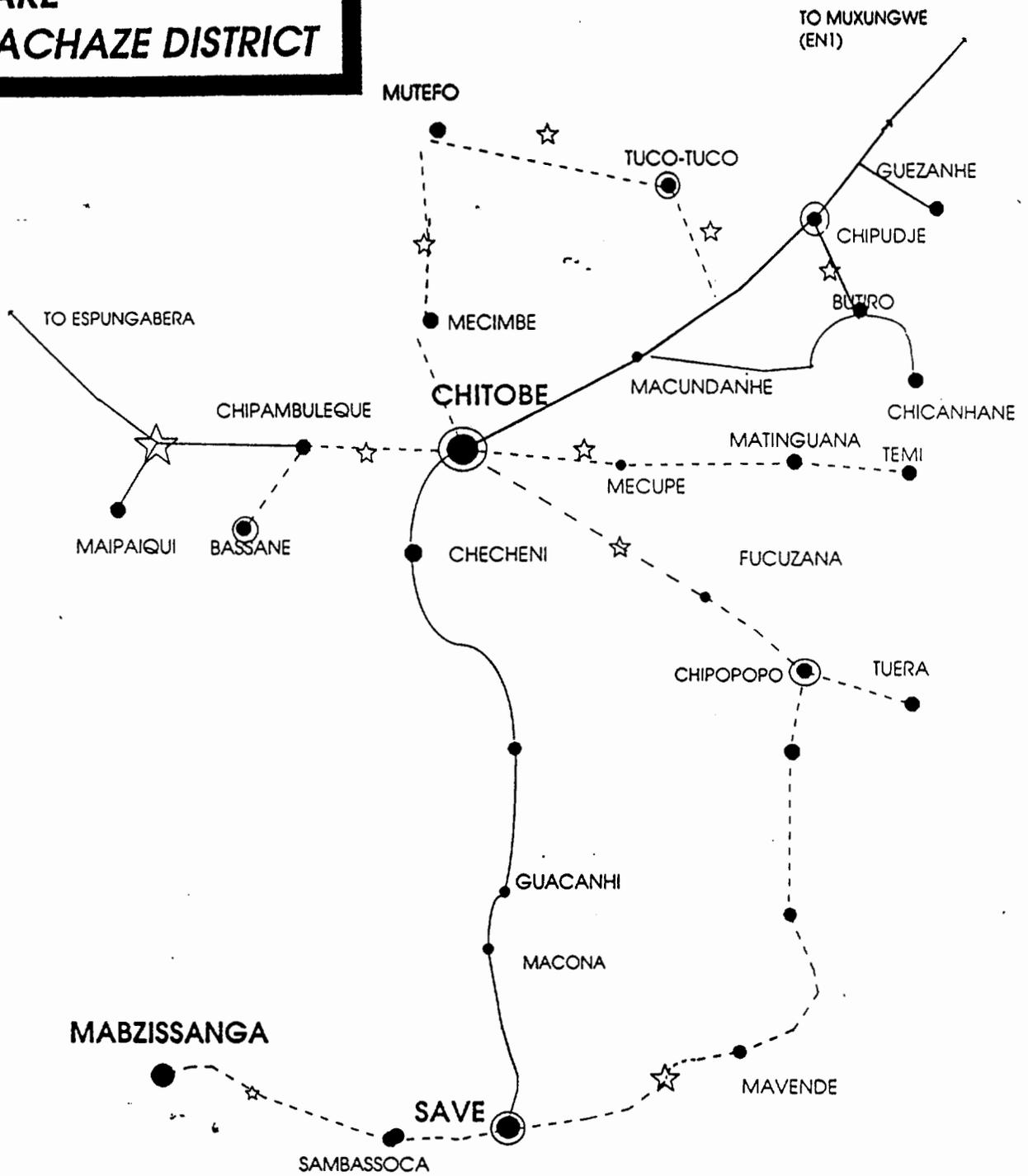
The nutrition education component has not been coordinated with the district health program in a way that will provide sustainability at the end of the project. For instance:

- the training and employment of nutrition animators has been undertaken without consideration of their integration into the DDS, and has been found to undermine the system of voluntary health workers used by the official health structure in the communities.
- The collection of data by the animators is done in parallel with DDS data collection. The lack of linkage makes it difficult for the formal health services to benefit from the work of the animators and vice versa.

Recommendations:

- CARE has established good groundwork for ongoing work in the communities. It should focus on the development of mothers group activities and creches based at the water points which are natural meeting places for women.
- CARE's future work should focus on participatory processes rather than an output orientated approach. It's approach to the community should be coordinated with respect to different project components.
- Health education for water and nutrition components should be undertaken in the same program.
- Future work in health would benefit from greater coordination and cooperation, both with government health structures at the national, provincial and district levels, and with NGOs working in the health sector.
- Simple didactic materials about health and nutrition topics, if not yet existing, should be developed in cooperation with government health structures and other NGOs working in the area.
- For sustainability, community based animators should not be paid by CARE. Other incentives should be investigated, such as t-shirts, caps, capulanas, an education material kit, and transport facilities such as a bicycle.
- Whenever possible existing voluntary, formal or traditional health workers should be incorporated into the program.

CARE MACHAZE DISTRICT



EVALUATION TEAM ITINERARY

NOV

- 6th am Briefing by Nina Bowen, CARE, Maputo
pm Briefing by USAID team
- 7th am Airserve flight to Machaze
pm Briefing by Eduardo Telhano, Project Manager
Meeting with Machaze District Administrator
- 8th am Briefing by Luisa Antonio, Nutrition Coordinator
Visit to school at Eduardo Mondlane, Chitobe
Arrival of Scott Hudson, CARE Provincial Coordinator
pm Briefing by Scott Hudson
- 9th Visit BASSANE, school, health post, site of borehole.
Meeting with nutrition animators and mothers.
Meeting with workers at construction sites.
- 10th am Meeting with Scott and Eduardo
Attend nutrition education at Machaze Sede school
pm Visit Machaze EP2 school
Meeting with construction workers
Visit 2 water pumps in Chitobe.
Talk to members of pump maintenance groups
- 11th Visit CHIPUDJE, and school
Meeting with nutrition animators and mothers
Meeting with Secretary of the Locality.
Visit GUEZANE and school
Meeting with Regulo and community
- 12th am Meeting with former CARE roads monitor
Meeting with UNHCR representative in Machaze
pm Meeting with Project Manager of CARE water project
- 13th Visit CHIPOPOPO, and school and health post
Meeting with construction workers
Meeting with community and secretary of the locality
Meeting with the Regulo
Visit FUCUZANA. Meeting with former road workers.
- 14th am Meeting with Deputy Director of Education
Meeting with District Director of Agriculture
Visit creche 1st of May
pm Visit BASSANE
Meeting with community
Met Chefe de Povoação & Deputy Locality Secretary
Visit water distribution point
- 15th am Visit nutrition activities in Maguiguane, Chitobe
Meeting with animators and mothers
pm Attend bi-monthly meeting with animators
Meet with representative of Public Works Dept.
Meet with owner of general store in Chitobe

16th **Visit CHIPUDJE**
 Attend food and seeds distribution
 Meet with nutrition animators
 Meet with nurse and first aid worker
 Visit Butiro and Mambo communities

17th am Meeting with Deputy Director of Health
 Visit Creche Macundane
 pm Meet with health staff Chitobe Health Centre
 Visit Nutrition Rehabilitation Centre Chitobe

18th am Meeting with the leaders council

19th Drive to Chimoio

20th am Meeting with technical department, DPE
 Meeting Mozambican Health Committee
 pm Meeting with Provincial Director of Agriculture
 Meeting with UNICEF

21st am Meeting with Community Health, DPS
 Meeting with Director, DPCCN
 pm Meeting roads department, DPOPH
 Meeting FSCIR staff on team finding

22nd Depart Airserve for Maputo

30th Debriefing USAID

23rd-4th Report writing

PERSONS INTERVIEWED

David Elias Antonio	Machaze District Administrator
Sérgio Inácio	Representative UNHCR, Machaze
Marco Mugarre	Deputy Director, DDE
Lovemore Will	Secretary of Chipudje Locality
Thundi Jamba	Regulo, Chipopopo
Sr Issa -	Trader (since 1970), Chitobe
Mateus Domingos Agostinho	Director DDA
Sr Duarte	Representative of DDOPH
Sr Missão	Deputy Director, DDS
Sra Rita	SMI nurse Chitobe Health Centre
Sra Veronica	Midwife Chitobe Health Centre
Sr Amone	"Agente de Medicina Preventiva" Chitobe Health Centre
Sr Bernardo	Nurse Chipudje Health Post
Sr Lucas	First aid worker Chipudje
Balbina Armando	Nutrition animator Chitobe
Marta Issías	Nutrition animator Chitobe
Guressi Temoteo	Nutrition animator Chipudje
Lizbetti Lovemore	Nutrition animator Chipudje
Lídia Moisés	Nutrition animator Bassane
Luísa Maniceta	Nutrition animator Bassane
Nito João	Nutrition animator Bassane
Sr Temoteo	Husband Nutrition Animator
Sr Machobo	Community Health Coordinator, DPS
Leonor Umera	Responsable for Nutrition, DPS
Sr Madeira	Technician (projects), DPE
Sr Lasson	Program assistant, UNHCR
Meirinho J.C. Meirinho	Director, DPPCCN
Armando Cherene	Department of roads, DPOPH
José Luís Rodriguez	Department of roads, DPOPH
Sr Patel	UNICEF
Dr Albertino Jeronimo	Director, DPA
Jorine Muiser	Mozambican Health Committee

CARE STAFF

Scott Hudson	Manica Provincial Coordinator
Eduardo Telhano	FSCIR Project Manager
Luisa Antonio	Nutrition Education Coordinator
Luis Anly	FSCIR Assistant engineer
Inacio Arjuane	FSCIR Construction engineer
Carlos Zito Paulino	Former road rehabilitation monitor
Rob Smith	Emergency Water Project Manager
Ismael	Food distribution program
Merlina Damião	Supervisor water animators
Ester Joel	Supervisor water animators

COMMUNITY MEETINGS

Community meeting, Guezanhe
Meeting with former road workers, Fucazane
Community meeting, Chipopopo
Community meeting, Bassane

Womens groups:

Chitobe creche, 1st of May : 2 women
Chitobe creche, Cantinas : 4 women
Chitobe creche, Macundane : 4 women
Bassane creche and nutrition program : 9 women
Chipudje creche and nutrition program : 20 women

Construction Workers:

Bassane construction workers
Chipopopo (11 workers)
Chitobe construction workers (10 workers)

ABBREVIATIONS

DDE	District Directorate of Education
DDS	District Directorate of Health
DPCCN	Department of Natural Calamities and Disasters
DPE	Provincial Directorate of Education
DPS	Provincial Directorate of Health
DPOPH	Provincial Directorate of Public Works and Housing
FSCIR	Food Security & Community Infrastructure Rehabilitation
GTZ	German NGO
MADEST	Machaze District Emergency Seeds and Tools Distribution
MSF	Medicins sans Frontieres
PRA	Participatory Rural Appraisal
TBA	Traditional Birth Attendant
TOR	Terms of Reference
UNHCR	United Nations High Commission for Refugees
USAID	United States Agency for International Development

1. BACKGROUND

1.1 Project Background

1.1.1 Project Conception and Development of Proposal

CARE first worked in Machaze District in 1992 undertaking emergency distribution of food and seeds in coordination with the Department of Disaster Prevention and Relief (DPCCN). With the implementation of the Peace Accord in 1992 CARE saw the need to turn it's attention to development needs in the district, which were not being met by any other agency. CARE is the only NGO with a permanent presence in Machaze District.

In March-May 1993 CARE implemented a Participatory Rural Appraisal (PRA) in 4 communities. The communities selected were in areas of high population, and included the Bairro of Maguiguane in Chitobe (Machaze administrative centre), and the three rural localities of Bassane, Chipudje and Chipopopo. This PRA focussed on understanding the communities attitudes and practices with reference to agriculture and water, and to identify other problems faced by the communities. According to the documentation of the FSCIR project this PRA served as a basis for the project design of FSCIR.

The PRA showed the principal problem identified was overwhelmingly water and lack of seeds, with schools, health posts, transport, shops and mills also identified as problems in most cases.

The two major problems areas identified, water and agriculture, are not met by the project. In fact, three projects were conceived by CARE as a result of the PRA, the other two focussing on water and agriculture respectively. The agricultural project "Sustainable Agriculture in Machaze" has only received finance recently and is in the start up phase at the time that FSCIR is coming to an end. CARE implemented a project to rehabilitate existing water boreholes in 1993, which was followed by a major water project "Machaze Emergency Water Project" in May 1994. There has been an important connection between FSCIR and the Emergency Water Project as the latter has been dependent on FSCIR with respect of opening of road for water drilling equipment to pass. Emergency distributions of food and seeds have been taking place throughout the period of the project.

In evaluating the FSCIR project it is necessary to consider the project within the context of other work being carried out by CARE, because the stated project goal of food security cannot be achieved only by the inputs provided in FSCIR. The development of the project was strongly affected by funding considerations which is outlined below, resulting in a mismatch between the project name and goal and the project outputs.

1.1.2 Chronology of events effecting project definition

The original project was submitted to USAID and UNHCR in July 1993. Finance was received in August 1993 from UNHCR, but USAID did not support the project as submitted and a number of changes were incurred before it was eventually funded in December of that year...

As the first funding received from UNHCR in August 1993 included no salary costs, the project started up understaffed. USAID requested CARE to separate the components for seeds and tools distribution from the rest of the project, as these emergency distributions could be more easily financed by Quick Impact Project funds (QUIPS). The funding of this "Machaze District Emergency Seed and Tools Distribution" (MADEST) in September 1993 provided a logistics officer who also had the responsibility of FSCIR Project Manager. Consequently one person was responsible for managing the MADEST program as well as initiating FSCIR project activities for the first six months, until the funding for FSCIR was approved by USAID in December 1993.

The first FSCIR project implementation report covers a three month period from 1st July 1993, although the first funding from UNHCR started only on 15th August. The USAID funding was backdated to the 1st November 1993, and the evaluation terms of reference (TOR) indicates this as the project start up date.

The project submitted to USAID included the components for staff salaries and project infrastructure and operating costs, while most of the project inputs were to be financed by UNHCR, approved on a year by year basis. FSCIR had an 18 month operation life, which was later extended by 8 months to December 1995.

As a result of taking the seeds distribution component out of the FSCIR project, the project which was finally funded by USAID had no outputs which directly contribute to food security.

The goal of the project is now:

to improve the food security of a selected rural population of Machaze District in Manica Province through the development of a community based nutritional monitoring and education program and the rehabilitation of essential infrastructure.

As a result of the slow start of the project, and the more realistic expectations of project staff once on site, the outputs of the FSCIR project were revised in consultation with USAID in July 1994. The TOR of this evaluation is based on the outputs as defined from this date which are:

- 1) Rehabilitation of infrastructures including:
 - 7 schools,
 - 2 health posts,
 - 7 other community structures,
 - 150 km of dirt roads;

- 2) **Nutrition monitoring and education including:**
- **Community based food security monitoring system**
 - **A nutritional behaviour survey**
 - **A nutritional education program in three towns targeting 60% of mothers**
 - **60% of participants can identify malnutrition and treat it with locally available products**
 - **Two community animators trained in nutrition education**
- 3) **Community Organisation, including:**
- **Seven communities participated in rehabilitation activities, each providing 25-50 workers**
 - **Seven community organisations meet on a regular basis and deal with food security and rural rehabilitation activities.**

1.1.3 Staffing and Project Implementation

As the first Project Manager had the responsibility for MADEST as well as FSCIR, early reports indicate that the food distributions of the second half of 1993 were in fact undertaken under the FSCIR project. Food was distributed to 30,156 people in the district, and 13,605 families received "ag-packs" of seeds and tools before the end of 1993.

In the first two quarterly reports (from July - December 1993) only preparatory meetings concerning the identification of locations for the schools, health posts and roads were undertaken in relation to the outputs of the project previously stated.

With the funding of FSCIR by USAID, the full staff allocation could be recruited, and the management of the food and seeds distribution became completely separate from the FSCIR project.

Two new international staff were recruited in the first quarter of 1994, a road construction engineer, (in place of the planned logistics officer) and a community development specialist, (in place of the planned nutritionist), who would also work on community development aspects of the water project. National staff were also recruited in this period, including monitors of construction work and drivers. For the infrastructural components of the project the materials were ordered, and for the nutrition component a baseline survey was carried out in the first half of 1994.

In July 1994, the outputs of the project were revised, reducing the number of infrastructures to be built and kilometers of roads to be rehabilitated, and cutting out a component which was planned to develop information exchange between refugee camps in Zimbabwe and Machaze district.

A Civil Engineer Consultant was contracted to design the schools and health posts. He stayed for 4 months from the end of June 1994, then handed the work over to a Mozambican staff member. The

building designs were approved by DDE and DDS by September 1994. A Mozambican construction engineer was recruited to supervise the work during the construction contract period, from October 3rd to December 27th that year.

In summary, up until mid 1994, only preparatory work was carried out, and the implementation of major project activities started in the third quarter of 1994.

In 1995 there was a complete change of staff, and the project now has an all Mozambican staff. The expatriate roads engineer left in June 95, and her Mozambican counterpart continued the supervision until the road works were completed in August, and wrote the final report.

The expatriate Community Development specialist left in February, and a Mozambican Nutrition Coordinator was hired for the nutrition program, after which the nutrition education component started to be implemented.

As well, the current Project Manager replaced the expatriate Project Manager who had completed her contract of 18 months, taking over from 1st May after a handover period.

A no-cost extension, enabling USAID funds to be used for operational costs until August, was agreed in order to complete the project activities, and the final completion date was set for 31.12.1995.

In summary then the delay in project start up and implementation was related both to funding uncertainties and to staffing difficulties. It should be noted that Machaze district does not offer the easiest of conditions to work in, and CARE had to establish a base camp to operate in, resulting in very harsh conditions for the early staff members of FSCIR, living in tents with limited availability of food and supplies, and no communication by road possible. These conditions have improved during the life of the project.

1.1.4 Summary of FSCIR Funding

Table 1.1: Calendar of key funding agreements for the FSCIR project with donor agencies. Source: CARE

DATE	DONOR	ACTIVITY	VALUE (USD)
August 1993	UNHCR	-materials for community infrastructure and base camp; -two vehicles -agency operating costs.	N/A Note *
December 1993 Revised July 1994	USAID	-Staff Salaries, benefits and allowances; -direct operating costs; -construction materials; -office supplies; -transport costs; -professional services;	Revised to 1,025,219
May 1994	UNHCR	-Health post construction; -Schools construction; -Roads: Cash-for-Work; -Vehicle running costs; * -Agency operating costs.*	243,724
February 1995	UNHCR	-Health Post construction; -Schools construction; -Nutrition assessment; -Roads: Cash-for-Work; -Mine clearance contract; -Agency operational costs.*	280,049
April 1995	USAID	No cost extension agreed	-
Sept 1995	CIDA, Canada	Materials for community built schools and public structures	14,938
December 1995		End of project	TOTAL USD 1,563,930

Notes:

- * UNHCR funding included operational costs which were divided between the various CARE projects which operate out of CARE's base camp in Machaze. Values provided relate to direct project activities only.

1.2 Food Security Situation In Machaze District

1.2.1 The Concept of Food Security

The term "food security" was first introduced in the seventies to describe food stocks at a national level. Today the most common definition of food security is the World Bank's "access by all people at all times to enough nutritious food to lead a healthy, active life". In order to achieve food security, the following conditions must be fulfilled:

- Availability of food through markets and other channels. Food production, food aid and imports are determinative factors in this context;
- Stability of the amount of available foods: Capacity to anticipate and control variations in food stocks caused by climatological and economic fluctuations. Food storage plays a central role here;
- Access to food: Purchasing power, and therefore employment and income generating activities are important;
- Equity: Equal distribution within the household, which is partly determined by societal gender roles and social and cultural norms;
- Quality of food and diet: Preparation and processing of foods and composition of meals are important factors.

According to the Department of Nutrition of the Mozambican Ministry of Health, food security problems in Mozambique are caused not only by low food availability, but also by the incapacity of families to produce or obtain sufficient foods for the satisfaction of basic nutritional needs. In the Mozambican context, it is important to analyze urban and rural food security problems separately. In the rural areas of southern Mozambique, where agricultural production is relatively marginal, families face food security problems because of low food production, a weak commercial sector, minimal purchasing power and destroyed transport infrastructure. Where both climate and soil conditions are more favorable for agriculture, food insecurity is caused mainly by the lack of a functional market structure. Food insecurity in urban areas is seen by the Ministry of Health as a transitory problem resulting from a temporary incapacity of households to obtain sufficient foods as a consequence of continuous inflation and subsequent erosion of purchasing power.

1.2.2 Geographical and Population Characteristics

Machaze, the southernmost district of Manica Province, had a population estimated in mid 1994 as approximately 90,000 people. This number has now increased as a result of the return of refugees (see discussion below). With an area of 13,112 km², it is the largest district in the province. Machaze is divided into

two main administrative divisions: Chitobe and Save. It is further divided into six localities: Chitobe, Chipudje, Bassane, Tuco-Tuco, Chipopopo and Save. The district administration is in Chitobe. The locality centres are spread over a wide area up to 60 kms distant from Chitobe.

The war started in 1980-81 in this region, and lasted over 10 years. Roads were extensively mined, completely cutting off many communities from outside contact for most of this period. The population moved into the locality centres, which were circled by mines for protection, or they fled to Zimbabwe. In the "clustered villages", farming activities were limited to nearby lands, and even then people could only go into the rural areas accompanied by soldiers. The area was dependent on food aid for much of the war, and there were periods of severe hunger, and extreme difficulties in collecting water as many of the boreholes were destroyed. Almost all infrastructure, such as schools and health posts, was destroyed.

Table 1.2: Estimate of Population in localities in Machaze District. Source: UNICEF

LOCALITY	POPULATION June 1994	POPULATION May 1995
Chitobe - Sede	19,813	37,219
Chipopopo	10,960	14,940
Bassane	9,960	20,304
Chipudje	11,920	26,834
Mutefo	6,999	230
Save - Sede	13,127	19,968
Sambassoca	6,841	7,523
Mabzissanga	6,767	10,331
Mavende	3,500	4,834
DISTRICT TOTAL	89,887	142,183

According to official estimates, since mid 1994 approximately 32,000 people have returned to the district under the UNHCR repatriation program, plus an unknown number who have returned on their own. The official population estimate is now 140,000 (see table 1.2), although this figure is much debated within the international community, and there are allegations of families "returning" twice to the district to receive the UNHCR benefits twice. The food relief programs have come to an end for the resident population, with only returnees receiving food aid from the UNHCR program.

1.2.3 Ecological and Agricultural Characteristics

Machaze, Tambara, Guro and Macossa are the four districts of Manica Province that are characterised by semi-arid conditions and low food productivity. According to the Provincial Director of Agriculture, of these four Machaze is the worst off. When there is sufficient rain, staples like maize, sorghum, millet and beans are produced for subsistence needs. With the exception of the area bordering the river Save, only small surpluses can be produced even in good years.

Machaze has a critical water problem, with underground water being found at a depth of 60 to 120 metres, and no existing surface water except the rivers Save and Buzi at the district boundaries to the north and south. For the past five years Machaze has been in a crisis due to low rainfall resulting in little agricultural production.

Agriculture is characterized by subsistence and traditional shifting cultivation. Livestock production has not been a significant economic activity. The traditional farm plots - "machambas" - are used and owned by individual households, and are located both within and outside village settlements. By the end of 1995, farmers were re-establishing plots on ancestral lands, which may be very distant from the clustered village settlements and water sources.

The natural environment benefitted from the prolonged war and resulting abandonment of lands. Low population density has helped the current level of vegetation recover. However, the semi-arid conditions and arid tropical climate make the environment very fragile and sensitive to disruption, limiting agricultural production in the sandy soils. According to the "Rapid Livelihood Security Assessment", with a rapid increase in population and accompanying expansion of subsistence farming, the current level of vegetation cover is unlikely to be sustained.

1.2.4 Household Coping Strategies

Food aid has been one of the most important sources of survival during the prolonged war and the continuing drought. Because food aid is irregular, many inhabitants of Machaze district have resorted to other coping strategies. Not only have households cut down on the number of meals, they have also reduced the number of calories and nutrients per meal. Forest and wild foods serve as important life-supporting resources.

In the cashew season the population depend heavily on cashew trees for survival, using the nutritious fruit and nut to augment their meager diet of wild roots, leaves and fruits. In former days, hunting of wild animals was an important source of nutrition, but this now seems to be little practiced. Sale of cashew nuts and migration to South Africa for work in the mines and other industries are established means of supplementing income.

1.3 Methodology of Evaluation

The evaluation team was composed of a Rural Development Specialist and a Community Health Specialist. The terms of reference of the evaluation define "the assessment should be limited to proxy measures and observations that are linked to project outputs and account for the achievement of intermediate steps towards the project goal" (see annex 1). The evaluation focussed on community development issues, having no capacity to evaluate the technical competence of the construction work.

The evaluation team was briefed by CARE Maputo and by USAID, and studied the extensive project documentation. Two weeks were spent in Machaze District, and two days in Chimoio to talk with provincial government structures.

In Machaze the team met with the district government officials and UNHCR representative. A variety of meetings with the communities in which CARE works, including meetings with construction workers, womens nutrition groups and community meetings organised by the Locality Secretary or Regulo. Some individual meetings were held with Regulos and Locality Secretaries. As well, a number of market sellers were interviewed in different locality centres, and in Chitobe, a trader who has operated in the district since 1970.

The three localities of the pilot nutrition project were visited and meetings held with the women's groups and animators, and discussions held with the staff of the health centre and health posts on the work of the nutrition program.

The time available did not allow the team to see many of the tertiary roads which were opened by the project, nor to meet the communities involved which are very distance and dispersed. Priority was given to the organisation of community meetings in the locality centres in which the project has focussed its work. In the community meetings the team sought to obtain the community perceptions of the changes which had taken place since the PRA was undertaken in 1993, and the significance of those changes for the community, their feelings about their involvement in the project, and their views about CARE's contribution to the communities. It was difficult to maintain the focus on project activities because the communities, without exception, channelled the discussion to what they presented as the critical problem of hunger in the community, and to water supply issues related to CARE's water project.

One difficulty faced by the team was the lack of institutional memory of the project staff, as most of them have joined the project only this year. This problem was further compounded by the absence of the District Directors of both Health and Education who have been key partners in program development, as their substitutes did not have a good understanding of the processes which had taken place.

2 PROJECT OUTPUTS

2.1 REHABILITATION OF INFRASTRUCTURE

2.1.1 Rehabilitation of roads

A total of 150 km of secondary and tertiary dirt roads rehabilitated/opened.

At the start of the project, Chitobe was accessible only by air. Most of the population of the district had been completely cut off during the war due to extensive mining in the region. The roads component of the project aimed to open road communication to these communities, with specific needs in terms of enabling the food distribution trucks access, and also the drill for the CARE's "Machaze Emergency Water Project" which started in May 1994.

The preparatory work for the road rehabilitation program started in April 1994 following the arrival of the expatriate road construction engineer, and the construction work started in August. Initially the communities were visited by motorbike along established walking tracks, and the Regulo contacted to inform him of the objective of the project and obtain information about the number of residents in the area. A day was then set for a community meeting to discuss the prospective work and get their support for it. The first day of work was set at this meeting.

The first activity undertaken was to study the lie of the land and the location of landmines. Generally the line of the old road could not be used because of fear of mines and a new road had to be cut through the bush.

In May, four monitors were employed to provide guidance to the community workers. Each was allocated a work task in a different community, and they lived in the community supervising the road construction. The community provided housing, but monitors had to bring food which was scarce in the communities.

In the first phase of the program, community members who worked on the roads were paid through cash-for-work financing obtained from the UNHCR agreement of May 1994, being paid 8,000 Mt a day, for a fixed work task. The communities were asked to organise themselves in groups of 30, which worked on different sections of the road. In a number of communities we met with, a large part of the community had been involved in the construction, rotating the responsibility between work groups. This allowed the work and the benefits to be distributed between different members of the community.

Both men and women worked on the roads, fulfilling tasks which reflected their respective tasks in agriculture. Men cut through the bush with bush knives, and women followed up levelling the ground with a hoe. See table for numbers of people participating.

Table 2.1: Roads opened by communities in FSCIR's road component. Source: CARR

Note: Nos. of workers provided in the Final Report of the roads component.
(* Number of women not provided).

YEAR	WORK TYPE	ROAD DESTINATION & COMMUNITY INVOLVED	No. WORKERS per day (p.d.)	KM
1994	CFW	GUEZANHE (new road cut in places)	N/a	8
	CFW	BUTIRO (new road cut, old one demined & now in use)	N/a	13
	CFW	CHIPOPOPO	N/a	15
	CFW	MECUPE	N/a	14
	CFW	TUCO-TUCO (initial preparation - road company graded road mechanically)	N/a	9
	CFW	CHECHENI (upgrading of main road)	N/a	7
	CFW	SAVE ROAD (partial upgrading)	N/a	3
1995	CFW	FUCUZANA (upgrading of main road)	90 p.d. (6 women)	1.3
	CFW	GUEZANHE (upgrading of main road)	26 p.d. no women	2
	VOL	CHINAVANA (new road cut)	25 - 30 p.d. *	11
	VOL	MAMBONE (new road cut)	105 - 115 p.d. (65-72 women)	9
	VOL	CHITARE (new road cut)	55-65 p.d. (25-27 women)	10
	VOL	TEWERE (new road cut)	95-105 p.d. (30-35 women)	11
	VOL	MUMBO (new road cut)	45 - 60 p.d. *	10
	VOL	CHITONDO (new road cut)	60 - 70 p.d. *	7
	VOL	NHAMACHANO (new road cut)	100 - 105 p.d. (60 - 65 women)	9
	VOL	MUSSIMBE (new road cut)	13 - 16 p.d. (4 -6 women)	14
	VOL	CHIVAVISSA (new road cut)	N/a	8
	TOTAL		Average 40 p.d.	161

At the end of the work, a community meeting was held to discuss the work and future maintenance requirements for the road. The communities were asked to form an Executive Committee for local development activities, with a sub-committee for road construction and maintenance.

A significant part of the rehabilitated roads were cut parallel to the old roads to avoid dangers of mines. The existence of mines in most of the roads in the region, led to the need to secure de-mining in some specific sections of the roads, near to villages or crossing existing roads, before work could be completed. CARE obtained funding from UNHCR for a demining program specifically related to the projected work sites. A Zimbabwean company was contracted who carried out the work during March and April 1995. The work terminated with some Mine Awareness Courses being run in the locality centres where CARE is working. Almost as many mines were detected through this course as were in the major demining program. There were 212 mines and other items destroyed in the clearance program, and 211 located and destroyed through the public awareness program, a total of 423 mines and other ammunition.

In some cases the old road was later demined in the national demining program, and were again brought into use, being of better quality than the new hand cut roads. However a greater part of the roads cut through the bush are in areas not reached by the demining program, and continue to be the principal access roads.

The road clearing activities were coordinated with the needs of the borehole drilling campaigns of the water project, the first which took place in 1994 and the second in 1995. Unlike during the 1994 campaign, in 1995 most of the roads opened were on a voluntary basis. Only two communities received payment for the work they carried out, being for upgrading short stretches of main road near Guazanhe and in Faucazane. The rest were tertiary roads which were of direct benefit to the communities they opened access to. The major motivation for the roads from the point of view of the community was to resolve their problems of water, so project staff decided that where a road was to be opened to provide access to a drill site, the communities should provide free labour. The issue of voluntary vs. paid work is further discussed in "Community participation in construction work", section 2.3.1 below.

A few of the roads which had been planned initially were not undertaken. Sometimes the population in the region was much smaller than had been believed, thus the drilling of a borehole was not worthwhile. In others, according to the roads report, the participation in the road works could not be mobilised due to the problem of hunger in the communities, and the fact that the population were concerned only with searching for food.

The evaluation team was not able to visit most of the numerous and dispersed communities which participated in the road works, however the completion of the tasks is evident by the fact that boreholes were sunk in all end-point communities, and the Machaze Emergency Water Project Evaluation Report refers to 94.4 km of road that was opened to give access to the borehole sites.

The roads technician completed his final report and left the project with the target of 150 km of road met by August 1995.

2.1.2 Construction of Schools

7 schools rehabilitated and used for public education. Each school averaged 3 classrooms with an office for faculty and staff, access to potable water and an adequate number of latrines. Each school provided classes for an estimated 300 primary school students.

According to the DDE, only 3 schools were standing in the district at the end of the war. Most schools were operating in rudimentary shelters, under trees, or in borrowed buildings. Therefore the construction of new school buildings was a high priority in the district.

A total of 7 schools were constructed by CARE. The locations were identified together with DDE in the first quarter of 1994, and are located in areas of greatest concentration of population. Four are EP1 schools in the locality centres of Chipudje, Chipopopo, Bassane and Guezanhe. These have 3 classrooms each. They provide education only up to 4th grade except Chipopopo which also has 5th grade due to the large numbers of students which returned from Zimbabwe having completed 4 grade.

There are also two EP1s located in Chitobe, in the bairros of 7th April and Eduardo Mondlane, which have 4 classrooms each, and provide education up to 4th and 5th grade respectively. The EP2 in Chitobe Centre provides schooling for 6th and 7th grade students. With current numbers of students only 2 of the 4 classrooms will be used, but a 4 classroom school is needed to accommodate future needs. During the war, few children attended primary school, resulting in a very low number of EP2 students at this time. This is the only EP2 in the district, and therefore will receive students from all the district. It also requires a dormitory but funds were not available for this.

It was planned that the schools would be built exclusively with locally made bricks and using voluntary local labour. However it proved difficult to persuade the local population to work without payment, due to the poor harvest that year, and the other demands on their time for collecting water, wood and work in the fields. In the changes to outputs made in July 1994, the community participation for rehabilitation work was modified from "25-50 voluntary workers" to "25-50 paid workers". Funding for cash-for-work payments was obtained through UNHCR in May 1994.

With the late start of the project implementation, and the urgency of getting the job done before the repatriation of an estimated 40,000 refugees, CARE decided to contract out four of the seven schools to be constructed, the rest to be built under CARE supervision with community labour. A Zimbabwean company, BBC Construction, was contracted to build the four schools, these being the three based in Chitobe and one in Chipudje. The contract was signed in August 1994 for the value of US\$ 295,226, specifying a work period of 31.8.94 to 31.12.94. The works included in the contract were:

3 schools with 4 classrooms (in Chitobe)
1 school with 3 classrooms (in Chipudje)
4 deep water tanks
2 blair toilet (6 seater)
1 blair toilet (4 seater)
2 staff houses

The staff houses, tanks and toilets were later removed from the contract because UNHCR was forced to cut back on its funding commitments, principally as a result of the need to find funds for the Rwanda crisis. All projects which had not started implementation were subject to cuts, so funding for the schools remained but the other components (the staff houses, water tanks and latrines) were cut. The value of the contract with BBC was reduced by the corresponding amount. As a result, CARE took over the responsibility for directly constructing the staff houses, water tanks and latrines.

The remaining 3 schools, and all staff housing, latrines and water tanks (including for the health posts) are known within the project as "community structures" because they are being built by community labour under CARE supervision. Preparatory work on these schools started soon after the plans were finalised, but a number of problems were encountered which delayed work. These included:

- Water had to be transported from Chitobe to the construction sites in Bassane and Guezanhe. This was resolved with the purchase of a bowser with UNHCR funds. In Chipopopo, construction was delayed until a borehole had been drilled near the site.
- The communities demanded compensation for their work, and cash-for-work funds had to be obtained.
- Lack of sufficient skilled workers such as masons and carpenters.
- The locally made clay bricks were not sufficiently strong, so a cement block production unit was established in Chitobe for all community constructions.
- The production of cement blocks also became a problem as many forms purchased in Mozambique had been faulty, and new forms had to be ordered from Zimbabwe. Meanwhile construction work was held up due to insufficient cement blocks.

Eventually the first foundation blocks were only laid in February 1995. The three schools are currently at the stage of mounting the trusses for the roofs and are expected to be finished by January.

The construction company was not affected by the principals of using local labour and locally produced materials. It imported blocks made in Mutare, and recruited skilled labourers in Mutare or Chitobe, and transported them to the sites. Unskilled labour was easily hired locally. However the schools, which should have been finished in April, were only handed over in August. Even then, CARE was dissatisfied, with the work not coming up to

specified standard in a number of respects. In particular, the school windows were made of chipboard, quite inappropriate to withstand the high temperature and heavy rains which are common in the region. Some financial compensation was claimed by CARE for these failures. Before handing the schools over to DDE, CARE have undertaken to replace the windows with wooden ones.

Table 2.2: School constructions being undertaken by CARE.
Source: CARE

* Schools contracted out to BBC company.

LOCATION	SCHOOL	HOUSING	LATRINES	TANKS
CHITOBE Sede * (1st April)	Grade 1-4 4 classrm	-	6 hole	1
CHITOBE Centro (Missao) *	Grade 1-5 4 classrm	-	6 hole	1
CHITOBE * EP2	Grade 6-7 4 classrm	2 x large	1 x 6 hole, 2 x 1 hole	1
BASSANE	Grade 1-4 3 classrm	1 x standard	1 x 6 hole 1 x 1 hole	1
CHIPOPOPO (Mutanda)	Grade 1-5 3 classrm	1 x standard	1 x 6 hole 1 x 1 hole	1
CHIPUDJE *	Grade 1-4 3 classrm	1 x standard	1 x 6 hole 1 x 1 hole	1
GUEZANHE	Grade 1-4 3 classrm	1 x standard	1 x 6 hole 1 x 1 hole	1 with gutters
TOTAL	7 SCHOOLS	6 HOUSES	12 LATRINES	7 TANKS

National specifications require that every school has a water source, and in Machaze, where access to water is a serious problem, CARE committed itself to build tanks for rainwater catchment. In the case of the UNHCR funded contracted schools, these were built with asbestos roofs, even though asbestos rooves cannot be used to collect rainwater by policy of the Ministry of Health. The DPE did not appear to be aware of this policy. It is not clear why the change from zinc to lusalite was made, but it appears to have been a policy decision by CARE, and when the company transported zinc sheets to Machaze in October 1994, they were told by CARE to replace them by lusalite. As a result, the rooves cannot be used to collect rainwater.

The schools in Chitobe have access to the water from boreholes, particularly EP1 Centro which is adjacent to one. However there

are often long queues, as people come from up to 20 kilometers away to fetch water. Due to the general water scarcity in the District any opportunity to collect rainwater is taken, resulting in the widespread practice of construction of cisterns. The collection of rainwater from large zinc rooves would offer an important clean safe source of water.

Even where iron roofs are used, such as in the community constructed schools and the health posts, the tanks have been built at a distance of 6 metres from the schools and 3 metres from the health posts. CARE staff supervising the constructions informed us that this was because they are not planned to collect rainwater due to lack of funds for guttering, except at Guezanhe school and the two health posts. In the other schools, we were told that the community or students should carry water to the tanks, although clear in this case there is no advantage in having the tanks. As access to water is the major problems in Machaze, it a failing of the project management that due thought was not given to the use of the tanks in the design and implementation of the work. Later discussions with CARE in Maputo revealed that CARE is committed to provide guttering in all community built schools.

The latrines and tanks are all completed, and the teachers houses at different stages of construction. In Bassane where water problems are most severe the house does not yet have a roof. Most are only requiring the mounting of doors and windows, the false ceiling and painting.

The finished schools include blackboards, and desks/benches for the student which are being made by a carpenter in Chimoio.

The schools will start to be used in 1996 academic year which starts in February, and will be staffed by the teachers who are currently working in these schools which are operating in simple shelters or under trees. The DDE informed us that there is a shortfall in numbers of teachers required for the district of 45 teachers, out of a total requirement of 123 (36% shortfall), of which 15 are required for the CARE built schools (26% shortfall).

The issue of teaching staff was raised with the DPE we were informed that there is a shortage of teachers throughout the province. Teachers are trained in the teacher training college in Beira, in a three year course. This year Manica Province sent only 20 students to the teacher training college. There are currently 39 students from Manica Province in the third year, of which some will fail, and others will choose not to return to the province. With this very low number of teachers graduating each year, the need for new teachers cannot be fulfilled by professional teachers, and DPE is training 10th grade school leavers in a 15 to 20 day course as primary school teachers. Teachers who were working in Zimbabwe are also to be integrated into the system, but need to be retrained. The DPE told us that various NGO's have funded these teacher training programs in other districts, and it was suggested that if CARE could consider

funding short teacher training courses in Machaze it would help resolve the problems of teacher shortages.

Table 2.3: Numbers of students enrolled in 1995, and numbers of teachers existing and required for schools being rehabilitated by CARE. Source: DDE

SCHOOL	No. Boys	No. Girls	Total Students	No. teachers	Additional teachers needed
Chitobe - Sede	193	85	278	7	4
Chitobe - Centro	477	199	676	13	1
Chitobe - EP2	93	14	107	4	1
Bassane	164	57	221	5	3
Chipudje	234	74	308	6	2
Chipopopo	185	43	228	6	2
Guezanhe	-	-	250	3	2
TOTAL	(74%)	(26%)	2068	44	15

2.1.3 Construction of Health Posts

Two Health Posts rehabilitated and used by DPS to provide basic health services. Each health post has a consulting area, a locked storage area for pharmaceuticals, access to potable water, and a latrine. Each health post served an estimated population of 3,300 to 8,000 residents within 30 kilometres.

The project had originally planned to rehabilitate 4 health posts, but due to the late start and time constraints this was reduced to 2, and other international agencies took on the rehabilitation work of the others. In Machaze District, other agencies which have contributed to health post construction and rehabilitation are Finnida (the Health Centre in Chitobe), MSF (the health post in Chipudje), and GTZ in Save.

CARE's two Health Posts were constructed in Chipopopo and in Bassane, the sites having been identified with DDS in the first quarter of 1994. An activity plan was elaborated, but implementation was dependent on the completion of road rehabilitation for the transportation of construction materials.

The work was carried out under a contract signed with a Zimbabwean company, CBC (Chimoio and Beira Contractors) for the value of US \$47,612 in September 1994, which specified the work should be completed by 31.12.1994.

Reasonable progress on the health posts was made, in spite of some delays such as lack of water in Bassane, and the health posts were completed in April 1995, and handed over by the contractor to CARE.

At the time of the evaluation they have still not been handed over to DDS because the accompanying structures being constructed directly by CARE (staff house, latrines and water tank) are not yet ready. CARE is also providing sinks, and mosquito netting on the windows which are causing some problems because the window fixtures are not of the correct design for windows with netting. Alteration to these, and to some badly fitting mosquito netting windows are having to be made. CARE is working to rectify the problems before the official handover. The windows are the weak point in the structure with fixtures which are unlikely to resist strong gusty winds. In this respect the centre-hinged school windows are better.

The nurses for the health posts have already been identified, however DPS are awaiting the arrival of equipment for the posts. They will start functioning once the staff houses are complete and equipment is in place.

2.1.4 Public Structures

Up to 7 other public structures rehabilitated and used by the community for community purposes.

In the initial proposal, the public structures component envisaged the construction of small structures such as market places, community meeting places, seed storage etc. The idea of washing facilities near boreholes was also discussed, because women walk long distances to collect water, and take their clothes with them for washing at the water source.

After discussions with DDS and DDE in the 3rd quarter of 1994, and the reduction of funding by UNHCR affecting the construction of teachers houses, CARE decided that houses for the teachers and health workers should be construction under the output for public structures. Housing for nurses did not appear to have been considered at the initial stage and were included in later discussions with the DDS who said that they could not guarantee staffing for the health posts if housing was not provided. A similar position was presented by DPE concerning the teachers housing.

According to the mid-term evaluation: "The constructions of community structures will focus on wash stands in connection to water points, and staff housing for teachers. It is recommended

to reconsider rehabilitation of cisterns, as the need was prioritized by the women in 3 communities".

While housing for teachers and nurses were without doubt much needed, a house for the use of an individual or family cannot be considered "a public structure used by the community for community purposes" as defined in the output. The financing of these construction activities should have been under the health post and school construction outputs, not under public structures. The schools and health posts, and accompanying staff houses, are the property of the local government (they are being handed over to DDE and DDS) whereas such public structures would have been the property of the community.

The construction of public structures for community use, such as washing places, water cisterns or other inexpensive structures for which the community had stated a need, would have provided an opportunity for CARE to take part in a participatory process of project definition and implementation. It is unlikely such community initiated development activity would have faced the unwillingness of the community to provide voluntary labour as occurred with the other structures. Such activities would have provided the opportunity to develop a relationship with the community based on community needs, rather than the projects demand for participation in pre-defined constructions.

2.2 COMMUNITY ORGANISATION

2.2.1 Community Participation in Construction work

Seven communities participated in grant rehabilitation activities. Each community provided 25 to 50 workers.

Communities were involved in major construction activities in 5 communities (Chitobe, Chipudje, Bassane, Chipopopo and Guezanhe). Many more communities were also involved in road rehabilitation activities.

Initial plans to use voluntary labour as defined in the project description in December 1993 were revised in July 1994 to using paid workers.

Some analysis is required about what is meant by "community participation". There is no doubt that the community participated in the construction work, but there is a difference between the employment of community members and community participation. In discussion with workers at the school construction sites, the workers see the work as an opportunity for employment, and see no difference in being employed by CARE or by the construction companies except in that CARE offers lower wages for the same work. The project reports, however consistently refer to the use of paid community labour as "community participation".

In the road rehabilitation work there was more real community participation, because a large part of the community were involved in the road work, and so the work was distributed between community members. Unlike the school constructions, in the roads work the cash-for-work benefits were distributed through the communities rather than just employing a few regular workers.

In the roads construction, cash-for-work was used in 1994, but voluntarily labour was mobilised for most of the work in 1995. The staff who carried out the mobilisation believed that this was because cash-for-work funds were exhausted, but actually cash-for-work funds were obtained for the roads component in February 1995. In fact the project was committed to getting the communities to provide voluntary labour on the basis that the roads are for the communities own benefit, therefore they should participate voluntarily in the work.

Although this rationale has some merit in encouraging communities to assume ownership of the structures, in this case there were other factors which should have been considered. A lot of discussion with the community resulted from the difficulties they were facing concerning food. The government road rehabilitation program in the area paid by food-for-work, and we were informed by project staff and in community meetings that this was welcomed by the communities, and that some requested CARE to do the same. The work was taking place at a time that hunger, and the need to obtain some source of cash or food, was being widely expressed

the communities. It would be difficult for the population to understand why this wasn't implemented, knowing that CARE was the distributor of emergency food aid for the district. We were later informed by CARE in Maputo, that their experience of food-for-work is that it is logistically and administratively very difficult to set up, and that the decision was made not to use food-for-work for this reason, and because a preference for cash had been presented by the communities.

Finally some mention should be made of what kind of work the population can reasonably be asked to freely participate in. The road rehabilitation was carried out voluntarily because the community saw a very direct benefit - water. The work was hard, but similar to their own activities in opening machambas.

In the case of the schools and health posts two factors mitigated against voluntary participation. Firstly the benefits are indirect because these structures will not make a difference to their daily lives such as is the case with access to water or an increased income, and also the structures are government, not community property. Secondly they were not being asked to build according to their own knowledge and capacities, but to construct schools and health posts of a scale and sophistication unknown in the community. It is understandable that they would expect to reap some benefits in exchange for their labour in a project which so clearly indicates a substantial external financial investment.

2.2.2 Community organisations

7 community organisations (1 per community) met on a regular basis and dealt with food security issues and rural rehabilitation activities.

In all localities where the project is involved in building activities, community meetings have been held at various intervals, organised through the Regulo. These have generally been focussed on project requirements from the community. Only in Chitobe community meetings were not held, because CARE coordinates directly with the district structures. Also the schools in Chitobe were all contracted out, so discussions on community participation in the construction work were unnecessary.

Concerning the maintenance of infrastructures, no new community structures had been formed, rather the traditional structures were used. Regulos informed us that people had been delegated to look after the roads, and that the community would be mobilised to carry out necessary maintenance activities.

The regulado system is being used by the project to gain access to the communities. This traditional power structure has the Regulo at the top (a hereditary position) and various chiefs delegated responsibility for local policing activities and

reporting to the Regulo. There are no women in the traditional power structure.

The FRELIMO administrative system is also functioning in the locality centres, with the Secretary of the Locality playing an active role in local affairs. According to CARE's study "Rapid Livelihood Security Assessment for Machaze District" in April 1995, the regulado system has been gradually increasing its authority since the end of the war. In Machaze District most of the population are moving away from the locality centres, going back to their traditional lands in rural areas in which the Locality Secretary has little influence.

It was evident from various community meetings held, that the population are generally unwilling to talk in front of the regulo without his permission, that the regulos have a lot of power over their people. In a short period of time the dispersal of the population has led to a substantial increase in the influence of the traditional leaders. In Bassane, the locality Secretary had fled after he was mobbed during the distribution of food to returnees, because it was felt he was responsible for the resident population not receiving food also. We were informed that the root of this problem was the fact that the Secretary was not originally from this region. We were also told of several families were forced to return to their original lands by the traditional leaders, either by refusing them access to land where they had been living, or in extreme cases by burning down their houses.

While violence is on the increase, capacity to deal with it is breaking down. We met with the substitute Secretary and the *Chefe de Povoação* (Chief in the regulado system) who informed us that the judicial system has broken down because members of the tribunal now live so dispersed that it no longer functions. Instead, crime and domestic violence are dealt with by the traditional Chief in the rural areas. If the problem can't be resolved locally the police are informed (although they are no longer police based in Bassane) and it is taken to the tribunal at the district level. Clearly any possibility of questioning the authority of the chiefs is out of the question. It should be borne in mind that foreign organisations which bring wealth into the community can have an influence on the balance of power. For instance if only the opinion Regulo is sought, his power will be increased with respect to other personalities in the community, because he will have a voice about the activities to be carried out, and who will be employed in construction work etc. Thus, the need to establish community consultation must reach out beyond the traditional hierarchy, to enable all sectors of the community to have a say.

The development of "community organisations", therefore must ensure the participation of different sectors of the community, particularly women. The formation of new community structures will require a long process of dialogue, but in the long term it will be necessary in order to implement development activities with the principles of community participation and equality for women.

2.3 NUTRITIONAL MONITORING AND EDUCATION

2.3.1 Description of Activities

The Nutrition monitoring and education program of the FSCIR project was designed to consist of the following two activities:

- **Monitoring:** gathering information about the nutritional and food security situation in Machaze;
- **Nutrition Education:** design and implementation of a pilot nutritional education program.

Monitoring

A baseline survey of nutritional status and household sociological characteristics was conducted by CARE during February 1994 as part of the FSCIR Project. The survey indicated low rates of acute malnutrition, justifying the establishment of a food security system, to be implemented in coordination and cooperation with MSF-CIS. The data collection sites were Chitobe, Bassane and Save.

Nutrition education

A. Design

In November and December 1994 a KAP study was completed, the results of which were to be used to develop a pilot nutrition education program. This survey was conducted in the localities of Chitobe, Bassane and Chipudje, and investigated the following four areas of interest: normal food habits, breastfeeding and weaning, common illnesses and diarrhoea. During a workshop held in January 1995, the media to be used in the nutrition program were discussed as well as the development of monitoring and evaluation tools.

In February 1995 the nutrition coordinator was recruited and the community education supervisor position was terminated. The nutrition coordinator commenced work in March 1995, meeting with the community leaders and women of Chitobe, Chipudje and Bassane. The meetings were used to jointly identify and prioritize health problems.

On the basis of information gained from the community meetings, the KAP survey and the media workshop, the nutrition coordinator and the project manager designed the nutritional education pilot program. They selected mothers and children aged between 0-5 years as the target groups. The objectives of the program were identified as being to promote healthy child feeding based on local products and to educate mothers on relevant health issues, including breastfeeding, weaning, and prevention and cure of malnutrition, vitamin A deficiency and dehydration.

Each community was asked to identify 4 community health workers (animators) who would play a key role in the implementation of the nutrition program. In April, 9 women were selected: 4 from Chitobe, 3 from Bassane and 2 from Chipudje.

The intention was that every nutrition animator would pass the knowledge obtained during the training to 10 other mothers, who in their turn would pass their obtained knowledge to their neighbours.

B. Implementation

In April 1995, 9 community animators were trained in nutritional education by the CARE nutritional education supervisor. In July, 1995 they signed a terms of reference document outlining their responsibilities as community animators (see annex 2). At the time of the final evaluation it appeared that 2 of them had been fired because of bad behaviour and attitude. Migration was cited as the reason for another animator abandoning the program.

In August a Red Cross activist was asked to join the program and strengthen the program activities in Bassane. Because of his background, an individual training of one day by the nutrition coordinator was sufficient to bring him to the same level as his female colleagues.

The nutrition animators are supposed to execute the following tasks, as outlined in the agreement of July 1995:

1. Register the mothers reached by the nutrition education program;
2. Register the children between 0 and 5 years;
3. Identify the most common diseases in children aged between 0 and 5 years as well as the identification of malnutrition and dehydration in this age group;
4. Participate in the elaboration of material for the Nutrition Education Program;
5. Participate in the pretest of the elaborated material for the Nutrition Education Program;
6. After being trained by the Nutrition Education Program the nutrition animator is supposed to:
 - introduce her activities to the community
 - do home visits in coordination with the nutrition coordinator
 - write 2 reports per month about implemented activities
 - write a report for the nutrition coordinator according CARE's practices of participatory evaluation
 - assist the water project in preventing diarrhoea and scabies
 - participate in local surveys whenever taking place

As a compensation for their activities for the Nutrition Education Program the animators receive 200.000,00 Mts per month.

After the one week training in health and nutrition issues the animators were introduced to the community and started to work for the Nutrition Education Program with continuously supervision of the nutrition coordinator.

Most of them said to do the home visits early in the morning and sometimes late in the afternoon. It did not became very clear how often the visits were done and how many houses were visited each time.

In Chipudje there appeared to be a strong collaboration between health and the nutrition animators as some of the home visits were done together with the nurse working in the health post, which helped to define the health and nutrition problems detected more accurately as well as to answer them more adequately. Another positive point of this collaboration is the fact that the same messages were spread.

One important activity which was developed by the project and which does not appear in the terms of reference document is the establishment of 5 creches in the 3 localities of Chitobe (3 creches) Bassane and Chipudje (1 creche each).

The idea of creating creches was developed during community meetings in which women made clear that because of their workload their young children stayed alone most of the day without being carefully looked after. Many returnees from Zimbabwe were familiar with creches and it was decided that a creche could be a solution for this problem.

Therefore the communities were asked to organize themselves in such a way that participants could be identified and supervisory roles allocated, and the sites for the creches selected. In Chipudje a respected member of the community offered one of her houses to the creche. In Bassane the women running the creche built one by themselves. In the bairro 7th of April in Chitobe a tent donated by UNHCR was used as a creche till it was destroyed by the wind. In the creche near the "cantinas" in Chitobe a small house was offered, and in Maguiguane the men united their forces to build a creche.

In the morning women leave their children at the creche, where they are attended by mothers who do this service in turns. The women in service prepare an enriched porridge that at the end of the morning is served to the children present younger than 5 years of age. Older children and the women serving receive some food if there is enough to go around.

A demonstration about how to prepare enriched porridge was organized by the nutrition coordinator and the animators at the CARE compound and attended by the participating mothers. It was decided that foods for the porridge will be provided by CARE

since the food insecurity situation does not enable mothers to bring their own foods. The contribution of the mothers consists of firewood and water. Some utensils as plates and spoons were donated, but the quantity was not enough for the number of children attending the creches. Therefore mothers were encouraged to send their children to the creche with their own spoon and plate. This functions quite well. The creches still lack large pans to facilitate the preparation of enough porridge. Many children cannot be served due to the fact that the borrowed pans in use are too small.

In reality most of the time of the animators is spent in assisting the existing creches. They organize the ingredients for the porridge such as cereal flour, beans, oil and sugar that are stored at the CARE compound. These food items are provided by CARE and purchased locally if possible. Twice or more a week the maize is brought to the mill to be ground. At the creches the animators assist the preparation and distribution of the porridge.

The creation of the creches was also used as an opportunity to start vegetable gardens. During the training of the nutrition animators a vegetable garden at the CARE compound was developed that serves as a demonstration garden.

Seeds were distributed and with the help of an extensionist vegetable gardens were created nearby every creche. Unfortunately the lack of water, the burning sun (during our stay temperatures have risen till 47°C) and the hungry goats made that the initiative failed and none of these gardens developed itself to the stage of production.

Another recent activity, not mentioned in the terms of reference document, is the participation of the animators in the child to child program. The objective is to teach children some basic principles about health and hygiene to enable them to look better after themselves and their younger brothers and sisters. The target group of the child to child program is school children of Chitobe, Chipudje and Bassane. The role of the animators is to provide a short lecture at the primary schools in their area of supervision in the form of a story, theatre, drawing or song about health, hygiene and nutrition. These lectures are prepared together with the nutrition coordinator.

2.3.2 Fulfillment of nutrition program outputs

Output 1: *Community based food security monitoring system established and used to target grant nutritional education inputs. CARE referred children identified as acutely malnourished to District Health Services and targeted their families under nutritional educational program in communities where it is implemented.*

This output is one of the revised statements proposed in July 1994 after discussions with the project staff and therefore started to be implemented in the remaining project time period from August 1994 onwards.

In order not to duplicate efforts it was decided to use the food security monitoring system developed by MSF-CIS. While the primary objective of instituting the system was to strengthen CARE's programming capability in the district, the data at the same time would be used to support the MSF-CIS coordinated national monitoring system. Two CARE staff attended a formal MSF-CIS training in data-collection, after which three sites - Chitobe, Bassane and Save - for data collection in Machaze district were chosen. Data collection started and CARE appeared for the first time in the CIS bulletin as a reporting agency. In August 1995 two CARE staff of which one the nutrition coordinator attended again a formal MSF-CIS training to be able to do the data-collection for the revised MSF-CIS food security monitoring.

In practice the monitoring never passed the stage of data collection, which already was a rather time-consuming activity. The following obstacles limited the analysis at district level to take place: the data itself is too complicated and extensive for the level of the data collectors. At the other hand the MSF-CIS monitoring was designed to meet their specific goals and objectives which were very different from CARE's necessities and therefore the use of the MSF-CIS format was never successful in achieving the output of the FSCIR project.

With respect to the referral of malnourished children to the district health services and the admission of their families in the nutrition education pilot program the following remarks can be made:

- During the training of local nutrition animators in April 1995, it was explained to them how they could identify the two forms of severe malnutrition - marasmus and kwashiorkor - as well as how to recognize and treat diarrhoea, dehydration, Vitamin A deficiency, conjunctivitis, malaria and scabies. They were also instructed to explain to the mothers of malnourished children the importance of enriched porridge and a balanced diet, as well as how to prepare these dishes. In cases of diarrhoea or dehydration they were to talk about oral rehydration therapy (ORT). In both situations they were to try to convince the parents to go to the nearest hospital. The animators filled in a form on a monthly basis detailing how many cases of malnutrition and dehydration they encountered, as well as diseases in children aged between 0 and 5 years. With these efforts a collection of data has been undertaken in parallel with DDS data collection.
- There were no statistics kept that could distinguish mothers of malnourished children identified by the animators from other mothers registered by the program.

Table 2.4: The cases of malnutrition reported by the animators, compared to the cases that appeared in the hospital. Source: CARE and DDS.

Month	Number of cases registered by animators	Number of cases registered in hospital
May 1995	9	1
June 1995	2	2
July 1995	13	0
August 1995	0	3
September 1995	3	3
October 1995	0	3
Total	27	12

At this moment it is difficult to say if and in which extent the animators have been able to refer malnourished children to the district health services. First because the animators do not appear to be able to identify sufficiently well the different types of malnutrition and to understand the appropriate responses to it. Second in the cases they would have recommended to take the identified malnourished children to the hospital this would have caused problems as in the period of implementation of the nutrition program the district health services suffered from a serious lack of products and had great difficulties in providing the right treatment for malnutrition. Third, there did not seem to be a good collaboration between the district staff responsible for nutrition rehabilitation and the nutrition animators. This could be another reason for the fact that it was not possible to confirm if the registered cases of malnutrition in the hospital were sent by the animators.

Output 2: *One nutritional behaviour survey completed in at least three communities and used in the development of a pilot nutritional education program and for activity monitoring.*

A KAP study was conducted during two weeks in late November and early December 1994. It took place in the three sites chosen for implementation of the pilot nutrition education program: Bassane, Chipudje and Chitobe. Together with the analysis of the results of the survey messages and messengers to be used in the pilot program were identified and discussed with the DPS. During a workshop held in January 1995 the media to be used in the

nutrition program were discussed as well as the development of its monitoring and evaluation tools.

In March 1995 together with the recently selected nutrition coordinator information and experiences obtained during the survey and media workshop were used in the development of the pilot nutrition education program that started implementation in April 1995 with the selection and training of the nutrition animators.

Output 3: One nutritional education program developed and implemented in three Machaze district towns which reached 60% of targeted mothers.

For a number of reasons, it is difficult to state with any certainty that 60% of the targeted mothers is reached by the nutrition education program. First, it appears that a realistic estimation of the number of mothers in the pilot communities was not made prior to initiating the program. Second, the program failed in keeping reliable statistics of the number of mothers reached. Third, over time families have become more and more dispersed, which probably changed the number of families in the pilot area. Fourth, due to their heavy workload, women although being interested have little time left to participate in the nutrition program activities.

In principle the nutrition animators are supposed to register the number of mothers they encounter during the homevisits in their areas of supervision. Although homevisits may at first appear to be a good idea, for the following reasons stated below, it is clearly not an easy job for the animators and questions can be made if homevisits are the most appropriate way of registering mothers reached by the program:

- Families are spatially very dispersed;
- No transport is available;
- Many women spend most of their time outside: they leave their houses early in the morning and return late in the day or at night;
- The nutrition animators have their own machambas and domestic tasks, reducing the time they have available for the nutrition education program;
- Half of the nutrition animators are very young women, not yet married and without children, which means that they are not viewed as very respected persons in their communities; their task of teaching health and nutrition is made difficult not only by their lack of formal training in health and nutrition issues but also by their low social position.

Therefore it was difficult believe that the numbers reported by the animators, for instance Chipudje October 1995 250 visits done, were valid.

Output 4: 60% of the mothers who received nutritional education are able to identify malnutrition and know how to treat it with locally available products.

It is difficult to assess whether or not this output has been realized. The critical food situation in the district means that there are very few "locally available products". Other factors include the following:

- The nutrition animators, who are the key-persons in the transmission of nutritional messages to the community, do not appear to clearly understand the different types of malnutrition as distinguished from dehydration, since in the Ndau tradition malnutrition is not seen as a clinical condition resulting from a severe depletion of energy and nutrients.
- Severe malnutrition is a very complex and serious condition and requires medical treatment. According to the norms of the Ministry of Health, severe malnutrition can never be treated solely at home since nutritional rehabilitation is only a part of the treatment. The first phase of the treatment consists of the administration of "LOA", a energy and protein rich mixture of milk, oil and sugar. When no "LOA" is available a substitute of "LOA" should be prepared following the instructions of the Ministry of Health (See "Alternativas de Substitutos de "LOA" in Intervencoes Nutricionais em Situacoes de Emergencia", Ministry of Health, 1992).
- Malnutrition is certainly not caused only by nutritional factors. In many cases political, social and economic factors and other health-related problems such as malaria, diarrhoea, intestinal parasites, measles etc. contribute to the incidence of malnutrition. In emergency situations, it is normally the unavailability of foods that leads to malnutrition, but this is not always the case, and care must be taken to not attribute malnutrition to just one factor and ignore the others.

In June 1995 a small evaluation was done by the nutrition coordinator in order to be able to check the impact of the nutrition and education program activities. Women were asked to respond questions about nutrition-malnutrition, dehydration-rehydration, diarrhoea and hygiene.

Unfortunately it was not possible to check what had been done as only a very brief summary of the results was available which did not specify the different messages evaluated and answers given. Therefore it is recommended that for future work and impact studies in the area of health and nutrition more detailed information will be kept and assistance by experienced evaluators will be asked (for instance MHC-Chimoio) in order to obtain more valid information.

Table 2.5: Results of an evaluation on nutrition education by the nutrition coordinator. Source: CARE

Locality	Number of ♀ involved	% of right answers
Bassane	30	83
Chipudje	100	80
Chitobe	270	89
Total	400	86

Output 5: *At least two community animators trained in nutritional education. These trainers organized and carried out the nutritional education programs for the 60% of targeted mothers.*

Of the 10 community animators trained by the nutrition education program, 7 are currently working (2 in Chitobe, 3 in Bassane and 2 in Chipudje). They all work in close coordination with the nutrition coordinator and are the key-persons in the implementation of most of the activities elaborated by the nutrition education program. However they appeared to show little initiative and to be heavily dependent on the ideas of the nutrition coordinator. Without her insistence and constant supervision and stimulation probably little would have been achieved.

In May 1995, the pilot nutrition education program registered 230 participants of which 98 came from Chitobe, 62 from Chipudje and 70 from Bassane. According the nutrition education program monthly balance report of october the number of mothers registered by the program increased till 3213 of which 2825 lived in Chitobe, 163 in Bassane and 225 in Chipudje. Although some questions can be made about the validity, the increase in numbers certainly shows that the nutrition coordinator and the animators are well known persons in the pilot communities and their activities are accompanied by a great number of women.

3 IMPACT AND SUSTAINABILITY

3.1 Food Security

The extent to which CARE's assistance resulted in better food security for the targeted beneficiaries, including returnees from Zimbabwe. This should be undertaken in terms of alleviation of food insecurity as expressed by beneficiaries, such as the development of commerce and local markets, the availability of agricultural inputs and food stuffs and the access to food commodities.

The availability of food through markets and other channels has clearly increased now the major vias of communication have reopened and Machaze is no longer an isolated island accessible only by airlifts. However the amount of food available through markets and agricultural production does not yet satisfy the basic nutritional needs of Machaze's inhabitants, especially those living in the more remote areas. In most communities no maize or other basic foodstuffs were available for sale, and where it is it is at a high price, 35,000 Mt for a tin measure, compared to 25,000 Mt outside the district. Some local traders are benefiting from this situation. In Chipudje market a young returnee had bought a sack of maize from Mossurize District, which was sold for cash, or in exchange for cashew nuts which is the only commodity which many families have for exchange. In Bassane another young returnee had opened a small shop and cafe offering milk tea and bread which he made at home. He said custom was good because a lot of people were hungry as there was no food available in the community.

Since the war years food aid has been an important source of food in Machaze. According to the communities, once the returnees returned from Zimbabwe in mid 1994, the resident population was cut from food aid distribution by UNHCR, and only returnees received food. The policy of the World Food Program is to provide food to all "affected" populations, but that of UNHCR is to only provide food to returnees. According to UNHCR, reports were provided on the large numbers of "affected" people needing food in Machaze, but the food stocks provided by WFP in the second quarter of 1995 were only sufficient for 21,000, considerably less than the total number of returnees.

Household coping strategies, such as the collection of wild foods, is the key means of survival. Chronic household food insecurity is caused by poverty, and low purchasing power. Poor households, often headed by women, do not have the necessary means to secure access to food, even when food is available in local markets. Many desperate women expressed their belief that the only way to survive was to make the long trip on foot to Mossurize district where they hoped to find some work in exchange for food.

In the short term, at least until the next harvest, food scarcity will continue to be a problem, which can be alleviated by the

distribution of food and seeds, the focus of CARE's Seed and Tool distribution program. In the longer term, in order to increase their ability to acquire foods that are available in the markets and from other sources, households must be encouraged to develop their own forms of sustainable agriculture and income-generating activities.

3.2 Rehabilitation of Infrastructures

3.2.1 Impact of Infrastructures

The impact of the project relative to the needs of the total population of the District, including returnees. This should be undertaken in terms of usefulness of project activities as expressed by communities; purchases made with earning from cash-for-work schemes; women's involvement in these activities; the development of commerce and local markets; and the availability of agricultural inputs and foodstuffs.

When the project started, most communities in the project area were completely isolated. The opening of major vias of communication has brought the benefits of transport, bringing goods into the community and offering the possibility of transport to the hospital or markets in the district centre and elsewhere.

This has enabled trading activities to start in the larger population centres. The markets sell mostly products bought in Zimbabwe, the most common items being varieties of soap (bath soap, bar soap, washing powder), radio batteries, sugar, and sometimes other goods. In Chitobe the range of goods was wider with a number of returnees from Zimbabwe having brought fridges and offering cold beer and soft drinks. Such a service was not available at the time the project started, having been initiated mostly by returnees who came in mid 1994.

Many of the roads rehabilitated by the project were tertiary roads. The benefit of undertaking this work was seen by the population to be access to open up access to vehicles as well as to allow the borehole drilling rig to pass. As yet commerce has not developed in the remoter areas, having only become established recently in the locality centres. In the remoter areas traffic is mostly limited to vehicles of migrant workers in South Africa who came from the area. As a result of lack of agricultural production over the past two years, the local economy is very depressed and these migrant workers are the main providers of goods and wealth into the communities. That their cars offered paid rides to the local centre was seen as a significant benefit.

For both the government and the population, the reconstruction of schools and health posts which had been destroyed during the war was of great importance. The sites chosen, in the main

locality centres were the areas of greatest priority because the largest communities would benefit from them.

According to most workers on the construction sites, their purchases made from earnings of cash-for-work were exclusively food. Only one man said he had bought a radio, a few had bought some clothes, but the majority had not bought anything bigger than a bar of soap in terms of consumer items. Amongst the road workers, the short term nature of their work (normally a few weeks) meant it was no more than an opportunity to buy food and some salt or soap.

Few women were employed by the construction work, only earning for limited periods in some of the cash-for-work roads. In some communities women complained that they were denied the chance to work on cash-for-work, while in the voluntary road work women generally made up a significant proportion of the workers. As there was no financial benefit, men did not reserve the work for themselves.

In the construction sites the only jobs allocated to women were the production of clay bricks, as women traditionally do pottery. After a month's trial these local production sites were abandoned in favour of cement blocks made in Chitobe. Thus the only women employed in the school construction lost their work and no other roles were allocated to them.

The selection of workers was made by the Regulo in some cases, while in others the prospective workers approached CARE (or the company) directly. In one meeting the women told us that the Regulo did not allow women to obtain work on the construction sites. Women in Machaze do heavy labour daily. Women carry 20lt cans of water for up to 30km. They walk three days to Mossurize District, work in the field in exchange for food, and return home carrying 40kg of maize. Men go only if they have a bicycle, as they are not capable of carrying such a weight that distance according to the women. Women, then, cannot be refused work on building sites as a result of being too weak. They were not employed due to traditional attitudes which consider paid work as men's work rather than women's. A large proportion of households are headed by women, and they need the work as much as any male head of household. An organisation such as CARE should ensure women have the chance of employment on community projects, by developing community consultation structures that do not rely exclusively on the heirarchical traditional structure in which women have no voice.

During the project there was considerable discussion about the relative merits of voluntary work and cash-for-work. Although it was proposed in the original project document, the alternative of food-for-work was not mentioned in the project reports. According to CARE staff in Maputo, the food-for-work was seen as being too logistically difficult to implement, while project staff on site informed us that the food-for-work option had been dismissed because all families were receiving food aid, although this does not appear to have been the case. As the receipt of

cash also had a disadvantage in that food was not available for sale at a reasonable price in the district, so workers or their wives often had to travel several days by foot to Mossurize District to buy food, food-for work may have been a good alternative.

3.2.2 Maintenance of Infrastructures

The ability of communities to continue rural rehabilitation and community organisation activities after CARE's departure. This should be undertaken in terms of the information flow among community groups, expressed role of community groups in these activities, and plans and resources for these activities.

In the meeting that the project held in the communities during the work process, they committed themselves to maintain the roads. The degree to which this is done will probably depend on the amount the road is used, and whether it is seen as an advantage to the community to keep the road maintained. The work can be done using the bush knives and hoes which they have for their agricultural work.

The rehabilitation of schools and health posts were seen as important by the population, but these were not yet functioning so some communities felt it was too early to discuss maintenance procedures. However, the project has been involved in a process of dialogue with the communities about the maintenance of the infrastructures, and they were aware of the expectations of them. As well, the UNHCR has been holding meetings with Regulos in order to encourage them to take responsibility for the numerous structures which have been built throughout the province (mostly with UNHCR funds). They are satisfied that the Regulos have a commitment to the maintenance of buildings and roads.

The provincial government believes that the community should take responsibility for infrastructures because the government does not have the capacity. However, the capacity of the community must also be considered. While a school of locally constructed materials may be maintained easily by the community, is it capable of maintaining structures such as these, requiring cement to maintain walls and hinges and catches to maintain doors and windows? The issue of paying a guard for the school was also raised, (the guards are currently paid by CARE). It was suggested that the community could obtain funds for this by selling chickens, however contributing money to the employment of an individual to guard the school is not of direct benefit to them, and it may be a significant risk to sell chickens which effectively represent the only savings that most families have for times of need. The CARE water project has shown that mobilisation of funds is possible in the communities, and in this project communities were required to collect a maintenance fund before construction of the borehole. Substantial funds were raised for this, as a means of resolving their serious water

problems. The need for a school guard, which is also an ongoing cost, may not be given the same importance by the community.

The DPE felt that this school would need less maintenance than other rehabilitated schools which were built to a lower standard. While verbal agreements have been obtained from the communities as to their commitment to maintaining the structures, it is likely that for this to take place there will need to be continued dialogue as well as material support. After the departure of the donor NGO some effort will be needed in the development of relations, for instance between the teachers and the community, and a common understanding of where responsibilities lie. This might require the issue being included in teacher training programs to sensitise the teachers about their roles as community mobilisers, an issue that CARE may need to raise with the DPE.

3.2.3 Project Cost Effectiveness

The projects's cost effectiveness. This should be undertaken in terms of time saved for agricultural production due to inter-community transport and communication, comparison of the costs for contracted versus community construction, savings in future community development costs realized through experience gained from participation in these activities, and savings due to availability of local agricultural inputs.

In the context of limited agricultural production in recent years it is not possible to quantify any economic gains to the communities as a result of the roads network. However access has provided greater opportunities to market cashew (the main source of cash income) and for workers in South Africa supply their families with food and household necessities.

Concerning the school and health post constructions some comments can be made on cost-effectiveness. The quality of the structures is very high, and according to the DPE these are the best primary schools in the province. Within the international community, including CARE staff, there is the feeling that the schools were built to too high a standard for the requirements. Clearly the question asked is: couldn't more lower quality schools have been built for the same amount? While the answer is inevitably positive, it must be borne in mind that the project document clearly states that "7 schools will be built". Within that context the education directorate tried to obtain the best schools possible, as the choice of more lower cost schools was not offered. In fact, there are a number of approved school plans of different levels produced by the Ministry of Education department responsible for school construction, but the DPE informed us that these were out of date, and that they considered the CARE design better. The technical department of the DPE believe that CARE's design should become the model for school construction.

We were informed by the DPE that the negotiations about the design was up to the DDE, which is surprising considering the DPE has a department specialising in school constructions, while the District Directors have no specialised knowledge of construction or the factors that need to be considered in the design. According to CARE opinions were obtained from DPE, UNHCR, GTZ about the design.

In terms of quality of the structures, it is not possible to make a comparison between the contracted and community built schools due to the different stages of construction, and the lack of technical expertise within the evaluation team. There is a comparison to be made in terms of costs between the contracted schools and the community built schools, the 3 classroom block built by the contractor costing US\$ 53,177 while the community schools are calculated by CARE to have cost US\$ 35,862, a saving of 33%.

In non-financial terms, the advantages of community built schools compared to contracted schools may be less significant than expected. Interviews with labourers at the construction sites showed that the community see the construction company, and CARE, as a source of employment in much the same way. In terms of their expectations for future CARE activities, these were focussed on the idea that "CARE should bring more projects so that we can be employed". Their primary motive for participation was because they needed a salary, not because they were involved in a community activity.

Asked how they would use their skills gained in the project activities, most of the workers said they were planning to look for other work at the end of their contracts, in Chimoio or other cities if it is not available locally. Others were planning to go back to work in their machambas. None of them suggested any initiative in terms of starting up some small business or service in Machaze district as an alternative to paid employment. It seems unlikely that the community will initiate other development activities such as these on the basis of the experience, because the materials used in these constructions are not locally available or affordable.

3.2.4 Environmental impact

The environmental impact of the rehabilitation of infrastructure and road rehabilitation activities. The assessment should follow the guidelines contained in the CARE/USAID grant agreement for USAID supported outputs.

In the rehabilitation works implemented, as much as could be determined by the evaluation team, CARE fulfilled the terms of the USAID Environmental Impact and Mitigation Guidelines, except in consideration of the following:

- 1) In the UNHCR funded contracted schools asbestos rather than zinc roofing sheets were used, with the consequence that drinking water cannot be collected from these rooves.
- 2) Existing roadways were not followed due to the fear of mines, and awaiting the national demining program would have delayed both the road rehabilitation and borehole drilling programs.
- 3) The Tuco-Tuco road was cleared by CARE by hand prior to the entry of Ploughboy road company heavy equipment. This was not paid for by CARE and therefore not within the program although the road is included in the list of roads opened by FSCIR.

3.2.5 Coordination with government structures

The degree of coordination between the provincial and district government authorities and the implementation of project activities. This should be undertaken in terms of the knowledge about infrastructure activities, expressed usefulness of these activities, and existing and future resources for these activities.

Meetings held with government structures at the provincial level revealed a high degree of autonomy given to the district level government.

In the school rehabilitation program, plans are drawn up at the district level, as already mentioned, and are approved by the DPE. The technical department responsible is little in touch with the various issues which have been discussed concerning the schools, and the sites have never been visited by DPE.

The road rehabilitation program falls under the Directorate of Public Structures and Housing (formerly Construction and Water). In Machaze there is a technician who is the representative of the district office of Mossurize district. There is no office in Machaze District. We were told that CARE had consulted the provincial level at the planning stage, but current staff of the Road Department did not know of the road works carried out, and said they were only concerned with primary roads. Secondary and tertiary roads are seen as a responsibility of the district administration. They had no knowledge of the technician based in Machaze, and asked for information about the work done to be forwarded to them.

Of the three directorates with responsibilities for project rehabilitation activities, only the Directorate of Health was in touch with the issues. Not only were they well aware of the status of the work carried out, but also asked for closer collaboration with CARE in order to integrate CARE's work more effectively into the provincial health program.

3.2.6 Project Management

The ability of project management to implement and monitor project activities with participating communities.

The FSCIR project has developed good relations with the communities in which it works, particularly since the new Project Manager started. One of the factors which has maybe limited the development of better dialogue with the communities has been the considerable number of project staff which have been involved in the project, and the project by project approach of CARE. The road rehabilitation, infrastructure construction and the nutrition program have all had their own planning and community consultation process. As well, the Machaze Emergency Water Project, which also works in the same communities, operates quite separately, and the food distribution program has yet another management agenda. In one project coordination meeting we attended, in which few community leaders were present, we were told that they were attending another meeting being held by the the CARE water project. The community liaison processes by CARE should be coordinated so that community leaders, who often have to come long distances to attend the meetings, are able to discuss all their various concerns at the same time. It is the community that has to accommodate CARE's many demands on their time, rather than CARE establishing structures which better meet the communities needs. Our experience was that in community meetings FSCIR staff is not able to give information about when food distribution, or water pump maintenance may be planned in that community. To the community, CARE appears as a massive bureaucracy in which one arm doesn't know what the other is doing, whereas all these activities are managed by a small team of people operating out of a very compact base camp. More coordination should be done.

3.3 Nutrition Monitoring and Education

3.3.1 Better Health and Nutrition

The extent to which Care's assistance resulted in better health and nutrition for targeted beneficiaries. This should be undertaken in terms of determining characteristics of the participants in the nutrition education program.

One of the strongest activities of the nutrition education program was the assistance in organizing creches. The initial idea was to create a place where children under 5 years of age could be looked after. However, the creches have turned into supplementary feeding centres where mothers take turns to prepare enriched porridge for their hungry children.

The creches have met a real community need. The feeding component serves additional objectives beyond merely improving food consumption, such as the formation of community women's

organisations in which some key problems can be dealt with. The creches are good meeting points at which mothers can be reached and nutrition and health messages can be spread.

3.3.2 Impact of health related outputs

The impact of the health related outputs relative to the needs of the total population of the district, including returnees. This should be undertaken in terms of usefulness of project activities as expressed by communities.

At the time of the evaluation, the immediate needs as expressed by the population of Machaze were water, food and seeds. The planting season had just started, and the communities' main interest was in obtaining food to meet immediate needs and seeds to establish security for the future. The health-related outputs of the nutrition program clearly did not correspond to these needs. As mentioned in chapter 2, the objectives of the nutrition program are to promote healthy child feeding based on local products and to educate mothers on relevant health issues, such as breastfeeding, weaning, prevention and cure of malnutrition, Vitamin A deficiency and dehydration.

In general, where there were creches established the community showed satisfaction with the initiative and stressed the importance of the food served. However, it appeared that the people had difficulty understanding why only children below 5 years of age could benefit, since according their opinion every child was hungry and should benefit from the porridge served in the creches as in many cases it would be their only meal of the day.

In almost every creche visited, children above 5 years of age tried to intervene at the moment of serving and eat the porridge destined for a much younger child unable to defend itself. They were often successful. Since many children attend the creches it is difficult for the mothers in charge (normally not more than two) to control the situation.

In spite of this difficulty, the mothers were pleased with the creches, and where none were functioning - for example in Chipopopo - mothers asked for them to be established.

3.3.3 Nutrition Program Cost Effectiveness

The nutrition monitoring and education activity's cost effectiveness

Compared with the other activities in the FSCIR project the Nutrition Education Program involved little cost as shown in the table below.

Table 3.1: FSCIR: Cost Breakdown by Activity. Source: CARE

BUDGET ITEM	General Project Costs*	Health Posts	Contracted Schools	Community Schools/structures	Road Rehabilitation	Nutrition program
Personnel Costs	461,968			8,978	32,850	6,332
Travel & Direct Costs	183,613			8,803	9,398	
Equipment /supplies	253,086	47,612	226,816	54,862	140,700	
Training						5,010
Admin etc	51,489					
SUB-TOTAL	950,156	47,612	226,816	72,643	182,948	11,342
Agency costs	72,413					
TOTAL USD	1,563,930					

Note*: 35% of costs of CARE's provincial office in Chimoi are covered by the project.

Most education material used was locally made, and consisted of paper and pencils. The nutrition animators received a small kit of reference material containing a few brochures from the Ministry of Health and a manual from the Red Cross, all of which had been provided free of charge. The salary of the nutrition coordinator and the animators is the main cost of the program.

Although the cost of the nutrition education and monitoring program was very low, it made a significant contribution to the overall impact of the FSCIR project.

3.3.4 Sustainability

The ability of the district health services together with communities to continue nutrition monitoring and education and community organization activities after CARE's departure. This should be undertaken in terms of information flow among DDS and Community groups and animators, expressed role of community groups in these activities, and plans and resources for continuing activities.

With respect to the MSF-CIS monitoring, the nutrition coordinator plays a very vital role in data collection. Seen the complexity of the data, the necessity of transport to be able to reach the sites of data collection and the fact that nobody outside CARE has received a formal MSF-CIS training in data collection the

future of the MSF-CIS food security monitoring is not very secure. In addition the future and existence of MSF-CIS itself is being discussed at this moment at national level.

The district health services have their own monitoring system, which already functioned for many years and collects more or less the same, and more, data as CARE's program. This monitoring system will continue as long as the Ministry of Health's current policy does not change. It is regrettable that no efforts were made by CARE to strengthen the existing district health monitoring system, instead of setting up a separate one.

The CARE nutrition animators were paid a monthly salary of 200,000 Mts. Hospital workers employed by the Ministry of Health are paid less than the CARE animators for similar work; and both the Ministry and the Red Cross use volunteers - such as traditional birth attendants, voluntary community health workers (APE's) and Red Cross First Aid workers - in order to implement community health activities. These workers are not paid for activities that benefit the community.

As soon as it was known that the CARE animators were paid, it provoked a severe motivation crisis amongst the volunteers, causing some of them to abandon the program. CARE's decision to pay animators, therefore, has had a negative impact and is not sustainable, given that the government agencies will not have the resources to pay monthly salaries once CARE departs. Having become accustomed to receiving a salary, and not being part of any other structure, the CARE animators are unlikely to continue working once CARE departs and their salaries come to an end. The nutrition animators are not part of the district health services network, so their work will not be supervised by the formal institutions. Without constant supervision and regular pay, they are unlikely to continue with their work. They will no longer have the incentive of a salary nor direction from the coordinator, which are their chief motivating factors.

It would have been better if animators had received an incentive in the form of a T-shirt, cap or capulana, which is similar to the benefits provided to the volunteers.

With respect to community organisation activities, there has been a start in the initiative of the provincial health directorate to create a structure at district level to discuss community health issues in the district, which enables community representatives, health and education workers and non-governmental organizations to discuss community health. This structure was initiated by DPS, but CARE has played a dominant role within Machaze District. This structure should be strengthened as much as possible, with the DDS playing a principal role.

3.3.5 Impact of the nutrition program on children under 5 years of age and women

The impact of nutrition education and monitoring activities on children under 5 years of age and women. This should be undertaken in terms of adoption of practices by mothers, expressed knowledge about nutrition practices by mothers, and in relation to available baseline data.

It is difficult to assess whether or not the activities executed in the nutrition monitoring and education program have led to knowledge of, and adoption of, nutrition practices.

First, nutrition education alone does not necessarily lead to the adoption of appropriate nutrition practices, especially in situations in which traditional practices and beliefs remain very strong. The success of nutrition education is even more doubtful when the messages spread are not very clear and consistent, and when the educator is not a very respected person in the community or a respected authority in the field of health and nutrition.

In the short time available, it was not possible to do an impact study on the adoption of nutrition practices. Impact studies on adoption of nutrition practices are only appropriate when both the target group and the messages that were to be spread were defined very clearly before the start of the program, and the messengers used were sufficiently well trained to ensure that they used same methodology and spread the same messages. If the above procedures are not followed, it is difficult to determine whether negative results obtained by an impact study were caused by failure on the part of the messengers or by rejection or misunderstanding of the messages by the target groups.

It was apparent that the animators had no formal background in health and nutrition and were rather free in choosing their own ways of carrying out the nutrition program. It is therefore unclear exactly what were the messages they disseminated, to what extent they were correct and consistent, and whom they reached. This confusion makes it impossible to make an accurate assessment of the impact made by the nutrition program.

3.3.6 Coordination between government authorities and the implementation of project activities

The degree of coordination between provincial and district government authorities and the implementation of project activities. This should be undertaken in terms of knowledge about the nutrition monitoring and education program, expressed usefulness of the program, plans for continuing these activities, and existing and future resources available for these activities.

Government authorities are aware of the program, and the reports written by the nutrition coordinator are carefully read by the

community health coordinator of the Provincial Health Directorate. However, at both the provincial and district levels, health officials demonstrated a lack of knowledge of what was actually happening in the field. It was clear that strong cooperation between CARE and the government authorities was lacking, which in some cases led to irritation at the provincial level and lack of confidence in CARE's ability to carry out its health programs. In general, cooperation between health officials and other non-governmental organizations in the Beira Corridor appeared to be very strong, which suggests that CARE could benefit from their experiences in developing a good relationship with the formal health structure.

Officials at the provincial level expressed their concern about the low quality of their health data, especially in terms of coverage and stated that they would like to see their services improved. They demonstrated a strong willingness to cooperate more with NGOs and to benefit from the experiences of NGOs in the field of health and nutrition.

Given this opportunity for closer coordination and cooperation with both official and NGO health activities, and also CARE's relative lack of experience in this area, CARE should work to strengthen its relationships with both sectors, which would have the combined effect of improving both the level of expertise of CARE staff and the quality of the services delivered.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

4.1.1 On the Rehabilitation of Infrastructures

- Infrastructures have been built in areas of key importance in terms of size of population served.
- Opening of roads has resulted in newly established trading activities in the main population centres.
- Schools and Health Post constructions have been designed to a high standard but there have been delays in completing the works, and some poor workmanship needs correcting.
- Roofing for UNHCR funded company constructed schools is lusalite and cannot be used for rainwater collection.

Recommendation: CARE should investigate ways of making the roofing safe for rainwater collection, such as sealing.

- The water tanks for all schools and health posts are small and situated too far from buildings for convenient rainwater collection.

Recommendation: CARE should build new tanks, or extend the present ones towards the buildings. Guttering and piping should be provided to channel rainwater into the tanks.

- Building of staff houses was a much needed undertaking and was of great benefit to the community. However, since this benefit was indirect, the staff houses cannot be considered as "public structures used by the community for community purposes".

Recommendation: Future projects should focus on building true "public structures" such as washplaces, and involve local communities in a participatory process from the planning to the implementation of such projects to meet needs defined by those communities.

- Local labour was extensively used in rehabilitation activities. However paid labour should not be defined as "community participation".
- Extreme food insecurity in the region throughout the project life resulted in harsh conditions which reduced the capacity of the population to provide voluntary labour.
- The use of UNHCR funds for the rehabilitation program exerted time pressures which are not compatible with community participation. Community participatory processes became output orientated for project needs.

- CARE makes separate demands on the communities for different projects and activities, which does not facilitate community participation and empowerment.
- Contact with the communities is principally through the hierarchical structure of the Regulo. No new community organisations have been formed for ongoing community development activities, except in the case of the women's organisations involved in the nutrition program.
- Some responsibility for the maintenance of the infrastructures has been accepted by the traditional structures but ongoing mobilisation and support will be necessary.

4.1.2 On Nutrition Monitoring and Education

- The nutrition education program led to the formation of community women's organisations in which some key problems could be dealt with. Women are the most needy group within the communities, having extraordinarily heavy work roles due to the problems of access to water and shortages of food, as well as a low social position. The program has helped women to unite, to increase their confidence, and their capacity to jointly analyse their situation and to look for solutions.
- The development of creches was a very good initiative. It is a direct response to the communities' expressed need: the need to provide adequate nutrition to young children. In addition, it involves local decision-making, as the mothers themselves have taken principal responsibility for the creches.
- The animators took on the role of managing food provided by CARE for the creches. Since the animators are part of CARE's project structure, rather than integral parts of the women's groups, this involvement limited the development management skills within the women's groups. It also limited the likelihood that the ongoing work of the groups would be sustained.
- Starting vegetable gardens to provide nutritious foods for the creche was a positive initiative, although ultimately unsuccessful due to the drought and the subsequent unavailability of water. This initiative should be reactivated when conditions permit.
- The training and employment of nutrition animators has been undertaken without consideration of their integration into the DDS, and has been found to undermine the system of voluntary health workers used by the official health structure in the communities.

- The nutrition education component has not been coordinated with the district health program in a way that will provide sustainability at the end of the project.
- The collection of data in the communities by the animators is done in parallel with DDS data collection. The lack of linkage makes it difficult for the formal health services to benefit from the work of the animators and vice versa.
- The community monitoring system that has been established does not appear to be sufficiently well understood by the animators to ensure the collection of valid data. The animators lack sufficient capacity to have a clear understanding of the different types of malnutrition and the appropriate responses.
- The collection of data for the MSF-CIS-monitoring system by the nutrition coordinator in Save, Chitobe and Bassane is time-consuming. The data itself is rather complicated; there is much to collect; and the areas to visit are distant.
- The participation of both the nutrition coordinator and the animators in health education in schools is an important initiative. In order to make this work sustainable, much more work should be done training teachers to make health education part of the school curriculum.

4.1.3 On CARE in the community

- The project was constrained by very difficult working and living conditions, changes of senior staff, and expatriate staff with insufficient portuguese and inappropriate skills for the demands of the job.
- The separate management of different activity components did not allow for good development of a partnership between CARE and the communities. For instance, both the nutrition program and the water project have community animators involved in community health education but there is no coordination between them.
- CARE has good relations with most directorates at the district level, but it's relationship with health is weak. At the provincial level there is information sharing but not enough dialogue on key project issues.
- The continuing dialogue that has taken place between the nutrition coordinator and the community has benefitted the work of the nutrition monitoring and education programme and was greatly facilitated by the coordinator's excellent communication skills, understanding of the community and command of the local language.

4.2 Recommendations on Future Work

- The FSCIR project and other CARE activities have established a good foundation for work in Machaze district. CARE should continue it's work in the area, focussing more closely on collaboration with government structures to develop long term sustainability.
- CARE's future work should focus on participatory processes rather than an output orientated approach. It's approach to the community should be coordinated with respect to different project components.
- CARE's future projects need to consider and guarantee the sustainability of their activities from the beginning.
- Future work in health would benefit from greater coordination and cooperation, both with government health structures at the national, provincial and district levels, and with NGOs working in the health sector. CARE should work to strengthen it's relationships with both sectors, which would have the combined effect of improving both the level of expertise of CARE staff and the quality of the services delivered.
- Future work should build on the initiatives of the women's groups, which are the only community structures which have been developed during the life of the project.
- The development of creches should focus on child care activities as well as feeding, and based near water points which are natural meeting grounds for women living in dispersed communities.
- In order to guarantee sustainability of the creches, the mother groups should be trained in group leadership, management and bookkeeping.
- Sustainable income generation activities should be developed which are suitable for community participation for support of creche activities.
- Income generation activities for women which can improve household food security should be investigated and developed, for instance credit in kind for livestock (revolving poultry or goat fund), or inputs on credit for the use of existing skills (eg. soap production learned in Zimbabwe). Food processing, such as oil production, should be prioritised.
- Health education activities for water and nutrition should be undertaken in a single program.
- In order to strengthen the dissemination of correct and consistent education and health messages, didactic materials about health and nutrition topics if not already

existing should be developed in cooperation with government health structures and other NGOs working in the area.

- Once the priorities in health education are jointly defined, a module can then be developed for use by health professionals, educators (including schoolteachers), community leaders and animators.
- Alternative sources of education such as the PAC theatre group in Manica Province should be used to disseminate important messages, through training local theatre groups.
- Animators should be incorporated into an existing structure in order to ensure that their work continues, that they are adequately supervised, and that their existence corresponds with the governmental policy on community based volunteers. In future, a careful analysis should be made of the resources and networks in the area, conducted together with governmental district officials, community leaders and other NGOs present in the area, to identify key information deliverers. These could include "curandeiros", traditional birth attendants, returnees trained abroad, etc.
- Community-based animators should not be paid by CARE. Other incentives which are similar to the benefits provided to the volunteers of the government agencies, should be investigated, such as t-shirts, caps, capulanas, an education material kit, and transport facilities such as a bicycle.
- CARE staff based in Chitobe should have strong community development skills, and should work directly with community groups to promote community initiatives. Command of the local language is also recommended.
- Support of a short teachers training for school leavers, (requested by the DPE), could provide the opportunity to develop a nutrition and health education component in schools. Input by CARE into the training could also enable stronger relationships to be developed with teachers for encouraging the mobilisation of the community for the maintenance of community infrastructures.

CARE INTERNATIONAL IN MOZAMBIQUE**Food Security and Infrastructure Rehabilitation Project
Machaze District, Manica Province****FINAL EVALUATION TERMS OF REFERENCE (DRAFT)****I. ACTIVITY BRIEF**

Project: Food Security and Community Infrastructure Rehabilitation Project (FSCIR)

Funding Cycle: November 1993-July 1995

Donors: The United States Agency for International Development (USAID) and the United Nations High Commission for Refugees (UNHCR)

II. PROJECT BACKGROUND**A. Grant Agreement**

In late 1993, the project began with funding from the United States Agency for International Development (USAID). According to the terms of the Grant, the life of project was to be 18 months and all activities were to be completed in April 1995. In August 1994, the terms of the Grant were amended to reflect modifications in the outputs, reductions in the obligated amount for the project, and budget reallocations. A second amendment was approved by USAID in April 1995 for a no-cost extension until December 1995, which increased the life of project to 26 months.

Within the context of the USAID Agreement and to ensure the proper reintegration of returning refugees, UNHCR provided additional funding for road clearance and rehabilitation, mine survey and clearance, health post and school rehabilitation, and nutrition education. Agreements with UNHCR were signed with CARE in 1993, 1994 and 1995.

Between 1993 and 1995, CARE distributed food, seeds and tools through separate agreements with USAID, UNHCR, and the World Food Program. These distributions were coordinated with activities of the FSCIR Project to ensure end-user receipt of these commodities through the development of systems for logistical delivery, distribution and monitoring. Similar coordination between the FSCIR project and CARE's Emergency Water Project, funded by the Overseas Development Agency, USAID and UNHCR, also occurred through the rehabilitation and clearance of secondary and tertiary roads.

B. Program Description

The goal of the project is to improve the food security of a selected rural population of Machaze District in Manica Province through the development of a community-based nutritional monitoring and education program and the rehabilitation of essential infrastructure. The relationship between food security and this project initially focused on ensuring end-use receipt of food aid and provision of agricultural inputs, and monitoring communities' nutritional status. The rehabilitation of schools, health and roads were envisioned as activities that would lead to continued alleviation of food insecurity through improved health and education services, inter-community transport and communication, commercial and local market development, and viable agricultural production. Provided below and grouped by main activities are the outputs for the FSCIR project.

1. Rehabilitation of Infrastructure

- Two health posts rehabilitated and used by DPS to provide basic health services. Each health post has a consulting area, a locked storage area for pharmaceutical, access to potable water, and a latrine. Each health post served an estimated population of 3,300 to 8,000 residents within 30 kilometers.
- Seven schools rehabilitated and used for public education. Each school averaged three classrooms with an office for faculty and staff, access to potable water and an adequate number of latrines. Each school provided classes for an estimated 300 primary school students.
- Up to seven other public structures rehabilitated and used by the community for community purposes.
- A total of 150 kilometers of secondary and tertiary dirt roads rehabilitated/opened. This assumed an additional 36 kilometers of roads were demined between November 1994 and February 1995. If no additional demining took place, a total of 80 kilometers of roads rehabilitated /opened. Roads include critical side drains.

2. Nutritional Monitoring and Education

- Community-based food security monitoring system established and used to target Grant nutritional education inputs. CARE referred children identified as acutely malnourished to District Health Services, and targeted their families under

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nutritional educational program in communities where it is implemented.

- One nutritional behavior survey completed in at least three communities and used in the development of a pilot nutritional education program and for activity monitoring.
- One nutritional education program developed and implemented in three Machaze District towns which reach 60% of targeted mothers.
- 60% of mothers who received nutritional education able to identify malnutrition and know how to treat it with locally available products.
- At least two community animators trained in nutritional education. These trainers organized and carried out the nutritional education programs for the 60% of targeted mothers.

3. Community Organization

- Seven communities participated in Grant rehabilitation activities. Each community provided 25 to 50 workers.
- Seven community organizations, one per community, met on a regular basis and dealt with food security and rural rehabilitation activities.

A midterm formative evaluation was completed in December 1994 that focused on the progress towards outputs made during the first half of the Grant and CARE's capacity to implement the activities as described in the Grant. After reviewing the findings from the midterm evaluation, CARE implemented key recommendations.

III. BACKGROUND OF EVALUATION

The final evaluation will focus on the achievement of the outputs as presented above and an assessment of these outputs on beneficiaries and participating communities. Impact for the purposes of this evaluation are defined under the evaluation team's responsibilities.

The quantitative baseline data prior to project interventions required to demonstrate that changes to the "food security status" of the population, as defined in the project's goal, have occurred in February 1994, and a follow-up rapid nutritional survey conducted in February 1995. Qualitative data is available from a participant rapid rural appraisal

conducted in 1993, a Rapid Food Security Assessment in 1995, and a nutritional behavioral assessment conducted in late 1994.

Therefore, the assessment should be limited to proxy measures and observations that are linked to project outputs and account for the achievement of intermediate steps towards the project goal, as stated above. Proxy measures and observation could be used to assess sustainability and future utilization of schools and health posts, the types of accessibility afforded to communities through the opening of secondary and tertiary roads, cash-for-work purchases, adoption of proper nutritional practices by mothers, and the ability of communities to continue with road rehabilitation efforts and the promotion of sound nutritional practices.

IV. EVALUATION TEAM

A. Composition and Requirements

The team will be composed of a Community Health Specialist and a Rural Development Specialist. The Community Health Specialist should have a degree in public health or relevant field, a minimum of three years of experience with rural health project, Portuguese spoken and written abilities, and English comprehension and reading abilities. The Rural Development Specialist should have a graduate degree in the social sciences, a minimum of five years of experience with community development projects and the evaluation of these projects, Portuguese spoken and written abilities, and English comprehension and reading abilities.

B. Evaluation Responsibilities

1. The Community Health Specialist will evaluate the achievement of outputs presented above for the nutrition monitoring and education activity and related outputs for the community organization activity. The Specialist will also attend to the following evaluation issues as they relate to nutrition monitoring and education, and community organization activities.

- the extent to which CARE's assistance resulted in better food security for the targeted beneficiaries, including returnees from Zimbabwe. This should be undertaken in terms of intermediate steps that led to addressing the emergency relief effort and towards continued alleviation of food scarcity (access to food commodities) as expressed by beneficiaries;

- the extent to which CARE's assistance resulted in better health and nutrition for targeted beneficiaries. This should be undertaken in terms of determining catchment areas for health services and beneficiary characteristics of those to be served within these areas, and available baseline data from the nutrition monitoring and education program;
- the impact of the outputs relative to the needs of the total population of the District, including returnees. This should be undertaken in terms of usefulness of project activities as expressed by communities.
- the nutrition monitoring and education activity's cost-effectiveness.
- the ability of district health services together with communities to continue nutrition monitoring and education and community organization activities after CARE's departure. This should be undertaken in terms of the information flow among DDS and Community groups and animators, expressed role of community groups in these activities, and plans and resources for continuing activities;
- the impact of nutrition education and monitoring activities on children under five year of age and women. This should be undertaken in terms of observation of adoption of practices by mothers, expressed knowledge about nutrition practices by mothers, and in relation to available baseline data;
- the degree of coordination between the provincial and district government authorities and the implementation of project activities. This should be undertaken in terms of knowledge about the nutrition monitoring and education program, expressed usefulness of the program, plans for continuing these activities, and existing and future resources available for these activities; and
- With the Rural Development Specialist, the Community Health Specialist will produce the final evaluation report which discusses the above, and presents conclusions on the completed project and recommendations concerning future assistance int

the same geographical location.

2. The Rural Development Specialist will evaluate the achievement of outputs presented above for the rehabilitation of infrastructure activity and related outputs for the community organization activity. The Specialist will also attend to the following evaluation issues as they relate to rehabilitation of infrastructure and community organization activities:
- the extent to which CARE's assistance resulted in better food security for the targeted beneficiaries, including returnees. This should be undertaken in terms of steps that led to addressing the emergency relief effort and towards continued alleviation of food insecurity as expressed by beneficiaries, such as the development of commerce and local markets and availability of agricultural inputs and foodstuffs;
 - the ability of communities to continue rural rehabilitation and community organization activities after CARE's departure. This should be undertaken in terms of the information flow among community groups, expressed role of community groups in these activities, and plans and resources for these activities.
 - the impact of the project relative to the needs of the total population of the District, including returnees. This should be undertaken in terms of usefulness of project activities as expressed by communities, purchases made with earnings from cash-for-work schemes, women's involvement in these activities, the development of commerce and local markets, and the availability of agricultural inputs and foodstuffs;
 - the project's cost-effectiveness. This should be undertaken in terms of time saved for agricultural production due to inter-community transport and communication (based on qualitative data and interviews) comparison of the costs for contracted versus community construction, savings in future community development costs realized through experience gained from participation in these activities, and savings due to availability of local agricultural inputs;
 - the environmental impact of the rehabilitation of infrastructure and road rehabilitation activities. The assessment should follow the guidelines contained in the CARE/USAID grant agreement

(Section IV) for USAID supported outputs.

- the degree of coordination between the provincial and district government authorities and the implementation of project activities. This should be undertaken in terms of knowledge about infrastructure activities, expressed usefulness of these activities, plans for continuing these activities, and existing and future resources for these activities;
- the ability of project management to implement and monitor project activities with participating communities; and

With the community Health Specialist, the Rural Development Specialist will produce the final report which discusses the above, and presents conclusions on the completed project and recommendations concerning future assistance in the same geographical location.

V. EVALUATION SCHEDULE

A preliminary schedule for completing the evaluation is as follows:

- | | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| November 6 - 7 | In Maputo, pre-evaluation briefings with the Deputy Director/Program and USAID PVO Support Project staff. |
| November 8 - 19 | In Machaze, review project documents, conduct the evaluation, prepare draft of the final report, and present briefing about findings to project staff. |
| November 20 - 22 | In Chimoio for discussions with Provincial Officials and UNHCR. |
| November 23 - 26 | In Maputo, post-evaluation briefings with the Deputy Director/Program and USAID PVO Support Project staff, and complete final report. |

V. OUTPUTS

- A. Pre-evaluation briefings with Deputy Director/Program Development and USAID PVO Support Project staff.
- B. Oral briefing of findings with the project staff in Machaze.
- C. Post-evaluation briefings with the Deputy Director/Program Development and USAID PVO Support Project staff.
- D. Final report that presents conclusions on the completed

project and recommendations concerning future assistance in the same geographical location

VI. MISCELLANEOUS

The Consultant will primarily reside in basic accommodations at CARE's camp in Machaze. Meals are prepared at the camp and are available at minimal cost to be paid by Consultant's per diem. The diet is basic and the Consultant must arrange for further provisions if desired. Accommodations will also be provided to the Consultant during time spent in Machaze and Maputo.

The project will provide four-wheel transport for the Consultant to and from the selected sites in Machaze throughout the consultancy, as well as travel to and from the Consultant's present whereabouts in Mozambique at the beginning and end of the consultancy, and any work-related travel during the consultancy deemed necessary by the Project Manager and Deputy Director/Program.

Telephone, fax and computer facilities will be available to the Consultant at the CARE Offices in Machaze and Maputo when needed; however, the Consultant is strongly urged to use a personally owned computer because CARE's computers are shared with project staff. Telecommunication in Machaze is limited to CARE radios.

Machaze is an exceptionally isolated and rural district, and the Consultant should be prepared for rugged work conditions.

VII. LIMITS OF AUTHORITY

The Consultant will issue reports and recommendations, written or verbal as appropriate, to the Project Manager and the Deputy Director - Program Development, on all questions in the scope of this Consultancy.

PROJECTO DE SEGURANÇA ALIMENTAR
REABILITAÇÃO DE INFRASTRUTURAS COMUNITARIAS
MACHAZE

TERMOS DE REFERÊNCIA

TÍTULO DA POSIÇÃO: Promotora de Nutrição

SUBORDINADA A: Supervisora de Educação Nutricional

PROMOVE: Educação Nutricional juntos das mães nas comunidades

BASE: Chitobe - Distrito de Machaze

PERÍODO DE TRABALHO: Março a Novembro de 1995

ÁREAS DE RESPONSABILIDADE

A Promotora de Nutrição (PN) será baseada na própria comunidade em Machaze, Província de Manica. Ela será responsável pela formação das mães dentro da sua área de actuação na comunidade a que for vinculada.

No seu trabalho dia a dia, a Promotora de Nutrição ministrará uma formação correcta sobre práticas de nutrição, amamentação e desmamação, desidratação e reidratação, bem como a prevenção da cegueira nocturna, segundo as normas do Ministério da Saúde e dos objectivos do projecto.

TAREFAS ESPECÍFICAS

1. Fazer o registo das mães abrangidas pelo programa.
2. Fazer o registo de crianças com a idade compreendida entre os zero e os cinco anos.
3. Identificar as doenças mais frequentes nas crianças e identificar a malnutrição e desidratação das crianças dos zero aos cinco anos de idade.
4. Participar na preparação do material para a formação.
5. Participar no pré-teste do material de formação.
6. Depois de formada e apresentada ao líder da comunidade de afectação, a Promotora de Nutrição deverá:

- Apresentar o seu programa à comunidade onde vai trabalhar;
- Efectuar visitas domiciliárias em coordenação com a Supervisora de Nutrição e Saúde, segundo o sistema de monitoria desenhado pelo projecto;

- Em cada mês apresentar fichas devidamente preenchidas sobre os 15 dias de trabalho;
- Entregar relatórios à Supervisora segundo as práticas da CARE Moçambique na avaliação participatória;
- Apoiar o Projecto de Água na Educação Sanitária para prevenção da diarreia e sarna;
- Participar nos inquéritos locais que serão promovidos de quando em vez.

LIMITES DE AUTORIDADE

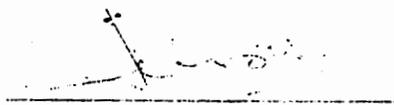
1. Representar a componente de Educação Nutricional ao nível da comunidade da sua afectação no Distrito de Machaze.
2. Submeter à Supervisora pedidos de materiais requeridos para o seu trabalho.
3. Assinar os relatórios quinzenais submetidos à Supervisora.

REQUISITOS NECESSARIOS

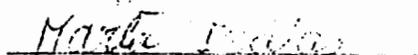
1. Escolaridade mínima de 4a. classe do antigo Sistema de Educação, ou 7a. classe do Novo Sistema.
2. Pelo menos 1 ano de experiência na área de Educação Comunitária/Promoção da Educação da Saúde Comunitária/Primeiros Socorros.
3. Experiência de lidar/comunicar com as comunidades.
4. Domínio da língua Ndau.
5. De preferência ser residente de uma das localidades do distrito de Machaze.

O SUPERVISOR,

A PROMOTORA DE NUTRIÇÃO,



Data: 25/1/78



Data: 25/1/78

ANEXOS

ANEXO 1
TABELAS

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Tabela 1. Capacidade dos furos em Machaze

Localidade	Povoação	n° ref.	Coordenad.	Data da visita	Bomba/ Funciona	Caudal do Ensaio(m³/h)	Caudal do desenvolv. (m³/h)
Chitobe	Mussimbe	MCZ/95/013	20.40.23 S 33.20.07 E	19/10/95	AFRIDEV/s	2.5	9
	Macovane	WSM-22	20.49.06 S 33.25.22 E	15/10/95	AFRIDEV/s	--	4
	Mecupe	MCZ/95/009	20.51.05 S 33.30.30 E	15/10/95	Volanta/ não montada	2	8
	Mussimbe	MCZ/95/014	20.44.42 S 33.19.12 E	19/10/95	Volanta/n	1.9	3
	Escola	WSM-2	20.49.36 S 33.22.03 E	19/10/95	AFRIDEV/s	5	10
	4° congresso (Missão)	MCZ/94/R1	20.48.38 S 33.23.52 E	19/10/95	AFRIDEV/s	--	--
	Macundanje	WSM-25	20.46.00 S 33.25.04 E	23/10/95	Volanta/n	--	15
	CARE	WSM-4	20.49.24 S 33.22.03 E	26/10/95	Submesível/s	4.7	18
	Cantinas	Sem ref. Água Rural	20.48.20 S 33.23.23 E	26/10/95	Volanta/s	--	--
	C. Saúde	WSM-3	20.49.22 S 33.22.03 E	26/10/95	Motobomba/s	5	30
	Sede	Sem ref. antigo	20.49.27 S 33.22.07 E	26/10/95	Motobomba/s	--	--
	Mecupe cantina	MCZ/95/R3	20.34.31 S 33.33.54 E	15/10/95	Não definido	--	--
	Mecupe privado	Sem ref. Novo/privado	---	não realizada	Não definido	--	--
	Maguiguana	WSM-27	20.48.11 S 33.23.16 E	19/10/95	AFRIDEV/s	--	5
	1° de Maio	WSM-28	20.50.04 S 38.22.14 E	19/10/95	AFRIDEV/s	--	6
	Sambassoca	Chinavana	MCZ/95/006	20.53.03 S 33.34.38 E	15/10/95	Volanta não montada	2.3
Chinavana		MC/95/007	20.50.55 S 33.34.41 E	15/10/95	Volanta's	2.1	5
Sambassoca 1		MCZ/95/025	21.26.58 S 33.02.55 E	14/10/95	Volanta não montada	2	2.4
Sambassoca	Gamundanje	MCZ/95/027	21.21.20 S 33.10.14 E	14/10/95	AFRIDEV/não montada	2.3	4
	Sambassoca 2	MCZ/95/026	21.26.86 S 33.04.53 E	14/10/94	Volanta não montada	1.9	3.6
Save	Save	MCZ/95/030	21.19.02 S 33.17.04 E	14/10/95	volanta não montada	2.1	30

Save	Save	WSM-23	21.19.03 S 35.16.53 E	14/10/95	AFRIDEV/n	—	8
	Save	MCZ/95/024	21.19.12 S 33.17.17 E	14/10/95	AFRIDEV/nã o montada	--	20
	Save	WSM-24	21.19.31 S 33.17.17 E	14/10/95	AFRIDEV/s	--	10
	Sede	WSM-21	---	não rea- lizada	Motobomba/n	1.9	4
	Macone	MCZ/95/029	21.12.47 S 33.21.31 E	14/10/95	Volanta/não montada	2.6	24
Chipopopo	Fuczana 1	MCZ/95/022	20.55.22 S 33.31.24 E	20/10/95	AFRIDEV/s	0.8	2
	Fuczana 2	MCZ/95/023	20.55.22 S 33.31.24 E	20/10/95	AFRIDEV/s	0.8	2
	Chalana	WSM-19	21.00.38 S 33.30.57 E	20/10/95	AFRIDEV/s	3.6	4
	Massalapata	WSM-17	21.01.31 S 33.32.06 E	20/10/95	AFRIDEV/s	—	6
	Josina Ma- chel	WSM-18	21.01.40 S 33.31.51 E	20/10/95	AFRIDEV/s	3.6	18
	Chipandira	MCZ/95/021	21.05.18 S 33.32.17 E	20/10/95	AFRIDEV/s	2	2.4
	Guacuanhe	MCZ/95/028	21.19.31 S 33.17.17 E	14/10/95	AFRIDEV/n	2.8	24
	Tewere 1	MCZ/95/016	20.57.56 S 33.36.21 E	22/10/95	AFRIDEV/s	0.7	0.7
	Tewere 2	MCZ/95/R4	20.57.55 S 33.36.20 E	22/10/95	AFRIDEV/s	0.7	0.7
	Chitare 1	MCZ/95/017	20.57.46 S 33.38.51 E	22/10/95	AFRIDEV/s	0.9	1.2
	Chitare 2	MCZ/95/018	20.53.43 S 33.40.00 E	22/10/95	AFRIDEV/s	0.8	1.2
	Mambone 1	MCZ/95/019	20.57.17 S 33.39.56 E	22/10/95	AFRIDEV/s	1.8	6
	Mambone 2	MCZ/95/021	20.57.23 S 33.40.41 E	22/10/95	AFRIDEV/s	1.4	3
	Machane	WSM-20	21.02.38 S 33.24.57 E	22/10/95	Volanta/n	—	12
Chipudje	Chitondo 1	MCZ/95/002	20.43.07 S 33.40.05 E	21/10/95	Volanta/não montada	2.5	6.5
	Chitondo 2	MCZ/95/004	20.41.44 S 33.37.48 E	21/10/95	Volanta/s	2.1	5
	Nhamachano	MCZ/95/003	20.45.06 S 33.43.04 E	21/10/95	AFRIDEV/n	2.1	3
	Nhamachano	MCZ/95/R2	20.44.17 S 33.41.51 E	21/10/95	AFRIDEV/s	—	--

Chipudje	Mumbo 1	MCZ/95/001	20.46.10 S 33.38.38 E	21/10/95	Volanta/não montada	2.1	10
	Mumbo 2	MCZ/95/R1	20.47.13 S 33.37.47 E	21/10/95	Volanta/s	--	--
	Butiro	WSM-13	20.45.24 S 33.35.45 E	21/10/95	Volanta/n	1.9	15
	Butiro	WSM-29	20.44.06 S 33.35.02 E	21/10/95	Volanta/n	--	4
	Guezanhe	WSM-30	20.34.31 S 33.33.54 E	23/10/95	não definido	2.8	10
	Nhamacoba	WSM-12	20.38.35 S 33.33.48 E	23/10/95	Volanta/não montada	2.3	4
	Sede	WSM-8	20.40.12 S 33.31.58 E	23/10/95	AFRIDEV/n	4	15
	Cantinas	Sem ref. Água Rural	20.40.22 S 33.31.46 E	23/10/95	AFRIDEV/s	--	--
	Cantinas	Sem ref. Água Rural	20.40.22 S 33.31.46 E	23/20/95	Volanta/s	--	--
	Tuco-Tuco	WSM-15	20.42.35 S 33.28.25 E	23/10/95	Volanta/n	--	--
	Tuco-Tuco	WSM-16	20.40.16 S 33.24.41 E	23/10/95	Volanta/n	3	5
	Chivavissa 1	MCZ/95/011	20.45.15 S 33.31.12 E	23/10/95	AFRIDEV/s	2.5	3
	Chivavissa 2	MCZ/95/012	20.44.39 S 33.31.26 E	23/10/95	AFRIDEV/s	2.5	4
	Socossa	MCZ/95/008	20.50.28 S 33.36.43 E	15/10/95	Volanta/s	2.1	5
Nhambue	MCZ/95/010	20.49.42 S 33.39.51 E	15/10/95	AFRIDEV/s	2.2	5	
Mabsissanga	Mabsissanga	GTZ	---	não realizada	Bush-Pump	--	--
Bassane	Bassane-Sede	WSM-31	20.57.21 S 33.16.21 E	24/10/95	Eléctrica/n	--	10
	Bassane-Sede	WSM-5	20.57.21 S 33.16.21 E	24/20/95	Não definido	1.7	13
	Chipambu-leque	WSM-1	20.50.53 S 33.17.21 E	24/10/95	Volanta/não montada	--	6

Tabela 3. Qualidade da água.

Nº de ref.	Data da visita	Bomba/funçiona	Electrocondutividade ($\mu\text{S}/\text{cm}$)	Dureza	
				sim	não
MCZ/95/013	19/10/95	AFRIDEV/s	3700	x	
WSM-22	15/10/95	AFRIDEV/s	1020	x	
MCZ/95/009	15/10/95	Volanta/ não montada	900	--	--
MCZ/95/014	19/10/95	Volanta/n	3500	--	--
WSM-2	19/10/95	AFRIDEV/s	1570		x
MCZ/94/R1	19/10/95	AFRIDEV/s			x
WSM-25	23/10/95	Volanta/n	1050	--	--
WSM-4	26/10/95	Submesível/s	1330		x
agua rural	26/10/95	Volanta/s	--		x
WSM-3	26/10/95	Motobomba/s	800	x	
Chitobe	26/10/95	Motobomba/s	--		x
MCZ/95/R3	15/10/95	Não definido	--	--	--
WSM-27	19/10/95	AFRIDEV/s	850		x
WSM-28	19/10/95	AFRIDEV/s	1040		x
MCZ/95/006	15/10/95	Volanta/não montada	1300	--	--
MC/95/007	15/10/95	Volanta/s	3000		x
MCZ/95/025	14/10/95	Volanta/não montada	4100	--	--
MCZ/95/027	14/10/95	AFRIDEV/não montada	3600	--	--
MCZ/95/026	14/10/94	Volanta/não montada	300	--	--
MCZ/95/030	14/10/95	volanta/ não montada	650	--	--
WSM-23	14/10/95	AFRIDEV/n	420	--	--
MCZ/95/024	14/10/95	AFRIDEV/não montada	420	--	--
WSM-24	14/10/95	AFRIDEV/s	420		x
WSM-21	não rea- lizada	Motobomba/n	6500	--	--
MCZ/95/029	14/10/95	Volanta/não montada	700	--	--
MCZ/95/022	20/10/95	AFRIDEV/s	800		x
MCZ/95/023	20/10/95	"	800		x
WSM-19	20/10/95	AFRIDEV/s	1250		x
WSM-17	20/10/95	AFRIDEV/s	1200	x	

WSM-18	20/10/95	AFRIDEV/s	1360		x
MCZ/95/021	20/10/95	AFRIDEV/s	1600		x
MCZ/95/028	14/10/95	AFRIDEV/n	7500	--	--
MCZ/95/016	22/10/95	AFRIDEV/s	800	x	
MCZ/95/R4	22/10/95	AFRIDEV/s	800		x
MCZ/95/017	22/10/95	AFRIDEV/s	3500	x	
MCZ/95/018	22/10/95	AFRIDEV/s	300		x
MCZ/95/019	22/10/95	AFRIDEV/s	200	x	
MCZ/95/021	22/10/95	AFRIDEV/s	160		x
WSM-20	22/10/95	Volanta/n	--	--	--
MCZ/95/002	21/10/95	Volanta/não montada	900	--	--
MCZ/95/004	21/10/95	Volanta/s	2110	x	
MCZ/95/003	21/10/95	AFRIDEV/n	3000	--	--
MCZ/95/R2	21/10/95	AFRIDEV/s	1700		x
MCZ/95/001	21/10/95	Volanta/não montada	1900	--	--
MCZ/95/R1	21/10/95	Volanta/s	3700	--	--
WSM-13	21/10/95	Volanta/n	780	--	--
WSM-29	21/10/95	Volanta/n	300	--	--
WSM-30	23/10/95	não definido	1160	--	--
WSM-12	23/10/95	Volanta/não montada	2150	--	--
WSM-8	23/10/95	AFRIDEV/n	820	--	--
agua rural	23/10/95	AFRIDEV/s	--		x
agua rural	23/20/95	Volanta/s	--		x
WSM-15	23/10/95	Volanta/n	1760	--	--
WSM-16	23/10/95	Volanta/n	3000	--	--
MCZ/95/011	23/10/95	AFRIDEV/s	290		x
MCZ/95/012	23/10/95	AFRIDEV/s	220		x
MC/95/008	15/10/95	Volanta/s	2400		x
MCZ/95/010	15/10/95	AFRIDEV/s	3820	x	
GTZ	não realizada	Bush-Pump	--	--	--
WSM-31	24/10/95	Eléctrica/n	2000	--	--
WSM-5	24/20/95	Não definido	2000	--	--
WSM-1	24/10/95	Volanta/não montada	1500	--	--

Tabela 4. Protecção sanitária dos furos e fontes de contaminação.

nº ref.	Qualidade do dreno boa		Distância à latrina > 50 m		Distância à casa > 30 m		Distância à rua > 30 m		Furo abandonado tapado		Diversos
	Sim	Não	Sim	Não	Sim	Não	Sim	Não	Sim	Não	
MCZ/95/013	x		x		x		x		---	---	---
WSM-22	x		x		x		x		---	---	Os animais bebem perto do furo
MCZ/95/009	x		x		x		x		x	x	---
MCZ/95/014	x		x		x		x		---	---	---
WSM-2	x		x			x	x		---	---	---
MCZ/94/R1	x		x		x		x		---	---	---
WSM-25	x		x		x			x	x		Furo velho a 2.5 m enferrujado.
WSM-4	não tem			x	x		x		---	---	---
agua rural	x		x			x		x	---	---	---
WSM-3	x		x			x	x		---	---	---
Chitobe		x	x		x		x		---	---	---
MCZ/95/R3	ainda n. tem		x			x		x	---	---	---
WSM-27		x	x		x		x		---	---	---
WSM-28	x		x		x		x		---	---	---
MCZ/95/006	x		x		x		x		---	---	Lava-se roupa perto.
MC/95/007	x		x		x		x		---	---	---
MCZ/95/025	x			x		x	x		---	---	---
MCZ/95/027	x		x		x			x	---	---	---
MCZ/95/026		x	x		x			x	---	---	---
MCZ/95/030	ainda n. tem		x			x		x	---	---	---
WSM-23	x			x		x	x		---	---	---
MCZ/95/024	x			x		x		x	---	---	---
WSM-24	x			x	x		x		---	---	---
WSM-21	---	---	---	---	---	---	---	---	---	---	não visitado
MCZ/95/029	em construção		x		x		x		---	---	---
MCZ/95/022	x		x		x		x		---	---	---
MCZ/95/023	x		x		x		x		---	---	---
WSM-19	x		x		x		x		---	---	---
WSM-17		x	x			x	x		---	---	---
WSM-18	x			x	x		x		---	---	---
MCZ/95/021	x		x		x		x		---	---	---

MCZ/95/028	ainda n. tem	x		x		x		---	---	---
MCZ/95/016	x		x		x		x		---	---
MCZ/95/R4		x	x		x		x		---	---
MCZ/95/017	x		x		x		x		---	---
MCZ/95/018	x		x		x		x		---	---
MCZ/95/019	x		x		x		x		---	---
MCZ/95/020	x			x	x		x		---	---
WSM-20		x	x		x		x		---	---
MCZ/95/002	x		x		x		x		---	---
MCZ/95/004	x		x		x		x		---	---
MCZ/95/003	x		x		x		x		---	---
MCZ/95/R2		x	x		x		x		---	---
MCZ/95/001	x		x		x		x		---	---
MCZ/95/R1		x	x		x		x		---	---
WSM-13	x		x		x		x		---	---
WSM-29		x	x		x		x		x	Há acumulação de águas perto.
WSM-10	em construção		x		x		x		---	---
WSM-12		x	x		x		x		---	---
WSM-8	x			x		x		x	---	---
agua rural	x		x			x	x		---	---
agua rural	x		x			x		x	---	---
MCZ/95/R	não tem		x		x		x		---	---
WSM-16	x		x		x		x		---	---
MCZ/95/011	x		x		x		x		---	---
MCZ/95/012	x		x		x		x		---	---
MC/95/008	x		x		x		x		---	---
MCZ/95/010	x		x		x		x		---	---
GTZ	---	---	---	---	---	---	---	---	---	---
WSM-31	não tem		x		x		x		---	---
WSM-5	não tem		x		x		x		---	---
WSM-1	x		x		x			x	x	o furo antigo enferrujeu.

Tabela 7. Composição dos grupos de manutenção e dos comités executivos.

Comunidade	codigo furos	Furo	Grupo de manutenção			Comité executivo		
			Homens	Mulheres	Total	Homens	Mulheres	Total
Mecupe	009/95	1	6	6	12	6	0	6
Chinavana	006/95	1	4	2	6	5	0	5
Chinavana	007/95	1	4	2	6	idem	idem	idem
Mussibe	013/95	1	7	2	9	2	0	2
Mussimbe	014/95	1	6	1	7	idem	idem	idem
Macovanhe	wsm22/94	1	2	0	2	0	0	0
Macundanhe	wsm 25/94	1	2	0	2	5	0	5
E.M, Cantinas	wsm 27/94 +1s/n	2	3	2	5	4	1	5
4.congresso	MCZ/94/R1	1	3	1	4	idem	idem	idem
1. de Maio	wsm 28/94	1	2	5	7	4	3	7
Chipambuleque	wsm 1/94	1	0	0	0	5	0	5
P.S. Bassane	31 e 5/94	2	2	0	2	9	0	9
Chivavissa	011/95	1	6	1	7	4	0	4
Chivavissa	012/95	1	5	2	7	idem	idem	idem
Chitondo.	002/95	1	3	3	6	5	0	5
Chitondo	004/95	1	6	0	6	idem	idem	idem
Mumbo	001/95,MCR/95/R1	2	6	0	6	5	0	5
Nhamachamo	003/95,MCZ/95/R2	2	4	2	6	4	0	4
Guezane	wsm 10	1	6	0	6	5	0	5
Socossa	008/95	1	6	0	6	6	0	6
Nhambue	010/95	1	4	2	6	13	0	13
Butiro	wsm 13	1	4	2	6	4	0	4
Butiro	wsm 29	1	5	0	5	idem	idem	idem
Tuco-Tuco	wsm16,MCZ/95/011	2	6	0	6	5	0	5
Chipudje sede	wsm 8, 2 s/n	3	6	1	7	6	0	6
Nhamacoba	wsm 12	1	8	4	12	0	0	0
Chitare	017/95	1	5	0	5	5	0	5
Chitare	018/95	1	6	0	6	idem	idem	idem
Mambone	019/95	1	3	3	6	9	0	9
Mambone	021/95	1	4	2	6	idem	idem	idem
Fuczane	022, 023/95	2	4	2	6	10	2	12
Tuere	016, MCZ/94/R4	2	6	0	6	4	0	4
Mutanda	wsm 17	1	3	0	3	9	2	11
Mutanda	wsm 18	1	3	0	3	idem	idem	idem
Mutanda	wsm 19	1	4	0	4	idem	idem	idem
Mutondowumue	wsm 20	1	0	0	0	0	0	0
Guacuanhe	028/95	1	6	0	6	4	0	4
Chipandira	020/95	1	4	2	6	0	0	0
Save	030/95	1	5	1	6	4	1	5
Save	024/95	1	4	0	4	idem	idem	idem
Save	wsm 23	1	6	0	6	?	?	?
Save/Macone	029/95	1	5	2	7	3	1	4
Save	wsm 24	1	5	0	5	?	?	?
Sambassoca	025,026/95	2	4	2	6	3	3	6
Gamundanhe	027/95	1	4	2	6	3	0	3
Mab issanga	s/n	1	0	0	0	0	0	0
TOTAL		56	197	54	251	151	13	164

Tabela 9. Contribuição da comunidade para a reparação e manutenção das bombas.

Localidade	Comunidade	codigo furos	Furo	Contribuição	Senha	Cont./familia
Chitobe	Mecupe	009/95	1	500.000	n	10.000
	Chinavana	006,007/95	2	558.000	n	4.000
	Mussimbe	013,014	2	512.000	s	4.000
	Macovanhe	wsm22/94	1	282.500	n	2.500
	Macundanhe	wsm 25/94	1	0		
	E.M,4. C,Cantinas	wsm 27/94, s/n, MCZ/94/R1	3	2.400.000	s	2.000
	1. de Maio	wsm 28/94	1	630.000	s	5.000
	Bassane	Chipambuleque	wsm 1/94	1	?	?
P.S. Bassane		3 e 5/94	2	1.200.000	n	5.000
Chipudje	Chivavissa	011 e 012	2	1.900.000	s	5.000
	Chitondo	002 e 004/95	2	1.150.000	s	5.000
	Mumbo	001/95, MCZ/95/R1	2	1.000.000	s	5.000
	Nhamachamo	003/95, MCZ/95/R2	2	1.000.000	s	5.000
	Guezane	wsm 10	1	800.000	s	2.000
	Socossa	008/95	1	610.000	n	10.000
	Nhambue	010/95	1	590.000	s	10.000
	Butiro	wsm 13, 29	2	120.000	n	3.000
	Tuco-Tuco	wsm 16, MCZ/95/011	2	450.000	s	2.500
	Chipudje sede	wsm 8, 2 s/n	3	1.097.000	s	3.000
Chipopopo	Nhamacoba	WSM/12	1	280.000	n	3.000
	Chitare	017 e 018/95	2	725.000	s	5.000
	Mambone	019 e 021/95	2	1.320.000	n	5.000
	Fuczane	022 e 023	2	1.150.000	s	5.000
	Tuere	016/95, MCZ/94/R4	2	522.000	n	2.000
	Mutanda	wsm 17,18,19	3	3.000.000	s	5.000/20.000
	Mutondowumue	wsm 20	1	0		
	Guacuanhe	028/95	1	400.000	n	2.500
	Chipandira	020/95	1	360.000	s	5.000
	Save	Save	030/95	1	365.000	s
Macone		029/95	1	530.000	n	2.000
Save		024/95,wsm 23, wsm 24	3	?	s	?
Sambassoca	Sambassoca	025,026/95	2	?	?	?
	Gamundanhe	027/95	1	?	?	
Mabzissanga	Mabzissanga	s/n	1	0	n	não
	TOTAL		56	23.451.500		

Legenda:

s/n: sem numero de codigo

ANEXO 2

TERMOS DE REFERÊNCIA DA EQUIPE DE AVALIAÇÃO

MACHAZE EMERGENCY WATER PROJECT

SCOPE OF WORK:

FINAL EVALUATION

Activity Brief:

Project: Machaze Emergency Water Project (PN 21)

Funding Cycle: First Quarter FY94 - Second Quarter FY96

Donors: USAID, UNHCR, ODA

I. INTRODUCTION

CARE International in Mozambique is concluding a emergency potable water supply project in Machaze District (Manica Province). The project's goal is to relieve a critical shortage of water, and in so doing to improve the health status and productivity of beneficiaries in the target area by increasing consumption of and access to safe water. The key output for the project is to reduce the ratio of users per water point to 2,000. The major activities of the project are (1) the construction of 50 boreholes (35 under USAID Grant) and 4 shallow wells equipped with sustainable handpumps; and (2) community mobilization to assure water point maintenance and improved water use practices.

The final evaluation will be performed by two evaluators: a water engineer/technical evaluator who will assess the project's technical water supply activities, and a community development and animation evaluator who will assess the community education activities such as hygiene education, cost recovery, and maintenance group training. The evaluators will jointly assess certain project areas, as specified below.

The evaluators will use survey data collected and analyzed in an Impact Assessment in August 1995. This Impact Assessment, serving as the end-of-project baseline, was designed to carry out the surveying which is necessary to measure achievement of the project's central objective, namely to increase households' consumption of potable water (at the project's start, such consumption was measured at a drastically low 2.5 liters per person per day), and to reduce the time spent to collect water. The Impact Assessment also will have gathered KAP-type information on water-related health and hygiene issues; these findings, while not

bearing directly on this Final Evaluation, nonetheless will be valuable for the evaluators when appraising the project's programmatic issues.

II. BACKGROUND

The Machaze Emergency Water Project was conceived as an emergency intervention to relieve a critical water shortage in a district which received 40,000 returnees in 1994, joining the post-war population of 80,000. Of the 25 old boreholes in the district, most were sabotaged beyond salvage during the war. Because inadequate rainfall had attenuated surface and shallow water sources, it was decided that borehole drilling must be the main technical intervention, effectively to rehabilitate and expand the pre-war network of boreholes.

A water resources survey in early 1994 revealed that the then-paucity of water points restricted average dry-season daily water consumption to a drastically low 2.5 liters per person per day. Moreover, much of the population had to walk up to 25km and wait in long lines to obtain one bucket of water. Therefore, the drilling campaign was designed to reduce the average distances from users to water points, as well as to install enough handpumps to significantly increase water consumption.

Most of Machaze District is underlain by a sandstone primary aquifer of acceptable quality and high productivity. However, it was recognized from the start that the aquifer's depth (average water strike 91 meters, average static water level 55 meters) would make it too costly to drill one water point per 500 users (the national target), and would limit the yield of handpumping to far less than 20 liters per person per day (the WHO target). The project's targets were therefore formulated in terms of reducing the ratio of users to water points (from 12,000 to 2,000) and the average distance to water points (to 7 km or less for 90% of the target population). It was assumed that the increased number and geographical spread of boreholes would significantly increase water consumption. The drilling campaigns have been successful and most new boreholes are served by Afridev or Volanta handpumps.

Community mobilization outputs were designed to maximize the sustainability of the new water points and the health impact of the increased supply of safe water. Project animators have worked with 29 beneficiary communities to identify and mobilize key groups and leaders, train water point caretaker groups, catalyze the establishment of community pump maintenance funds, and perform health/hygiene education. Also, the project has worked with local

and provincial merchants to catalyze the private supply of pump spare parts to the district.

III. SPECIFIC RESPONSIBILITIES: EVALUATORS' BRIEF

The evaluators will work in coordination with project staff and beneficiaries. The evaluators will review project activities and produce a Final Evaluation Report which focusses on the achievement of outputs and final impact as detailed below.

A. TECHNICAL EVALUATION - ACHIEVEMENT OF OUTPUTS

The Technical Evaluator will assess achievement of outputs of the following activities:

1. 50 producing boreholes drilled (35 under USAID Grant).
2. New water points opened on the producing boreholes, fitted with operating handpumps and providing potable water. Each water point has a cement apron and drain and the handpump is mounted on a sealed wellhead.
- * 3. A study of the viability and design of a cost-recovery system to cover the maintenance and repair costs of handpumps was completed in 5 communities. This study contained specific recommendations for the implementation of such a system for the boreholes drilled under this Grant.
- * 4. A pilot cost-recovery system implemented and functioning.

* In collaboration with Community Development Evaluator

B. COMMUNITY DEVELOPMENT EVALUATION - ACHIEVEMENT OF OUTPUTS

The Community Development Evaluator will assess achievement of outputs of the following activities:

1. 10 local mechanics trained in the installation, operation and basic repair of handpumps.
2. Community water point caretakers (2 per water site) trained in the handpump operation and basic maintenance,

the proper care of water points and the safe collection, transport and storage of water.

3. Beneficiaries of the new water points received water/sanitation education which included: information on the safe transport and storage of water; the connection between clean water, good hygiene and good health; the correct use of pumps and wells; and the correct disposal of garbage.
 - * 4. A study of the viability and design of a cost-recovery system to cover the maintenance and repair costs of handpumps was completed in 5 communities. This study contained specific recommendations for the implementation of such a system for the boreholes drilled under this Grant.
 - * 5. A pilot cost-recovery system implemented and functioning.
- * In collaboration with Technical Evaluator

V. FINAL IMPACT

Both evaluators will jointly assess the project's final impact, using data from the Impact Assessment (August 1995) as well as field observations in the course of the Final Evaluation. The evaluators will assess the following areas:

1. Pump use in northern Machaze District falls from 9,750 per water point to 2,000 for the 68,000 present residents and for the estimated 12,000 persons expected to return during the life of the Grant.
2. A potable, year-round reliable water source is functioning within seven kilometers of 90% of the beneficiaries.
3. Assessment of the benefits provided by CARE water points to the targeted beneficiaries.
4. Assessment of the Grant activity's impact relative to the needs of the total population of the district.
5. Assessment of the Grant activity's cost-effectiveness.

6. Assessment of the ability of villagers to maintain functioning and potable water points after CARE's departure.
7. Impact of the Grant activities on children under 5 and women.
8. Environmental impact of the Grant activities, as defined in the USAID grant agreement.

VI. OTHER AREAS FOR EVALUATION

The evaluators will review and assess the following issues:

1. Management issues within project and as project relates to CARE-Mozambique.
2. Appropriateness of CARE's programmatic response to problems of project site.
3. Appropriateness of programming for planned follow-on Water/Sanitation project.

VII. ACTIVITIES AND TIME FRAME

The Final Evaluation will be conducted on site in Machaze and will comprise 21 days (October 1-21, 1995). Suggested schedule of activities follows:

Days 1-3	Review documents; interview government officials and donor representative (USAID); travel to Machaze.
Days 4-10	Field visits, interviews with CARE staff/local participants.
Days 11-13	Travel to Chimoio; interviews with counterpart officials at DPOPH
Days 14-17	Return to Machaze; complete field visits and interviews; draft report preparation; debrief CARE-Machaze staff and local participants
Days 18-19	Travel to Maputo; report preparation
Day 20	Debriefing meeting with donor (USAID)

Day 21

Report completion

VIII. OUTPUTS

The following outputs will constitute completion of the Final Evaluation:

1. Completion of all evaluative field work as described above in the schedule of activities.
2. Completion of written evaluation report covering all areas described above.
3. Oral presentation of findings at debriefing with donor.

IX. MISCELLANEOUS

Machaze is a remote rural area, and the evaluators should be prepared for bush conditions and few amenities. The evaluators will have basic accommodations and board at CARE's field camp. They should provide their own laptop computers. A printer and photocopier, as well as basic office supplies, are available. Telecommunication is limited to CARE radios. CARE will provide four-wheel transport for the evaluators as necessary.

X. CRITERIA FOR SELECTION

A. TECHNICAL EVALUATOR

1. Degree in Civil Engineering, Water Engineering or equivalent experience.
2. Five years' engineering experience in rural water supply projects which included borehole drilling and handpump installation; experience in emergency water supply preferred.
3. Previous experience in project evaluation.
4. Previous experience in southern Africa; Lusophone Africa preferred.
5. Written and oral English preferred.

6. Proficient written and spoken Portuguese.
7. Ability to operate in remote rural settings.
8. Available for a total of 21 days between October 1 and October 10, 1995.

B. COMMUNITY DEVELOPMENT EVALUATOR

1. Five years experience in community development projects/programming involving rural water supply.
2. Demonstrated competence in evaluation of community water and sanitation projects.
3. Previous experience in southern Africa; Lusophone Africa preferred.
4. Written and oral English preferred.
5. Proficient written and spoken Portuguese.
6. Ability to operate in remote rural settings.
7. Available for a total of 21 days between October 1 and October 10, 1995.

ANEXO 3
ACTIVIDADES REALIZADAS

ACTIVIDADES REALIZADAS

- 29/09/95 Encontro em Maputo com Robert Smith, gestor do projecto.
- 11/10/95 Encontro com Mary Schwartz, responsável administrativa da USAID.
- 12/10/95 Viagem Maputo/Machaze dos 3 consultores.
Seminário com 80 líderes tradicionais e administrativos dos Postos Administrativos e Localidades do distrito de Machaze.
- 13/10/95 Seminário com 80 líderes tradicionais e administrativos dos Postos Administrativos e Localidades do distrito de Machaze.
Reunião com 13 animadores
Encontro com Sr. David Elias Antonio, administrador do distrito de Machaze.
Encontro com Sr. Crispim Diluia, Director Distrital da Educação de Machaze.
Entrevista com o Sr. Paulo Pereira, técnico de água do projecto.
Entrevista com o Sr. Selemangy Massamby, técnico de água do projecto.
- 14/10/95 Visita à 9 furos do Posto Administrativo de Save.
- 15/10/95 Visita à 4 furos de Mecupe, Chinavana, Socossoca e Nhambue.
Entrevista com Sr. Jim Barton, engenheiro de perfuração do projecto.
- 16/10/95 Entrevista com o Sr. Robert Smith, gestor do projecto.
Viagem Machaze/Chimoio
- 17/10/95 Encontro com o Sr. Tomás Benjamim Mtambo, Director Provincial das Obras Públicas e Habitação.
Encontro com o Sr. Anton Rijdsijk, responsável do sector de água da GTZ.
Encontro com o Sr. Mohamed Igbal Ossman Hassan, sócio gerente da Mafuia Comercial.
Encontro com o Sr. Josef Mercx, representante da ACNUR em Manica.
- 18/10/95 Viagem Chimoio/Machaze
Regresso a Maputo do Sr. Herco Jansen, consultor.
Encontro com o Sr. Mateus Walese, Director Distrital de Saúde.
Encontro com o Sr. Eduardo Telhano, gestor do projecto FSCIR.
Encontro com o Sr. Anibal de Oliveira, gestor do projecto de distribuição de alimentos.
Entrevista com o Sr. Antonio Chauque, supervisor técnico do projecto.
- 19/10/95 Visita à 7 furos em Machaze sede e Mussimbe.

-
- 20/10/95 Visita à 8 furos em Fucuzane, Chipopopo e Chipandira.
Acompanhamento da formação pelos animadores ao grupo de manutenção de Fucuzane.
Reunião com o comité executivo de Chipopopo.
- 21/10/95 Visita à 8 furos em Mumbo, Chitondo, Nhamachamo e Butiro.
- 22/10/95 Visita à 6 furos em Tueré, Chitare, Mambone e Matchane.
- 23/10/95 Visita à 8 furos em Chipudje, Guezanhe, Tuco-Tuco, Chivavissa, Macundanhe.
- 24/10/95 Assistência a 2 palestras de educação sanitária no furo do Bairro 1º de Maio e nas cantinas da sede do Posto Administrativo de Machaze.
Visita à 3 furos em Bassane e Chipambuleque.
Encontro com o Sr. Sérgio Bento (fiscal 1ª fase) e Sr. Ben Lamoree (investigador geofísica e fiscal):
- 25/10/95 Viagem Machaze/ Espungabera
Encontro com o Sr. Roberto Gonzalez, responsável regional da ACNUR.
- 26/10/95 Reunião com 4 mecânicos.
Elaboração do draft do relatório.
- 27/10/95 Elaboração do draft do relatório.
Entrega do draft do relatório à Robert Smith, gestor do projecto.
- 28/10/95 Viagem Machaze/Maputo
- 29-31/10/95 Elaboração do relatório final
- 01/11/95 Apresentação do relatório à USAID.

ANEXO 4
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BIBLIOGRAFIA

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ANEXO 5
LISTA DE PESSOAS ENCONTRADAS

LISTA DE PESSOAS ENCONTRADAS

Anibal de Oliveira	Gestor do projecto de distribuição de alimentos
Anton Rijdsijk	GTZ
Antonio Chauque	Supervisor técnico
Ben Lamoree	Geohidrólogo, DNA, pesquisador geofísica 2e. fase
Crispim Diluia	Director distrital de educação
David Elias Antonio	Administrador do distrito de Machaze
Eduardo Telhano	Gestor do FSCIR
Ester Joel	Supervisora dos animadores
Felicidade	PRONAR
Jim Barton	Engenheiro de perfuração
Josef Mercx	Responsável provincial da ACNUR
Leo Stolk	PRONAR
Maria Angelina Xavier	Directora do PRONAR
Mary Schwartz	USAID
Mateus Walese	Director distrital de saúde
Merlina Damião	Supervisora dos animadores
Mohomed Igbal Ossman Hassan	Sócio gerente da Mafuia Comercial
Nicole Besançon	PRONAR
Paulo Pereira	Técnico de água
Pierre Olivier Henri	Centro Profissional de água e saneamento
Robert Smith	Chefe do projecto de água de Machaze
Roberto Gonzalez	Responsável regional da ACNUR
Selemangy Massamby	Técnico de água
Sergio Inacio	Representante da ACNUR Machaze
Sérgio Bento	Fiscal da 1ª fase de perfuração
Tomas Benjamim Mtambo	Director Provincial das Obras Públicas e Habitação
Tomas Chauque	Técnico de água

10 mulheres em 12 pontos de água, total 120 mulheres.

80 líderes tradicionais e responsáveis dos Postos administrativos e Localidades.

13 membros do comité executivo de Chipopopo.

4 mecânicos locais.

13 animadores.

ANEXO 6
FICHA DE VISITA AOS FUROS

FICHA DE VISITA AOS FUROS

DADOS GERAIS DA LOCALIZAÇÃO	
Data da visita	
Localização	
Furo novo (N) ou Reab. (R)	
N° do furo	
Coordenadas	
Data da construção do passeio	
Distância à latrina > 50 (S,N)	
Distância à casa > 30 (S,N)	
Distância à rua > 30 (S,N)	
Outras fontes de contaminação	
DESEMPENHO DO FURO	
Electrocondutividade	
Temperatura	
Presença de areia (S,N,AV,SI)	
Dureza qualitativa (D,M,N,SI)	
Disponibilidade da água (Td,Ta)	
Chega para todos/dia	
Diversos	
BOMBA	
Tipo de bomba	
funciona (S,N)	
Estado da bomba	
avarias (0,1-3, > 3)	
tipo de avarias	
mais frequentes	
Duração média das avarias	
Sistema de registo de avarias	
Diversos	
PASSEIO	
Estado do passeio	
Diâmetro do selo	
Já foi reparado (S,N)	
Observações	

~~AD-ARM-588~~
~~18603~~

CLOSEOUT of USAID GRANT

STATUS OF RECOMMENDATIONS FROM FINAL EVALUATION

Food Security and Community Infrastructure Rehabilitation Project

Number: 656-0217-G-00-4005

Organization Name: CARE International
Organization Address: Av. Martires Da Mueda 596
Caixa Postal 4657
Maputo, Mozambique

For the purpose of presentation, the evaluators' conclusions, recommendations for the existing project and recommendations for future work have been organized into the three components of the project: rehabilitation of infrastructure, nutritional monitoring and education, and community organization. Within these components, the USAID format was used to indicate action taken by CARE with regards to the recommendations for the existing project and some of the conclusions. Added to this format were the evaluators' conclusions and recommendations for future work, and CARE's comments.

I. Rehabilitation of Infrastructure

A. Rehabilitation of Infrastructure General Conclusions

1. Conclusions:

4.1.1: Infrastructures have been built in areas of key importance in terms of size of population served.

4.1.1: Opening of roads has resulted in newly established trading activities.

2. Recommendations for Future Work: None

3. Recommendations for the Existing Project: None

4. Status: Not Applicable

5. Comments: Information from the participatory rural appraisal, conducted in April 1993, was used to identify structures and roads to be rehabilitated. As the project proceeded, there were some changes based on the

willingness of communities to participate in rehabilitation activities and the actual resettlement of returning refugees and the internally displaced. For the most part, the roads that have been opened can be maintained on an ad hoc basis by communities. CARE has also spoken with GTZ and UNICEF about the rehabilitated roads and their maintenance for their consideration in planning long-term development projects in Machaze.

Despite specific instructions in the SOW, the evaluation team did not systematically review historical changes in food products available in the district through revitalized market structures (either through systematic qualitative interviews with store and 'trading post' owners, consumer focus groups, or through the information available in the MFS-CIS survey data). While CARE recognizes that direct attribution of significant access and availability changes to project interventions (roads, employment generation) is extremely difficult, it is unfortunate that this was not addressed with rigor in the evaluation exercise.

B. School and Health Post Constructions

1. Conclusions:

4.1.1: School and health post constructions have been designed to a high standard but there have been delays in completing the works, and some poor workmanship needs correcting.

2. Recommendations for Future Work: None

3. Recommendations for the Existing Project: None

4. Status: X Ongoing January 31, 1996
Estimated Completion Date

5. Comments: The delays were caused by poor project implementation in 1994. All structures will be completed by January 31, 1996 with UNHCR funding. The poor workmanship occurred in schools constructed by a contractor financed with UNHCR funds. The contractor was terminated in August 1995, and another contractor has been hired to replace windows and to complete the finishing touches.

C. UNHCR Funded Structures and Rainwater Catchment

1. Conclusions:

4.1.1: Roofing for UNHCR funded company constructed schools is lusalite and cannot be used for rainwater catchment.

2. Recommendations for Future Work: None

3. Recommendations for the Existing Project: CARE should investigate ways of making the roofing safe for rainwater collection, such as sealing.

4. Status: X Not to be Completed

5. Comments: The structures with lusalite were completed by a building contractor financed with UNHCR funds, and these structures were three schools in Chitobe, and one school in Chipudje. The reasons for not installing rainwater catchment systems for these structures were proximity to functioning boreholes completed by CARE during the drilling campaigns undertaken in 1994 and 1995.

For the schools, water tanks have been constructed next to these structures and water to these tanks can be supplied by the communities either on a per pupil basis or through a transport arrangement using community resources. This last option will be considered further as part of animation component of the Sustainable Water in Machaze Project.

Given that the average annual rainfall in Machaze is about 300 milliliters, rainwater catchment systems were viewed as an option for communities with inadequate water supplies or with boreholes located great distances from structures built by communities using zinc roofing materials. These systems were installed for the community-built schools in Bassane, Chipopopo and Guezahne. Therefore, sealing the lusalite for the purposes of rainwater catchment in communities where the structures were built with a contractor has not and will not be pursued with UNHCR funding.

D. Water Tanks for Schools and Health Posts

1. Conclusions:

4.1.1: The water tanks for all the schools and the health posts are small and situated too far from buildings for convenient rainwater collection.

2. Recommendations for Future Work: None
3. Recommendations for the Existing Project: CARE should build new tanks, or extend the present ones towards the buildings. Guttering and piping should be provided to channel rainwater into the tanks.
4. Status: X Ongoing January 31, 1996
Estimated Completion Date
5. Comments: This recommendation is based on an errant conclusion on the part of the evaluation team. The water tanks under question were actually temporary structures used to store water to mix cement at the construction sites. Permanent water tanks for the rainwater catchment systems have or will be constructed for community-built schools located in Bassane, Chipopopo and Guezahne, and they are located next to these schools.

E. Staff Houses as Public Structures

1. Conclusions:

4.1.1: Building of staff houses was a much needed undertaking and was of great benefit to the community. However, since this benefit was indirect, the staff houses cannot be considered as "public structures used by the community for community purposes".
2. Recommendations for Future Work: None
3. Recommendations for the Existing Project: Future projects should focus on building true "public structures", such as washplaces, and involve local communities in a participatory process from the planning to the implementation of such projects to meet needs identified by those communities.
4. Status: X Not to be Completed
5. Comments: The initial project design allowed for the construction of 'public structures', but did not

specifically define the nature of these. In 1994, project staff worked with community members to assess potential desires and needs. Two proposals were advanced on the part of some communities: the construction of physical community markets, and the construction of community food warehouses. Further investigation on the part of project staff revealed the widespread belief that food aid deliveries to communities would be more secure if communities had secure warehousing facilities. As CARE did not project that food aid would be an indefinite need in the communities in question, and wanted to avoid raising expectations of guaranteed and indefinite food aid entitlements, project staff elected not to construct warehouses. CARE experience and assessments in the district also revealed that constraints to marketing were not based on the lack of physical market structure, and concluded that market construction would do little to alleviate food security constraints arising from fragmented food markets. Finally, washing facilities were not identified as a defined need by communities. CARE does, however, recognize the potential value of public washing facilities situated at appropriate borehole sites, and decided that these could be easily constructed by the animation team of the CARE water project in the district with little time and effort.

At the same time, the mid-term evaluation and the project's own discussions with provincial and district health and education authorities, strongly recommended the construction of staff housing for schools and health posts, to ensure staffing availability, and therefore a stronger likelihood of service sustainability. The Project therefore decided to allocate the resources set aside for 'public structures' for staff housing. Given that health posts, schools and staff housing would lead to improvements for the communities as a whole, CARE worked with communities to construct these. CARE believes these serve a broader community good and does not, therefore, concur with the conclusion reached by the evaluation team.

II. Nutritional Monitoring and Education

A. Creches for Feeding Children

1. Conclusions:

4.1.2: The nutrition education program led to the formation of community women's organizations in which some key problems could be dealt with. Women are the most needy group within communities, having extraordinarily heavy work roles due to the problems of access to water and shortages of food, as well as a low social position. The program has helped women to unite, to increase their confidence, and their capacity to jointly analyze their situation and to look for solutions.

4.1.2: The development of creches was a very good initiative. It is a direct response to the communities' expressed need: the need to provide adequate nutrition to young children. In addition, it involves local decision-making, as the mothers themselves have taken principal responsibility for the creches.

4.1.2: The animators took on the role of managing food provided by CARE for the creches. Since the animators are part of CARE's structure, rather than integral parts of the women's groups, this involvement limited the development of management skills within the women's groups. It also limited the likelihood that the ongoing work of the groups would be sustained.

4.1.2: Starting vegetable gardens to provide nutritious foods for the creche was a positive initiative, although ultimately unsuccessful due to the drought and the subsequent unavailability of water. This initiative should be reactivated when conditions permit.

2. Recommendations for Future Work:

4.2: The development of creches should focus on child care activities as well as feeding, and based near water points which have are natural meeting grounds for women living in dispersed communities.

4.2: In order to guarantee sustainability of the creches, the mother groups should be trained in group leadership, management and bookkeeping.

4.2: Sustainable income generation activities should be developed which are suitable for community participation for support of creche activities.

4.2: Income generation activities for women which can improve household food security should be investigated and developed, for instance, credit in kind for livestock (revolving poultry and goat fund), or inputs on credit for the use of existing skills (eg. soap production learned in Zimbabwe). Food processing, such as oil production, should be prioritized.

3. Recommendations for the Existing Project: None
4. Status: Not applicable
5. Comments: As part of training effort in how to efficiently prepare food grown locally and purchased from local vendors, CARE provided this food to women participating in the management and operation of the creches. Given that the nutrition education activity was an output implemented on a pilot basis, CARE gained valuable experience that has been considered in the development of a project proposal to improve child and mother health and hopes to continue creches if donor funding is available.

The role of the animators was envisioned to be facilitative and its end point was to be the effective organization of women's groups capable of sustaining this activity. Unfortunately, there was not enough time for this to be fully realized under the pilot phase of this activity, which would have required more training in management of the creches.

The Sustainable Agriculture in Machaze Project focuses on crop diversification, among other things, for home consumption and for market. Provided there is long-term funding for the Sustainable Water in Machaze Project, one activity is the construction of small dams. Water from these sources will be used to establish another source of potable water with sand filtration and potentially to support small agriculture schemes such as seasonal gardens.

B. Integration with District Directorate of Health (DDS)

1. Conclusions:

4.1.2: The training and employment of nutrition animators has been undertaken without consideration of their integration into the District Directorate of Health, and has been found to undermine the system of voluntary health workers used by the official health structure in the communities.

4.1.2: The collection of data in the communities by the animators is one in parallel with the District Directorate of Health's data collection. The lack of linkage makes it difficult for the formal health services to benefit from the work of the animators and vice versa.

4.1.2: The nutrition education component has not been coordinated with the district health program in a way that will provide sustainability at the end of the project.

4.1.2: The community monitoring system that has been established does not appear to sufficiently well understood by the animators to ensure the collection of valid data. The animators lack sufficient capacity to have a clear understanding of the different types of malnutrition and the appropriate responses.

4.1.2: The participation of both the nutrition coordinator and the animators in health education in schools is an important initiative. In order to make this work sustainable, much more work should be done training teachers to make health education part of the school curriculum.

4.1.3: CARE has good relations with most directorates at the district level, but its relationship with health is weak. At the provincial level there is information sharing but not enough dialogue on key project issues.

2. Recommendations for Future Work:

4.2: Future work in health would benefit from greater coordination and cooperation, both the government health structures at the national, provincial and district levels, and with NGOs working in the health sector. CARE should work to strengthen its relationships with both sectors, which would have the combined effect of

improving both the level of expertise of CARE staff and the quality of the services delivered.

4.2: Future work should build on the initiatives of the women's groups, which are the only community structures which have been developed during the life of the project.

4.2: Animators should be incorporated into an existing structure in order to ensure that their work continues, that they are adequately supervised, and that their existence corresponds with the government policy on community based volunteers. In future, a careful analysis should be made of the resources and networks in the area, conducted together with governmental district officials, community leaders and other NGOs present in the area, to identify key information deliverers. These could include "curandeiros", traditional birth attendants, returnees trained abroad, etc.

4.2: Community-based animators should not be paid by CARE. Other incentives which are similar to the benefits provided to the volunteers of the government agencies, should be investigated, such as t-shirts, caps, capulanas, an education material kit, and transport facilities such as a bicycle.

3. Recommendations for the Existing Project: None
4. Status: Not applicable
5. Comments: The government health structure in Machaze has been found in several studies and evaluations to be very weak due to inadequate staffing, poorly trained health workers, lack of supplies and lack of infrastructure. The government health programs in Machaze cover curative treatments, and only in May 1995 were preventive interventions considered as part of the Provincial Directorate of Health's community development program. The implementation of this program in Machaze has been stymied due to transport and continued staffing problems.

Within this information as a backdrop, the nutrition education activity was implemented on a pilot basis in Bassane, Chipudje and two barrios in Chitobe. And, not surprising, a major difficulty encountered by CARE was

coordinating with the DDS. As of the completion of the project, the coordination has been realized through the participation of the community health specialist and infant and maternal health specialist in nutrition training and monitoring activities, and the sharing of information with the DDS.

Through the participation of these specialists, CARE was able to discuss activities that could be continued by the DDS. These activities are the monitoring of the health status of children and the adoption of preventive health and nutritional practices, such as breastfeeding, weaning and diarrheal control; dissemination of messages using the Provincial Directorate of Health's and CARE's printed materials; and further development of women's groups organized in the course of the nutritional education activity.

Sustainability of the DDS's community health worker program has not been impeded by CARE's activities and organization in these communities as this program is not yet operational. CARE's use of animators was envisioned as a facilitative role to enable community groups and mothers to continue with the delivery of messages and the training of other mothers, and the DDS should leverage their efforts in Bassane, Chipudje and Chitobe where a foundation has been established. For example, women from these communities are familiar with proper practices, have organized themselves into groups, and some of these women even have the requisite leadership abilities to be considered by the DDS as community health workers, should they implement a community based health program in the district in the future.

CARE concurs that, for longer term health interventions, in-kind remuneration of community health workers is a more preferable option for supporting community volunteer efforts.

CARE is continuing its initiative working with school children under the child-to-child hygiene and sanitation effort in the water project. If full funding for the Sustainable Water in Machaze Project is achieved, and activities begin to show impact in terms of behavioral change, this initiative will be strengthened and expanded.

C. Community-based Food Security Monitoring System

1. Conclusions:

4.1.2: The collection of data for the MSF-CIS monitoring system by the nutrition coordinator in Save, Chitobe and Bassane is time-consuming. The data itself is rather complicated; there is much to collect, and the areas to visit are distant.

2. Recommendations for Future Work: None

3. Recommendations for the Existing Project: None

4. Status: Not applicable

5. Comments: At the conclusion of the project, simpler data will continue to be collected by the monitors of CARE's Food Program and CARE has no plans to continue with extensive data collection. However, CARE is in the process of establishing a baseline data set and monitoring system under the three year Sustainable Agriculture in Machaze Project, which is focused on measuring project progress and impact. An underlying theme of the design is ensuring that data collection and analysis can be conducted by staff at the project level.

D. Health Education Activities

1. Conclusions: None

2. Recommendations for Future Work:

4.2: Health education activities for water and nutrition should be undertaken in a single program.

4.2: In order to strengthen the dissemination of correct and consistent education and health messages, didactic materials about health and nutrition topics if not already existing should be developed in cooperation with government health structures and other NGOs working in the area.

4.2: Alternative sources of education such as the PAC theater group in Manica Province should be used to disseminate important messages.

4.2: Once the priorities in health education are jointly defined, a module can then be developed for use by health professionals, educators (including school teachers), community leaders and animators.

4.2: Support of teachers training for school leavers, (requested by DPE), could provide the opportunity to develop a nutrition and health education component in schools. Input by CARE into the training could also enable stronger relationships to be developed with teachers for encouraging the mobilization of the community for the maintenance of community infrastructures.

3. Recommendations for the Existing Project: None

4. Status: Not applicable

5. Comments: The first three recommendations for future work have been considered in the design of the Sustainable Water in Machaze Project. The animation component of the project focuses on hygiene and sanitation messages and adoption of practices. In delivering these messages, CARE will continue to draw from the experiences gained through a similar water project being implemented by CARE in Inhambane and utilize resources that already have been developed. For example, the Mozambican Health Committee utilizes a local NGO that provides theatrical productions shaped around basic health messages. This group will be hired by CARE to deliver messages to communities and to schools.

The last two recommendations for future work will not be carried out. CARE does not plan, in the near future, to be part of any institutional development activities with the DDS, and will not be continuing with any formal sector education activities apart from the child-to-child pilot under the water project. CARE will encourage and facilitate both the district directorates of health and education to participate in community based activities related to community animation, and will coordinate these activities with both of these directorates.

III. Community Organization

A. Community Labor and Participation in Activities

1. Conclusions:

4.1.1: Local labor was extensively used in rehabilitation activities. However, paid labor should not be defined as "community participation".

4.1.1: Extreme food insecurity in the region throughout the project life resulted in harsh conditions which reduced the capacity of the population to provide voluntary labor.

4.1.1: The use of UNHCR funds for the rehabilitation program exerted time pressures which are not compatible with community participation. Community participatory processes became output orientated for project needs.

4.1.1: CARE makes separate demands on the communities for different projects and activities, which does not facilitate community participation and empowerment.

2. Recommendations for Future Work: None

3. Recommendations for the Existing Project: None

4. Status: Not applicable

5. Comments: Taking these conclusions together, one can get a sense for the emergency and relief environment in which CARE was implementing this project. The conclusion about not defining paid labor as community participation is a bit erroneous because participants did participate and did receive experience in basic construction. While the population was in general not willing to contribute voluntary labour, except in the case of water related activities, CARE believes that cash for work in lieu of food for work was the best intervention for the following reasons: 1) direct food aid distributions were concurrently being carried out in the district and implementing both direct distributions and food for work in the same communities would have contributed to already existing confusion at the community level over rights to food entitlements; 2) while food scarcity is an issue in Machaze amongst defined target groups, the evaluation team tended to

rely on anecdotal comments made by community members at large gatherings, and did not explore the complexities of household food access and availability, i.e. the methodology used by the evaluation team did not capture the very important food transfers (in cash or kind) between households, and the highly significant historical reliance on forest products, which also lessens the appropriateness of food for work; and 3) the project did not have donor support for the financial and staff resources necessary to implement a well targeted and accountable food for work program. Both CARE and other NGO experience in Mozambique and elsewhere has shown that the effective implementation of food for work programs demands a significant amount of resources.

The conclusion concerning the organization of activities is valid, and CARE should have had a much better community development function to avoid confusion within the communities. For the Sustainable Agriculture in Machaze and Sustainable Water in Machaze projects that are now being implemented, CARE has taken steps to significantly improve this function.

B. Role of Traditional Structure

1. Conclusions:

4.1.1: Contact with the communities is principally through the hierarchical structure of the Regulo. No new community organizations have been formed for ongoing community development activities, except in the case of the women's organizations involved in the nutrition program.

4.1.1: Some responsibility for the maintenance of the infrastructures has been accepted by the traditional structures but ongoing mobilization and support will be necessary.

2. Recommendations for Future Work:

4.2: CARE's future work should focus on participatory processes rather than an output oriented approach. It's approach to the community should be coordinated with respect to different project components.

3. Recommendations for the Existing Project: None

4. Status: Not applicable
5. Comments: CARE concurs that the traditional authority structure can be hierarchical and does not always represent the views of all members of the community. However, this can also be the case with other types of community organizations. Experience shows that often the most effective community organizations are built around 'special interests', in the case of the women's groups under the nutrition education program, or the case of farmers associations.

In implementing the rehabilitation oriented activities with communities, the most logical starting point was the traditional structure. All activities were discussed and planned with the Regulos to ensure that activities did not conflict with community events and that labor would be available to build community-built structures and to rehabilitate roads. CARE has no plans to continue with construction and rehabilitation activities and did not pursue the creation of new community organizations to continue with these types of activities after December 31, 1995, as it was felt that the existing regulado structure was the best organizational option for community service infrastructure (health posts, education, schools).

CARE did initiate a series of community meetings to discuss the future of the schools built with community labor and contractors. These meetings focused on maintenance and operation, additional community uses for the schools and extracurricular activities. The District Directorate of Education for Machaze participated in these meetings and he will be continuing this effort with the communities.

For the Sustainable Agriculture in Machaze and the Sustainable Water in Machaze projects, there are opportunities to continue to work with and assist to strengthen the traditional governance structure, as well the creation of farmer associations. These efforts will assist communities in undertaking long-term development activities that can be supported by community leadership and available resources.

C. Community Development Abilities of Staff

1. Conclusions:

4.1.3: The project was constrained by very difficult working and living conditions, changes of senior staff, and expatriate staff with insufficient Portuguese and inappropriate skills for the demands of the job.

4.1.3: The continuing dialogue that has taken place between the nutrition coordinator and the community has benefited the work of the nutrition monitoring and education program and was greatly facilitated by the coordinator's excellent communication skills, understanding of the community and command of the local language.

2. Recommendations for Future Work:

4.2: CARE staff based in Chitobe should have strong community development skills, and should work directly with community groups to promote community initiatives. Command of the local language is also recommended.

3. Recommendations for the Existing Project: None

4. Status: Not applicable

5. Comments: With reference to expatriate staff, this recommendation for future work is well taken. The expatriate hired as the Community Development Specialist was very weak and terminated in early February 1995. During the project in 1995, CARE improved its community development capabilities by promoting national staff to senior management positions to oversee community organization and scheduling activities with communities. With the exception of the structures built by contractors with funding from UNHCR, CARE worked directly with community groups.

D. **Sustainability**

1. Conclusions: None

2. Recommendations for Future Work:

4.2: The FSCIR project and other CARE activities have established a good foundation for work in Machaze District. CARE should continue it's work in the area, focusing more closely on collaboration with government structures to develop long term sustainability.

4.2: CARE's future projects need to consider and guarantee the sustainability of their activities from the beginning.

3. - Recommendations for the Existing Project: None

4. Status: Not Applicable

5. Comments: In working with the government, CARE's approach was to collaborate and coordinate all activities with government authorities and bodies. For the rehabilitation of structures, CARE secured government approval for the location and design of the health structures, schools and staff housing. The local government's role vis a vis sustainability comes down to maintaining them through agreements with communities and their own resources.

For road rehabilitation, CARE worked closely with the District Administrator to identify key tertiary and secondary roads, and kept the government authorities abreast of progress. In terms of sustainability, communities have been trained to undertake maintenance activities on an ad hoc basis depending on a particular problems. There is no local government body that oversees maintenance of secondary and tertiary roads.

As for guaranteeing the sustainability of activities from the beginning of the project, this point is valid for the nutritional monitoring and education component of the project. Even though the component was implemented on a pilot basis, it should have been implemented in 1994. Right now, CARE is in a position where the women's groups are organized and still need more support, which will not be forthcoming after December 1995. While the DDS is interested in beginning outreach activities, they do not at present have the resources to do so.