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# **CARE International in Ethiopia**

**Care Borana**

**Emergency Drought Relief Project**

**OFDA Terminal Report**

**November 2001**

**CARE BORANA EMERGENCY DROUGHT RELIEF PROJECT**  
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<b>Program Title:</b>	CARE Borana Emergency Drought Relief Program
<b>Country/Region:</b>	Borana Zone, Oromiya Region, Ethiopia
<b>Disaster/Hazard:</b>	Drought
<b>Contract Period:</b>	15 April 2000 to 31 October 2001
<b>Contract Amount:</b>	USD \$ 879,887
<b>Reporting Period:</b>	15 April 2000 to 31 October 2001 (Terminal Report)
<b>Report Prepared by:</b>	Mulugeta Shibru, Assistant Project Coordinator, CARE Borana

CARE Ethiopia has been undertaking activities in three *woredas* (Yabello, Dire and Teltele) of the Borana Zone of the Oromiya Region under OFDA contract AOT-G-00119-00, since April 2000. The original contract was scheduled to end June 30, 2001 but a no-cost extension was granted through October 31, 2001. As of October 31, total expenditures against this contract were \$879,887 for the project activities outlined below (as per the original and modified proposal descriptions).

**Objective #1:**

**In collaboration with Catholic Relief Services (CRS), provide 165, 000 liters per day of drinking water to pastoral populations in three *woredas* by means of:**

- Installation of three boreholes
- Maintenance of existing boreholes
- Water tankering over an 8-11 month period
- Capacity building/training for borehole operators

• **Installation of new boreholes and maintenance of existing boreholes**

Table 1 on the next page summarizes accomplishments in terms of rehabilitation and drilling activities during the entire project period. Three new boreholes were drilled in two *woredas* and rehabilitation/maintenance activities took place in four sites in three *woredas*.

• **Water Tankering**

CARE began water tankering after the failure of the main rainy season in March 1999. Tankering became more intensive in the three *woredas* as the drought became more severe. Project documents show that in the entire period of water tankering operations (January 2000 to September 2000) 5,262,390 liters of drinking water were supplied to 231,470 beneficiaries in 95 PAs in the three target *woredas* over the nine-month period. This means that CARE was able to distribute an average of 19,490 liters of drinking water per day.

The gradual improvement of rainfall conditions which started in the *Hagaya* season (September to October 2000) and continued in the *Ganna* season (March 2001 to May 2001) significantly increased availability and community access to water. Traditional water sources such as ponds, puddles, wells and streams have again become the main water sources. These improvements enabled CARE to stop the water tankering operation in September 2000.

**Table 1 Summary of major activities accomplished in drilling and rehabilitation of boreholes**

<b>Activity</b>	<b>Woreda</b>	<b>Site</b>	<b>Activity accomplished</b>
<b>Rehabilitation</b>	Dire	Dubluk	<ul style="list-style-type: none"> <li>• Generator and submersible pump changed</li> <li>• Training provided on basic operation skills for motorized pump</li> <li>• Spare parts that can be managed by the operator (air cleaner and oil filter) provided along with skills training</li> </ul>
		Medacho	<ul style="list-style-type: none"> <li>• New Indian Mark II hand pump installed</li> <li>• Water points fenced with barbed wire</li> <li>• Established management committee revitalized</li> <li>• Hand tools provided to enable trained pump attendant to repair and maintain pump</li> </ul>
	Yabello	Elewoya	<ul style="list-style-type: none"> <li>• New submersible pump installed</li> <li>• Water points fenced with barbed wire</li> <li>• Training provided on skills for basic hand pump operation</li> <li>• Hand tools provided to enable trained pump attendant to repair and maintain pump</li> </ul>
	Teltele	Chabi	<ul style="list-style-type: none"> <li>• New Afrider hand pump installed</li> <li>• Reselection of management committee</li> <li>• Hand tools provided to enable trained pump attendant to repair and maintain pump</li> </ul>
<b>Drilling</b>	Dire	Soda	<ul style="list-style-type: none"> <li>• Indian Mark II hand pump installed</li> <li>• Water points fenced with barbed wire</li> <li>• Management committee formed and necessary training provided</li> <li>• Hand tools provided to enable trained pump attendant to repair and maintain pump</li> </ul>
		Silala	<ul style="list-style-type: none"> <li>• Indian Mark II hand pump installed</li> <li>• Water points fenced with barbed wire</li> <li>• Management committee formed and necessary training provided</li> <li>• Hand tools provided to enable trained pump attendant to repair and maintain pump</li> <li>• Spare parts that can be managed by the operator (air cleaner and oil filter) provided along with skills training</li> </ul>
	Teltele	Dara	<ul style="list-style-type: none"> <li>• Generator and submersible pump installed</li> <li>• Construction of base for "Roto" tank completed and fixed</li> <li>• Construction of water point completed</li> <li>• Construction of standard double cattle trough completed</li> <li>• Construction of laundry basin completed</li> <li>• Water points and generator house fenced with barbed wire</li> <li>• Management committee formed and necessary training provided</li> <li>• Spare parts that can be managed by the operator (air cleaner and oil filter) provided along with skills training</li> </ul>

- **Capacity Building**

In collaboration with CARE, the Borana Zone Water Department organized community meetings at the Dara, Soda and Silla borehole sites to facilitate the selection of water management committees. A three-day training on maintenance and management of the rural water supply schemes was provided for 19 committee members for the three new boreholes. Management committees already existed for the rehabilitated hand pumps in Dubluk, Medacho, Elewoya and Chabi and refresher training was provided to these existing committees in order to improve their care and management of the boreholes. This laid a foundation for official handing over of the schemes to the communities.

In addition to the formal training provided to the water management committees, CARE disseminated water and sanitation extension messages to the communities living near the water schemes. Table 2 presents statistics about community members who were reached with WATSAN extension messages.

**Table 2 Summary of Community Members Reached with WATSAN Extension Messages**

<i>Woreda</i>	No. of water scheme orientations facilitated	No. of Participants			No. of Sessions
		Male	Female	Total	
Dire	2	77	12	89	2
Teltele	2	293	162	455	9
<b>Totals</b>	<b>4</b>	<b>370</b>	<b>174</b>	<b>544</b>	<b>11</b>

CARE and CRS, with coordination of the Zonal water department, also agreed to provide on-site training in basic operation and maintenance skills for pump attendants and generator operators as a long-term capacity building initiative for the community. The provision of hand tools and spare parts was also carried out as part of the capacity building agreement. To this effect, on-the-job training was provided to two trainees from each water scheme (Dubluk, Dara, Elewoya, Silala, Medacho, Soda and Chabi). The provision of tools and spare parts took place in conjunction with the training. This capacity building process was carried out from October 13-19, 2001.

CARE also built its own staff capacity to effectively transmit water and sanitation extension messages to the communities. To this effect, in collaboration with CRS, two trainings were held for field staff. The first was given to 23 field staff and the second one covered a total of 17 participants including counterparts. The overall objective of these training sessions was to deliver water and sanitation CBHC training to make field staff more efficient and effective in disseminating extension messages.

**Objective #2: To improve the capacity of twenty additional resource poor villages to store and use drinking water during dry and drought periods**

- **Water Cistern Construction**

CARE, with the sponsorship of OFDA, planned the construction of 22 cisterns in the three target *woredas*. By mobilizing all available resources (human and physical) to expedite construction, the project was able to complete the proposed cisterns and Table 3 summarizes construction by location, capacity and beneficiaries. The completion of these 22 new cisterns has given approximately 2,747 households (12,953 persons) in three *woredas* access to an additional 2,393 cubic meters of water storage capacity.

**Table 3 Cistern Capacity and Beneficiaries by Location**

<i>Woreda</i>	Location	Capacity in M <sup>3</sup>	No. of households	Beneficiaries
Teltele	• Hobok	114.5	143	572
	• Sarite	107.0	203	812
	• Billa	121.5	130	780
	• Jererissa	118.7	84	570
	• Hameissa	118.7	118	590
	• Gandhile	113.0	136	675
	• Hadho Negele	115.0	49	225
<b>Total</b>		<b>808.4</b>	<b>863</b>	<b>4,224</b>
Yabello	• Tulawayu	113	155	775
	• Dhedertu	81	154	770
	• Wayam Kela	110	206	1030
	• Dharito (Muyate)	100	208	1040
	• Gololicha (Areri)	120	143	715
<b>Total</b>		<b>524</b>	<b>866</b>	<b>3,637</b>
Dire	• Goray	118		337
	• Bokossa	119		548
	• Medacho	100		600
	• Gobisso	100		432
	• Dokole	116		270
	• Kerisa Danbi	100		750
	• Arebale (01)	100		672
	• Arebale (02)	100		405
	• Dillo	103		568
	• Kancharo	105		510
<b>Total</b>		<b>1061</b>	<b>1018</b>	<b>5,092</b>

•• **Capacity Building**

The capacity building process was initially started with WATSAN committee formation in each site. Later, water and sanitation extension messages were developed for general users as well as the WATSAN committees. Outlines were prepared and used by field staff as guidelines in facilitating awareness building for the committee and for users. Table 4 presents statistics on community members reached with WATSAN extension messages.

**Table 4 Summary of Community Members Reached with WATSAN Extension Messages**

<i>Woreda</i>	No. of water points (Cistern) where orientation was given	No of Participants			No. of Sessions
		Male	Female	Total	
Dire	10	159	137	269	5
Teltele	6	504	225	729	7
Yabello	6	475	181	656	8
<b>Total</b>	<b>22</b>	<b>1138</b>	<b>543</b>	<b>1654</b>	<b>20</b>

The need for the WATSAN committee to organize community meetings to establish water utilization rules and regulations was also shared with the communities to foster proper and equitable utilization of harvested water.

- **Changes in Attitudes and Practices Observed as a Result of WATSAN Education**

Although changes in attitudes and practices are difficult to determine, the following initiatives were observed in the communities:

- Establishment of a health committee at the village level to monitor environmental sanitation and personal hygiene,
- Improvement of personal and family hygiene by means of regular bathing, hand washing and washing of clothes as well as utensils,
- Fencing of water points with thorn bushes to protect from animals,
- Cleaning of catchment areas, cisterns and desilting of silt traps,
- Development of local laws for sustainable water utilization was observed in some areas.

**Objective #3: To provide the means for at least 750 families per month to obtain grain in exchange for weakened cattle, and simultaneously generate food resources for emergency feeding.**

- **Destocking**

CARE Borana began pilot destocking activities in October 1999 at two sites, Adegelech and Dubluk. As the intensity of the drought became more severe a third center was opened at Dara in Teltele in April 2000. Destocking ended in August 2000 since most of the area in the Borana plateau received rain in the *Hagaya* and *Ganna* seasons, which improved the availability of pasture and water. Improvement in the physical condition and price of livestock made the pastoralists unwilling to barter the physically 'improved' livestock for grain.

Two of the centers had rendered services for eleven months while the third center was open for only five months. A fourth center was in process when construction was halted due to improvement in the environmental conditions in the area.

A total of 1,466 'weakened' but healthy cattle were exchanged for 118 MT of grain. This exchange allowed CARE to produce 6,651 kgs of dried meat that was distributed to 18,069 malnourished children and elderly people in 27 PAs. CARE was able to provide meat to an average of 133 families per month, reaching 18% of the initial target. The following factors hindered fulfillment of the stated target:

- One of the assumptions was that even if rains were to begin in early April, and certainly even after the short rains predicted for October/ November, pastoralists would need to trade their weakened cattle for grain in order to feed themselves until milk production could be re-established. This was found to be incorrect. The observed reality was that as soon as rainfall conditions improved, the supply of cattle to the destocking centers declined significantly. This reality was not considered in setting targets for the OFDA project.
- Many of the weakened cattle did not reach the centers due to poor physical condition (they died on the way).
- The destocking centers had limited capacity in terms of physical structure, drying techniques, and the labor-intensive meat processing system.
- Only two of the centers were operational from the very beginning. The assumption in setting the targets was that the four centers would be operational at the same time.

- **Indirect Benefits of the Project**

The destocking activities created short-term employment opportunities for about 57 pastoralists. They were able in this way to generate income to sustain their families during the crisis time. Pastoralists were working on a daily basis as butchers, slicers, guards, herders and storekeepers.

**Objective # 4: To support approximately 11,620 agro-pastoralists to prepare their land, plant, and harvest seed to help them meet immediate food needs as well as continue their agricultural production by reserving a portion of their seed harvest.**

- **Seed and Tools distribution**

With the above intent, CARE Borana, in close collaboration with the Teltele, Mega and Yabello *Woreda* MOA distributed 34 MT of improved 'Katumani' maize seeds and 118 MT of locally purchased bean seeds to 11,212 members of the farming community. Additionally, 2,597 units of different hand tools were also distributed in the major planting season. The CARE donated seed enabled the farmers to cultivate approximately one-fourth of the total land cultivated in the three *woredas* that otherwise would have been left fallow due to seed shortage. Tables 5 and 6 summarize the seeds and tools distributed in the 2001 planting season.

**Table 5 Agricultural seeds distributed in the major planting season**

Operational area	Quantity of maize seed distributed (MT)	Area cultivated	No. of households benefited	Quantity of bean seed distributed (MT)	Area cultivated	No. of households benefited
Dire (Mega)	13	346	1035	35	729	3087
Yabello	11	440	880	40	1333	2672
Teltele	10	400	800	43	860	1830
Total	34	1186	2720	118	2922	8492

**Table 6 Summary of Agricultural tools distributed during planting season**

Woreda	Types of Agricultural tools distributed					Total	No. of Beneficiaries
	Congo hoe	Digging hoe	Local plough	Local Plough set	Pickaxe		
Dire	300	300	300	297	250	1447	1150
Yabello	150	150				300	300
Teltele	150	200	200		300	850	850
Total	600	650	500	550	297	2597	2300

- **Impact Assessment in relation to food security**

In a normal production year in the Yabello *Woreda*, an average yield of 12-qt/ha maize and 10qt/ha haricot beans was expected. However, the yield obtained in this production year was 1.5 qt/ha maize and 7qt/ha haricot beans. The production deviation from a normal year was about -87.5% for maize and -30% for haricot beans. Similar production deviation patterns were observed in the other two *Woredas*.

Though this year's production was poor, its contribution to the local food security should not be downplayed. According to the Yabello *Woreda* Task force's year 2001 main rainy season impact assessment, this year's crop production was expected to feed households for more than two months.

- **Seed Repayment Plan and Progress**

CARE and the MOA jointly decided to collect the distributed haricot bean seeds after close observation of the performance of the crop at various growth stages. The collected seed was treated and stored in the respective MOA *Woreda* offices for future distribution whenever seed shortages occur. The progress of recollection at this point versus what was planned is summarized in Table 7.

**Table 7 The Actual Quantity of Loan Seed Recollected versus Plan**

Crop Type	Woreda	Seed Collection		% Collected
		Planned	Achieved	
Haricot Beans	Yabello	400	200	50
	Teltele	150	105	70
	Dire	700*	0	0
<b>Total</b>		1250	305	
Maize	Yabello	110	0	0
	Teltele	100	0	0
	Dire	130	16	12
<b>Total</b>		340	16	

The maize production failure in most of the area prevented farmers from repaying seed. CARE and the MOA recognized this problem and have not forced the recipients to repay maize seeds.

CARE intended to distribute a total of 100 MT of maize that was to be planted during the major planting season. However, due to unavailability of the appropriate seed in the quantity requested, the Ministry of Agriculture asked CARE to assist with procurement and distribution of more seed for the shorter Hagaya planting season in September 2001. Table 8 summarizes the variety and quantity of seeds provided in the three *woredas*.

**Table 8 Agricultural Seed Distributed to Agro-pastoralists during Hagaya**

Woreda	Seed Type	Qty. supplied in quintals	# of farmers supplied	Quantity supplied /farmer in Kg	# of PA supplied with seed	Area covered w/seed in Ha.
Teltele	Wheat (bulk)	165	660	25	10	165.0
Yabello	Haricot Bean (Awash)	300	1,994	15	11	997.0
Dire	Haricot Bean (Awash)	150	1,500	10	8	312.5
	Haricot Bean (Mexican)	150	1,500	10	8	312.5
	Teff	40	267	15	3	134.0
<b>Total</b>		<b>805</b>	<b>5,921</b>		<b>40</b>	<b>1,921.0</b>

**• Conclusion and Recommendations**

CARE, in collaboration with counterparts has been able to undertake a set of diverse activities in the Borana Zone through financial support from OFDA beginning April 2000. These activities include water tankering, destocking, drilling of new boreholes, maintenance of existing boreholes, cistern construction, capacity building and provision of agricultural seeds and tools. The report summarizes the actual accomplishment of each activity as compared to stated objectives. Both quantitative and qualitative information was incorporated as deemed necessary to substantiate the report.

**Water Tankering -**

CARE-Borana's 1999/2000 water tankering activities carried out in some of the most severely affected communities in three districts of Borana Zone undoubtedly ameliorated some of the negative impacts of the drought crisis. This intervention enabled CARE to meet some of the immediate life-sustaining needs of pastoral households and reduce the risk of distress migration due to water crisis in their localities. The water-provisioning program, in conjunction with relief food distributions played a critical role to save the lives of hundreds of thousands of hunger-stricken people.

The initial capacity to deliver the needed amount of water through the tankering operations was somewhat hindered due to a lack of adequate water storage facilities at the village level. This was due in part to the challenges of transporting water tankers over very poor roads to remote areas in search of reservoirs that could be used to store the water.

#### *Cisterns -*

One means to address the issue of inadequate water recipients, in addition to lack of water, has been through cistern construction in various locations to augment the capacity of the population to not only receive emergency water rations in times of crisis, but also to harvest water naturally during rainy seasons. Water tankering is a very costly and short-term intervention, albeit very necessary to save lives under certain circumstances. CARE is working closely with communities and government counterparts to enhance emergency preparedness and mitigation efforts to try and reduce the need for tankering to the extent possible. CARE is also exploring the feasibility of encouraging private water tanker operators to work on a cost recovery basis in the eventuality that tankering is required in the future.

In collaboration with counterparts, CARE remains committed to improving access to and management of water sources to mitigate to the extent possible the cumulative impacts of past and future droughts. CARE has made the following *recommendations* that will be incorporated into future program design to improve the efficiency and effectiveness of water development interventions in the area:

- CARE needs to consider the geographical dispersion of cisterns in selecting future sites. This will enable improved technical and logistical coordination and supervision of the projects.
- It is important that CARE understands and respects the needs of community members throughout the process of project implementation. CARE field staff should consistently work with communities to build a mutual understand of appropriate site selection.
- It is very important to collecting baseline information so that impact can be measured over time.
- The number of trained masons in each PA should be increased to foster the capability of the community to maintain and repair cistern structures.
- Logistical capacities, such as trucks and water storage facilities, must be in place to appropriately carry out activities.
- CARE should consider hiring private water tanker operators/companies in the future instead of investing heavily in maintaining vehicles that easily break down due to poor road conditions.
- It is important to seek means of constructing additionally cisterns by the community and/or CARE to increase the number of cisterns and in turn capacities to address water shortage problems in the area.
- Multi-disciplinary teams should carry out comprehensive studies to determine the most appropriate locations for boreholes. A thorough benefits harms analysis should be carried out to consider many factors, including environmental, social, economic implications of the water points.
- WATSAN education should be an integral part of any water supply project.

#### *Destocking -*

The pilot destocking activities were designed to assist drought-affected pastoralists by enabling them to exchange weakened but otherwise healthy cattle for grain. The dried meat produced from slaughtering was distributed to malnourished children and other vulnerable groups as a supplement to emergency food rations that were being distributed to selected communities on a monthly basis. The intervention was found to be a productive (economically and nutritionally) way to make use of severely weakened cattle, which would otherwise have died without being eaten or sold – per Borana cultural practice. If destocking is carried out in the future, CARE will work to improve the capacity of the centers, the physical infrastructure, and techniques for processing and drying meat. Some communities were not happy with the small amount of grain they received (50-100Kg) in exchange for the cattle, as the market value was not equivalent. In the future, CARE will consider more closely the most fare method of exchange, since destocking is a welfare intervention designed to protect the

pastoralists from stripping off their cattle to procure "expensive grain" to maintain some level of food security during drought periods. CARE will also explore possibilities for mechanisms whereby cash or drought resistant animals, such as small stock and camels could be exchanged for weakened cattle. CARE has learned that it is critical to continually build awareness and encourage pastoralists to sell their livestock in a timely and effective manner than enables them to protect their assets that will assist them during difficult times.

#### **Seeds and Tools -**

CARE's short term seed and tools distribution enabled agro-pastoralists in the area to prepare their land, plant and harvest seed, which helped them to meet immediate food needs. In addition, it provided a means for them to improve agricultural production by reserving a portion of their harvest as a seed. Part of the distributed seeds were also recollected, treated and reserved by respective Ministry of Agriculture offices, in collaboration with CARE, to provide a reserve stock that can be drawn upon when seed is in shortage. The implementation process of this short-term intervention demonstrated the importance of establishing community seed banks. Community level seed banks would be better able to respond to community seed needs in a timely manner as opposed to relying on external assistance from agencies such as CARE, which may include bureaucratic and logistical bottlenecks and delays. In areas where short and erratic rainfall patterns prevail, opportunistic/flexible response is needed. Community level seed banks would help alleviate the recurrent seed shortage problem in the long-term.

#### **Finance**

Please see the attached financial summary (Table 9) that highlights contract utilization through July 2001. The report shows that we have \$879,886.98 expenditure at the end of October 2001 and a balance of \$0.02.

**Table 9. Financial Report for April '00 – October '01**

Description	Revised OFDA Budget	Expenditure as of October 01	Budget Balance
Personnel	\$ 300,020	\$ 296,094.95	\$ 3,924.28
Office Operating Costs - Yabello	\$ 33,651	\$ 30,668.66	\$ 2,982.33
Vehicle Maintenance and Fuel	\$ 173,013	\$ 222,068.85	(\$ 49,056.28)
Rig Running Costs	\$ 11,830	\$ 19,069.09	(\$ 7,239.02)
Repair and Installation of boreholes	\$ 41,110	\$ 42,660.24	(\$ 1,550.43)
Cistern construction	\$ 100,000	\$ 61,496.42	\$ 38,503.58
Meat processing	\$ 2,186	\$ 2,186.00	\$ 0
Other equipment/supplies	\$ 4,269	\$ 4,269.00	\$ 0
Seeds and Tools Purchase	\$ 99,700	\$ 69,185.70	\$ 30,514.34
CRS Admin Cost and Tech Assistance	\$ 5,000	\$ 9,745.79	(\$ 4,745.79)
CARE Ethiopia Admi/Support - 5% of total	\$ 46,033	\$ 59,594.83	(\$ 13,561.66)
ICR - 7.722%	\$ 63,075	\$ 62,847.40	\$ 227.00
<b>GRAND TOTAL</b>	<b>\$879,887</b>	<b>\$879,886.98</b>	<b>\$0.02</b>