PD-ACA-725

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June 2004
Addis Ababa, Ethiopia

Acknowledgement

This evaluation was made possible with the help of the staffs in all Oxfam GB project sites in Afar, Shinille and Boloso Sorie, and I would like to extend my appreciation for their unreserved support and assistance given during the fieldwork. Special thanks goes to Mr. Fergel, Oxfam Public Health Engineer, for providing relevant data and copies of progress reports on the project and taking the time reading the draft evaluation report and providing feed back. I also would like to thank Oxfam GB Ethiopia Program Diretor Dr. Niaz Murtaza, staffs at the head office in Addis Ababa Ato Eshetu Abate (Water Advisor) and W/o Mahlet (Finance Manager) for providing relevant technical and financial data for the project.

Finally I would like to thank Oxfam GB and its Management for giving me once again the opportunity to participate in the evaluation of the Emergency WATSAN Project in Afar, Somali and SNNP Regional States.

Thank you

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Acronyms

AIDS	Antibody Immune Deficiency Syndrome
AOC	Act of Compassion
BH	Borehole
CHW	Community Health Workers
DPPB	Disaster Prevention and Preparedness Bureau
EEC	European Economic Commission
EPI	Expanded Program of Immunization
ETH	Ethiopia
EU	European Union
GB	Great Britain
HDW	Hand dug well
HH	Household
HIV	Human Invitro Virus
HP	Hand pump
Km	Kilo meter
Km^2	Square Kilometer
NGO	Non Governmental Organization
OFDA	Office For Foreign Development Assistance, USA
ORS	Oral Rehydration Solution
SNNP	Southern Nations Nationality Peoples
SWOT	Strengths, Weakness, Opportunities, Threats
TFC	Therapeutic Center
USA	United States of America
USD	United States Dollar
VCHW	Volunteer Community Health Worker
VIP	Ventilated Improved Pit
VWC	Village Water Committee
VWMC	Village Water Management Committee
WATSAN	Water Supply and Sanitation

Executive Summary

Oxfam GB implemented an Emergency Water Supply and Sanitation Project in three regional states, Afar, Somali and SNNP in response to and following the 2002 drought and food shortages in Ethiopia with financial assistance from the Office For Foreign Development Assistance (OFDA).

The objectives of the emergency water supply and sanitation project were the following:

i) Increased equitable access to water, enhanced awareness, knowledge and practices on hygiene, sanitation and health issues and improved animal health among 20,000 drought-affected people in Afar Zone III.

ii) Increased equitable access to water enhanced capacity to manage and maintain water sources, and enhanced awareness, knowledge and practice on hygiene, sanitation and health issues among 13,500 drought affected people in Shinille Zone, Somali Region

iii) Increased equitable access to water enhanced capacity to manage and maintain water sources, and enhanced awareness, knowledge and practice on hygiene, sanitation and health issues among 42,500 drought affected people in Boloso Soriec, Wolayita Zone, SNNP Region

The project was implement in six weredas and in 47 project sites and covered both the construction of new water supply systems and rehabilitation of existing water supply schemes. The project also undertaken health education and support to local health services in an effort to address the overall public health needs in the project areas. As a result of this project a total of approximately 62,540 people had access to clean and safe water supply in the three regions, and there is anticipation in the improvement of health of the communities. Selected members of the local communities were organized in committees and trained in sanitation and hygiene practices and operation and maintenance of water supply systems. In Afar and Shinille, the over all performance of the water supply and sanitation projects was adequate given the difficulty to recruit skilled personnel (arid and harsh environment). The Oxfam GB arrangement to implement emergency responses with local partner in Boloso Sorie, SNNP Region has been a worthwhile experience. The partner has implemented the projects to the desired standard, and was able to achieve more than the planned targets.

The over all outcome of the emergency project was positive. The project was able to save the lives of many people affected by the 2002 drought in Afar, Somali and SNNP Regions, and it has enhanced/improved the local capacities and left optimism and useful experiences in coping with similar emergency situations in the future.

The total planned budget for the emergency project for the three regions was USD 1,692,706, and approximately 100 percent of the budget was spent.

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1. Introduction

Ethiopia is one of the poorest countries in the Sub-Saharan Africa. With an estimated GDP per capita of USD 100 a year, the country stands as one of the least developed countries both in Africa and in the world. Today, the population is exceeding 67 million and it is growing at alarmingly high rate; greater than 3%, and it is the third populace country in Africa next to Nigeria and Egypt. It has also the worst social indicators in Africa, with 6 to 7 percent having access to institutional delivery; maternal mortality rate of 700 per 100,000 live births, and an infant mortality rate of 122 per 1000 live births. Only 29 percent of the population has access to clean water and this will rank the country among the last five countries in Africa. Primary school enrollment is only 55 percent and this is even lower for girls. Less that 57 percent of the total population have health facilities with in 10 km distance. It is quite obvious that this massive structural poverty is affecting more the rural people who eke out their living from agriculture.

Poverty, drought and associated food shortage are the primary causes of the public health problems. Approximately 45% of the population in the rural areas is food insecure (FDRE, 2002), and as a result there is high rate of malnutrition, infant mortality and infectious diseases. In the 2002/03 droughts, the number of people requiring food assistance reached 14 million (21%), the highest food insecure population ever recorded in the history of the country. In 2003/04, the rainfall in the season was relatively good and there was a relatively good food harvest in larger parts of the country. During this same year, there were still about 7 million people who needed food assistance.

The failure of the short season rain and the late onset of the main season rain in 2002 left widespread food shortage throughout the country. The most affected people by the drought in the country were the Afar and Somali pastoralist who had lost large number of livestock – the primary means of livelihood in these regions. Oxfam GB responded to the 2002 drought by initiating and implementing emergency water supply and sanitation project (Public Health Project ETH 805, 808, 809, 815) in three regions; Afar, Somali and Southern Nations Nationalities Peoples (SNNP) Regions.

The Afar people are pastoralists living in one of the harshest environments in the country, and they are found in the lowlands and along the northern part of Great East African Rift Valley system. Drought often prevails in these areas and the Afar pastoralists are victims of the cyclic drought and subsequent disaster that prevail every 3 to 5 years interval. In 2002 drought the people were most affected. As result, there were massive livestock deaths estimated at about 492,435 of which 50% are though to be cattle. Equal numbers of livestock moved to neighboring regions in search of feed and water. It resulted from the deteriorating feed and water shortage for the livestock following the droughts. The droughts have also brought about severe social and economic consequences to the people resulting in acute food insecurity, water shortage and associated public health concerns. The impacts of the droughts were more pronounced on women and children.

The drought situation in Somali region and its physical damage was quite similar as that of Afar. The Somali people, however, have more exposures to small petty trading businesses that they use as coping strategies against the effects of the droughts and deteriorating environment. Even in good seasons the amount of rainfall received is very low, and the resources base of the watersheds is poor to support agricultural activities and water resources development except rangeland development. Rivers and streams are mostly dry in dry season and runoff flows are flashy in wet season. As a result of such environmental conditions the prospects for both surface and ground water resources development in Afar and Somali Regions is low, and the people suffer from acute water shortages. The only reliable source of water in these areas is shallow dug wells along Awash River in Afar and deep borehole in Shinille in Somali and where this is technically feasible.

As a result of the water shortage in both regions; Afar and Somali, the public health problems were of major concerns. The people affected by the disaster of the drought in both regions were ill and died from diseases related to inadequate water and sanitation than any other single cause. The most prevalent ones were diarrhea, vomiting among children and bloody dysentery in adult people, and there were times that these situations have reached epidemic proportion.

In Bolloso Sorie Wereda, Wolayita Zone, SNNPR, the situation was different from the previous two project sites, Afar and Somali. Many described the situation as a green drought. Boloso Sorie weredas is the most densely populated area in the country having approximately 641 people per square km. In the wereda, land holding is small and production is low. As a result the wereda is unable to secure enough food to feed its population throughout the year. In 2002 drought, rainfall failure caused crop failure, rivers and springs dried up and water tables in wells dropped down and resulted in acute water shortage among the communities in the wereda causing enormous public health concerns. Oxfam GB responded to this situation with food distribution, supporting Therapeutic Feeding Centers (TFC) for children and elders affected by the drought, and support emergency water supply services using water tankering and rehabilitation of non functional wells and capping springs and extending pipelines to provide water to additional communities.

This report presents the findings of participatory evaluation of the emergency water supply and public health projects financed by Office for Foreign Development Assistance (OFDA) of USA and implemented by Oxfam GB in three regional states in Ethiopia; Afar, Somali and SNNP in response to the emergency situation that prevailed in 2002 drought and it was implemented between May and December 2003 with a three months extension up to March 2004.

2. Oxfam GB in Ethiopia

Oxfam GB started its work in Ethiopia in 1973, and since then it has been operational and supporting programs in different parts of the country. Oxfam GB was one of the international NGOs, which has participated effectively in the disastrous 1984/85 droughts and famine in the northern part of Ethiopia, and some of its programs are still continuing in these areas. Oxfam GB program in Ethiopia includes emergency

preparedness and response, food security, public health, water supply and sanitation, rural development and capacity building of communities and civil societies.

Oxfam GB has been operational for over 25 years in Ethiopia and a significant part of its program interventions was on humanitarian responses in the country. It has also been a strong partner to local NGOs and local government offices in its operational areas particularly in capacity building. Oxfam GB is currently reviewing its program in the country giving more emphasis to an expanded and improved livelihood programme with special emphasis to approaching the communities' problem in an integrated holistic approach.

3. Description of the project area

The emergency water supply and sanitation project financed by the Office for Foreign Development Assistance (OFDA) of the USA covered a total of 47 sites (see table 1, 3 and 5) in four weredas of Afar, one wereda in Somali and one wereda in SNNP Regions. The weredas in Afar include Awash Fentale, Dulecha, Amibara and Gewane Weredas (districts), Meiso Wereda in Somali Region and Boloso Sorie Wereda in SNNP Region. The geographic locations of these weredas are shown in fig 1 below.

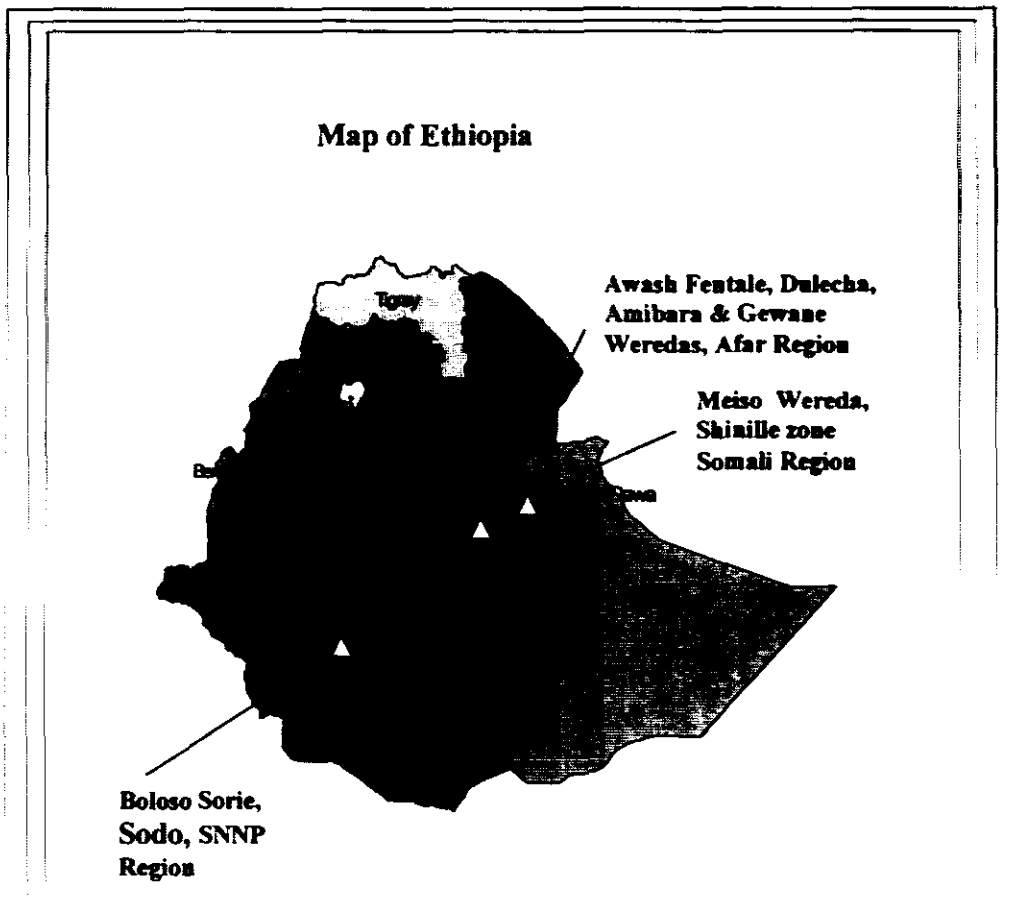

Fig 1 Location of the Project areas

3.1 Awash Fentale, Dulecha, Amibara and Gewane Weredas, Afar Region

All project activity sites in each wereda were covered by the field visit during the evaluation except in Dulecha Wereda (Hugo, Saganto and Marento – Babur Fage was already reported as abandoned) due to inaccessibility by rain, and as a result they are not discussed in this section. All of the four weredas in Afar are in Zone III.

3.1.1 Kere, Kebena I & II, Segento and Merento Kebeles

Kere, Kebena I and II Kebeles were the project sites visited and the kebeles are located in Awash Fentale Wereda, in Zone III approximately 72 and 92 kms north of Awash town via Awash–Metehara route, respectively. Kere and Kebena kebeles are approximately 22 km apart. These sites are in remote areas deep into the low land plains of the southwestern part of Zone III and it is accessible only by dry weather road.

There are approximately 100 HHs in Kere Kebele, and there are approximately 156 HH and over 100 HHs in Kebena I and II Kebeles, respectively. Infrastructure wise the kebeles are very much under developed; there is one clinic in Kebena with limited services and no pharmacy, except in Sagure, which is 17 km from Kebena II and 5 Km from Kebena I. The people are ethnic Afar pastoralists and predominantly followers of Islam Religion. The people go to Sagure or Awash or Metehara for marketing. There is one primary school (1-4 grade) in Kebena with a total of 80 children registered for the current year and there is another school (grade 1-8) in Sagure, a rural town approximately 5 kms from Kere and 17 kms from Kebena. The people in Kebena Kebele used to drink Kebena river water, and when the river dries up, they use pond water, and the communities suffer from dysentery, diarrhea for children, and intestinal problems.

Three hand-dug wells were rehabilitated and equipped with hand pumps. There are no records of these dug well as to when and by whom they were dug initially.

3.1.2 Halidebe, Ayeroli and Egle Kebeles

Halidebe, Ayeroli and Egle Kebeles were all visited during the evaluation. Haildebe is a village located in Amibara Wereda in Zone III, and it is about 42 km west off the asphalt road and nearly 70 kms from Awash town. It was initially a village and later (during the previous government, Derg Period) it became a settlement area following the establishment of a State Farm, which is now abandoned, and the state farm is distributed to the local settlers who were working in the farm as daily laborers. There was a borehole that was supplying water to the community, and it was established with funding from European Union, the then European Economic Commission (EEC), in 1988. The water supply was experiencing breakage and communities were suffering from water related diseases since they started to use Awash River water at the time when the water supply system was not functioning. As a result there were public health threats resulting from the use of the Awash River water, which the community reported as heavily polluted with industrial effluents and effluents from commercial farms in the nearby areas and city wastes from the highlands.

Egle Kebele is located in Gewane Wereda in Zone III, and it is approximately 12 km from Gewane town. Ayeroli and Babur Fage are villages in the Egle Kebele, and the three sites are with in 100 to 200 meters from Awash River. There are approximately 320 HHs in the three villages. Before the project, the major water supply source for these villages was the Awash River water, which was exposing the community to water related diseases. There are no latrines and people practice open field defecation. At times of flooding of Awash River, which is becoming a common phenomenon in the area, the health and sanitation situation is grave exposing the community to acute diseases such as diarrhea and vomiting to children and typhoid to adults, and the river water and other unprotected water sources were serious public health threats.

3.2 Meiso Wereda, Shinnille Zone, Somali Region

Mulu Kebele is located in Meiso Wereda approximately 12 kms from Mieso town. It is along the railway line connecting Addis Ababa with the port city of Djibouti. There are about 823 households and approximately 5,761 people in the kebele and the people are predominantly ethnic Essa and followers of Islam Religion.

The Shinille area and specifically Mulu Kebele is a hot and arid environment with high water balance deficit, and as result water is a priority need for the people. Water is in acute shortage for both the livestock and for human consumption. However, there is only one borehole, which was often experiencing breakage before Oxfam GB intervenes. Other sources of water such as river and spring water are not available in the vicinity of the kebele. People have to travel long distance for water; five hours to get water from a spring, and these sources are not safe either.

In Mulu Kebele there is a borehole that has been supplying water for the village for about 15 years and is located at the center of the town. The first borehole was drilled in 1964 with the financial assistance of the late Crown Prince Asfaw Wussen. About 15 years ago it was abandoned and a new borehole with a total depth of 120 meters was drilled just immediately adjacent to the old borehole. There is also a concrete reservoir with a capacity of approximately 25,000 liters. Harmaley village is located 2 km south west of Mulu and gets its water from Mulu borehole which is 2 km away, and this require the people to travel two to three times a day to fetch water. There were limited distribution taps in Mulu town, and as a result long queuing was another feature of the water problems in the area.

Before Oxfam GB intervene in the area, the borehole in Mulu used to break down frequently, and maintenance takes long time. When the borehole fails, women and children travel a long distance to a spring which is estimated at about 5 hours round trip to fetch water during dry season. At this time, communities resort to all available water sources. As a result there were repeated disease outbreaks caused by the use of unsafe water, and the diseases reported by the communities included bloody dysentery among adults and vomiting and diarrhea among children. The most prevalent diseases reported by the clinic were malaria, diarrhea, and bloody dysentery, and the latter two are mainly caused by unsafe drinking water. Vomiting widely among children, typhoid, coughing, and intestinal parasites are also other

diseases listed. According to the report of the community, there was also a disease that stiffen the neck area and which prevail during the hot period of the year; March to April. The prevalence and intensity of diseases occur when drought and water pump fails, and very much related with water shortage and scarcity and when people resort to other unsafe water supply sources. The people have used water from the borehole for nearly 40 years; as a result it is quite easy for the communities to determine the primary cause to the diseases most prevailing.

Until two years ago, there was one primary school (1-4 grade) and recently it is upgraded to 6 grades, and there are approximately 332 students. There is one clinic in the kebele and it is in a rented house with inadequate drug and equipment supplies. There is no pharmacy. There is a market where agricultural produces are sold and purchased. The people of Mulu and Harmaley Kebeles are agro pastoralists.

The human waste disposal practices in Mulu kebele has been largely using open field, though very few had been reported as using private toilets.

3.3 Bolloso Sorie Wereda, Wolaita Zone, SNNP Region

Boloso Sorie is one of the seven weredas of Wolayta Zone in SNNP Region. It has a population of 423,728[1], and it has a population density of approximately 641 people per km^2, the highest in the country. The wereda suffers from recurrent food shortages primarily caused by high population pressure and cyclic drought that incapacitate the communities from producing enough food for domestic consumption. As a result, the people in the wereda are food aid recipients on almost a continuous basis.

Like in other parts of the country, the impact of the drought in 2002 in Boloso Sorie was severe affecting large number of people in the woreda particularly women, children, and elderly and aged people. Following the drought, surface water sources such as rivers and ponds dried up and ground water table in wells dropped significantly and spring water supply significantly reduced worsening the public health and food insecurity situation in the wereda.

Oxfam GB intervened in the wereda following the 2002 drought with food distribution, supporting Therapeutic Feeding Centers (TFC), and most of all emergency water supply and sanitation projects.

4. Implemented Emergency Water Supply and Sanitation Projects

Oxfam GB has under taken an emergency response project in a total of 47 sites in three regions with financial assistance from OFDA following the 2002 drought in Ethiopia.

4.1 Afar Region

[1] The 1999 census of the Central Statistics Authority (CSA)

Water supply and sanitation projects were implemented in three Weredas and these are Awash Fentale, Dulecha, Amibara and Gewane Weredas. A total of 3 kebeles in Awash Fentale wereda, 3 in Dulecha and 3 kebeles/kebele in Gewane and one kebele in Amibara wereda received Oxfam GB assistance in emergency Water Supply and Sanitation Project. The kebeles in Awash Fentale include Kere, Kebena I & II, Dulecha wereda include Hugu, Segento and Merento Kebeles. Egle, Aeyroli, Babur Fage villages are in Gewane wereda, while Halidebe kebele is in Amibara wereda.

A total of 9 hand-dug wells were rehabilitated and equipped with hand pumps of which the Babur Fage well was abandoned. One borehole was rehabilitated in Halidebe in Amibara wereda. Washing basins are also constructed at each water point. Please refer table 1 and 2 for details. In order to promote hygiene and sanitation, 14 VCHWs and 49 VWMCs were trained and 2 communal latrines and 180 household latrines were constructed, and 8000 soaps were distributed. Approximately 523 bed nets and 8100 sachets of ORS were distributed to beneficiary community members.

4.2 Somali Region

An emergency water supply and sanitation project was implemented in two kebeles; Mulu and Harmaley of Meiso Wereda in Shinille Zone. An old borehole was rehabilitated in Mulu kebele, old distribution stands were maintained, and additionally new distribution stands were also constructed in Mulu. In Harmaley a new masonry reservoir with a 25,000 liters capacity was constructed, 5 distribution stands, 3 washing basins, 2 communal VIP latrines, 2 bathing cabins and 2 troughs for cattle and shoats were also constructed as part of the new water supply system planned for Harmely (see table 3 and 4), and a 2 km main pipeline was connected to Mulu Borehole to supply water to Harmaley. The extension project to Harmely was completed. However, at the time of the evaluation, the service of the water supply system did not start. However, the consultant is informed while preparing the report, a new generator at Mulu borehole was installed making the proposed water supply project plan for Harmele completed and provision of water has commenced.

4.3 SNNP Region

Oxfam GB supported a wide range of activities in water supply and sanitation in Boloso Sorie Wereda, SNNP Regional State (see table 5). These activities included the construction of 4 storage reservoirs with long distribution pipeline systems, 5 hand pump (HP) replacements, repair and maintenance of 2 exiting HPs, 8 new hand dug wells, 10 hand dug well rehabilitation, 2 roof water harvesting structures installed at two schools, 3 springs capping and one spring rehabilitation and reservoir construction with a distribution system.

4.4 Objectives of the Water Supply and Sanitation Project

The objectives of the emergency water supply and sanitation project were the following:

4.4.1 Increased equitable access to water, enhanced awareness, knowledge and practices on hygiene, sanitation and health issues and improved animal health among 20,000 drought-affected people in Afar Zone III.

4.4.2 Increased equitable access to water enhanced capacity to manage and maintain water sources, and enhanced awareness, knowledge and practice on hygiene, sanitation and health issues among 13,500 drought affected people in Shinille Zone, Somali Region

4.4.3 Increased equitable access to water enhanced capacity to manage and maintain water sources, and enhanced awareness, knowledge and practice on hygiene, sanitation and health issues among 42,500 drought affected people in Boloso Soriec, Wolayita Zone, SNNP Region.

4.5 Project Implementation strategy

4.5.1 Implementation of Project Activities:

The implemented activities of the project by site are given in table 1, 2, 3, 4 and 5 below. These activities are classified as (i) physical rehabilitation of the water supply systems, and (ii) capacity building.

Table 1. Water supply infrastructure accomplished in Afar

Project site	HDW		BH		Livestock watering		Pump House		Distribution stand		Reservoir	
	Rehab	New	Rehab	New	Trough Rehab	Shoats	Rehab	New	Rehab	New	Rehab	New
Kere	1	-	-	-	-	1 new	-	-	-	-	-	-
Kebena I and II	2	-	-	-	-	1 new	-	-	-	-	-	-
Halidebe	-	-	1	-	2	2 new	-	1	3	2	1	1
Egile	1	-	-	-	-	1 new	-	-	-	-	-	-
Arolie	1	-	-	-	-	-	-	-	-	-	-	-
Hugu	1	-	-	-	-	1 new	-	-	-	-	-	-
Segento	1	-	-	-	-	1 new	-	-	-	-	-	-
Merento	1	-	-	-	-	1 new	-	-	-	-	-	-
Babur Fage	-	1	-	-	-	1 new	-	-	-	-	-	-
Total	**8**	**1**	**1**		**2**	**9 new**	**0**	**1**	**3**	**2**	**1**	**1**

Table 2. Sanitation infrastructure accomplished in Afar

Project site	Washing basins[2]		Bath Rooms[3]		New Latrine Construction			
	Rehab	New	Rehab	New	VIP			Individual Pits
					School	Clinic	Mosque	
Kere	-	1	-	-				10
Kebena I and II	-	1	-	-		1		30
Halidebe	-	3	-	3[4]		1[5]		30
Egile	-	1	-	-				60
Arolie	-	1	-	-				0

[2] Three basins in one structure
[3] Two room bath cabin
[4] Masonry cabin with corrugated roofing
[5] Four room in one masonry building

Hogu	-	1	-	-				20
Segento	-	1	-	-				5
Merento	-	1	-	-				5
Babur Fage	-	1	-	-				15
Total	**0**	**12**	**0**	**3**	**0**	**2**	**0**	**225**

Table 3. Water supply system accomplished in Meiso Wereda, Somali Region

Project site	BH		Livestock watering		Pump House		Distribution stand		Reservoir	
	Rehab	New	Trough	Shoats	Rehab	New	Rehab	New	Rehab	New
Mulu	1	-	1 Rehab	-	-	New	5	1	-	1[6]
Harmaley	-	-	1 New	1 new	-	-	-	2	-	1
Total	**1**		**1 Rehab 1 new**	**1 new**	**0**	**1**	**5**	**3**	**0**	**2**

Table 4. Sanitation project activities accomplished in Meiso Wereda, Somali Region

Project site	Washing basins[7]		Bathing cabins[8]		New Latrine Construction			
	Rehab	New	Rehab	New	VIP			Individual Pit latrine
					School	Clinic	Mosque	
Mulu	-	-	-	1[9]	1[10]	-	1[11]	40
Harmaley	-	1	-	2[12]				10
Total	**0**	**1**	**0**	**3**	**1**	**0**	**1**	**50**

The project activities also include repair and maintenance of the existing water supply infrastructures, training of the community and government staffs working with OXFAM GB and material and equipment supplies to the zonal departments and community organizations as capacity building to continue the effort of ensuring safe and clean water and health education to the community.

[6] At school
[7] Three basins in one structure
[8] Two room bath cabin
[9] Constructed at school
[10] Eight rooms in one building
[11] A twelve room VIP latrine (six in each side) in one building
[12] Corrugated sheet wall and roofing

Table 5. Water supply infrastructures developed in Boloso Sorie, SNNP Region

Kebele Name	Specific site	Description of the activities/ schemes	Beneficiaries	Remark
Achura I	Sare Zone	Rehabilitation of HDW – Widening & deepening existing well, concrete liner, HP, apron, wash basin	434	
Areka I	Zone 6	5,000 lit storage reservoir construction – masonry reservoir, tap stand, wash basin	354	
Basa Gofara	School	HP replacement	476	
Bombe	N/A	Hand dug well Rehabilitation – Widening & deepening existing well, concrete liner, HP, apron, wash basin	N/A	
Bombe	Zone 2 & 3	HP replacement	659	
Chama Hembecho	Hata Ocha	Hand dug well Rehabilitation -- Widening & deepening existing well, concrete liner, HP, apron, wash basin	414	
Dache Gofara	Mahel Dach Gofera	Hand dug well Rehabilitation – Widening & deepening existing well, concrete liner, HP, apron, wash basin	1009	
Dangara Salata	Primary school	1 Roof water harvesting tanker (10,000 lit), dirt exclusion & 2 flash out tanks , gutters, tap stand	2000	
Admancho Arfita	Primary School	1 Roof water harvesting tanker (10,000 lit), dirt exclusion & 2 flash out tanks , gutters, tap stand	2000	
Gama Walana	Borrossa Spring	Phase II – Water Distribution and storage Reservoir construction – 10 km pipe line, masonry reservoir of 30,000 lit capacity, 8 tap stands, 8 wash slabs and serving 3 PAs	3324	
Gara Godo	Health post	HP replacement	488	
Sore Homba	Buna Board	HP replacement	755	
Fara Wacha	N/A	Rehabilitation of HDW – Widening & deepening existing well, concrete liner, HP, apron, wash basin	N/A	
Woybo Town	Watera Kere	New HDW construction – Dig well, install concrete tubes- it was a dry well and abandoned	0	
Achura II	Sefera Mokta	New HDW construction – Dig well, install concrete tubes, apron, wash basin – Pulley and bucket installed due to low yield of the well	200	
Waybo Doge	Anka Kare	New HDW construction – Dig well, install concrete tubes and HP, apron, wash basin	200	
Ademancho Arfita	Primary School	1 Roof water harvesting tanker (10,000 lit), dirt exclusion & 2 flash out tanks , gutters, tap stand	2000	

Table 5. Continue...

	Specific site	Description of the activities/ schemes	Beneficiaries	Remark
Danagara Saltata I			200	
Danagara Saltata II	Bergana Sefa Hs	Rehabilitation of HDW – Widening & deepening existing well, concrete liner, Pulley and bucket because of low well yield	200	
Admancho Arfita I	Tadesse Tanga Hs	Rehabilitation of HDW – Widening & deepening existing well, concrete liner, HP, apron, wash basin	1134	
Admancho Arfita II	Gufa Gitabo Hs	Rehabilitation of HDW – Widening & deepening existing well, concrete liner, HP, apron, wash basin	1110	
Legoma	Zala Spring	Spring capping – 50 m pipeline, wash slab and cattle trough	1237	
Gamo Walana	Borroso Spring	Distribution system and storage reservoir construction – 6.5 km pipeline, 30,000 liters masonry reservoir, 8 tap stands, 8washslabs, 2 shower cubicles	6295	
Yukara	Zone I	Spring capping – 50 m pipeline, wash slab, and cattle trough	1304	
Sore Homba	Kebele Zone	Hp replacement	1304	
Woybo	Menao Spring	Spring development and masonry water storage construction – tab stands, wash slab		
Areka Town		Rehabilitation of WSS – supply and installation of new submersible pump and connections to electric power source	20,367	Additional Activity.
Gara Godo	Chala	New HDW – dig well, install concrete tubes, HP, apron, wash basin, etc.	479	Additional
Woybo	Zone 2	New HDW – dig well, install concrete tubes, HP, apron, wash basin, etc.	232	Additional Activity
Woybo	Zone 4	New HDW – dig well, install concrete tubes, HP, apron, wash basin, etc.	515	Additional Activity
Yukara	Zone 5	New HDW – dig well, install concrete tubes, HP, apron, wash basin, etc.	536	Additional Activity
Yukara	Zone 4	New HDW – dig well, install concrete tubes, HP, apron, wash basin, etc.	942	Additional Activity
Doge Anchucho	Zigba	Maintenance of HP – repair of existing hand pump	992	Additional Activity
Bombe	--------	Maintenance of HP – repair existing HP and add 6 m pipe and rod	750	Additional Activity
Bedaya	Bedaya	Spring development – spring capping, 200 m pipeline (dia. 2")and cattle trough	2294	Additional Activity
Doge Anchucho	Nazibo	Spring development – 4 km pipeline, 2 stand posts, 2 cattle tough & 2 wash basin	2250	Additional Activity
GRAND TOTAL			54,454	
Wereda Water supply Coverage			**12.8 %**	

4.5.2 Implementation Strategy

The strategy pursued in implementing the project activities varies in Afar, Somali and SNNP Regions. In Afar and Somali Regions, the implementation of the water supply and sanitation project was done by Oxfam GB directly with a coordination office established at Awash town, which is approximately 250 km south east of Addis Ababa, and with an Expatriate Manger assigned for both Afar and Shinille Projects. A wereda office is also opened in Meiso towns, which is located at about 75 km east of Awash town. In both sites the required personnel for the project were recruited and trained. Staff from Zonal Health and Water Departments (one from each department in Afar and one from health Department in Shinille Zone) were included as secondment into the human resources at each office in each region to assist the implementation and follow up of projects (monitoring) on behalf of the Zonal water and health departments in Afar and Somali Regions.

While in Boloso Sorie, Oxfam GB used a local partner, an indigenous NGO, **Local Community Water Supply Systems and Hygiene Promotion Association (LCWSSHPA)** to implement the water supply project (the planned infrastructure development activities) while Oxfam GB implemented the health education and sanitation aspect of the project opening an office in Areka and employing its own staff. In the implementation of the water project, LCWSSHPA hired and mobilized its human resources for the implementation of the planned activities. LCWSSHPA has now changed it name to **ACTS OF COMPASSION (AOC)**.

The project activities in all sites in the three regions were both planned and implemented with active participation of the communities although the level of participation is expected to vary among the different regions and even with in a region. The projects were also planned and implemented in partnership with local government offices particularly in supporting the health education part. The zonal offices in Afar and Shinille provided their staff on secondment in order to support the implementation of the projects and on a continuous basis monitor the projects on behalf of the zonal departments. Sites were prioritized and selected with the full participation of the communities and the zonal departments in all project sites.

4.5.3 Cost of the Project

The total expenditure on the emergency water supply and sanitation projects financed by OFDA in the three regions is USD 1,692,706 (see table 6 below). The regional budgets for each region is USD 535,366 for Afar, USD 318,046 for Somali Region and USD 839,294 for SNNP Region. The over all expenditures for Afar Region is 100 percent of its budget, while Somali and SNNP Regions are 119 and 92.6 percent, respectively. Overall, the project budget has been fully (100 percent) utilized. It was obvious from the available financial expenditure statements (see table 6) that in all regions, the expenditures for personnel, travel, and others budget line items in Afar and Shinille projects exceeded the planned budgets. It was understood that these are permissible and acceptable to OFDA, the financer. A summary of the expenditures by is presented in table 6, and a more detail breakdown of the budget and expenditures by budget category is presented in Annex.

Table 6. Summary of the financial expenditures in USD

S.N.	Description of the Item Budget Code	Approved Budget (Plan)	Expended (Actual) USD	Percentage Expended
A	**Afar Region**			
1	Supplies/Materials	332,972	256,529	77.04
2	Travel and transport	11,130	22,580	202.87
3	Personnel Cost	44,435	91,527	205.97
4	Equipment	35,715	36,014	100.84
5	Others	32,935	50,537	153.44
	Total indirect cost 17.1%	78,179	78,179	0.0
	Sub total Afar Region	535,366	535,366	100.00
B	**Somali Region**			
6	Supplies/Materials	179,572	188,186	104.79
7	Travel and transport	11,130	13,807	124.05
8	Personnel Cost	47,165	85,288	180.82
9	Equipment	3,200	1,534	47.94
10	Other	30,535	35,349	115.76
	Total indirect cost 17.1%	46,444	55,432	119.35
	Sub total Somali Region	318,046	379,596	119.35
C	**SNNP Region**			
11	Supplies/Materials	423,684	323,081	76.25
12	Travel and transport	45,430	50,489	111.13
13	Personnel Cost	87,597	151,270	172.69
14	Equipment	42,441	36,598	86.23
15	Other	117,581	102,730	87.36
	Total indirect cost 17.1%	122,561	113,573	92.67
	Sub total SNNP Region	839,294	777,741	92.67
Total OFDA Project		**1,692,706**	**1,692,703**	**100. 58**

Source: OXFAM/GB Finance Department – Addis Ababa Office

5. Project Evaluation

5.1 Objectives of the Evaluation

The objectives of the evaluation are the following.

(i) To assess the extent to which the objectives of the project are met

(ii) To assess the effectiveness of the project in terms of:

- Appropriateness
- Coverage
- Impact
- Cost effectiveness
- Sustainability
- Community participation
- Gender HIV issues

(ii) To assess the degree of services of the completed water supply facilities

(iii) To suggest follow up actions (recommendations)

5.2 Scope and Methodology of the Evaluation

The data collection was done with the participation of randomly selected community members with the objective of undertaking a participatory assessment of the achievement of the emergency public health projects. A checklist (see annex) is used to guide the assessment and to facilitate the discussion with the community.

The participatory assessment included:

- Performing focus group discussion with representatives of the participants of the project (10-15 people). The group consist of elders, kebele executives, farmers, women, women headed households, adults etc. A separate focus group discussion with women (5-8 women at each water supply project site visited) was also held to understand the women concern and their participation in the project and the project contribution to them.

- The field visit covered a total of 15 representative sampled project activity sites in the three regions from a total of over 47 sites on which the emergency WATSAN Project is implemented in the three regions.

The evaluation methods include (i) site visits to selected sites where projects are implemented, (ii) participatory group sessions of 10 to 15 people in each visited site guided by a check list, and the selected group members are beneficiaries of the project, (iii) visits to the Wereda, Zonal and Regional Government offices for feed back on the planning, implementation of the projects, and (iv) discussion on the project with Oxfam GB and Partner Organization and conducting SWOT analysis of OXFAM GB in its Awash and Areka Offices. This is done at the request of Oxfam GB Ethiopia Program and it is presented to the client in a separate report.

The following background documents were reviewed. (i) Project proposal on Emergency water supply and sanitation Project in Boloso Sorie (OFDA 1) and Project Proposal on Emergency water supply and sanitation Project in Afar, Somali and SNNP Regions, and references are made on (OFDA 2), (ii) Guidelines for Evaluation of Emergency WATSAN Projects in "Guidelines for public health promotion in Emergencies, Oxford, UK", (iii) The Sphere Project, 2000. Humanitarian Charter and Minimum standards in Disaster responses. Oxford, UK.

5.3 Findings of the evaluation

5.3.1 Meeting the objectives of the project

The objectives and achievements of the project are met and fully realized. Table 7 below presents the set of objectives as stipulated in the initial project document, and the corresponding achievements are recorded.

Physical Achievement of the Project: The physical achievements of the project in the three regions are given in table 1, 2, 3, 4 and 5. In Afar, a total of 9 hand dug wells were rehabilitated (of which one is abandoned) and one new hand dug well was constructed, 2 livestock troughs rehabilitated and 9 new watering troughs for shoats were constructed. The excess/or spill over water from each hand pump is used as the source of water for the water supply for animals at each hand pump site. In Halidebe, one borehole was rehabilitated (new pump house constructed and motor transferred), 2 new livestock troughs and 2 other for shoats were constructed (each trough for livestock and shoats joined to supply water from the same source), one new reservoir constructed and one other reservoir rehabilitated, two new distributions stands constructed and three other distribution stands were also rehabilitated.

With regard to sanitation, a total of 12 new washing basins and three new washing cabin were constructed, two VIP latrines at two clinic and a total of 225 household pit latrines were developed.

In Somali Region, at Mulu kebele, a borehole was rehabilitated constructing a new pump house and replacing a pump and motor with a new system, 5 distribution stands were rehabilitated, and in Harmaley kebele, 3 new distribution stands and one new reservoir were constructed.

In Boloso Sorie, SNNP Region, a total of 8 new hand dug wells were constructed and 10 hand-dug wells rehabilitated and except two all were equipped with hand pumps. Two dug wells use rope and buckets due to low yield. There were also 5 hand pump replacement activities, 2 repair and maintenance of existing hand pumps. Four storage reservoirs with distribution pipelines and stands are also constructed. The spring development activities were of significant advantage, and this has been due to the ability of the project to design a series of storage facilities and long pipeline connections, and through this method tried to reach as many villages as possible. The design work is technically feasible, cost wise sound and effective in addressing the water need of large community members.

In the 22 kebele in the wereda, there were a total of five spring rehabilitation and construction activities and the total number of people supplied by the system was estimated at about 50 % of the total beneficiary population in the wereda reached by the project, and the spring protection, rehabilitation and development project was very effective.

Table 7. Achievements of the projects in the three regions by objectives

1. Afar Region: Planned objective 1	Achievements of the objectives
9 hand dug wells rehabilitated and equipped with hand pump benefiting 6750 people	8 wells have been rehabilitated and equipped with hand pump and approximately 5242 people have benefiting
9 village water management committee (VWMCs) setup	Seven village water management committees were established
4 trainings for 9 water committees held increasing their knowledge on management and maintenance of water points & sanitation promotion	A training, which covers all topics, was given for 49 VWMC members (see training in the analysis).
Construction of 9 shots/cattle troughs at the 9 water sites	Constructed 10 new shoats watering troughs and cattle troughs
Construction of 9 washing basins and 18 washing cabins at the 9 water sites, and an additional washing basins and 2 cabins at another existing water site	12 washing basins and 3 washing cabins (bath rooms) are constructed in 9 sites
50 latrines constructed benefiting 375 persons	225 latrines constructed
Distribution of 8100 soaps and 8100 sachets of ORS	8100 sachets of ORS distributed
Distribution of 1350 impregnated bed nets benefiting as many families	523 impregnated bed nets distributed
Distribution of animal feed and veterinary services for 2500 breeding cattle benefiting 12500 persons	Not relevant for this evaluation
5 trainings held for 3 community health workers (CHWs), TOT, on safe drinking water, sanitation and hygiene promotion	One training for 18 CHWs in 9 water sites
24 Volunteer Community Health Workers (VCHWs) mobilized to work along side CHWs to promote community participation and further knowledge transfer	Personnel from the health Bureau trained 22 VCHWs.
CHW work with community members and VCHW an average of 9 days per water point	The CHW and VCHW in turn trained the communities
2. Somali Region: Planned Objective 2	**Achievement of the objective 2**
One borehole is rehabilitated in Shinnile benefiting 5000 persons	One borehole rehabilitated, a new pump and a generator installed benefiting 2,500 people
5 water distribution points constructed	3 new water distribution points (tap stands) constructed and 5 rehabilitated
5 shoats/cattle troughs constructed	One new trough for shoats constructed
5 washing basins and 10 washing cabins constructed	One washing basins constructed and 3 new washing cabins
50 latrines constructed benefiting 375 persons	2 communal and 100 household latrines constructed
6000 soaps and 6000 sachet of ORS distributed benefiting as many people	9500 sachets of ORS distributed in Shinnille zone
2 VWMCs set up	10 VWMCs members trained
4 trainings for 2 water committees held increasing their knowledge on management and maintenance of water points and sanitation promotion	One training covering all the topics held for 2 water committees
5 trainings held for 2 CHWs – TOT – on safe drinking water, sanitation and hygiene promotion	8 VCHW, 49 VWMC members, 2 motor operators were trained to improve health and mange the water supply system.
16 VCHW mobilized to work alongside CHW to promote community participation and further knowledge transfer	8 VCHWs are mobilized and trained

Table 7. Continue

16 VCHW mobilized to work alongside CHW to promote community participation and further knowledge transfer	8 VCHWs are mobilized and trained
CHW work with the community members and VCHW an average of 9 days per water points	CHW and VCHW in turn trained the community
	2 communal latrines and 100 household pit latrines constructed
3. SNNPR: Planned Objective 3	**Achievement of the objective 3**
9 HDWs rehabilitated and approximately 6,750 people will get access to clean water	10 HDW rehabilitated and became operational and two others were abandoned due to low yield. 6 new HDWs are constructed equipped with HP and 2 are developed for bucket and rope use primarily due to low yield of the wells.
2 Springs developed and storage reservoirs constructed benefiting 2000 people	The construction of 3 springs with 2 storage reservoirs completed and 1 spring rehabilitation completed.
5 HPs replaced benefiting 3750 people	5 HP replacements completed.
3. SNNPR: Objective 3 continue from previous page	**Achievement of the objective 3**
4 new HDWs constructed benefiting 3000 people	5 new HDWs are constructed benefiting 3700 people
1distribution system and storage reservoir constructed benefiting 1000 people	1 gravity distribution system is Gamo Walana completed serving the neighboring 2 PAs. 1 extension to Bombe village with 30,000 liter reservoir and 10 km length pipeline completed
Construction of 2 roof water harvesting schemes in 2 schools plan to benefit 1000 children	2 roof water harvesting scheme constructions at schools in Dangara – Salata and Admancho-Arfita are completed
3 km pipe line distribution constructed	4 km pipeline from Anchicho Chewkere-Doge Anchicho completed
Water tankering and free water pumping for 2 months in selected PAs benefiting 20,000 people	**Assessment not considered in this evaluation**
Water tankering and sanitation facilities in 6 IMC TFCs benefiting 2000 children	**Assessment not considered in this evaluation**
Water tankering in 9 SFCs	**Assessment not considered in this evaluation**
7500 soaps and 7500 sachet of ORS distributed benefiting as many people	7200 soaps and 7200 sachets of ORS distributed
1250 impregnated bed nets distributed benefiting as many people	1200 impregnated bed nets distributed to 1200 households in 7 Pas. Selection of beneficiaries gave priorities to very poor, pregnant and lactating mothers and elders involved in TFC.
8 trainings for 24 water committees held, increasing their knowledge on management and maintenance of water points and sanitation promotion	8 trainings for 24 water committees were held
10 trainings held for 8 CHWs –TOT – on safe drinking water, sanitation & hygiene promotion	5 trainings for 8 community health workers
64 VCHWs mobilized to work along side CHW to promote community participation and further knowledge transfer	62 VCHWs mobilized to work along side the CHWs
CHW work with community member and VCHW on average of 9 days per water point	5543 houses visited by CHW and VCHW, and 20066 people participated in the training which covered diarrhea, malaria, hygiene, on the use of clean water, on the use of bed nets and HIV/AIDS

Table 7. continue

3. SNNPR: Planned Objective 3	Achievement of the objective 3
	Additional Activities • Repair and maintenance of 2 HPs • Two spring development • Rehabilitation of the Areka town water supply system (maintenance of the pump)

5.3.2 Design and Construction Considerations

There were no major design and construction problems of significance concern, though some issues may have to be raised as a lesson to learn. Because rural community water supply systems are small, the need for correct design is often easy to overlook. An example of this is the design of the floor of the new pump house in Halidabe. Given the occasionally flooding of the area by Awash River, the design of the new pump house floor was lower by approximately 1 foot from the old pump house. Oxfam have agreed to follow up on this issue. In Afar and Boloso Sorie, the sizes of troughs for shoats in few sites here and there where hand pumps are installed are not uniform - some are smaller and some are bigger in size.

In hand-dug wells, the first thing was the sitting of wells. Although Oxfam GB work was limited to the rehabilitation of existing wells, sites like Egle and Aroile were less preferred to be considered for rehabilitation. The rehabilitated wells are located in sites where ground water level is relatively close to the surface and very close to residential houses and the potential for pollution is quite considerable. In this sites there was little problem in hitting the ground water – it is within 5 to 19 meters depth

In Boloso Sorie, in a couple of sites where wells are dug, the water yield was found inadequate to install hand pumps and they are left for bucket and rope use to draw water. The use of bucket could expose to pollution of the water source, [ropes made from local materials like leather could fall in] and in the future could cause health risks unless there is close follow up and monitoring of the water quality in these two sites. Oxfam is aware of the potential pollution issue and agree to take up the issue with wereda water desk as to the future fate of these two wells. As an alternative solution, there is a possibility to try to deepen these wells at a future date during the dry season to penetrate sufficient depth into the water bearing formation in order to ensure adequate water for possible use of a pump. Otherwise there is a need to closely monitor these wells in Afar and Boloso Sorie for potential water quality related problems in the future.

The construction of the apron slab for hand pumps are good and to the standard, though the drainage water in some sites visited in Afar could still be a nuisance and pose a threat. The excess water could be developed to a pool for insect breading. For example in Ariole, the soak away fails to perform as designed because of the high ground water table, and it is forming a pool and is likely to pollute in return the shallow ground water source. In addition this same well is at 5 to 6 meters distance from the irrigation canal of a commercial farm, which could be a potential source of

pollution to the well. After the consultant made these remarks on the design and construction of the apron during the field visit, the water supply engineer in Afar informed the consultant later that the problem is now rectified.

The construction of the well follow the Oxfam standard where deepening is possible when water table drops due to drought or increased pumping pressure on the well. In Afar and SNNP, concrete ring linings are used to keep the wall of the well in place.

The design and construction of the masonry reservoirs constructed in Halidebe in Afar, Harmaley in Somali region and in Areka 01, and Gama Walana in SNNP are structurally stable and to the standard quality.

5.3.3 Discussions with focus groups

Community Meetings: During a discussion with the communities, the following observations were made. Communities in project areas in the three regions reported that there was reduced prevalence of diseases such as diarrhea, vomiting in children and intestinal parasites as a result of improved water supply and sanitation services.

Women workload in fetching water has reduced as a result of reduced distance in many sites in Afar where dug wells are constructed and in most sites in Boloso Sorie (travel time is reduced to as low as 15 minutes from 30 minutes to 2 hours). But in Mulu Kebele in Somali Region, there is no change in terms of reduced travel distance. Queuing time for water at distribution points in Mulu water supply points will be reduced and water available for consumption will increase. The people of Harmaley will have a reduced travel time and improvement of workload as their water supply system is connected with Mulu borehole.

Community structures are put in place to help the people manage their water supply system, however their capacity varies among the different villages. In almost all sites in Afar, the water fee collected and available fund is still inadequate to cover the cost for any major breakdowns. In Boloso Sorie also the financial status of the communities in the different water supply sites is low – they are just starting, and it is difficult to cover major breakdowns. While in Shinnille, the committee has long years of experience and has enough fund (presently Birr 40,000) to cover major breakdowns. However, in Zone III in Afar and Shinele Zone in Somali Region, both have weak zonal water departments to ensure prompt response to any damage that may occur to water supply systems particularly the borehole rehabilitation and maintenance of submersible pumps.

Health Education and Training

Training was given on separate arrangement for 4 motor operators, 63 WATSAN committee members and 20 CHWs in Afar and Somali Regions. There were similar trainings given on health and management of water supply system in Boloso Sorie. The training covered topics such as

- Community participation

- Hygiene practices
- Gender issues and the role of women in the water management committees
- The need for water management committees and their key responsibilities
- The need for by laws for the water management committees
- Development of water management committees
- Financial management

There are two CHWs assigned at each water point; one is a lady and the other a man. They are trained in primary health care and help the community in maintaining environmental sanitation and hygiene. The CHWs provide health education for the community by organizing them in groups and by conducting house-to-house visits. The lady CHW focuses on educating women on childcare and her health. She feels that she has made impacts on women, and as a result women are now aware of the dangers of circumcisions, the danger on the use of unsafe blades during delivery and education on HIV and its methods of transmission to the community. With their promotional work about 2 communal and 180 household latrines are dug and put in use by the community in Afar and 2 communal and 100 household latrines in Somali Regions.

Women used to avoid vaccines while pregnant in fear of the danger to the baby, but now after the rigorous health education to women, it is found out that there is no more fear for EPI program that are promoted in the area. While such changes are made among women, the clinic in Mulu, Somali Region is no more giving EPI due to capacity problem.

5.3.4 Assessment of the changes

(i) Adoption of safe hygiene practices

Water sources and use: Communities in all sites visited placed clean water as their highest priority need and the Oxfam GB assistance is of significant importance in terms of addressing the community priority need. The infrastructures developed, dug wells and pumps installed, boreholes rehabilitated and investments on the generators are of paramount importance to meeting the water needs of the community. The rehabilitated and developed water sources are addressing the needs of the remote communities in Afar Region, and the project responds effectively to priority areas and needs. The people have very well recognized the need to safe guard the water supply systems and keep it free from potential pollution.

Drinking, cooking, washing clothes, bathing and watering animals are the uses of the water most commonly mentioned in both in Afar and Somali Regions. Hand washing and domestic hygiene were also mentioned though of less frequently in the interview.

Water collection, transport and storage practices: Women and girls fetch water. Most households in Shinelle use jerry cans, while in Afar, the people use a mix of containers made from goatskin and jerry cans. But it was also indicated in the women reply in Afar that goat skin water containers are low capacity, soft surface and fits comfortably on their body and easy to carry, and they also said that jerry cans are also

increasingly being used for storing water at home. There are no plastic hoses attached in taps in Halidebe water distribution stands in Afar, but in Shinele there were long plastic hoses used to direct water to Jeri cans and from the tap to near by houses. There is no available information on the health risks associated with the use of plastic hoses at distribution systems.

Personal Hygiene and Sanitation Practices

Given the hot temperature and harsh climatic environment, sanitation project in Afar and Somali Regions is of genuine demand of the community. This has been reflected by the increased participation of the community in the sanitation project demonstrating more replicated latrines than the planned targets without any financial assistance from the project. A total of 2 communal and 100 household pit latrines were constructed in Shinille and 2 communal and 180 household pit latrines in Afar. Some community members in Mulu Kebele in Shinnille Zone have even taken the project a little bit further in their own initiative to improve the latrine floor from soil to concrete floor by plastering it with cement covering the additional cost for cement and gravel.

The availability of clean water combined with hygiene promotion has improved some personal hygiene behaviors and practices among the community members in the project areas visited. It was possible to determine in a discussion with the communities that their awareness on the need for washing hands at critical times has increased considerably. In Boloso Sorie it was possible to see water in clay pots hanging outside of the ventilated latrine for hand washing after using the latrine and this has been a step in the right direction.

In all the project sites in the three regions visited, the women are excited by the sanitation and hygiene education they have received from Oxfam GB. In Afar they liked the latrines constructed because it is located close to their home and avoids long distance travel in the night to the bush minimizing the fear of being attacked by animals.

Household Hygiene

In a group discussion in all project sites, the women have received health education that included environmental sanitation, cleaning houses and keeping the environment clean. The health education helped mostly women in understanding the causes for morbidity and malaria, the number on killer disease in the area.

5.3.5 Assessment of the effectiveness of the project

Oxfam GB has been very effective in responding particularly to the needs of the pastoral community's water need by providing readily available services through rehabilitation of non-functional water wells and make clean and safe water available at close distances.

(i) Appropriateness

Both Afar and Shinille experience arid and harsh environments where temperature and evaporation is very high in the country, and water need is a genuine demand and it is of high priority. In Boloso Sorie, large number of people does not have access to clean and safe water, though the environment is rather relatively much better in terms of availability of resources. Water related diseases in Afar and Somali regions constitute over 90 percent of the public health problems. The emergency response project, which consists of water supply and sanitation project, therefore, targets the prime needs of the community – the public health problems in the project areas. Communities are now aware of the importance of protecting water sources and management of the water supply systems, washing hands at critical times, washing household utensils and keeping its environments clean and safe.

The communities particularly women have indicated that the health education helped them very much and opened up their eyes. They have learned that hygiene and sanitation practices can decrease disease prevalence.

The full water quality test results (biological and chemical) were not ready for use at the time of evaluation and it has not been used for the report.

(ii) Coverage

The figures in table 8 below indicate that water supply coverage has increased by 17.3 % in Awash Fentale, 11.3 in Dulecha, 15.7% in Amibara and 12.7% in Gewane in Afar Region. While in Mulu and Harmaley Kebeles in Shinnile Zone, Somali Region, the increase in water supply coverage was 9.5%. The increase in coverage in Boloso Sorie is also quite high compared to the other sites in Afar and Somali. A total of 54,454 people have got access to clean and safe water supply, and this is an increase by 12.8% (see table 8).

In some sites in Boloso Sorie it is possible to achieve increased annual water consumption since plenty of water is made available for drinking and sanitation purposes. In Gemo Wulana five households use excess water from the reservoir for small-scale irrigation. Except in Afar, the consultant has also observed some sites where there is still queuing, for example in Mulu kebele in Somali Region, and Bedeya in Boloso Sorie.

Table 8. Water supply coverage increase

Region/Zone/ Wereda	Kebele/Village	Population having access to clean water	Coverage increase in percentage
1. Afar Region, Zone III			
Awash Fentale Wereda	Wereda Total	1,974	**17. 3 %**
Dulecha Wereda	Wereda Total	1,918	**11. 3 %**
Gewane Wereda	Wereda Total	2870	**12.7%**
Amibara Wereda	Wereda Total	3780	**15.7%**
2. Somali Region, Shinille			
Meiso Wereda	Wereda Total	4,550	**9.48 %**
3. SNNPR, Wolayita Zone			
Boloso Sorie Wereda	Werteda Total	54,454	**12.8 %**

Sanitation

With Oxfam GB project, a total of 2 communal and 100 household pit latrines are constructed in Mulu Kebele in Somali Region, and 2 communal and 180 household pit latrines are constructed in Afar Region. The people particularly women have shown interest in the pit latrine project. The people are supplied with tools for digging latrine pits and with the present interest expressed by the people in Somali and Afar regions, it is hoped that the practice is likely to be replicated in large number after the project phases out.

Level of Water Supply Services

In many of the sites visited where water supply services started, the amount of water supplied has been sufficient for domestic uses. This is not to say that the **Sphere Standard (15 liters per person per day) is met.** However, additional needs for livestock watering are obtained from seasonal and perennial rivers and ponds. In nearly all sites in the project areas, a minimum level of services is provided to meet the basic need for water for drinking, washing and cooking.

The water supply infrastructures particularly hand dug wells and boreholes are constructed at a shorter distance (on the average 10 to 15 minutes) and meet the standard for convenience particularly for women and children who are primarily responsible for fetching water. This is true for projects in the Mulu in Somali Region, Halidabe in Afar Region and Mahel Admanacho in SNNP Region, where higher level of services with motorized deep wells and with storage facilities and other accessories are provided, and these systems benefited over 2500 people each. All the hand-dug wells (all in the Afar and SNNP Regions) provide minimum standard services – communal water point source with safe and adequate water and appropriate soak

away drainage (except in Egale and Airole) and a fetching time of less than 15 minutes without queuing.

All water distribution points are fenced and guards are assigned to protect the system from any possible looting, damage by humans or animals. It was possible to observe in several sites in Boloso Sorie that water caretakers keep orders of users, and the level of services were significantly optimized.

(iii) Connectedness

The emergency water supply and sanitation projects in all the three regions have projects with long-term benefits to the community. In the short emergency time, local communities are organized to manage the assets established, and to ensure sustainable services. These grass root community organizations are at enfant stage and may need capacity building inputs before they can stand on their own feet.

(iv) Coherence

Oxfam GB has managed to work with a local NGO and took an effective division of labor in Boloso Sorie wereda giving the implementation of the water supply project to the local partner. Oxfam GB implemented the health education and sanitation part of the project. With this arrangement, OXFAM GB has been successful in having better performance in Boloso Sorie than it has achieved in the other two regions Somali and Afar; it has achieved beyond the planned targets in a more cost effective way. Reasons could be perhaps (i) the use of the local partner, which is familiar to the area and soco-cultural environment of the people, which helped implement the project more effectively, and (ii) the local partner demonstrated commitment to achieving more on available resources.

This experience was exemplary in that good working relationship has been demonstrated between Oxfam GB and the local partner. As a result there is a one-year consolidation program from a different source of funding now under way to help the partner continue to work in the area and build its capacity.

While in Afar and Shinille, there are no local partners established, but there were collaborative work with zonal water and health departments, staffs were seconded and work with Oxfam GB and it is believed that they have gained work experiences. Generally there were smooth collaborative work experiences with local government offices in all regions.

OXFAM has also collaborated with International Medical Corps (IMC) in pulling resources jointly to respond to emergencies in Boloso Sorie and in this regard OXFAM assisted IMC in setting up water supply system at Therapeutic Feeding Centers.

(v) Efficiency

It is difficult to measure the achievements in terms of the financial inputs since the data available is not organized on the basis of each water points. And hence it is not possible to assess the efficiency of the project. However, from the nature of the project, the hand dug-well, spring capping and rehabilitation of wells, the projects are small and it is likely to be cost effective. However the project also covered higher number of beneficiary communities who got access to clean and safe water supply. Moreover, as it can be seen from the budget utilization, there was no shortage of fund in all regions; achievements were more than the plan for the same budget. For instance in Boloso Sorie additional sites were covered with the same budget (see table 5 and 6).

(vi) Effectiveness

The project objective in terms of water supply coverage was 54,250 people for the three regions and 66,180 people were actually reached by the project. This achievement varies from project site to site. The beneficiary numbers are shown below

Location	Target	Achieved
Afar	9250	6880
Shinille	2500	4800
Boloso Sorie	42500	54500
Totals	**54250**	**66180**

These figures take into account the change in location of one borehole rehabilitation originally planned for Shinille and subsequently located in Afar.

The project has also contributed to increased awareness of the community on hygiene and sanitation practices.

(vii) Impact

In a discussion with the community, the people have responded that the water supply and sanitation project has impacted the life of the community in many ways.

- Meeting the water needs and requirements of the people: The hand dug wells in Afar and the rehabilitated borehole in Somali Region, the boreholes and gravity systems and new and rehabilitated hand dug wells in Boloso Sorie are supplying clean and safe water to the targeted communities and increased the water supply coverage

- The project has reduced the prevalence of water related diseases and improved health of the targeted community. The communities have reported that after the water supply project, the diarrhea and vomiting cases among children have

declined, and the general health of the people has improved except malaria, which is epidemic.

- Enhanced awareness in the use of clean water, hygiene and sanitation among the targeted communities as a result of the education and training of the communities particularly women.

- The water projects are close to the villages and reduced the travel time for fetching water significantly and hence minimized the labor and drudgery on women and children.

(viii) Cost effectiveness

The hand dug wells project with hand pumps in Afar and SNNP Regions have been cost effective although the technology has limitations to certain sites, where ground water is with in 25 meters depth. Two types of hand pumps are used in Afar and Boloso Sorie; Indian Mark III and Afridev. The hand pumps used were different in type and cost, where the former is double the price of the later, and it is safely recommended for depths up to 60 meters. While Afridev is equally suitable and appropriate for depths less than 30 meters, and both pumps are village level operating and maintenance (VLOM) type. Therefore, the type selected in Afar could have been equally Afridev since all the well depths were less than 25 meters and having compatible performance. However, it was reported from Oxfam GB Awash office that the Indian Mark III hand pump was selected based on the recommendation and local experience of the zonal water department.

The physical achievement of the water supply schemes by the partner organization in Boloso Sorie was over the planned target for the same budget. One possible explanation for this achievement could be the partner ability to make the project more cost effective. Five springs development and expansion activities covered nearly 50 percent of the total targeted population in the project area who got access to clean and safe water. Therefore, availability and selection of the type of water sources in Boloso Sorie have also benefited in making the project more cost effective.

(ix) Community Participation

Project Planning and Implementation: Despite the project being emergency, communities in three regions have participated in site selection, contribution of free labor and locally available material. In Boloso Sorie, at one of the sites where gravity pipeline extension system for a spring was laid down, the free labor contribution of the community was estimated to reach about Birr 10,000[13], which is approximately 15% of the total project cost. According to the responses of the community, the people in each project area have been providing services in land clearing for access road for Oxfam GB to reach to remote areas and ensuring security and protection to the staff and properties of the project.

[13] USD 1 =Birr 8.63

Operation and maintenance, and community management: In all project sites, the communities are organized, and some are more organized than others. For example in Shinille Zone, Somali Region, the communities in Mulu Kebele have long years (15 years) of experience in the operation, administration and management of the water supply system. There are strict fund utilization procedures though it does not exist in writing. Operation and maintenance costs are covered from petty cash, which amounts to Birr 5,000, and it is kept in the hands of the treasurer. When serious breakage to the water supply system occurs, the water committee including the Kebele Administrator, fund from the Bank is withdrawn and after adequate discussion and decision is reached. Every year people are elected from the Kebele to audit the financial management and the Mulu communities have done these several times and have enough experience.

While in Afar, the project are organized the communities in all sites. However, in Halidebe, it appears that the capacities of the communities are relatively weak to ensure adequate management of the Borehole and other infrastructures put in place when Oxfam GB withdraw from the region. The reasons are (i) the people are poor and they have not yet secured enough fund for repair and maintenance, (ii) the zonal and wereda offices are not strong to provide prompt assistance to the community. Oxfam are however hoping to secure funding for a consolidation project in Afar and Shinille to provide for additional capacity building of the village water committees for all the schemes rehabilitated / constructed during the recent emergency programme.

In Boloso Sorrie, the communities are organized but do not have enough financial strength to support the management of the water supply systems. The local partner could be an additional capacity to the community since it has already secured limited additional fund from Oxfam GB for almost a year to continue its present in the project area where its presence could be of assistance to the projects activities in the future for operation and maintenance services.

Finance of the water services and its Management: The water committees in Mulu Site in Somali Region collect water fees of Birr 0.10 per 20 liters of water. The total fund deposited in a bank to date is Birr 40,000. The committee uses the fund for operational costs and purchase of spare parts. The committee does not have written bylaws or guidelines to follow in order to administer the water fund. However there is a procedure under which withdrawal of fund from the bank is administered. It requires the notification of the Kebele Chairman in a formally called meeting and three water committee members (Chairman of the water committee, treasurer and accountant) co-sign to withdraw money from the bank. Often petty cash are used for purchasing fuel, oil and paying salaries for guards, and the allowed petty cash amount is less than 5000 Birr only. Only during engine and or pump breakage that fund is withdrawn from the bank. Committees organized from the community audit the cash balance once in a year.

In Afar, the people are poor and in all sites visited the people are just starting to collect water fee. In two sites it was indicated that the communities have agreed to pay Birr 5.00 per month. They reported that since the people do not have cash readily,

it is difficult to pay on daily basis. Their present contributions are sufficient to cover only the monthly salaries of the guards and care takers.

In Bolos Sorie, all users pay water fee, but very low and the fee ranges between Birr 0.25 to Birr 1.00 per month. In most cases the monthly fee are sufficient to cover the salary of the guards and care takers.

The funds are kept in the hands of the water committees in Afar and Boloso Sorie. This is because byelaws have not yet been signed into force giving the water committees legal status thus allowing them to open bank accounts. In Mulu, Somali Region, the fund is kept in a bank. It was learned that the use of the fund is determined by the decisions made by the water committee members. The funds are used for operation and maintenance of the water supply system. The salary of the operators and guards depends upon the agreement made at each site.

5.3.6 Gender/HIV issues

In a discussion with the communities in all project sites, the communities have heard about HIV/AIDS in one way or another. There is information that the CHWs in their heath education sessions with the community discuss the issues surrounding HIV/AIDS. There were replies by groups of people in Shinnile that there is no HIV/AIDS prevalence in their community. The men group strongly resists its presence of HIV/AIDS among their community and prefers to relate HIV/AIDS to groups affiliated with other religion. They said it is not a problem to the Muslims. While in a separate discussion with women group later indicated a more strong fear among women who feel that because their men practice polygamy (have up to 4 wives). They indicated that there is a possibility of their men contracting HIV/AIDS, and expressed their serious fear and concern. They suggested that the health education must focus on men as well. There is a feeling that there is lack of willingness from the men side to discuss and acknowledge the HIV/AIDS presence and see it as a threat to the community in Mulu Kebele.

In Afar and Boloso Sorie, the communities have heard about it through health education, radio programs, and demanded for more education and awareness.

5.3.7 Community Concern:

In two villages in Bolos Sorie, Woybo kebele in Dozi site and Achure, the work on two hand-dug wells was still ongoing at the time of the evaluation. The consultant has been informed that they are now complete.

In all the sites in the three regions where the emergency water supply projects were implemented, the communities are very much concerned by the news that Oxfam GB will leave after this project. Their concern is based on the short time Oxfam GB had been in their area and with the very good working relationship they had established during the implementation of the project. The women considered the health education

as eye opener and indicated a need for a follow up project to strengthen the trainings. The communities are also aware that local and Government organizations have low capacities to take over the services of the water supply systems and support the continuation of the health education program started by Oxfam GB.

Although this is a management problem of the community in Mulu, the communities have concern over the administration and management of their water supply system. They reported that the water in the tank finished early in the morning and water is not available up to late in the afternoon. The down time for pump operation is long and in between there is no service when needed. The pipes are old and there are only 6 distribution sites in the whole kebele, and for some areas the distribution points are reported as very far. They are requesting some more distribution stands. Oxfam reported that the scheme was operating without any problem but recognize that there are management problems that they can further address during the consolidation programme.

5.3.8 Discussion with regional and zonal offices

Report of the Water and Health Bureau and DPPB in Afar Region indicated that working relation with Oxfam GB Awash Office has improved over this project period. Tripartite agreements were signed with Water and Health Bureau and DPPB. Generally a few concerns were raised, one being high turn over of staff in Afar Oxfam GB office. The consultant further discussed this issue with Oxfam personnel and was informed that there was actually quite a low turnover of staff since the emergency programme commenced in late 2002.

The other concern raised was Oxfam GB inability to move into long-term development program in the region. The later has always been an issue raised by the communities and the regional bureaus in Afar strongly insisting that the under lying root causes of the food security problem in the region could not be addressed by recurrent short-term emergency responses. And the bureaus requested that Oxfam GB indulge into long-term development endeavors. Other concern raised by the Afar and Somali Regions have been the Oxfam GB plan to withdraw from the regions once the emergency project is over. The DPPB office would like to see Oxfam GB develop a recovery and development program to address basic community needs on a long term basis.

The water bureau in Afar expressed its satisfaction with the project implementation and indicated that the bureau has follow up of the project implementation. It also indicated that it has forwarded a request for 8 new sites for water supply development project but Oxfam GB Awash Office did not reply.

In Boloso Sorei the working relations between the water and health Desk in the woreda was reported as good and it was indicated that there are rooms for improvement. Both desks maintain close working relations with the Oxfam GB and the local partner. The working relation with the wereda water desk has been good and the head of desk had regular visits to project sites and participated as trainer in the training of communities organized by Oxfam GB

5.3.9 OXFAM GB use of a local partner

Oxfam GB used ACTS of COMPASSION (AOC) as a local partner for the implementation of the water supply part of the emergency public health project in Boloso Sorie. As indicated earlier, of the three regions, the quality of work done and achievements made in Boloso Sorie has been higher than the other two regions. Reasons could be perhaps (i) the use of the local partner, which is familiar to the area and soco-cultural environment of the people, which helped implement the project more effectively, and (ii) the local partner demonstrated commitment to achieving more on available resources. Given the level of success achieved in the water supply project in the area, it was quite obvious that the use of a local partner by Oxfam GB for the implementation of the water supply project was an appropriate arrangement and a step in the right direction.It should be noted however that the opportunity to use local partners (i.e. local NGO's)in Afar and Shinille did not exist.

A preliminary assessment of the capacity of the local partner was made during the evaluation, and it was found out that the local partner does not have written mission statement and strategy document and low capacity to prepare project documents, and solicit financial support to diversify its funding sources. It was reported by the manager that its organizational and information resources are low, financial resources for planned activities with OXFAM GB is reported as adequate, but for new projects there is nothing so far on the pipeline. It was indicated that there are staff with skill to implement projects and the over all capacity of the human resources at present described as medium.

There is indeed a need for capacity building assistance for the local partner to ensure its continuity as NGO in the area and responds to the operation and maintenance need of the constructed water supply systems.

Other striking experience was the implementation of the water supply project by AOC, while the training and health education component of the emergency public health project kept under OXFAM GB, Areka Office. It was made clear by the local partner that in the earlier similar collaboration with OXFAM GB, both responsibilities were taken by AOC, and it was not clear why OXFAM GB changed its position with this project to handle the health education part directly by itself. It is in deed difficult and beyond the scope of this evaluation to assess the merit and demerit of such separate arrangements for water supply and its soft ware (health education and training component). It is widely known that when both the water supply and the health education are given together in the same site the same time it offers synergic effect to the program. But definitely one difficulty existed in the present arrangement where the water supply work addressed by AOC and the education part by OXFAM GB. Most staff consulted about the issue have agree on one thing that there were difficulties in creating suitable travel arrangement to the sites together and implement the planned activities since the water supply project activities are planned by AOC and the education by OXFAM GB, and both are administered and managed by two independent organizations.

This issue was further discussed with Oxfam advisors at Addis and they stated that the reason for this approach was to ensure that the hygiene promotion component was both coordinated and uniform throughout the Boloso Sorie programme. It was felt that as there was hygiene promotion messages being disseminated from various sources (namely, woreda health desk, food distribution sites, TFC's, SFC's, watsan personnel) a coordinated approach was necessary which was best achieved through the Oxfam office.

5.3.10 Other issues

There were no major political and security concern that affected the implementation of the projects in the three regions. The implementing agency has had free access to the affected population and it has received and enjoyed their support and assistance through out the project period.

6. Lessons Learned

Social

6.1 It is learned that the emergency projects have long-term benefits to the community.

6.2 The social factors are more challenging than the technical aspect [the physical construction aspect of the project], which always takes most of the attention in the project implementation. It is always important to look into the participation of the community at all levels, to organize the community in grass root organizations such as water committee, CHW, VCHW, etc. and ensure adequate trainings of the community for the sustainable services of the schemes.

6.3 This evaluation found out that the Afar and Somali women showed great interest in the health education aspect of the project. After the sanitation and hygiene education, with only free supplies of digging tools, the communities in the two regions have constructed approximately 256 toilets over the last one-year without any other incentives. Women were behind this success stories in this project. The women said that the toilet is more important to women who have to travel long distance away from home in the dark and it is useful for women after birth, when sick, etc. It is indeed possible to educate and bring about changes in the knowledge [understanding], behavior and practice even in pastoralist communities. The change may be slow and time taking.

6.4 The projects in Afar and Somali Regions have demonstrated changes in behavior and practices among the pastoralists. There is a lesson to learn for the future and there is a need to capitalize on these experiences. One explanation that could be given was good planning (identifying the pressing need and meeting those needs), commitment and dedication by the implementing agency and getting the trust of the community. OXFAM GB is well known in the project areas and the projects are identified with OXFAM GB. There are changes in attitudes towards sanitation and hygiene practices. And these changes can only last long only if it is integrated in long-term development programs and not on emergency responses alone.

6.5 Achieving behavior change in sanitation and hygiene takes longer than the implementation time of the water supply schemes (systems). There is a feeling among the community and the OXFAM GB staff that the established infrastructures are to large extent developments in nature with long-term benefits. However due to the emergency [short time] nature of the projects, the sanitation and hygiene education which is equally important got short time and it is inadequately treated, and the people considered it as eye opener, and they realized that more time is needed for the education part if a lasting impact is to be achieved. Most of the people see that the existing capacity of health institutions in their areas is low to sustain the sanitation and hygiene education started by OXFAM GB.

6.6 Water is now adequately available to the communities in many of the projects sites. The challenge is to keep it safe at household level. After several hygiene educations to the community, a sample water quality data was obtained at household level in Boloso Sorie and the result indicated that the water quality deteriorates after it reaches home indicating a failure in hygiene practices among the people even after water is made available and several trainings are given to

households. A case more surprising was when samples taken from the chairwoman of the water committee in one of the villages in Boloso Sorie was found among households with higher coliform count. She is a member who received more opportunity to health education and training in the village. This presents the challenge that the change in hygiene practices does not come simply because one attends several trainings and education programs alone but must show commitment to changing behavior and this takes time and effort.

6.7 There was a report from the Head of Boloso Sorie Wereda Health Desk that bed nets have reduced the rate of case flow among those who received the nets. The experiences in Afar is also positive that it reduces the prevalence of the disease among users, but their experience on the type of the nets used is interesting, that the net hanging on sticks at four corners of the bed tears off early and does not last long, and in this project the bed nets that is now under distribution in Afar is the hanging type and a better one. While the net that was distributed to the communities in Boloso Sorie was the one hanging on four corners of the bed using sticks. Therefore as per the experiences of Afar communities the hanging type of bed net is easy to use and lasts long for rural communities.

6.8 It has been reported by the zonal departments in Afar that communication with Oxfam GB Awash Office has not been smooth for not sending copies of agreement and progress reports timely. Oxfam maintain that they fulfilled all of their responsibilities with regard to reporting but that there was clearly a problem with the regional office passing reports to line departments. Closer follow on this issue with the zonal departments in the future would be advantageous in helping to enhance a close working relationship.

Technical:

6.9 The floor of the pump house constructed in Halidabe is lower than the old corrugated pump house floor by one foot, and for a site with a flooding problem, there is no justification for lowering the floor of the new pump house, and this was an overlook in the design and it was a mistake. The flooding threat by Awash River has not been seriously considered in the design and construction of the new pump house. The height of the new pump house floor should have been higher the old pump house floor or the least in the same elevation as the old one. In case of possible flooding of the motor house there may be a need to fence it with masonry structure to protect it from potential damage. As previously stated, Oxfam have agreed to follow up on this issue.

6.10 In Afar it was realized that water qualities for the water supply systems were conducted after the physical works (installation of concrete rings for hand dug wells, basins and livestock troughs are constructed). In Babur Fage site, the water quality data was found below the standard and unacceptable and they were later abandoned losing all investments; concrete rings, materials and labor in the construction. Water quality data have to be always analyzed immediately the water table is struck and before further investments are made and equipments are installed. The health education was done largely on lectures, and the knowledge gained could be more enhanced if posters and audiovisual services are also used to help facilitate the understanding and enhance knowledge transfer to the community.

6.11 Planning projects and monitoring the implementation of the projects with wereda Desks, Zonal Health and Water Departments is very crucial if these water projects are to be handed over to these same offices. When OXFAM GB leaves the project area, it will be difficult to have smooth hand over of these projects to the government unless there has been full involvement of the relevant bureaus throughout the project cycle. This is an important process of the project development to ensure the sustainability of the projects.

7. Conclusion

The outcome of the emergency project was positive. The project was able to save the lives of many people affected by the 2002 drought in Afar, Somali and SNNP Regions, and it has enhanced/improved the local capacities in coping with similar situations. As a result of this project a total of approximately 43,070 people had access to clean and safe water supply in the three regions, and there is anticipation in the improvement of health of the communities. Selected members of the local communities were organized in committees and trained in sanitation and hygiene practices and operation and maintenance of water supply systems.

The OXFAM GB arrangement to implement emergency responses with local partner in Boloso Sorie has been a worthwhile experience. In deed it was equally a capacity for OXFAM GB Boloso Sorie office giving itself more time to dwell on other important development matters in the area. The partner has implemented the projects to the desired standard, and was able to achieve more than the planned targets.

In Afar Region, the over all performance of the water supply and sanitation projects was adequate. There were minor issues raised earlier on the site selection, construction of hand-dug wells and pump type selection, and these are lesson to learn for the future.

The health education activities were showing positive trends, have attracted interest particularly among women in the three regions. However, it is difficult to determine the impacts of the health education activities at this early stage of the project, but given the high interest of the community, it is possible to anticipate possible long-term sustainable changes in attitude and practice among the communities.

8. Recommendations or follow up actions

8.1 Water supply systems while being developed need to ensure that the water quality tests are conducted or arrangements are made earlier before installations of concrete rings, pumps and other accessories. Water quality data have to be always analyzed immediately the water table is struck and before any further investments are made and equipments are installed. In order to successfully under take this task, OXFAM GB office in Addis Ababa need to be equipped with portable laboratory equipment for undertaking chemical tests of water samples at field level.

8.2 Some of the soak away structures used for drainage have failed in Aroile and Egile kebeles where there is high water table, and water is ponding in these areas.

There is a danger of enhancing mosquito prevalence and malaria in the villages and other methods of draining the excess water from the distribution points should be sought. At the time of reporting the consultant has been informed that these issues have been rectified.

8.3 In Egile and Aroile, Kere and Kebena I and II, where we have shallow ground water and are within the reach of the flood area of the rivers, there is a need to regularly monitor any potential risk of pollution of the ground water.

8.4 The climate in Afar and Somali Regions are very hot and arid. The latrines visited in school and clinics are VIP and environmentally free of bad smell. However in some of the visited household latrines, they produce strong smells. Such situation could affect the project negatively in the long run and it may be useful to reconsider future latrine projects in these hot and arid areas to be vented, VIP, since it is only a 2-3 meter vent PVC pipe that is required and its cost is low compared to the total cost. This has been effectively done in Boloso Sorie.

8.5 There are efforts made to cover the latrine hole with materials such as a small piece of corrugated sheet metal thrown on top and some are open, and some of the holes of the visited latrines are wide and the holes need to be too small and possibly round for a better protection of the children.

8.6 In Shinnile the floor of one of the household pit latrine visited is plastered and cleanable and well kept, while in Afar all are covered with soil, and the situation in Afar need to be monitored closely for [hook] worm transmission through feet since it is possible that this conditions could pose a threat in the future.

8.7 OXFAM GB and the Zonal Health Departments in all regions including CHWs should develop a more targeted and long time hygiene education and promotion strategy – identifying specific messages, methods of teaching – focusing on behavior with regard to drinking water from safe water sources, keeping water quality at household level safe, hand washing at critical times, keeping the hygiene of children, house keeping and the use of latrines.

8.8 The regional water bureau is recommending high priority areas where water need in Afar is still relatively more serious than the other areas, and these areas are indicated as zone 2, 4 and 5.

8.9 Women and men have heard about HIV/AIDS in almost all sites visited. However, the level of understanding by the different community groups consulted is different. In many of the area visited the communities' awareness is low. In Mulu kebele a group of men tried to explain the disease as affiliated to a certain religion followers. Some are less aware of the methods of transmission of the disease. In all communities women are scared of HIV/AIDS and need special support and attention in the health education program, and it require long term program rather than under short term emergency. Women have strongly suggested that their men need to be educated more since the law of the culture allows them to practice polygamy (up to four wives), and they see this as a threat.

8.10 There is a need to have a follow up evaluation on the use of mosquito nets /bed nets distributed/under distribution in all the three regions.

8.11 It was quite apparent from the interviews held with the community that people in Afar and Somali Regions particularly women were interested in the sanitation and hygiene education, and indeed the community gained awareness, and as a result the physical achievement in water supply systems installation was a success. The participation of the community in hygiene education was a driving

force for the successful implementation of the water supply projects, and therefore, these activities should always be considered to be a curser activity to water supply projects.

8.12 The experience by OXFAM GB Areka Office to implement the water supply aspect of the project by the partner organization and separately running the hygiene and sanitation aspect of the emergency response project by OXFAM itself need to be reported. It was beyond the scope of this evaluation to look into the effectiveness and efficiency of such implementation arrangement

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Annex

Annex 1
FINANCIAL REPORTS

Annex 2
TOR

TOR to Evaluate Ethiopia Public Health Emergency Projects, 2003

1. Introduction

This document is a term of reference (TOR) to employ a consultant to undertake an evaluation of OXFAM/GB Public Health **Emergency Response Projects implemented** in Ethiopia in the year 2003/04.

2. Background of the Project and Purpose

The failure of the short (Belg) rains coupled with the late onset of the long (Kremt) rains in 2002 led to a period of prolonged drought in Ethiopia, leaving more than 14 million people facing acute food and water shortage towards the end of 2002 and throughout 2003. While the drought has been the immediate trigger for the food shortages, the root causes of the crisis are embedded in more structural factors, such as lack of investment in rural areas, land tenure policies, shortage of land, terms of trade and other political and economic factors.

Oxfam GB, in coordination with other OI members, developed a common plan of action to deal with the humanitarian crisis, and undertook rapid assessments in four areas where the needs were particularly critical, no other agency was working and where OGB had previous experience of working. During 2003-04, OGB has been implementing a multi-million pounds project in Ethiopia in response to the drought that struck the country during 2002-03. The programme to-date is in the range of GBP 4.5 million, with a focus on general and supplementary food aid, emergency water and public health interventions, livestock and agriculture aimed at benefiting over 200,000 persons in four areas of Ethiopia: Boloso sorie, SNNPR, Afar Zone 3, Afar, Shinille Zone, Somali Region, Deder and Meta, E, Herarge, Oromiya. This TOR focuses on evaluating the impact of the following public health projects undertaken as part of the overall programme:

1) OFDA Public Health Projects in Afar, Boloso Sorie and Shinille
2) Oxfam Ireland Public Health Projects in Boloso Sorie

3. Evaluation Objectives

The objectives of the evaluation are:

1) To assess the extent to which the objectives of the projects are met
2) To assess the effectiveness of the projects in terms of:
   - (i) Appropriateness
   - (ii) Coverage
   - (iii) Impact
   - (iv) Cost effectiveness
   - (v) Sustainability
   - (vi) Community participation

(vii) Gender/HIV issues

3) To derive lessons learnt from the projects
4) To identify follow up actions needed

Evaluation Scope and Methods
The consultant will review relevant project document such as project proposals and progress reports (quarterly, By-Annual and terminal reports), conduct field visits, consult communities (beneficiaries), and undertake discussion with key informants/focus group such as women group, elders, water committee members, wereda and regional officials about the project, and also gather other secondary data as appropriate from project sites. He/she will also undertake community meetings in selected sites and undertake participatory evaluation of the project. Based on the data collected, the consultant will review the planned output vis-a-vis the achievements of the project, and analyze the information largely in qualitative terms and produce a report. The consultant is required to have participatory evaluation skills in the area of public health/water and sanitation. It is preferable that the consultant possesses a working experience in pastoral as well as agricultural areas.

Time table
The Evaluation will take 25 days, including travel to all three regions, report writing and debrief with the OGB staff at the Addis Office.

Outcome of the Evaluation
The consultant is required to produce a report (both hard and electronic version) that covers the issues under No. 3 and No.5 with clear lessons learnt and recommendations. Prior to the submission of the final report, the consult shall produce a draft report for discussion with OXFAM GB staff. Submission of the draft report will be within five days following completion of the field evaluation visit.

Budget and Logistics
OXFAM will pay to the consultant a fee at a rate of Birr 1,600 (one thousand six hundred Birr) gross per day for 25 calendar days. The consultant will be responsible for all food, accommodation, travel and other incidental costs.

Annex 3
Check list

Checklist for WATSAN Projects

1. Project Location

Region:_____ Zone:_____
Wereda: _____ Kebele _____
Project site/Village Name: _____
Km from Closest town: _____ Altitude: _____ masl.

2. Demographic Data:

Total Population: _____ **Male** ____ **Female:** _____
Ethnicity _____ % _____%, _____%
Religion _____, _____, _____
Occupation: _____
How many of these people benefit from the project? _____

Available social services in project area

Health :_____
School:_____
Access by road:_____
Telephone: _____
Market: _____
Pharmacy: _____

4. Water supply sources:

Type _____
Before the project: River ☐ spring (unprotected) ☐ , others ☐
What was the distance from the village of your houses? _____
After the project: HDW _____,
What is the distance _____ km, or in hours or minutes
Total beneficiaries: Popul _____, Male _____ Female
Is there enough/adeqaute water supply (20 l/d/cap) in the village ?_____
Major diseases prevailing before the project: _____
What causes these diseases? _____
Is there a water quality problem? _____
Is there water quality data for the source?_____

Are the areas surrounding the water point clean? Excess drainage water as a problem or sanitation concern?

_____
Does the water supply system has any public/community concern? _____
What other facilities does it have? _____
Is the water supply system protected? Fenced/unfenced/guarded

Is the water supply system protected from contamination?
How is the water usage pattern from the source like? At home?_____
What facilities do people use to transport and store water at home?_____
How do you explain the difference in your life as a result of this water supply facility?
Are diseases decreasing? _____
If yes, what type of disease is decreasing ? _____
Who were more affected by these diseases before the project? _____
Who are benefiting most form the water? The rich or poor _____
Who fetches water? _____ How many times a day?_____
Is there seasonal pattern for water consumption? _____
Do you care and protect the new water supply system?_____
Who is responsible for the protection and maintenace? _____
What is your input? _____
Do you know who is helping you on this project? _____
Is the project important to you? _____
What e onomic and social benefit does it offer you?
Do you save time after the Hand dug well is constructed
What do you do with the saved time? _____
Is the water need of your family met by this project? _____

5. Sanitation and Hygiene:

How is faceal matter disposed? _____
Do you use latrine? _____ If not what is the practice? _____

Do you wash hands at critical times? _____
If not what is the reason for not washing your hands at critical times? _____

How frequnently do you wash your body, close, etc.? _____

Do you clean houses regularly? _____ Where do you dispose the carbage/ Refuse? _____

Did you receive training on hygiene and sanitation from the organization? _____
If yes how often did you receive over the last _____ months? _____
Who is training you? _____
How do they train you? _____
Was there a TOT training over the last _____ months? _____
Is there a reduction of faecal – oral diseases? _____
Wear there cholera, diarrhoea, thypoid, hepitites A and E in your area before or now?

Are there sufficient water for hygiene and sanitation? _____
In which way does water effect faceal – oral disease
(i) Water borne transmission (water quality) _____
(ii) Water washed transmission (water quality) _____
(iii) Water related insect vector diseases (malaria) _____
What is the women particpation in hygiene education? _____

6. Community Participation

How is the project managed?_____
Is there a committee? _____ How many people? _____
How many are women ? _____
Did women participate in this project? _____
How do you participate in this project? _____
What were your inputs/contributions to this project? _____
What was the women participation in the project? _____

Who makes decision in the management of the project? _____

Finance management:

Is there water fee for users? _____ If yes, how much Birr _____ per _____? _____

When did you start collecting the fee? _____
How much fund is at hand now? _____
Who manages the fund? _____
For what purpose do you agree to use the fund? _____

Is the fund in the bank or in the hands of committee member? _____
Which committte member? _____
Who signs and authorizes the use of funds? _____
Who is to inspect the use of the fund regularly and advise the community? _____