

COOPI Sekota



Water points rehabilitation project in Sekota, Dehana, and Ziquala

Wag Hamra Zone – Amhara Region

Terminal Report for the period

September 2003 to March 2005

Index of contents

	Page
I Executive summary	1
II Program Overview	14
<i>A Project goal and objectives</i>	<i>14</i>
<i>B Profile of the targeted population and the critical needs identified in the proposal</i>	<i>14</i>
<i>C Geographic location of the started activities, number of beneficiaries</i>	<i>17</i>
Program performance	17
<i>D Program performance, vis-à-vis the program objective</i>	<i>17</i>
<i>E Successful stories</i>	<i>18</i>
<i>F Unforeseen circumstances and their effects on the program performance</i>	<i>18</i>
III Resource Use/Expenditures	20
IV Plan of work for the next quarter	21

I Executive summary

<u>Organization:</u>	COOPI Cooperazione Internazionale	<u>Date:</u> June 30, 2005
<u>Mailing address:</u>	P.O.Box 2204	<u>Contact person:</u> Fabio Gaggi
		<u>Telephone:</u> +251 1 61 43 91
		<u>Fax:</u> +251 1 61 09 11
		<u>Internet address:</u> addis@coopi.org

<u>Project Title:</u>	Water points rehabilitation project in Sekota, Dehana, and Ziquala - Wag Hamra Zone – Amhara Region
<u>Cooperative Agreement/grant N.:</u>	DFD-G-00-03-00115-00
<u>Country/Regions:</u>	Ethiopia/Amhara Region
<u>Disaster/Hazard:</u>	Drought
<u>Period covered by this Project</u>	September 1, 2003 – September 1, 2004 No cost extension requested up to March 31, 2005 approved

Summary of the activities

Water points rehabilitation project in Sekota, Dehana, and Ziquala, districts funded by USAID has achieved the complete rehabilitation of thirteen hand-dug wells and six springs during the eighteen months of implementation period.

Twelve hand-dug wells have been rehabilitated in Sekota woreda while one hand dug well was rehabilitated in Dehana woreda .Concerning the springs five of them were rehabilitated in Dehana and the remaining one in Ziquala.

In order to enhance the sustainability of the results achieved, various social activities have been undertaken starting from the project conception. These activities include, the establishment of village water committees and cost recovery system for each water point, the training of village water management committee members and pump attendants, campaign about hygiene and sanitation, provision of necessary spare parts and other equipment (motorcycles) in order to enhance the capacity of the community as well as the concerned government offices.

Finally, and in accordance with the project proposal, the total number of direct beneficiaries of the project is 10,700 people, 85 people for the trainings (65 people trained as village pump attendants on general service maintenance of hand dug wells pumps, 20 people trained on general service maintenance of capped springs.). People of the villages were also sensitized on hygiene and sanitation matters. Seventeen already established village water committees were strengthened and provided with relevant trainings for general maintenance and sanitation of the constructed water points.

The number of indirect beneficiaries includes the whole population of the target woreda because the equipment provided to the line bureaus will allow them to undertake further development works.



Works

The implementation of the project is mainly focused on the activities designed to achieve the objective that is:

- Increased safe water for drought affected rural communities through the rehabilitation of 13 hand dug wells and 6 springs as per the revised plan.

Water point's rehabilitation project activities in Sekota, Dehana, and Ziquala have been carried out in two main sectors, water, and social.

The main objective of the social sector activities was primarily to ensure the sustainability of the project. During the implementation period, the preliminary survey of all the intervention sites was carried out. Village water committees' members were strengthened, hygiene and sanitation campaign undertaken, village water management committee members and pump and spring operators trained, and cost recovery system to cover the running costs related to the use of the water points established.

The sustainability was enhanced through the delivery of the necessary spare parts for the water points to the beneficiary communities and government offices, in addition to trainings and equipment delivered to the local counter parts to build their capacity.

Table 1-Summary of the activities carried out from September2003 - March 2005

	Unit	Activities implemented	Remark
Site Survey	N.	19	
Water Sector			
HDW constructed	N.	13	
Springs Tapped	N.	6	
Social Sector			
VWMC strengthened	site	17	
VWMC received training	site	17	
Health education campaign	site	17	
Hand pump maintenance training	site	13	
Training of spring operators	site	4	
Motorcycles delivered to the Woreda	N.	3	
Evaluation	N.	1	on going
Audit	N.	1	on going

Table -2- The geographic distribution of the projects

Completed Hand Dug wells						
No	Name	Woreda	Kebele	Location	Elevation	Beneficiaries
1	Zawela	Sekota	06	N 12 31' 51.3" E 039 02' 08.6"	2136m	300
2	Babena	Sekota	06	N 12 33' 083" E 039 00' 0.76"	2356m	700
3	Shelashe	Sekota	06	N 12 30' 53.9"	2205m	300



	men			E 039 01' 15.8"		
4	Kulkual Diken	Sekota	14	N 12 34' .003" E 038 59' 774.	2432	500
5	Tsaskew	Sekota	09	N 12 26' 33.3" E 039 11' 04.4"	2089m	300
6	Derenzeb a	Sekota	09	N 12 26' 19.3" E 039 11' 15.9"	2123m	300
7	Tiskaru	Sekota	017	N 12 37' 20.6" E 038 59' 15.9"	2245m	300
8	Dibeshinu	Sekota	019	N 12 36' 29.9" E 039 05' 25.4"	2087m	750
9	Heyeku	Sekota	029	N 12 40' 33.9" E 038 55' 36.0"	2113m	500
10	SelamKet ema	Sekota	029	N 12 41' 06.3" E 038 55' 57.9"	2094m	400
11	Ginkaba	Sekota	022	N 12 41' 05.0" E 039 00' 06.4"	2048m	300
12	Gecher	Sekota	029	N 12 41' 01.8" E 038 56' 32.7"	2109m	400
13	Ebela Michel	Dehana	025	N 12 27' 58.2" E 038 55' 35.6"	2757m	250
				Total of beneficiaries		5300

Completed capped springs

No	Name	Wereda	Kebele	Location	Elevation	Beneficiary Number
1	Telajie	Zikuala	012	N 12 35' 13.7" E 038 45' 47.2"	1965m	2200
2	Wizabo	Dehana	022	N 12 22' 12.3" E 039 00' 24.0"	2617m	500
3	Esha	Dehana	023	N 12 24' 65.9" E 039 03' 03.9"	2804m	750
4	Kozeba Alektit	Dehana	06	N 12 27' 52.7" E 038 55' 48.7"	2746m	2000
5	Kozeba Tirho	Dehana	06	N 12 28' 29.3" E 038 54' 56.8"	2619m	
6	Kozeba Ginto	Dehana	14	N 12 28' 33.3" E 038 54' 52.0"	2650m	
						5450

Objective#1: Increased safe water for drought affected rural communities



Site selection

The list of the priority sites were worked out together with the three targeted Woreda starting from September 2003.

Consequently, contacts were made with the local communities to verify the needs and for their involvement in the project activities. A social survey was conducted before the implementation of the works to assess the real number of beneficiaries and water needs and create awareness among the local communities on the project activities.

Hydrogeological surveys were conducted as well: two springs in the list of the Woreda were rejected, being highly exposed to the surface contamination and substituted by hand-dug wells, more reliable as for the water quality and located in the proximity of the villages with all related benefits for the local communities.

Hand-Dug Wells excavation and construction (updates on results)

In most of the cases, instead of hand-dug wells rehabilitation it was decided to implement new wells, since the rehabilitation of the existing ones would have cost more and taken more time than the excavation of new wells.

Furthermore, the existing wells were found shallow in depth, provided with a big external top slab but small in diameter, usually not more than 1 m, so that the rehabilitation would have involved a work of demolition and a problematic work of reaming. The position of many of them was too far from the villages and exposed to pollution (edges of temporary rivers) so that, in many cases, the location of the wells was changed, trying to get water in the proximity of the villages, to increase the water consumption of the families.

In the following sites a positive result was achieved (discharge of the wells referred to the end of July – pick of the dry season. It has to be remarked that the discharge of a hand pump working for 8 hours is about 6 m³/day):

Sekota Woreda

1. Kulkual Diken (1 well: positive result, daily discharge: more than 6 m³/day)
2. Tsaskew (1 well: positive result, daily discharge: more than 6 m³/day)
3. Heyeku (1 well: positive result, daily discharge: more than 6 m³/day)
4. Tsiskaru (2 wells, one with positive result, daily discharge: more than 6 m³/day)
5. Ginkaba (1 well: positive result, daily discharge: more than 6 m³/day)
6. Debeshinu (2 wells, one with positive result, daily discharge: more than 6 m³/day)
7. Babena (1 well: positive result, daily discharge: more than 6 m³/day)

In the following sites, the water discharge in the wells, surveyed at the end of July, is less than 6m³/day, since the rock formations are almost impervious there. It is understood that the discharge will remarkably increase after the rainy season.

Sekota Woreda

8. Shila Shimen (1 well with two lateral trenches: daily discharge on July 04: 3.2 m³/day)
9. Selam Ketema (2 wells, one with daily discharge on June 04 around 3.0 m³/day; by a lateral trench the discharge was increased up to 3.5 m³/day in July 04)
10. Zawela (2 wells: one with daily discharge on July 04 equal to 2.1 m³/day)



11. Derenzeba (3 wells: one with daily discharge about 3.3 m³/day at the end of July 04).
12. Gecher (2 wells negative, one finalized)

Dehana Woreda

13. Ebela (1 well, daily discharge around 2.5 m³/day on June 04)

In the following sites, the water was not struck or was present in small quantity. The sites were abandoned:

Sekota Woreda

1. Absarfa (negative result: well dry and hard bedrock struck at the well bottom. Site abandoned. Bore-hole was drilled by other organization in the village territory but gave a negative result).
2. Shmendir (5 wells dug, the best with daily discharge less than 2.0 m³/day)
3. Balusha Georgis (1 well: negative result: daily discharge less than 1 m³/day)
4. Bagmila (2wells dry and hard bedrock struck at the well bottom.)

Dehana Woreda

5. Debre Wela (negative result: for no water column. Hard bedrock struck at the bottom of the well)
6. Trukana / (negative result: for no water column. Hard bedrock struck at the bottom of the well)
7. Atelkew(1 well: negative result: very low daily discharge)

At the end of March 2005, the following works were achieved for hand-dug wells:

Positive hand dug wells:

Sekota Woreda hand dug wells

1.Ginkaba: the hand dug well was started at the beginning of January 04. The well was dug 100 m upstream from the existing well, dry at the end of February 04 that is located at the edge of the local stream (dry but with a small seepage at the end of February 04 in the nearest section). The depth of – 6.65 m was reached (outside diameter: 3 m from ground level to – 4.00, outside diameter: 2 m from – 4.00 m to maximum depth), finding alluvial deposits from ground level to – 2.8 m; weathered basalt from – 2.8 m to – 6.65 m. Water was struck at –4.00 m. The daily discharge at the end of February 04 was more than 20 m³, corresponding to a recovery of 60 cm in 2 hours (section with 2 m diameter), more than 6 m³ at the end of July when the water column was 2.25 m. All construction works were completed within the end of August 04 .The hand dug well is functional since November2004 after the installation of the hand pump. The pump attendant training was also given for five persons elected from the local community for one week from November 2 to 8, 2004. The scheme is working properly.

2.Kulkual Dikan: the well was dug 300 m upstream from an existing spring, already piped but highly exposed to the surface contamination. The depth of – 7.95 m was reached (outside diameter: 3 m from ground level to – 4.30, outside diameter: 2 m from – 4.30 m to maximum depth), finding clayey top soil from ground level to – 1.9 m; weathered basalt from – 1.9 m to – 5.7 m, fresh basalt from – 5.7 m to – 7.95 m. Water was struck at – 4.30 m. The daily discharge at the end of February 04 was more than 10 m³, corresponding to a recovery of 200 cm in 14 hours (section with 2 m diameter), more than 6 m³ at the end of July 2004. All construction works were completed within the end of August 2004 and hand pump was installed. The well is



functional since September 2004. The pump attendant training was also undertaken. The scheme is working properly.

3.Tsaskew: the well was dug in the proximity of the village, about 600 m away from the existing well. The final depth of – 10.50 m was reached (outside diameter: 3 m from ground level to – 5.30 m, outside diameter: 2 m from – 5.30 m to maximum depth), finding alluvial soil with boulders from ground level to – 6.1 m; weathered volcanic agglomerate from – 6.1 m to – 10.3 m, hard basalt from –10.3 to – 10.5 m.. Water was struck at – 5.6 m, and the recharge measured at the end of June was more than 6 m³/day while the water column was 1.5 m at the end of July 04. All construction works were completed within the end of August and hand pump was installed as well. The well is functional since September 2004. The pump attendant training was also undertaken. Five persons selected by the local community attended the training for a week. The scheme is working properly. The scheme is working properly.

4.Tiskaru: a first well was dug inside the village, about 1 km away from the existing well and abandoned at – 5.0 m of depth due to the hardness of the rock. A second well was then started about 300 m from the village. The depth of – 13.70 m was reached during May (outside diameter: 3 m from ground level to – 9.80 m, outside diameter: 2 m from – 9.80 m to maximum depth) attaining a recharge more than 6 m³/day. The well was dug in alluvial soil from ground level to – 8.0 m; weathered basalt from – 8.0 m to – 13.7 m. During June 04 the daily recharge of the well was more than 6 m³ with a water column of about 1.6 m. All construction works were completed within the end of August 04. The pump attendant training was also undertaken. Five persons selected by the local community attended the training for a week. The scheme is working properly.

5.Heyeku: the well was dug down to the depth of – 17.50 m (outside diameter: 3 m from ground level to – 9.70 m, outside diameter: 2 m from – 9.70 m to maximum depth), finding alluvial sands from ground level to – 4.1 m; highly weathered basalt from – 4.1 m to – 17.5 m. Water was struck at – 14.30 m. The daily discharge of the well at the end of June and during July was more than 6 m³, with a water column of 3.2 m. All construction works were completed within the end of August 04. Hand-pump is purchased and installed. The pump attendant training was also given for five persons elected from the local community for one week. The scheme is working properly. The scheme is working properly.

6.Dibeshinu: a first well was dug in the proximity of the village, about 1 km away from the existing well. The depth of – 7.00 m was reached finding hard basalt at the bottom and the well was abandoned. A second well was therefore started about 300 m downstream from the previous one. The well was dug down to – 8.50 m of depth with outside diameter 300 cm from ground level to – 6.5 m, 200 cm from 6.5 to maximum depth, finding black cotton soil from g.l. to – 2.9 m, fractured basalt from – 2.9 m to – 8.5 m. Water was struck at 6.5 m with a very good recharge, more than 6 m³/day and a water column of 1.4 m at the end of July 04. All construction works were completed within the end of August 04 and the hand pump was installed late in November 2004. The pump attendant training was also given for five persons elected from the local community for one week from November 2 to 8, 2004. The scheme is working properly.

7.Babena (funded as a COOPI contribution): the hand dug well was dug 1 km away from the one to be rehabilitated, that was found dry in April and too far from the



village. Particularly the well was dug about 150 m upstream from seepage. Excavation was started at the beginning of April 04 and the depth of 16 m was attained, with diameter 300 cm from ground level to – 9.85, 200 cm from – 9.85 to maximum depth, finding clay brown soil from g.l. to – 5.15 m, weathered basalt from – 5.15 to maximum depth. Water was struck at – 12.35 m and the recharge was more than 6 m³/day at the end of May. At the end of July the daily recharge was still more than 6 m³/day with a water column of 1.5 m. All construction works were completed within the end of November 2004. Hand-pump is purchased and installed. The pump attendant training was also given for five persons elected from the local community for one week from November 2 to 8, 2004. The scheme is working properly.

8. Shila Shimen: the hand dug well was dug in the proximity of the existing one, dry at the end of February 04, reaching the total depth equal to – 7.25 m (outside diameter: 3 m from ground level to – 4.95, outside diameter: 2 m from – 4.95 to maximum depth), finding alluvial soil (gravel with sand) with boulders and pebbles from ground level to – 3.2 m; weathered basalt from – 3.2 to – 5.5 m; hard basalt with some fracture from – 5.5 m to – 7.25 m. Water was struck at – 4.95 m. The daily discharge at the end of February 04 was 4.85 m³ but remarkably decreased in March and April. Therefore two lateral trenches perpendicular to the ground water flow lines were dug down to – 6 m to increase the daily discharge, attaining 3.2 m³ and more than 2.3 m water column at the end of July 04. 6” PVC screens were installed at the bottom of the trenches and packed with selected alluvial gravel, 30 cm thick, covered by clean river sand, 50 cm thick. Before the trench excavation the upper wall (section with 3 m diameter) was completed, while the lower wall was left to avoid a decrease of storage capacity and substituted with a partial wall (sort of pillar) provided with access stairs. All construction works were completed within the end of August 04. Hand-pump is purchased and installed. The pump attendant training was also given for five persons elected from the local community for one week. The scheme is working properly.

9. Selam Ketema: a first hand dug well was dug down to – 6.05 of depth and then was abandoned due to the hardness of the rock. A second well was dug 50 m from the previous one. At the end of May the final depth of 6.30 m was reached (outside diameter: 6 m, from ground level to – 1.60, 3 m from – 1.60 to – 4.70, outside diameter: 2 m from – 4.70 m to maximum depth), finding brown top soil from ground level to – 1.3 m; weathered basalt from – 1.3 m to – 4.8, green fresh basalt from – 4.8 m to – 6.3 m. Water was struck at – 3.90 m then the water table drew down to – 5.0 at the end of the dry season. The daily discharge was 3.0 m³ at the end of May. To increase the daily discharge of the well a lateral trench was added and deepened down to – 5.5 m, increasing the daily recharge up to 3.5 m³ at the beginning of August. Within the end of August the inside walls were completed from ground level to – 4.7 m of depth. The lower wall was left to avoid a decrease of storage capacity and substituted with a partial wall (sort of pillar) provided with access stairs. 6” PVC screens were installed at the bottom of the trench and packed with selected alluvial gravel, 30 cm thick, covered by clean river sand, 50 cm thick. All the remaining works were completed with in the end of November 2004. Hand-pump is purchased and installed. The pump attendant training was also given for five persons elected from the local community for one week. The scheme is working properly.

10. Zawla: The hand dug well was dug 50 m upstream from the existing well, dry at the end of February 04 that is located at the edge of the local stream (dry after November in the nearest section). The depth of – 15.60 m was reached (outside diameter: 3 m from ground level to – 11.10, outside diameter: 2 m from – 11.10 m to



maximum depth), finding alluvial sands from ground level to – 5.6 m; weathered basalt from – 5.6 m to – 15.6 m. Water was struck at – 11.10 m and the water level was found at – 12.5 during July 04. The daily discharge at the end of February 04 was 2.15 m³ and did not decrease up to July when a recovery of 40 cm in 14 hours (section with 2 m diameter) was measured. Within the end of August 04 the upper wall, from – 11.10 to ground level was completed. Concrete rings were installed below the reduction. All construction works were completed within the end of November 2004. Hand-pump is purchased and installed. The pump attendant training was also given for five persons elected from the local community for one week. The scheme is working properly.

11. Derezeba: 2 hand dug wells were previously dug and abandoned after finding hard volcanic agglomerate. We decided to intervene on the existing well (depth: 8.6 m) when the presence of water was detected in the well during May 04. Latter we deepened it to 9.65m to increase the recharge & to get enough water columns. During May the top slab was demolished and the concrete rings removed. At the end of July the final depth of 9.65 m was attained, with a water column equal to 1.6 m and daily discharge = 3.3 m³. Discharge and water column remarkably increased during August when the static water level in the well was detected at – 4.7 m. The inside part of the well /from the bottom of the well up to 4m/ was lined with concrete rings with outside diameter 100cm and inside diameter 80cm diameter. Then the first 3 meter from the bottom of the well was packed with selected river gravel .The remaining one meter was packed with sand and then grouted with cement sand and gravel with a ratio 1:2:3. As a foundation, ring reinforced by Rebar No 12 was installed at the bottom of the well to properly put the old concrete rings. The upper 5 meter was lined with concrete rings outside diameter 145 cm and inside diameter 120cm and packed with small gravel. All construction works were completed within the end of November 2004. Hand-pump is purchased and installed. The pump attendant training was also given for five persons elected from the local community for one week. The scheme is working properly.

12. Gecher: a first hand dug well was left at – 3.0 m of depth due to the hardness of the rock. A second well was dug to the depth of – 12.50 m at the end of February 04 was reached (outside diameter: 3 m from ground level to – 10.00, outside diameter: 2 m from – 10.00 m to maximum depth), finding alluvial sandy gravel from ground level to – 2.5 m; weathered white shale from – 2.5 m to – 12.5. The well was then abandoned due to collapses of the wall at the medium section. A third well was therefore started and dug down to – 11 m of depth at the end of November with a remarkable delay because the excavation was left for long time since the local community was engaged in other works. The excavation went ahead up to 11.7m and then completed in March 2005. The pump attendant training was also given for five persons elected from the local community for one week. The scheme is working properly.

Dehana Woreda

13 Ebela Mikael: the well was started at the beginning of April 04. At the end of May the depth of 10.5 m was attained, with diameter of 300 cm from ground level to – 6.2 m, 200 cm from – 6.2 to maximum depth, finding clayey brown soil throughout the well (level with boulders at – 6.2 m). The water was struck at 6.2 m of depth at the end of April, and then the water level drew down to – 8.3 m at the end of May to recover up to – 6.0 m during August. The daily discharge is about 2.5 m³ during June.



Unfortunately, at the beginning of June the well started collapsing at the level of the reduction. It was therefore decided to line the well by concrete rings (145, cm outside diameter, 120 cm inside diameter) that were produced but not installed since in the last decade of August other collapses happened and it was decided to suspend the work. Again the well collapsed more during the rainy season, and we were forced to dig a new well just 10 meter away from the collapsed well. At the end of November 2004, the total excavation of the new well reached 9m. The total depth foreseen for the new well of 11.5m was reached in December 2004. The whole work was finalized in March 2005. The pump attendant training was also given for five persons elected from the local community for one week. The scheme is working properly.

Spring tapping

Concerning spring rehabilitation, two springs, Telajie and Wizabo, were completed at the end of November 2004 while the third one, Esha was completed in December 2004. Distribution points and installation of the pipes and fitting was accomplished in February 2005. At Kosba Aleketit, Kosba Terho, and Kosba Ginto, all the intake structures, the collection chambers, and the installation of pipes from the collection chamber to the existing reservoir were completed in March 2005.

Springs sites:

Dehana Woreda

1. Kosba Alekitit
2. Kosba Terho
3. Kosba Ginto
4. Esha
5. Wizabo

Ziquala Woreda

6. Talaji Hamusit

The excavation of four springs' intakes, Kosba (3) and Esha, were started at the beginning of February 2004, a fifth one, Wizabo, started on the second decade of April 04 while the Talaji Hamusit in June 2004.

Dehana Woreda

1. Kosba: it is among the most important rural towns of Wag Hamra Zone, counting more than 2,000 inhabitants and with an old history and traditions.

The spring intake to be rehabilitated, now in use for public water supply, is located 300 m, in elevation, above the town. It was providing the rural town with about 2,000 l of water per day at the end of July, quantity that is widely insufficient to satisfy the daily requirement of the local population.

The intake is found inside a streambed and was seriously damaged by the previous floods. The intake is highly exposed to surface contamination. Being anyway the intake in use now, to avoid any interruption of the present water supplies, works were started in three other sites with the aim to increase the quantity of water supplied to the town. All sites are located more than 300 m above the rural town, so that the water collected by the intakes will be sent to the existing distribution system by gravity.

In all excavation sites water was found in loosen surface deposits having a thickness of several meters. The excavation sites are:



- **Kosba Alektit:** it is located about 1 km from the intake in use, to the East. A perennial spring is found there: it does not dry also during drought times as it was recorded by the Woreda Water Desk on June 2003, at the peak of the drought. The excavation was carried out removing the loosen soils above the hard bedrock toward the inside of the mountain but the discharge of the spring did not increase, remaining equal to 0.16 l/sec in February, 0.12 l/sec in May, 0.11 l/sec in June and July, 0.25 l/sec at the end of August. The intake was provided with one PVC screen for collecting the spring water and two retaining walls for the lateral support of the gravel pack and filtering sand that cover and surround the PVC screen. Before the end of August 04 the construction of the collection chamber was completed. The installation of the 2” GI pipes from the new collection chamber to the existing pipeline (1035m) is accomplished.
- **Kosba Terho:** it is located about 1 km from the existing intake to the West. The excavation was started where seepage was found along the bank of the local stream, out of the flooded area. The trench was deepened down below the water table of the local hanging aquifer and its discharge was 0.05 l/sec in June and July 04, 0.10 l/sec at the end of August. Before the end of May 04, the excavation of the trench was completed (trench about 25m long, 3m wide, and 4m deep (as an average). During the last trimester 6” PVC screens and blinds were installed at the bottom of the trench, packed with selected river gravel, 30 cm thick, and covered by clean alluvial sand, 50 cm thick. The trench was then refilled. Before the end of November 04, the construction of the collection chamber was completed. The remaining work, installation of the 2” GI pipes from the new collection chamber to the old reservoir, which is located in Ebela hill 1050m away from the intake area, was accomplished in the last quarter of the project.
- **Kosba Ginto:** the excavation was started in a steep area with evident moisture. By mean of a trench deepened down below the water table, 25 m long, 4 m deep (as an average) and 10 m wide, a quantity of water equal to 0.15 l/sec at the end of June, 0.13 at the end of July, 0.3 at the end of August 04 was collected. Before the end of May 04, the excavation of the trench was completed. To avoid dangerous soil a slide, a wide step was realized in the upstream excavation front. Before the end of August 6” PVC screens and blinds were installed at the bottom of the trench, packed with selected river gravel, 30 cm thick, covered by clean alluvial sand, 50 cm thick. The trench was then refilled. Before the end of November 04 the construction of the collection chamber was completed. The remaining, installation of the 2” GI pipes from the new collection chamber to a small box that was constructed as junction point for the water coming from Ginto and Tirho springs located some 200m away from the intake structure, was accomplished in the last quarter of the project

Kosba spring is working properly supplying water to the duellers.

2.Esha: the existing spring intake that was planned to serve two villages is located along a mountain stream and was filled by silt and clay during previous floods. The



existing reservoir, two distribution areas (provided with 2 taps each) and the cattle trough have been found seriously damaged. Therefore it was decided to remake the structures as a whole. The new intake was started out of the area subject to floods, where a swampy, sliding areas was observed, with underground flow (exploratory pits and trenches were dug) from the loosen soil and weathered bedrock. A trench, 55 m long, 2.5 m wide and 6 m deep (as an average), was dug. To avoid dangerous soil-slides, a wide terrace was realized on the uphill excavation front, to break its height. The discharge of the new spring was about 0.20 l/sec at the end of February, 0.16 l/sec at the end of June 04, and 0.13 l/sec at the end of July, more than 0.3 L/sec at the end of August. Within May 2004 the excavation of the intake trench was completed, the PVC 6" installed at the bottom of the trench and packed by gravel and sand (covering the gravel for filtration purpose). Within the end of November 2004 the trench was completely refilled, the outside connection box, as a collection chamber, constructed and the reservoir completed. The construction of the distribution point and pipe lining from the reservoir to the distribution point was accomplished in the last quarter of the project. The scheme is working properly supplying water to the duellers.

3. *Wizabo*: *Wizabo* spring was started after the negative results of two hand dug wells of *Dehana Woreda*, namely *Trukana* and *Debre Wela*. The spring is fed from the contact between two layers of basalt, with dipping to the valley. The excavation was started in the second decade of April and the spring site was cleaned since all loosen soil was removed. Before the end of May 04 also the excavation of the collection chamber, reservoir and distribution area were carried out. At the end of July 04 the discharge of the spring was 0.11 l/sec. Within November 2004, the whole construction work of the spring was completed. The scheme is working properly.

Ziquala Woreda

4. *Talaji Hamusit Spring*: it was surveyed during May 04. The spring discharge was checked (about 0.05 l/sec) and, since no way to increase the spring discharge was observed, it was agreed with the *Woreda Water Desk* to remake a new reservoir and distribution area since the spring water is overflowing from September to February. We remind that *Talaji Hamusit* is suffering for an acute water shortage, being located within an arid area. Many efforts were dedicated to transport cement and sand (the latter not available in the area), since the spring site is more than three hours walking from the nearest accessible site. Within November 2004, the construction work of the new reservoir together with the distribution point was completed. The scheme is working properly.

Health education in the field

Health Education has been given in the field through a one-week course undertaken at each targeted village using teaching materials such as Health related videocassettes (given by *Bahir Dar Health Bureau*), audiocassettes (given by the *Sekota Health Department* and *WMED*) and posters (supplied by the project).

Repeated visits were done along with the technical follow up.

During the 1st step, Health Education information was given to the rural communities concerning:

- personal hygiene
- environmental hygiene



- water born diseases
- advantages for health related to the use of unpolluted water
- other diseases such as malaria and AIDS

The time to conduct the awareness on Health was in the evening, when all inhabitants of the village were back from their daily activities.

Health education campaigns were also done in schools wherever they were present.

Generally, the audience was wide.

It was not rare that people came from the neighboring villages to attend the program.

At the end of March 2005, all villages of intervention were covered by the health education activities.

Pump attendant training

The pump attendant training was undertaken for each of the schemes targeted to five people, of whom at least one should have been a woman, living in the village and undertaken during the hand-pump installation. Selection was based on the aptitude to handle and face technical problems and anyhow in collaboration with the communities.

The training lasted for one week and was given according to the following procedures:

- demonstration of pump performance, parts use and removal
- first installation of the hand pump executed by our technicians with the collaboration of the trainees
- removal of the hand pump, executed by the members of the VWC only
- re-installation of the hand pump executed by the members of the VWC, under the supervision of our technician
- simulation of breakdowns and relevant repairs

Cost coverage/Running costs coverage/

Two types of cost recovery systems are mainly adopted. In agreement with concerned public Offices in Wag Hamra zone, the first type is used for small rural villages where the population is fully engaged in agriculture or animal breeding. The system foresees the in-kind payment of the guard made up by one can of cereals per year received from each household among the users. The guard is also invited to grow a small vegetable garden, without using fertilizers, inside or near the fenced compound of the water point. The Woreda Water Desk has the duty to carry out the maintenance of the water points with the help of the five people trained for maintenance by the Project, who would receive a small compensation in kind by the users for each intervention they undertake. We remark that a complete set of spare parts is left in all intervention sites to facilitate the maintenance costs of the water systems.

The second type of cost recovery, adopted in the small rural towns with a relevant part of the population engaged in trade or other activities, is based on the payment of a monthly fee per household.



Objective: Increased safe water for drought affected rural communities

INDICATORS

	Total in the program	Achieved up to now	Remarks
Number of hand-dug wells rehabilitated	13 (15 original plan)	13	
Number of springs rehabilitated	6 (4 original plan)	6	
Number of beneficiaries for HDW	5,300 (7,500 original plan)	5,300	
Number of beneficiaries for springs	8,250 (16,000 original plan)	8,250	

RESOURCES

Budget:	USD 330,860.00	Expended this period:	USD 24,986.65
Cumulative expenditures to date:	USD 330,860.00	Balance:	USD 0.00



II Program Overview

A Project goal and objectives

Goals

- Minimize the hazard connected to the current drought;
- Assist affected populations in the recovery process to promote self-sufficiency and minimize dependence on external aid;
- Increase the capacity of communities to cope with recurrent drought, which will reduce the need for large emergency interventions in the future

Objective #1: Increased water/sanitation conditions for drought affected rural communities

B Profile of the targeted population and the critical needs identified in the proposal

The main economy in Wag Hamra Zone is based on agriculture and a combination of mixed farming and livestock production.

Despite the highest involvement in agricultural activities, the production is far from being sufficient to feed the population.

Average cultivable land holding is 1.3 hectare and the land holding of the majority of the households (67%) are fragmented, most of them having two parcels of plots.

As per the official data of DPPD, in the last harvest season 2003, the achieved production was less than 3 qt per hectare and the figures for the previous years are not far from the last given.

Therefore, many people of Wag Hamra are in need of assistance and supported by relief.

The following tables, translated from the “Report of 1995/96 E.C. Harvesting season - pre harvest crop assessment”, may give the picture of the food shortage in the three Woreda.

Table 7: Population number and annual food requirement in Wag Hamra Zone for the harvesting season 2003/2004

Wereda	Population number	Annual food requirement (qt)	No of Kebele
Sekota	149,383	268,889	45
Dehana	125,132	225,273	33
Ziquala	59,269	106,648	27

Remark: The standard used to calculate the annual food requirement is 1.8 q/person/year



Table 8: Total cultivated land and production in Meher season (year 2003)

Wereda	Expected cultivated land (ha)	Expected production (qt)	Actual cultivated land (ha)	Expected recharge (qt)	Estimated agricultural recharge (qt)	Total actual production including from animals (qt)
Sekota	49,475	260,140	48,851	231,928	172,251	178,290
Dehana	45,626	249,939	45,626	249,939	-	167,700
Ziquala	25,661	146,751	24,148	133,872	63,227	72,932

Table 9: Number of people in need of relief assistance (year 2003/2004)

Wereda	For 9 months	For 6 months	For 3 months	Total
Sekota	10,933	16,773	8,200	35,906
Dehana	25,000	0	0	25,000
Ziquala	23,936	0	0	23,936
Total	59,869	16,773	8,200	84,842

Source of the Tables 1, 2 and 3: DPPD pre harvest crop assessment report for the year 2003/2004

The average number of oxen per household is estimated to be 0.82. About 39.3% of the farm households do not have oxen at all; 37.1 have only one ox, 13.7% have two oxen, and 5.7 have three oxen and 4.1 have four or more oxen. (WARDIS, 1998). Based on the responses of the stakeholders during the assessment, the major source of income available is crop production, while livestock breeding and off farm activities including farm labor, petty commodities and trade, are of a second importance.

Migration is also taken as a mean to generate income and to cope with coming hunger gap after the harvesting period.

In relation to their income, people expenditure is mostly related to food supply, social events (wedding etc.) and obligation, taxes and non-food equipment purchase.

Currently the government commitment to reduce the adverse effects and to improve the livelihood of the people in the area is reflected in its response made by the formulation of Integrated Food Security Program. The overall objective of the five year (1998-2002) Integrated Food Security Program of the Regional Government is to insure food security within 5 to 7 years for a population of 2.5 million residing in 47 drought prone and chronically food insecure Woreda including the three Woreda (Sekota, Ziquala and Dehana) of Wag Hamra Zone, through the following strategies:

- Increase agricultural production and productivity sustainable at the household level;
- Create diversified and growing employment and income opportunities to the rural areas;
- Build on the human and institutional capacities;
- Introduce sustainable land husbandry practices, and
- Strengthen rural marketing and credit services to the rural people (Amhara National Regional State, Integrated food Security Program, October 1997).

Population characteristics



The total population of Wag Hamra is estimated at 333,784 (Source: DPPD pre harvest crop assessment report for the year 2003/2004), out of which 168,198 are males and 165,586 are females.

The 95% of the population live in rural areas.

The average family size of the zone is 3.9 and the population density accounts to 42 persons /km².

The people in rural areas are used to live in scattered villages known as Gotes. The number of household living in a gote ranges from 20 to 60. The settlements are located in relatively plain area on the mountains slope.

With respect to ethnic composition, the major ethnic groups of the zone are Agew (51%) and Amhara (47%) and Tigrians (1.5%) and the major mother tongues are Agew/Kamyargna and Amharic, while Tigrigna is spoken by a minority of the population. Orthodox Christianity is the predominant religion in the zone.

Life expectancy is 51 years.

Current food security situation in Wag Hamra zone

The three woreda of Wag Hamra zone are classified by the regional government as drought prone woreda.

Due to this reason, significant number of the people living in the area is relief dependent for survival. For long time relief has been distributed in the area by the government and NGOs in order to save the people lives.

However, these years of relief assistance has brought a dependency syndrome in the life of the majority, and ultimately became a hindrance for the efforts undertaken to insure development in the area.

The regional government recently has adopted three main programs to achieve food security in the area. These include the resettlement, the safety net and the household packages.

To achieve the results of the programs, the government has divided the rural communities into three categories, Grade1 - chronically food insecure, Grade2 - food insecure, Grade3 - better of.

Grade1, this category represents people who currently do not have any assets like land, oxen, or any other means for production. They suffer from acute food shortage from year to year.

Grade 2, this represents people who are currently involved to some extent in agricultural production and are able to feed themselves at least for six months within a year but still suffering from food shortage for the remaining period. The total number is estimated in 90,000.

Grade 3, these are people who are able to feed themselves throughout the year without major food security problems.

Designed food security strategies

Resettlement as one of the strategy to insure food security

This program is designed for the chronically food insecure (Grade1) rural households living in the area. Two places have been prepared for resettlement in Amhara region, Metema in Norther Gonder Zone and Jawi in Agew Awi zone. The two selected areas



have fertile vast agricultural land but highly infested with malaria .This year there is a plan to resettle more than three thousand households (around fifteen thousand people) from Wag hamra zone to the above mentioned areas. Resettlements started again beginning of this year.

Safety net as one of the strategy to insure food security

This program is designed mainly for the food insecure, Grade2, rural households living in the area.

The program is designed to insure the food security of this category of households within the coming three to five years by involving the target population in the food for work and cash for work activities in their localities. As per the program, the safety net beneficiaries have to graduate by any means within three or five years.

The activities designed under the safety net are mainly meant to insure the food security by protecting household assets from depletion and by creating new community assets like rural roads, water points, environmental protection works, and the like. The safety net resource is transferred to the beneficiaries in terms of cash and food.

Household packages

This program is designed for the food insecure (Grade2) and better of (Grade3) rural households in order to create new assets thus boosting the production and finally to insure food security in a sustainable manner. The household package is mainly encompassing activities related to agriculture like modern poultry, apiculture, irrigation scheme, fodder production, restocking, and the like. The resource for this program is transferred to the beneficiaries on credit basis through the micro finance institution or cooperatives.

C Geographic location of the started activities, number of beneficiaries

OBJECTIVE#1:

See tables above

Program performance

D Program performance, vis-à-vis the program objective

1)Progress, Period, and cumulative achievements referred to the revised plan of action are here below listed.

		Revised plan	Quarter Accomplishment	Cumulative Accomplishment	Description/remarks
Activities	Unit	Qty	Qty	Qty	
Equipment					
Geolog/hydrog.	gross	1	0	0	Agreement with stakeholders allowed the project to hold the previous eq for the implementation. Eq was not purchased and budget revised
For hygienic campaign	gross	1	0	0	“
Hand pump	set	13	0	13	Accomplished
For HDW construction	gross	1	0	1	Accomplished



Eq to hand over to stakeholders	see list	1	0	1	Agreement with the stakeholders was made in order to provide important spare parts for the implementation of their works. Accomplished
Various (field material)	gross	1	1	1	Accomplished
Works					
Hygienic campaign	site	19	1	17	Accomplished
HDW with positive result	n	13	1	13	Accomplished
Springs	n	6	2	6	Accomplished
Training water supply	committees	17	0	17	Accomplished
Pump attendant training	site	13	0	13	Accomplished
Spring care takers training	site	6	6	6	Accomplished
Transport					
4WD rented	months	15	0	15	Accomplished
Truck rented	months	8	0	8	Accomplished
Motorcycle	n	3	0	3	Accomplished
Other items					
Local office equipment/mat.	gross	1	1	1	Accomplished
Evaluation	n	1	0	1	On going

2) Why targets were not met and how the impact has been, or will be addressed

Not available

E Successful stories

All wells and springs are developed in a way that they can deliver a proper amount of water to the users throughout the year as well as during the picks of the droughts.

F Unforeseen circumstances and their effects on the program performance

During implementation, many problems affected the performance and caused delays of the project

a) Although the contract foresaw the starting of the activities as of August 25, 2003 with a 12-month validity period, the activities could not officially start until November 15, 2003 date of the regional agreement signature. In the 1st quarter of implementation, efforts were made to achieve the approval of the Project by the Regional DPPB, found in Bahir Dar and, through the support of the Woreda responsible persons.

b) The targets foreseen in the project were not achieved because during the implementation, many hand-dug wells got an unsatisfactory result and we were obliged to continue the excavation as long as possible, correct their location, or abandon the relevant sites. The failure of many hand-dug wells is because in the concerned villages impervious rock formation outcrops widely. It was a duty toward the concerned rural communities to try to dig a well though with scarce hope of success. As per the springs, their increased number pushed for further excavation activities of the intakes and other structures increasing the overall volume of the work.



c) The participation of the rural communities in the works was fragmented and limited for their involvement in other activities implemented under request of the local authorities.



I. Break-down Budget

Category	Unit	Months	Amount	Obj. 1 Water	Total OFDA	Total OFDA Expenditures	OFDA Balance	Total Coopi	Total Coopi Expenditures	Balance Coopi
Expatriate personnel					40,000.00	40,000.00	0.00	9,000.00	9,000.00	0.00
Project manager	1.00	10.00	4,000.00	40,000.00	40,000.00	40,000.00	0.00	0.00	0.00	0.00
Country Representative	1	2	4,500	9,000	0	0	0	9,000	9,000	0
Local personnel					49,961.00	50,064.00	-103.00	0.00	0.00	0.00
Staff	1.00	12.00	49,961.00	49,961.00	49,961.00	50,064.00	-103.00	0.00	0.00	0.00
Travel					3,040.00	3,762.25	-722.25	0.00	0.00	0.00
International travel	1.00		1,100.00	1,100.00	1,100.00	1,239.25	-139.25	0.00	0.00	0.00
Local travel	12.00		161.67	1,940.00	1,940.00	2,523.00	-583.00	0.00	0.00	0.00
Equipment					36,123.00	29,886.00	6,237.00	10,000.00	10,000.00	0.00
Geolog/hydrog. Survey equipment	See list		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
For hygienic campaign	See list		2,000.00	2,000.00	2,000.00	103.00	1,897.00	0.00	0.00	0.00
Hand Pump & spareparts	13.00		469.23	6,100.00	6,100.00	4,819.00	1,281.00	0.00	0.00	0.00
Field equipment	See list		1,942.00	1,942.00	1,942.00	1,901.00	41.00	0.00	0.00	0.00
Wells' construction equipment	See list		12,498.00	12,498.00	12,498.00	11,894.00	604.00	0.00	0.00	0.00
Wells' construction equipment to be handed over to woreda water office for sustainability and duplicability	See list		7,083.00	7,083.00	7,083.00	7,083.00	0.00	0.00	0.00	0.00
Motorcycles to be handed over to the water office at woreda level for sustainability	3.00		2,166.67	6,500.00	6,500.00	4,086.00	2,414.00	0.00	0.00	0.00
Materials made available by communities			10,000	10,000	0	0	0	10,000.00	10,000.00	0.00
Works					122,342.00	122,309.00	33.00	16,600.00	16,600.00	0.00
Carry out hygienic campaign	19.00		125.00	2,375.00	2,375.00	2,010.00	365.00	0.00	0.00	0.00
HDW rehabilitation/reconstruction	13.00		3,435.85	44,666.00	44,666.00	44,771.00	-105.00	0.00	0.00	0.00
Spring Capping rehabilitation/reconstruction	6.00		9,758.50	58,551.00	58,551.00	59,001.00	-450.00	0.00	0.00	0.00
Access road construction to site	19		-	16,600	0	0	0	16,600.00	16,600.00	0.00
Training water supply	19.00		4,750.00	4,750.00	4,750.00	5,857.00	-1,107.00	0.00	0.00	0.00
Truck rented for hand dug well and spring construction	1.00	8.00	1,500.00	12,000.00	12,000.00	10,670.00	1,330.00	0.00	0.00	0.00
Other					67,400.00	72,881.00	-5,481.00	21,400.00	21,400.00	0.00
Car 4x4 rental	1.00	14.00	1,900.00	26,600.00	26,600.00	26,600.00	0.00	0.00	0.00	0.00
Car 4x4 by humanitarian organization	1	12	1,400	16,800	0	0	0	16,800.00	16,800.00	0.00
Vehicles operation and maintenance	2.00	13.50	500.00	13,500.00	13,500.00	15,173.00	-1,673.00	0.00	0.00	0.00
Office and Store Rental	1.00	12.00	400.00	4,800.00	4,800.00	8,702.00	-3,902.00	0.00	0.00	0.00
Office services (Light, water, telephone, etc)	1.00	17.00	300.00	5,100.00	5,100.00	6,744.00	-1,644.00	0.00	0.00	0.00
E-mail and internet service	1.00	12.00	200.00	2,400.00	2,400.00	1,735.00	665.00	0.00	0.00	0.00
Local office equipment/material	set		4,800.00	4,800.00	4,800.00	3,644.00	1,156.00	0.00	0.00	0.00
Evaluation	1.00		4,000.00	4,000.00	4,000.00	4,000.00	0.00	0.00	0.00	0.00
Addis Ababa support	1.00	12.00	400.00	4,800.00	3,200.00	3,283.00	-83.00	1,600.00	1,600.00	0.00
Monitoring by the organization	1.00	12.00	500.00	6,000.00	3,000.00	3,000.00	0.00	3,000.00	3,000.00	0.00
TOTAL DIRECT				375,866.00	318,866.00	318,902.25	-36.25	57,000.00	57,000.00	0.00
Audit					2,000.00	2,000.00	0.00	0.00	0.00	0.00
Indirect Cost					9,994.00	9,994.00	0.00	3,990.00	3,990.00	0.00
TOTAL REQUEST					330,860.00	330,896.25	-36.25	60,990.00	60,990.00	0.00

III Resource Use/Expenditures



IV Plan of work for the next quarter

Not applicable.

