



# **REST** **Relief Society of Tigray**

*Towards a food secure future*



## **WellWishers funded Rural WASH Development Program in Tigray Regional state, Ethiopia**

**Completion Report  
(1 January, 2016 to 31 December, 2016)**



**Mekelle, Ethiopia  
January, 2017**

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## Project Profile

<b>Project Profile</b>		
<b>1. Project Title</b>	Potable Water Supply Development, and Sanitation and Hygiene Program in six weredas of Tigray, Ethiopia	
<b>2. Project Location</b>	Eastern and Central Zone, Tigray Regional state, Ethiopia	
<b>3. Project Type</b>	Construction of 35 New Hand dug wells, rehabilitation of 6 hand dug wells and training on hygiene and sanitation activities of the 6 project districts.	
<b>4. Project Objective</b>	<b>Overall objective</b>	To contribute to the eradication of poverty and improve the quality of life of the target population.
	<b>Specific objective</b>	<ul style="list-style-type: none"> <li>• To enhance that all people have safe and equitable access to sufficient quality and quantity of water for drinking and domestic uses.</li> <li>• To improve good personal and environmental hygiene</li> <li>• To increase the health status of women and children and reduce the expenses for medications</li> <li>• To increase child school enrolment</li> </ul>
<b>5. Estimated Number of Beneficiaries</b>	7245 peoples or 1449 HHs	
<b>6. Anticipated Program Duration</b>		
Starting date:	1 Jan 2016	
Completion date:	31 Dec 2016	
<b>7. Budget</b>		
Total Program Cost:	ETB 4,661,898	
WellWishers Contribution	ETB 4,318,340	

## ACRONYMS

<b>CLTSH</b>	Community Led Total Sanitation & Hygiene
<b>GTP</b>	Growth and Transformation Plan
<b>HEWs</b>	Health Extension Workers
<b>HHs</b>	Households
<b>KAP</b>	Knowledge Attitude Practice
<b>NHDW</b>	New Hand Dug Well
<b>ODF</b>	Open Defecation Free
<b>RHDW</b>	Rehabilitation Hand dug Well
<b>REST</b>	Relief Society of Tigray
<b>SLTSCH</b>	School Led Total Sanitation and Hygiene
<b>WASH</b>	Water, Hygiene and Sanitation
<b>WASHCO</b>	Water Hygiene and Sanitation Committee



## **1. Executive Summary**

Safe water is still an issue or agenda to our country development living standard. The majority of rural community is still on a limited access to water supplies for consumption, washing and bathing purposes which is the crucial for the quality of family health and well-being and contributes significantly to the maternal and pediatric health of the community in the region.

To mitigate the above problems, REST / WellWishers foundation have been implementing clean water and hygiene and sanitation program on yearly based and this is a continuation of the last projects implemented in different districts of Central and Eastern zone of Tigray regional state, Ethiopia.

In this project, 35 new and 6 rehabilitation hand dug wells, capacity building of the WASHCOs and hygiene and sanitation components were planned to construct and provide training to the beneficiary of the project areas. Accordingly, in the implementation period the construction 35 new hand dug wells, 6 rehabilitation hand dug wells, training of WASHCO in all schemes and all hygiene and sanitation activities are completed.

## **2. Background of the project**

REST WASH Program development objective is to improve the health and well-being of communities in rural areas in an equitable and sustainable manner by increasing access to water supply and sanitation and adoption of good hygiene practices.

Visualizing far to the sustainable development goals (SDGs) and the stated overall development objective of the nation, from the past to date REST in collaboration with WellWishes foundation is working rural water supply schemes supporting sanitation activities including improvement of household sanitation and hygiene programs incorporating affordable water supply technologies.

Even though there is considerable and promising change, due to the longstanding highly unreached status of clean water supply, sanitation and hygiene issue in Tigray is still major economic, social and environmental problem and becoming source of health related problems.

To mitigate the above problems, REST / WellWishers foundation has implemented clean water and hygiene and sanitation program in the project areas of eight districts of Tigray namely: Tahtay Maichew, Werie Lekhe, Ahferom, Hawzien, Adwa, Tanqua Abergelle, Kolla Tembien and Laelay Maichew. These weredas have been identified to be critically in need of potable water. Therefore, in this fiscal year (2016) WellWishers foundation project, 35 new hand dug wells and 6 rehabilitation hand wells a total 41 wells of hardware works and related sanitation and hygiene software activities were proposed to undergo which are expected to address the existing water supply, sanitation and hygiene issues of the community. As per the plan, the construction of the wells and the sanitation & hygiene activities are currently completed and started to serve the intended communities.

### **3. Project Goal, Objectives and Results**

#### **3.1 Project Goal**

Contribute to the eradication of poverty and improve the quality of life of the target population.

#### **3.2. Project Objectives**

- To enhance that all people have safe and equitable access to sufficient quality and quantity of water for drinking and domestic uses.
- To improve good personal and environmental hygiene
- To increase the health status of women and children and reduce the expenses for medications
- To increase child school enrolment

#### **3.3 Expected outcome**

- ✓ Reduce the maximum distance from any household to the nearest water point is reduced to 1.5 kilometers and to ensure that water fetching time from a water source is no more than 30 minutes
- ✓ Increased households' water consumption to 25 liters/day/person which is target of GTP 2.
- ✓ Reduction in distance walked to fetch water from 1-2 hrs to 15 minutes
- ✓ Reduction of queuing time from 1hrs to 10 minutes

- ✓ Reduction in workload of women and improved their health status
- ✓ Child (specially girls) enrolment in school improved
- ✓ Increased awareness of 7097 people on personal and environmental hygiene and sanitation
- ✓ Open defecation free environment created

### **3.4 Project Outputs**

- ✓ 35 New Hand dug wells,
- ✓ 6 Hand dug wells rehabilitated
- ✓ 41 WASHCO established and trained
- ✓ Festivals conducted in the targeted Woredas and community members participated
- ✓ Facilitators facilitate the triggering process at the community level.
- ✓ manuals distributed to the community facilitators
- ✓ 7245 rural people directly benefited from the project components
- ✓ CLTSH implemented in 41 water points/sites.
- ✓ 82 flags provided to water scheme for sanitation promotion
- ✓ Review meeting conducted in 6 woredas and 328 community members participated.
- ✓ 180 manuals distributed to the community facilitators and natural leaders
- ✓ 328 natural leaders trained for hygiene and sanitation post-triggering

## **4 Project Areas**

Basically, the targeted werdas of this program were six namely: Ahferom, Werie-Lekhe, Adwa, Hawzen, Laelay Maychew, and Tahitay Maychew. However, because of dryness, collapse, and constructed by other organization a number of schemes have been replaced and the actual operational areas become in eight districts in Central and Eastern zones of the region namely Ahferom, Werie-Lekhe, Adwa, Hawzen, Laelay Maychew, Tanqua Abergelle, Kolla Tembien and Tahitay Maychew. These weredas have been identified to be critically in need of potable water supply. According to the districts' water resources data also, the main source of water for the significant portion of the people include river water, polluted ponds, unprotected springs, low yield open hand dug wells, and crowded and distant hand dug wells and shallow boreholes. The average walking distance was estimated to be more than 45 minutes for a single trip and the queuing time was also estimated to be more than 35 minutes. As a result of this a number of children were engaged in fetching water spending their more time and this contributes to increase school dropout rate and negatively affecting the quality of education as a whole. Because of the consumption of

unprotected water the community especially children and mothers were suffering from different water borne diseases.

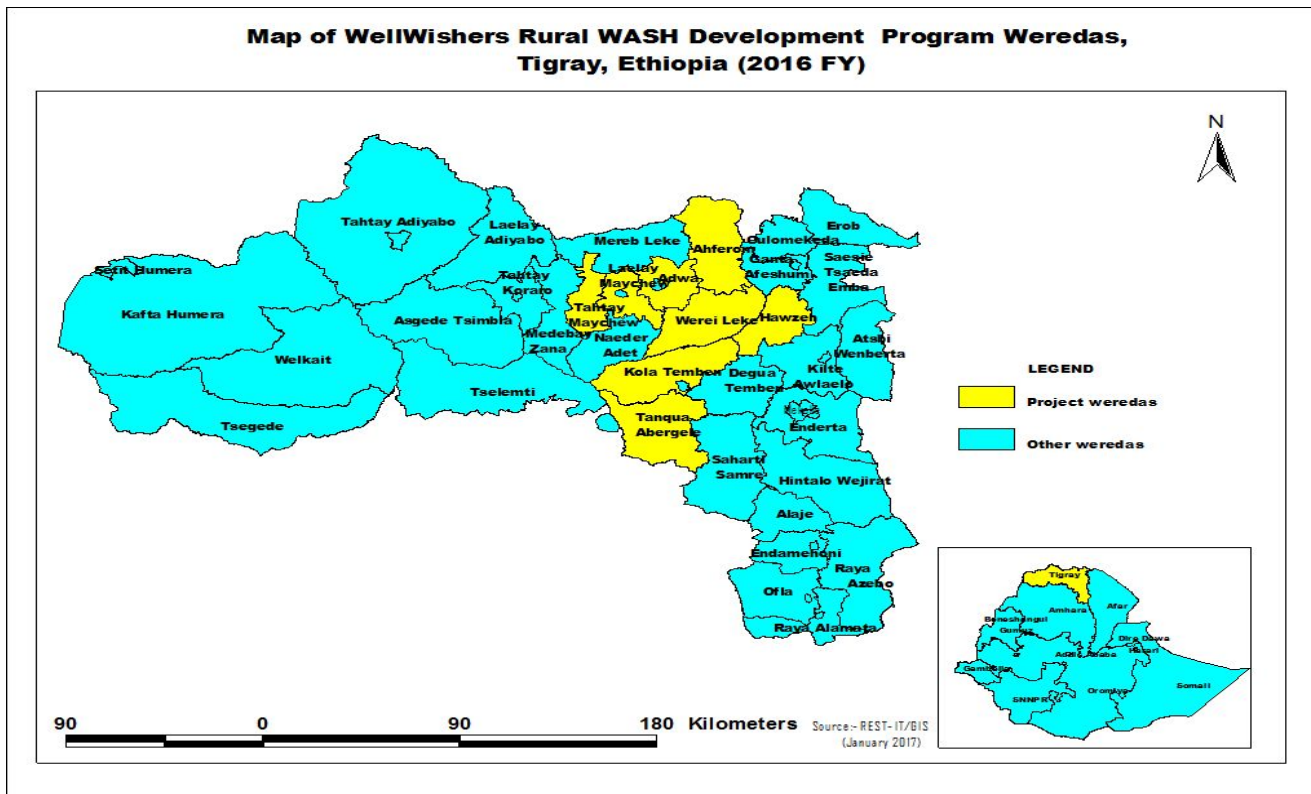


Figure 1: Map showing location of the intervention Woredas

## 5 Achievement of the Rural WASH Development Project

### 5.1 Feasibility study

Based on the project proposal, 35 new and 6 rehabilitation hand dug well sites have been selected as potential sites during the feasibility study for the project. In the site selection, the community has been participated actively in collaborating and indicating the potential sites with the involvement and support of REST’s hydro geologist.

### 5.2 Community mobilization activities

As part of the path road for the sustainability of the project , for effective and smooth implementation of the project technicians and field coordinators of REST have facilitated and well mobilized the community of each site to maintain the roads and to aware their active participation & involvement of the community from the beginning to the completion of the project implementation . Not only with community but also discussions have conducted with the tabia level community leaders, water

technicians, health extension workers and district water offices, health and administration offices on how site selection, on the roles of each stakeholders from inception of the implementation and follow up after handover. Accordingly, participation of the community starts from pre-construction activities. Thus, in all sites the community has been facilitated in site selection of the potential site, mobilization of local materials and site preparation which includes site clearing, voluntary provision of store and house for technicians during implementation of the projects.

The consultation meeting was also made on fee collection for the operation and maintenance, on selection of WASHCO who take responsibility of the management of the scheme by mobilizing the whole beneficiaries of the project.

### **5.3 Construction of new and rehabilitation hand dug wells**

#### **5.3.1 Construction of 35 new hand dug wells**



After site identification and conducting feasibility study by REST hydro geologist experts together with respective government partners involving the school community at large, construction of the identified new hand dug well sites is completed.

In this program period, the plan was to construct 35 new hand dug wells located in different woredas and the progress of this component shows, construction of all new hand dug well is completed, fenced and started giving potable water to the targeted beneficiaries, their respective WASHCO are trained and opened bank account for operation and maintenance.

In detail the completed hand dug wells mean:

- ✓ All excavation activity is completed using man power and explosive technology
- ✓ The masonry (building) of the well is accomplished
- ✓ All the concrete, slab and manhole works are activated in an excellent standard
- ✓ Hand pump full set is installed
- ✓ Well fenced and door fixed
- ✓ WASHCO is established and trained spot level and district/sub district level practical and theoretical training
- ✓ And the communities who are the intended beneficiaries of this program have been started collecting and drinking potable water.

Accordingly, in the implementation period, 35 new HDW sites are already completed and handed over to the beneficiaries. Currently, 6205 beneficiaries have accessed clean water from the 35 new hand dug wells. *(Please refer excel annex for status of all sites)*

	
<p><i>Wereda Tahtay Maichew, tabia Hawesti, Site name: Mai edaga</i>  <i>Description: Completed new HDW water supply</i></p>	<p><i>Wereda Tahtay Maichew, tabia Mayberazyo, site name Egr              iham</i>  <i>Description: new HDW is under construction</i></p>

### 5.3.2 Rehabilitation of 6 Hand Dug Wells

Besides the new hand dug well projects, we had also a plan to rehabilitate 6 hand dug wells. It is clear that service life of hand dug well technology is not more than 10 years based on different studies and arguments made by a number responsible organizations in different time. As a result of this, REST has studied potential rehabilitation hand dug well sites to be reconstructed and benefiting the targeted communities in different project areas.

From the six rehabilitation hand dug wells included in the program, all sites are completed and started giving service to 1040 communities.

Table 1: Summary of construction status of water schemes

Water Scheme	Plan	Achievement				
		Completed	Door fenced	WASHCO established and trained	Bank account opened	Replaced sites due to dryness, collapse, and others
New Hand Dug Well	35	35	35	35	35	15
Rehabilitation of Hand Dug Wells	6	6	6	6	6	3
<b>Total</b>	<b>41</b>	<b>41</b>	<b>41</b>	<b>41</b>	<b>41</b>	<b>18</b>

#### 5.4 WASHCO Establishment and training

To manage the water supply schemes, in this program 35 WASHCOs are targeted to establish and in each site and the community has selected 6 WASH Committee members (3 females and 3 males) and established before the completion of this project. The WASHCOs were participating since the commencement of the water supply project up to completion period in mobilizing the community and have been practicing how to manage their well with our technicians.

WASHCO have a mandate to manage the water supply with regard to the physical and financial resources, operation and maintenance, water by-laws, sanitation and hygiene of the well, institutional setup and mobilizing the community, communication with tabia water technicians and woreda water resources offices and the likes.

Besides, to coup up their responsibilities, the training has practical and theoretical training sessions.

The practical training focused on:

- ✓ Introduction to spare parts and uses
- ✓ Minor and major water supply problems
- ✓ Operation and maintenance of minor and major water supply problems, and

The theoretical training focused on:

- ✓ Institutional setup and functionality of WASHCO & Tabia Water Board
- ✓ Physical and financial resources management
- ✓ Sanitation and hygiene
- ✓ Water by-laws

As a result, all WASHCOs could manage their wells properly based on the given training.

## 5.5 Hygiene and Sanitation Achievements of the project

In implementing sanitation and hygiene activities at grass root or community level side by side with the provision of rural water supply, the following modalities were commonly involved.

CLTSH **modalities**: step by step implementation mechanisms are:-

- Pre-triggering
- Triggering at community level
- Post-triggering training
- Review meeting
- ODF Festival at Community level
- Hygiene and sanitation related material provision
- Monitoring and follow up visit

Accordingly the details are as follow:

### 5.5.1 Pre -triggering:

Pre-triggering was undertaken effectively through HEWs with support of respective health offices experts for all sites by visiting the communities/project sites using standard checklist to prepare the ground and setting the environment for effective and smooth implementation of the next hygiene and sanitation triggering activities:-

- ✚ Collected baseline data related to hygiene and sanitation through HEWs in collaboration with Tabia administration and woreda coordination office for the sake of quality data
- ✚ Identified the location of water point
- ✚ Clearly identified population size, dirtiest place, history of subsidy as well as the attitude of the community related to hygiene and sanitation programs/projects implementation
- ✚ The base line data was documented and filed properly for further investigation and information
- ✚ Shared experiences from site to site the status of hygiene and sanitation related activities, sayings and cultures as well as attitudes among the data collectors
- ✚ Findings from the data collection:
  - Domestic animals and humans lived together / not separated animal barn

- Poor latrine coverage and utilization
- Existed human feces in the compound
- Presence /practice of open defecation in and around
- No hand washing facilities adjacent to the latrine
- Using unprotected water supply source and not treated as well
- Poor hand washing practice / washing hands without water and soap or substitute
- Poor water handling practice /no separate containers
- Poor housing condition
- Absent of waste disposal pit
- Collapsed latrine with no maintenance
- Poor knowledge, attitude and practice towards hygiene and sanitation related activities

✚ The tabia administration with integration of HEWs set specific, fixed convenient time and place for conducting hygiene and sanitation triggering.

### **5.5.2. Triggering**

To improve and increased the KAP of the beneficiaries related to hygiene and sanitation activities, triggering was undertaken jointly with woreda respective bodies at 41 project sites and conducted by trained woreda health professionals with integration of health centre experts and HEWs.

During triggering, CLTSH tools were properly used to achieve the primary objective:-

- ❖ Undertaken transect walk (Community visit)- walking with community members through the village from one side to the other, observing, asking questions, and listening, build rapport with the community locating the areas of open defecation, learning which families use which areas for defecation, drawing attention to the flies on the shit, and the chickens pecking and eating the shit, experiencing the disgusting sight and smell
- ❖ Conducted Sanitation Mapping (Community map – mapping of defecation areas, creating a simple map of the village to locate households, resources and problems, and to stimulate discussion, identifying households with and without latrines, identifying areas for open defecation (under normal condition, during emergency situation, for children and for animals

- ❖ Conducted Shit calculation - How much human excreta is being generated by each individual or household per day?, (week, month and annually), used their own methods and local measures for calculating how much they are adding to the problem, illustrating and visualizing the magnitude of the sanitation problem and mountain made of feces respectively as well as appreciated the family who produces more shit
- ❖ Discussed on the flow diagram: - Where does all the calculated shit go? In this diagram the project beneficiary participants understand how air pollution, food and water contamination occurred. The diagram inspires the discussion on how running water, chicken and birds, flies, peoples mobility, cattle and other animals and wind contaminates the surrounding (air, food and drinking water)
- ❖ Undertaken Glass of water exercise - Asked somebody from the participants to drink clean water and then mix with small amount of shit and again ask the same person to drink but not. therefore, asked why he/she refused to drink and related the calculated amount of shit and the flow diagram and finally they were understood that they were eating and drinking each other's shit and reached on consensus to made free of feces their village and then decided to construct latrine within a short period of time and therefore, finally 328 natural leaders were selected to follow and facilitate the whole community to construct latrine and declare the village as ODF within the fixed time set .
- ❖ To activate the triggering sub component, four facilitators have engaged to facilitate all steps (main facilitator, co-facilitator, reporter (recorder) and the environmental settler.
- ❖ 1845 project beneficiaries participated at triggering ( 1051 -males and 794 females )



Participants of triggering training in Hawzien wereda, tabia Mai kado



Participants of triggering training in Hawzien wereda, tabia Koraro



Participants of triggering training in Tahtay Maichew wereda, tabia Mayberazyo



Participants of triggering training in Tahtay Maichew wereda, tabia Maysye

### **5.5.3 Post Triggering**

Hygiene and sanitation related post-triggering training was provided to 328 (females-164 and males 164) natural leaders and from each water point, 8 persons were selected and given for one day training at 41 project sites at three woreda and therefore, to meet its objective provided all required materials and post-triggering manuals were provided to equip their skill and knowledge related to hygiene and sanitation activities. The training was provided by skilled woreda health professionals with integration of REST coordination office sanitation and hygiene experts.

#### **Main points of the training:-**

- Clearly stated duties and responsibilities of natural leaders
- Meaning and concept post-triggering
- Disease transmission route and methods of prevention
- Verification and certification of ODF communities
- Components of hygiene and environmental health
- Possible side effects and facts of open defecation practice worldwide and national context
- Types of personal hygiene and proper utilization of latrine
- The way how to follow the hygiene and sanitation related activities in the community,
- Developing rule and regulation (community by-law) for keeping open defecation free environment,
- How to scale up to other neighborhoods and also the 7 components of health extension packages of hygiene and sanitation.
- How and when to conduct meeting, reporting schedule, follow up and creating ODF environment
- The way how to scale up, sustaining changed that resulted from the CLTSH and integration with respective bodies
- Developed action plan which included all hygiene and sanitation related activities



Participants of post triggering in werda Tahtay Maichew, tabia Mayse.



Participants of post triggering in werda Tahtay Maichew, tabia Mayse.



Participants of post triggering in werda Hawzien tabia D/birhan



Participants of post triggering in werda Hawzien tabia Maykado

#### 5.5.4. Review meeting

Hygiene and sanitation related review meeting was conducted at all project woredas for a total participants of 65 (female- 30 and males- 35) from different respective sector offices that means from woreda health office, health center directors, health extension worker, supervisors, tabia managers, tabia chairman, teachers, students, woreda education office staffs and natural leaders with integration of REST regional and woreda respective experts. During the meeting the progress of hygiene and sanitation project activities was properly reviewed and thus, identified the strength and challenges faced

during the implementation and finally put remedial solutions for the raised problems. During the meeting, overall progress of the activities have been evaluated such as status of ODF , integration of HEWs, natural leaders, tabia administration, and system of monitoring and follow up while visiting HHs, flow of reports, availability and utilization of latrine as well as integration of stakeholders for solving the hygiene and sanitation related challenges were the addressed issues.



Participants of review Meeting in Ahferom Woreda

### **5.5.5 Hygiene and sanitation Festivals (ODF declaration) and handover Ceremony**

Based on the national hygiene and sanitation strategy, the festivals were conducted officially. The participants of ODF festivals were 1640 and at the same time handover to beneficiaries were also conducted for a total of 7097 population. Before the discussion and ceremony had started, process evaluation and assessing was undertaken through different respective stakeholders whether the activities were implemented as well. Therefore, the stakeholders assessed the following status during their visit.

- 🚧 Practice of open defecation ( in compound, surroundings, water points and streets)
- 🚧 Latrine availability , utilization and the liquid and solid waste management systems
- 🚧 Hand washing facilities adjacent to the latrine and practice
- 🚧 Handling of water for drinking and KAP towards of hygiene and sanitation related activities
- 🚧 In general, both the software and hardware related activities were assessed and thus all stakeholders during the house to house visiting absorbed that the above major activities were implemented and sustained as well by the beneficiaries. The participants of the ODF festival were: from catchment and near project area HEWs, health center staffs, supervisors, administration, cabinet, health office

experts, natural leaders, and REST respective experts. Finally, the stakeholders came together and shared their experience, learnt lessons through work performance report presentation and also discussed on scaling up and promoting further related activities.



Photo:-After latrine utilization followed by hand washing practice at woreda W/Leke, Tabia Enda chuwa on September, 2016

**Table 1: Summary of Plan VS achievement**

S/N	Project activities	Description	Plan	Achievement	%
1	Providing project site lists for starting up the project for all woreda	Woredas	6	6	100
		Administration	6	6	100
		Coordination office	4	4	100
3	Provision of hygiene and sanitation related materials	Post-triggering manuals	320	320	100
		Flag for hygiene promotion	80	80	100
4	Conducting hygiene and sanitation pre-triggering	Sites	41	41	100
		Participants	41	41	100
5	Undertaking triggering at communities level	Sites	41	41	100
		Facilitators	164	164 ( female-75)	100
		Participated communities	>=50/site	2050	100
6	Conducting hygiene and sanitation related post-triggering training	Sites	41	41	100
		Participants	320	320( F-153 )	100
7	<i>Hygiene and sanitation review meeting at community level</i>	Session per woreda	6	6	100
		Participants	65	65( female-30)	100
8	<i>ODF festival at community level</i>	Number of sites	41	41	100

		Participants	40-50/site	1640( female-746)	100
7	Monitoring and follow up visit	Inline offices, respective	✓	✓	

## 6 Challenges faced on the implementation of the project

- Some identified (studied) sites were constructed by other organizations because of the urgent need of water supply accessibility which is aggravated by the encountered drought in the last year.
- Dryness during construction of the wells was the challenge of the implementation of this water supply project.

## 7 Measures taken for the challenges

Assessment/ feasibility study of additional sites was conducted and all sites that were found dry and constructed by other organization have been replaced effectively based on the needs and objectives of the program.

## 8 Lessons learned

The existed drought was not considered during the feasibility and demanded us additional site for dry and constructed by others site replacement. During the feasibility study considering additional some sites as a contingency for the replacement is very interesting.

## 9 Monitoring and follow up

In the implementation period, monthly, quarterly and bi- annual monitoring follow up were conducted. Similarly, monthly and mid- term physical and financial reports from implementing organization to donor is prepared and submitted.

Intended ongoing supervision activities were conducted every two weeks and monthly in the project intervention area by REST hydro geologists and Wereda coordinators, monitoring and evaluation experts, hygiene and sanitation experts, wereda water office and wereda health office, to mobilize the community, analyze and observe the project progress, measure program efficiency and to take corrective

actions. Therefore, the monitoring and follow up activities have been done in participatory approach. During monitoring, the team has provided technical assistance, shared better experiences from the different sites of the project. Besides, donor organization (WASH coordinator from NCA) visited the project and discussed on the issues how to complete the project on time and to take due attention on the completion and submission of the project.

## **10 Financial Performance**

Detailed financial expenditure report is submitted separately by Finance and Purchase Department