

# STUDY ON THE IMPACTS OF CMP WATER SUPPLY PROJECTS ON THE LIFE OF RURAL COMMUNITY

## IN GONJI KOLELLA WOREDA, WEST GOJJAM ZONE, AMHARA REGION-ETHIOPIA

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### 1. INTRODUCTION

Community-Led Accelerated WASH (COWASH) is a Government of Finland and Government of Ethiopia funded WASH project designed to use the Community Managed Project (CMP) funding mechanism, which transfers the investment funds to communities to accelerate and sustain the implementation of development projects and to build the capacity of the community for the project management, including financial management. The COWASH project was launched in July 2011 and is operational in 67 woredas of the five regions of Ethiopia, i.e. Amhara, Tigray, SNNP, Oromia and Benishangul-Gumuz regions. The project has been implemented using participatory, demand driven and inclusive approach in rural water supply and sanitation.

Community Managed Project is one of the WASH service delivery approach in the Ethiopian WASH Implementation Framework (WIF) and included in the One WASH National Program (OWNP). CMP approach puts communities at the center of WASH service delivery. In this approach communities have a key role in the project inception, planning, implementation, management and are authorized for the financial management of investment funds, community level procurement of construction materials and equipment, construction supervision and O&M management of their own water supply projects.

In CMP approach users are expected to save upfront cash contribution at local micro-finance institution (MFIs). The amount of upfront cash savings shall cover at least one year expected operation and maintenance costs of the scheme. For simple on-spot springs and hand dug wells it is around Birr 1,000-1,500 (USD 50-75). In addition to that all beneficiary communities are to have basic sanitation facilities and from the total investment costs they need cover at least 15% in kind (provision of labour and local construction materials. The process followed include

- ✓ Project initiation and advocacy of CMP funds availability by local kebele level administrators,
- ✓ Communities elect Water, Sanitation and Hygiene Committee (WASHCO) to handle the practical management of the project,
- ✓ Support letter, which certifies that the project is genuine, is given by the local administrators,
- ✓ WASHCO submits the application letter to Woreda WaSH Team (WWT) attaching the receipt of up-front cash contribution saved and kebele administration supporting letter,

- ✓ WWT conduct desk appraisal and thereafter field appraisal if desk appraisal is successful,
- ✓ After successful field appraisal agreement is signed between WWT and WASHCO for funding,
- ✓ After signing of funding agreements WASHCOs are trained by the WWT on construction management, contract management, procurement, quality control, recording, storage management and overall supervision of construction work.

COWASH is working in 40 woredas of Amhara Region. Gonji Kolella woreda, one of the COWASH woredas, is located in West Gojjam Zone of Amhara Regional State, Ethiopia. COWASH has been implementing CMP in the woreda since 2011/2012. The rate of implementation of rural water supply schemes has been increasing year to year since the introduction of the project.

**Table 1: Rural water supply schemes constructed in Gonji Kolella since COWASH is operational**

Year	Type of scheme constructed		Total Water supply schemes constructed
	Hand Dug Wells	Spring Developments	
2011/12	48	6	54
2012/13	62	7	69
2013/14	82	18	100
<b>Total water schemes constructed by COWASH</b>	<b>192</b>	<b>31</b>	<b>223</b>

It can be seen from table 1, that the rate of implementation has nearly doubled from 2011/12 to 2013/14. This is the impact from the CMP approach which releases the woreda staff from actual implementation management to project facilitation and capacity building. Same time the CMP approach delegates the responsibilities and accountabilities to the end users, thus improving the ownership and sustainability.

## 2. IMPACT OF CMP PROJECT ON THE LIFE OF COMMUNITY

COWASH implements water supply projects using CMP funding mechanism to enable rural communities to access improved water supply sources. Provision of improved water supply sources reduce the water related health risks, time spent to collect water, and women and children’s burden of carrying water from far distance for the family use.

### 2.1. JORE ABUNEBLA SPRING DEVELOPMENT, GONJI ZURIA KEBELE

Jore abunebla spring development is located in Gonji Zuria kebele; close to the District capital Gonji, at 357568m longitude, 1241040m latitude and 2190m altitude. The spring has one distribution point with four faucets, one cattle trough and a shower with two rooms (one for men and one for women).



**Figure 1: Facilities of Jore Abunebla spring development**

The spring development was constructed in 2014 to supplement the existing rural water supply service in Abunebla village. The spring development was constructed on highly eroded catchment. Communities fenced large area of the spring catchment and planned to construct flood diversion ditch along the fence allowing the catchment to rehabilitate.



**Figure 2: Jore abunebla spring catchment and area closure**

During the field visit done in July 2, 2014, some part of the catchment are already seen rehabilitating and this was the result of catchment area closure done.

WASHCO composed of five members (two female and three male) elected by the user community. The spring supports the water supply service of more than 127 households with previously constructed Hand Dug Wells. Communities saved 3,000 ETB at the WASHCOs Amhara Credit and Savings Institution account as an upfront cash contribution for the application to woreda WASH team. The construction was done by an artisan trained by COWASH project with close supervision by WASHCOs.

Abunebla village communities were using dirty water from running rivers and non protected sources for domestic and animal watering before the construction of improved water supply source. Women were forced to wake up early in the morning of dark sky to collect water because of long queue and small yielding source. A woman had to wait 3 hours on average to collect a clay pot/jerry can of water, which took their productive time for household and agricultural activities. They got frequently sick due to the cold weather in early the morning and drinking of poor quality water.

Their cattle were infested by leeches which make non-worth for livestock productivity. There was also dispute between women because of long queuing.



**Figure 3: old water supply sources of Abunebla villagers**

When the stored water in the non-protected source is disturbed it takes long time for suspended solids to settle at spring bed. Also the source was polluted because of open defecation practice of the community before hygiene campaign took off. Although two hand dug wells were constructed in the last 10 years, it could not improve the time of queuing as more than 127 households' accessed the same water sources. Also there was water quality problem due to percolation of splashed and rain water through cracks at the hand dug well head work. Beyond problems on domestic water supply, the construction of new hand dug wells could not solve the difficulty with cattle watering.

Ato Girma Fisseha, user at Jore Abunebla spring explains the burden on his wife saying: *"she was scarifying her life for the family. She wake up early in the morning to collect water and went out of home with him for their farm work. She was sick of malaria and other disease related with cold weather. My daughter was also sick with water born bacteria and I paid 150 ETB for health post for her treatment."*

Tikeber Assefa, 21, lives with her mother, father and little sister. She is a treasury of Jore Abunebla spring development. She is also the chair of women league in Gonji Zuria kebele and a local trainer of hygiene and sanitation for Gonji afaf village women. She explains the situation before the provision of improved water source: *"we were using water from non-protected spring and rivers. Water born worm and animal excreta were observed at the water source as it is exposed to open. During the rainy season the source became turbid and it was difficult to use for drinking."* Tikeber and her father got frequently sick and visited health facility if they drank water from this source without boiling. Her mother got broken her leg while she was going to collect water early in the morning in order to avoid long queue if she is late. Problems with water supply forced children to withdraw from school. Tikeber and her sister were forced to withdraw from grade 9 because they are responsible for family water collection.

The provision of additional improved water supply sources using CMP investment fund eased long lived challenges of Abunebla village residents. It saved the time spent due to queuing (3 hours a day). Jore spring water development enables the user communities, especially women, to save time for productive and other domestic activities. In addition to domestic water supply, cattle watering using constructed cattle trough ensure animal health and improve livestock productivity.

Tikeber and her families stopped open defecation after receiving comprehensive training from health extension workers and kebele administrators. Now the families have been

using traditional unimproved toilet. Tikeber said: "*Cholera, diarrhoea and eye diseases were prominent in my village before people started using toilets. We have planned to improve the existing sanitation facility for the coming year to improved toilet with concrete slab because the existing traditional unimproved latrine may collapse especially during the rainy season.*"



**Figure 4: Unimproved traditional latrine used by Tikeber and her families**

The families also use hand washing at critical time and any time as they are exposed to dirt.

Ato Yilekal (40) is guard for Jore Abunebla spring development. He is married and has 5 children (1 male and 4 female). Two of his daughters are already married while the other two are attending school. Ato Yilekal and his family use open defecation as he is disabled person and unable to dig traditional unimproved toilet. Previously he was working as a school guard and his family were using the school toilet. Ato Yilekal is planning to build a traditional unimproved latrine in the coming year if he could get support from local people and brothers.

In addition to the improvement in access to safe water supply sources, the construction of spring development increases the income of Ato Yilekal as he earned 300 ETB/month for working as a guard. Ato Yilekal remembers the situation before the improved water supply sources: "*the water was turbid and water born worms were observed. Women had not enough time to sleep as they had to go early in the morning to collect water, unless they would wait for more than 3 hours to collect a pot of water. My wife broke two clay pots that cost 30 to 40 ETB each, while she was trying to collect water in the dark morning.*"



**Figure 5: Interview held with Ato Yilekal by Mebit Mitiku**

The provision of adequate water supply enables rural communities to improve their livelihood by cultivating various vegetables. Now communities have been growing cabbage, onion and pepper using water from rope pumps. The regional water bureau of Amhara offer rope pump free for 10 households' use. This day's rural communities are digging wells and apply for rope pump to improve their income.

The construction of the spring development enables Ato Girma Fisseha to grow cash vegetables and he earn up to 300 ETB per year. He planned to expand the crop land and earn better for the coming years. Ato Girma Fisseha and his family have been using unimproved latrine since 2007. Ato Fisseha tells that he was always sick while practicing open defecation. He paid 1700 ETB to heal from his disease. The disease was caused as he exposed his butt to hot earth surface. Now the family has stopped open defecation and are using traditional toilet.



**Figure 6: Ato Girma Fisseha sitting in his unimproved toilet (left) and digging cabbage next to the rope pump (right)**

Abunebla village residents have a protected communal land. They plan to use the income from the selling of hay collected from their communal land to cover operation and maintenance costs of the spring development. The hay has been sold 1800 to 2000 ETB per year. WASHCO members have meeting with users every 29<sup>th</sup> day of a month to collect guard salary and discuss all issues related with their water scheme. Beneficiary households pay 3 ETB per month water fee. From the total collected money 300 ETB goes for the guard while the remaining is saved for O&M. In addition to monthly water

tariff beneficiaries decided a shower fee of 0.5ETB per capita per shower take for members and 1ETB for those who are not member of the scheme user.

## 2.2. ZEGEMESK SPRING DEVELOPMENT, GEREGERA KEBELE

Zegemesk spring development was constructed in 2014 using the CMP investment fund approach. The spring contains one water distribution with four faucet and cattle trough while the construction of shower room was on the way during the field visit on July 3, 2014. The spring supports the water supply of 26 households living in Besanit village of Geregera kebele.

The project initiation was done with the help of kebele administrator. The users elected WASHCO with three male and two female members, received support letter from local administrator and applied the project funds from the woreda WASH team. Woreda WASH team performed field and desk appraisal and signed funding agreement with WASHCO members. WASHCO members were trained on financial management, procurement, construction supervision and scheme management by the woreda WASH team.



**Figure 7: Completed water facilities at Zegemesk spring development**

Each household contributed 200 ETB for the upfront cash contribution, except one poor household. The collected 3000 ETB is saved at the WASHCO account in the local micro-finance institution and the remaining money was used for fencing. As Local communities of Besanit village are aware of the benefits of improved water supply sources the collection of upfront contribution was easy for WASHCO members. Beneficiary households participated in the construction in line with the ongoing watershed protection works. Households participated on the shift basis (one day for the water supply scheme construction and the other day for watershed management) for more than two months.

Abba Lakew Kassa, 83 years old live with his daughter, son-in-law and two grand kids. Abba Lakew was the founder of Besanit village after coming from Zema in 1957. He has been using unimproved spring since he started living in the area. Abba Lakew said about the construction of the spring: *"It was my dream to see the spring developed before I die"*. He was organizing the local communities to have access to the improved water supply source.



**Figure 8: Interview held with Aba Lakew Kassa by Mebit Mitiku**

Aba Lakew explains the situation before the spring development: *"we had problem with the availability of water source, the water was not wholesome and we were not happy to drink while we were thirsty. Also there were problems with animal watering. Animals had been taken down to downstream valley of the current spring development which exposed them to leeches as the access to the area is difficult."*

Abba Lakew continued: *"Thanks to the support offered from the Kebele, our problem is solved. Now we have access to safe drinking water, we have cattle trough for our animals and we can wash our body when the construction of shower room is completed"*. He was earning money from growing of plants used to make local beer and using the water from the spring. However, the decrease of the spring yield in the last few years added with his aging stopped him from continuing his activity. The development of spring re-inspires Abba Lakew to grow banana, pepper and other vegetables on his land immediate downstream of the spring, using the over flow water.



**Figure 9: Abba Lakew's land covered with pepper**

All interviewed households in Besanit village stopped open defecation. Households constructed their own traditional unimproved latrines. W/ro Yeshiwork is 45 years old and has 2 daughters and 3 sons. One of her son joins Debre Markos University while the two daughters are grade 11 and 8. W/ro Yeshiwork explains the hygiene and sanitation situation before: *"rural communities, including my family, were using open defecation. Women and girls suffered a lot because of existing culture that women and girls could not freely defecate on filed. In addition to privacy issues on open defecation we had various eye and stomach diseases though we did not identify that these diseases were related with hygiene and sanitation or dirty water."*

W/ro Yeshiwork explained: *"after we got intensive training from the health extension workers and local administrators, we stopped open defecation and build our own toilets. Now all family members are using the toilet. Even I collect the faeces of my little baby and put them to the toilet. All my family is also practicing hand washing at critical moments and we are using either soap or mud for hand washing after using toilet."*



**Figure 10: W/ro Yeshiwork collecting water (left) and her toilet (right)**

W/ro Yeshiwork concluded: *"With the provision of improved water sources and frequent training on use of safe water supply, hygiene and sanitation facilities the prevalence of disease has been decreasing in our village."*



**Figure 11: Jerry can for water collection (left) and water storage plastic tanker (right)**

Regarding water supply W/ro Yeshiwork said: *"now we can collect pure water from our water point for any activity we need. We do not have problems with water availability, quantity and quality."* She collects water using jerry can and stores water in a large plastic tanker in her house. They used the stored water for domestic activities while the water for drinking purpose is kept in the jerry can. She cleans jerry can and the water tanker at least every three days.

WHASCOs have a meeting every 12<sup>th</sup> day of a month with users to discuss general situation of the water point and collect the monthly tariff for guard salary and O&M. Users decided to pay 3 ETB per household per month (2 Birr for guard salary and 1 Birr for O&M). The users decided that one very poor household is allowed to use water for free. Users decided to charge 300 ETB from newcomers and youth who establish their own family and house if they want to fetch water from the spring.

### 3. CASE SUMMARY FROM JORE ABUNEBLA AND ZEGEMESK SPRING DEVELOPMENT

The implementation of rural water supply schemes using CMP funding mechanism created sense of ownership and motivation to rural communities in Abunebla and Besanit village. Since the introduction of this approach in the area, rural communities have understood the value and ownership of water resources. Farmers are looking to improve their livelihood using the excess water from the improved sources and rope pumps. All households visited stopped open defecation and practice hand washing at critical moments. The provision of improved water supply source and promotion of sanitation and hygiene education have:-

- ✓ Improved health status of rural household family members
- ✓ Reduced the burden for women and children from early wake-ups in the morning
- ✓ Removed the risks of women getting hurt during early dark hours walk in cold weather
- ✓ Increased community members income by using the surplus water for income generating activities and by using the closure land income for O&M
- ✓ Brought improvement on livestock productivity and household income

- ✓ Saved time ( especially women time) to be spent for productive use and other domestic activities thus increasing the income of the family
- ✓ Facilitated the children to attend school instead of collecting water (especially girls)
- ✓ Created awareness and opportunity to use safe water supply for hygiene and sanitation (showers)
- ✓ Created practise to store drinking water separately from domestic water
- ✓ Created users' understanding on the impacts of improved water supply sources
- ✓ Created awareness and actions for the protection of the water source (watershed management)
- ✓ Created willingness to pay for the improved water supply sources
- ✓ Reduced time of queuing for water
- ✓ Reduces the risks of getting water and poor hygiene related health problems
- ✓ Motivated the people to improve their livelihood using excess water and rope pumps
- ✓ Increase job opportunities (guard and artisan)

Areas that still need improvement include:-

- ✓ Artisans contract more water points at a time which affects construction quality
- ✓ Though trainings were given for WASHCOs the training period is too short. They received only one day training due to the lack of training budget.
- ✓ Local pump attendants or caretakers have not yet been trained
- ✓ The construction of a drainage system to convey leaked water is not introduced
- ✓ Flood diversion ditches were not constructed on time and spring eye is exposed to surface runoff
- ✓ Pipe lines are not well covered