



Ministry of Water, Irrigation and Electricity (MoWIE)
Community-led Accelerated WASH (COWASH)



WASHCO performance and gender

—

Case study on women's role and inclusion in water
management through comparison of WASHCOs in three
COWASH regions

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Acronyms

CMP	Community Managed Project
COWASH	Community-led Accelerated WASH
EPLAUA	Environmental Protection, Land administration and Use Authority
FGD	Focus Group Discussion
FTAT	Federal Technical Assistant Team of COWASH
O&M	Operation and Maintenance
MoWIE	Ministry of Water, Irrigation and Electricity
NGO	Non-governmental Organization
SNNPR	Southern Nations Nationalities and Peoples' Region
WASH	Water Supply, Sanitation and Hygiene
WASHCO	Water Supply, Sanitation and Hygiene Committee

Table of Contents

1 INTRODUCTION AND RATIONALE OF THE STUDY	1
1.1 Introduction	1
1.2 Scope of the study.....	2
1.3 Specific objectives	2
2 METHODOLOGY AND RESEARCH PROCESS	3
2.1 Methodology and analytical framework.....	3
2.2 Data collection.....	4
2.3 Limitations of the Case Study.....	5
2.4 Data analysis.....	5
3 RESULTS	5
3.1Community contributions.....	5
3.2 Quality and delay of construction	6
3.3 Involvement of women in site selection and design of water scheme	7
3.4 Internal Strength of WASHCO	7
3.5 WASHCO selection and motivation	8
3.6 Tariff collection system and use.....	9
3.7 Water point functionality - operation, maintenance and repair	11
3.8 Watershed management.....	11
3.9 Water point properly fenced	12
4 CONCLUSIONS.....	12
4.1 Comparative analysis between female and male led WASHCOs	12
4.2 Women’s role as WASHCO members.....	12
4.3 Female community members awareness and inclusion to water management.....	13
4.4 Key challenges, critical issues and sustainability of the visited water points.....	14
4.5 Success factors of the well managed water schemes	14
5 RECOMMENDATIONS.....	15
Reference	18

List of Tables

Table 1 Geographical scope of the study	2
Table 2 The list of performance areas and indicators	3
Table 3 Performance of the Amhara, SNNPR and Tigray regions in tariff collection and use	9

List of Figures

Figure 1 Understanding the importance of the community contribution	6
Figure 2 Degree of cooperation among the WASHCO members during and after the construction	7
Figure 3 Depositing the tariff to the MFI	10
Figure 4 Tariffs are spent for the intended purpose	10

1 INTRODUCTION AND RATIONALE OF THE STUDY

1.1 Introduction

COWASH Phase II project document states that *COWASH assists WASH implementers at all levels in ensuring that the gender equality is mainstreamed into WASH intervention processes, capacity building, institutionalization, technical designs and that men and women have equal access to resources*. So far the issue of gender has been addressed in the following ways in COWASH: 1) 50% quota of women's participation in WASH Committees (WASHCOs), 2) there is direction from the COWASH project during the planning time, though not in written form, that at least 25% of Artisan to be trained by the project and participate in the construction of WASH facilities be women, 3) Physical capacity building provided for the office of women and youth affairs at region and woreda levels, 4) Support for gender mainstreaming trainings at woreda and community levels, and 5) Preparation of a guideline on gender mainstreaming and gender mainstreaming checklist for the planning and implementation of the water schemes.

At the policy level, the water sector policy of Ethiopia (2001) in its section 2.2.10 states that the policy aims to: *Promote the full involvement of women in the planning, implementation, decision making and training as well as empower them to play a leading role in self-reliance initiatives*.

Moreover, the water sector strategy of Ethiopia (2001) under its section 4.1.8 on gender mainstreaming states that the strategy aims to:

(a) Pay special attention to the role of women while establishing community-based structures for the management of localized water supply like WASHCO and small-scale irrigation systems. Allocate specific number of seats for women in these community based structures, depending upon the nature and size of the scheme.

(b) Enhance the active involvement of women for the success of water projects and programs; and for the sustainable services of water schemes. Launch campaigns to encourage women to contribute in improved management of water schemes.

(c) Take steps to relieve women from the huge burden of fetching and carrying water for the family by empowering them in decision-making in water projects.

In the proclamations and regulations of regions in establishing WASHCO, it is indicated that at least 50% of the WASHCO members to be women. COWASH project encourages women to come to the leadership positions and especially take up the position of the chairperson of the WASHCO.

Given all the above mentioned policies, strategies and on-going support from COWASH to project regions, zones, woredas, kebeles and communities to promote women empowerment in water management, COWASH planned to conduct a case study on the role of women in WASHCOs. The study is needed to analyze the extent women are participating and included to water management in their communities; how the WASHCOs led by women perform compared to the male-led ones and what kind of lessons learned can be drawn from the ground when taking the women empowerment even further during COWASH III.

Furthermore, the study provides a good opportunity to get insight into WASHCO's performance in general in COWASH regions. What are the areas of water management where WASHCOs perform well and what are the areas of challenges? How well WASHCOs communicate the water management issues to their respective communities and do they enjoy the full trust of the community members? From this point of view, it is also important to analyze how the women members of the communities are integrated to the water related decision making, are they informed in on-going matters and do they have their needs being heard during the development of the water supplies?

As in-depth data disaggregated by gender is not available at adequate levels to draw conclusions on the above mentioned matters, a case study was decided to be conducted by COWASH to produce empirical data on the women’s role in water management at WASHCO and community level. The aim of this study is to provide empirical information on the performance of WASHCOs from the gender perspective taking into account both the role of those women who are members of WASHCOs and the women community members.

1.2 Scope of the study

The research strategy for this particular study was selected to be a case study. Accordingly, a case study was conducted in 3 regions of Amhara, Tigray and SNNPR and altogether 20 water schemes were covered of which 6 had a female-led WASHCO and 14 a male led-one. The table below shows the geographical location and numbers of WASHCOs covered by the study.

Table 1 Geographical scope of the study

Region	Woreda	Male-led WASHCO	Female-led WASHCO
Amhara	Farta	3	1
	Fogera	0	4
SNNPR	Arba Minch Zuria	1	1
	Chencha	5	0
Tigray	Ofla	2	0
	Endemahoni	3	0
Total:		14	6
Total number of water schemes covered:		20	

The analytical scope was defined to be in the assessment of the performance of the WASHCO against certain defined performance indicators such as operation and maintenance (O&M) conducted, tariff collected and used, and community’s perception of the WASHCO members. The objective was, by scrutinizing the results of the performance assessment, to analyze both the female WASHCO members’ role in the execution of WASHCO responsibilities as well as to hear the opinions and awareness of the female community members.

At each water scheme, the view of three stakeholder groups was interviewed: the WASHCO members, female community members and male community members. Therefore, this allowed the study team to triangulate the responses from four different points of views, allowing to understand more thoroughly the performance of the WASHCO and possible ongoing challenges with the water supply.

1.3 Specific objectives

The specific objectives of this case study are to:

- Undertake comparative analysis between purposively selected women and men-led WASHCOs in terms of performance of water schemes during and after the construction phase;
- Analyze the key challenges, critical issues and sustainability of the visited water points;
- Analyze the success factors of the well managed water points;
- Analyze the role of women in the water management at the WASHCO level;
- Analyze the role and inclusion of women community members in the water management; and
- Provide lessons learnt and recommendations for COWASH III activities.

2 METHODOLOGY AND RESEARCH PROCESS

2.1 Methodology and analytical framework

Case study approach was selected to be used in this study in order to reach an in-depth understanding of the issue of women's role and inclusion in water management in their communities together with comparing the WASHCO performance. Both qualitative and quantitative research methods were used.

The sampling of WASHCOs was done based on the availability of female-led WASHCOs in COWASH regions. Based on time and resources, altogether 20 water points and WASHCOs were decided to be visited. As no disaggregated data is available on the leadership of the WASHCOs, the CMP supervisors in each woreda were consulted and based on their information on the water points and WASHCOs to be visited were selected purposively. Hence, the sampling strategy or the sample size didn't provide a statistically representative sample and therefore all the results of this study need to be understood as results of a case study with very limited generalization power.

The analytical framework of this study is based on the key performance areas describing the quality of service provided defined by the COWASH FTAT. For each performance area a list of indicators were formulated and these indicators were divided to construction phase and post-construction phase. The list of performance areas and the indicators are presented in table 2 below:

Table 2 The list of performance areas and indicators

Performance areas during the construction time	Indicators
Community contributions	Beneficiary community understands why the community contribution was needed.
	Beneficiary community understands why the up-front cash contribution was collected
	Beneficiary community knows what the community contribution was used for and how it was spent. (financial transparency and accountability)
	Adequate amount of community contribution was collected.
Construction quality	Quality of construction was acceptable.
Construction time	Construction happened on time (no significant delays).
Involvement of women	Women were actively involved in site selection.
	Women were actively involved in design of water supply scheme (designs are women and child friendly).
Internal strength of WASHCO	Degree of cooperation between members of the WASHCO.
	WASHCO solves problems quickly and effectively.
	WASHCO members have good relationships with each other WASHCO has a good working relationship with the community
WASHCO selection and motivation	WASHCO members are trusted and capable
	WASHCO members are motivated
Performance areas during the post-construction phase:	Indicators:
Tariff collection system and use	Commitment and motivation of the beneficiary community to pay tariff
	Sufficient tariff is collected to keep the scheme running.
	Tariff is affordable.
	Tariff collection system is in place.
	Tariff collected and deposited immediately.
	Tariff is spent for operation and maintenance. (funds are used for the scheme/ as intended).
	WASHCO reports regularly to community on tariff collection and expenditure.
WASHCO and the community have an intention/plan to expand/build	

Performance areas during the construction time	Indicators
	additional water scheme facilities (like cattle trough, washing basin, etc...).
Water scheme functionality	Water scheme is functional at the time of visit.
Water scheme operation, maintenance and repairs	Average time taken to repair water scheme.
	Water scheme is well operated and maintained.
	Water scheme and its environment kept clean.
Watershed management	The watershed above the water scheme protected including construction of flood protection dike.
Water scheme is properly protected	Water scheme is fenced

In addition to the indicators, mentioned also the rationale for choosing a woman/male chair were asked and in the cases where the chairperson was a woman, a short individual interview was conducted with her by covering her views on the workload of WASHCO membership, any challenges or resistances she has faced in that role and her overall motivation and interest towards the position.

Based on the indicators, detailed open ended questionnaires were tailored for 3 different focus groups: WASHCO members, female and male members of the water beneficiary community. In each water scheme, 3 focus groups were interviewed and thus in total 60 focus groups were met in the 20 visited water scheme during the study. Also woreda water offices were asked to provide their views but no specific interview was organized for this purpose. The focus groups were differentiated in order to triangulate the responses and to compare the differences in the responses between the male and the female community members as well as WASHCO members.

The open-ended questionnaires were scored according to the compliance to the indicator. Score 1 was given when the answer of the focus group to a certain question complied with the indicator and 4 or 5 if not at all. The scale was defined based on the field knowledge and long experience of the FTAT members such as knowledge of the customary tariff collection systems in the communities, and based on field test on the questionnaires conducted in Abichu Gena woreda, North Showa of Oromia region.

2.2 Data collection

Data collection tools, both qualitative and quantitative, were developed and pilot test was made in Abichu Gena woreda with four WASHCOs and community members and based on the experiences collected during the test rounds the questionnaires were revised accordingly. Ms Lakech Haile, who is the Director of Women's Affairs Directorate of Ministry of Water, Irrigation and Electricity (MoWIE), gave her comments and enrich the questionnaires before it was revised.

Data collection took place in three phases. The first data collection period was from June 2-5, 2015 in Amhara region, the second in SNNP region from February 14-18, 2016, and the third from April 11-16, 2016 in Tigray region. COWASH Cross-cutting Specialist, Junior Expert, Communications Specialist and the woreda staff members were part of data collection. Also Ms Lakech Haile, MoWIE Women's Affairs Directorate Director, took part in the data collection in Amhara region.

The community was well informed on the purpose of the study and asked their consent to provide their views. Then the different focus groups were separated and the interviews were conducted when possible in parallel. When possible, women focus groups were interviewed by female enumerators so as to make the women groups free when expressing their views.

2.3 Limitations of the Case Study

The questionnaires were prepared in Amharic and therefore in SNNP and Tigray regions' woreda staff members were also acting as translators. Language issue was one limitation the team encountered. The woreda staff members were not professional translators which may have caused that some of the questions have been understood differently than in the original questionnaire. Female enumerators or translators were not always available for the female focus group discussions.

Woreda staff members were used as enumerators and more detailed instructions would have been needed in order to secure equal quality between their scoring and description of the qualitative answers. Scoring was done at each woreda by different person, which limits the comparability of the results between the Woredas. However this limitation was not affecting the analysis too much as the main unit of analysis is the site itself and even the focus groups within one site, and broader analysis across the Woredas and regions is not a focus of this study.

One more limitation to be mentioned is that despite briefing the communities on the purpose of the study, there may have been a tendency to provide the "right" answers to the study team and leaving out some of the challenges. It was explained clearly to the community before the interviews that the study team is not there to evaluate them but to hear their honest views, but there is a risk that it was not fully understood by everyone because of the translation or some other reasons.

2.4 Data analysis

After the data collection the responses were translated and sorted in Excel. Both quantitative and qualitative data were analyzed. The quantitative analysis focused on verifying the numeric differences and frequencies in the scores between and within the water schemes and specific focus groups by basic descriptive analysis of the score results. When analyzing the quantitative data, it has to be understood that the score given for each question during the focus group discussion, reflects the consensus of the focus group when giving their views, not necessarily the real situation on the ground based on expert's view. Therefore throughout this report, the reader shall be aware of that the focus group score indicated is reflecting the consensus of each group.

The qualitative analysis was based on thematic content analysis, pattern and occurrence coding. The objective was to identify certain occurring issues and themes that were brought up by number of focus groups. The quantitative and qualitative observations were combined and cross-checked for the descriptive report.

3 RESULTS

The results chapter has been structured based on the performance areas defined for the analytical framework of this study. The performance areas are community contributions, construction quality, construction time, involvement of women, internal strength of WASHCO, WASHCO selection and motivation, tariff collection system and use, water scheme functionality, water scheme operation, maintenance and repairs, watershed management and water scheme protection. The major findings as per each performance area are presented in this chapter after which some conclusions and recommendations are provided.

3.1 Community contributions

Community contribution is a very essential requirement of CMP approach implementation. During the construction phase, beneficiary community is expected to contribute a minimum 15% of the investment costs (in terms of labor and local construction materials) as well as to provide approximate one year's operation and maintenance costs in cash as up-front cash contribution.

In general it was very well understood why community contribution was needed and all water schemes performed well in that matter. In this regard the quantitative analysis showed that 94% of the respondents from all the focus groups interviewed had understood well why community contribution was needed and they were committed to contribute as the water scheme is constructed for them. There was no clear difference in the opinions of different focus groups in understanding the importance of community contribution.

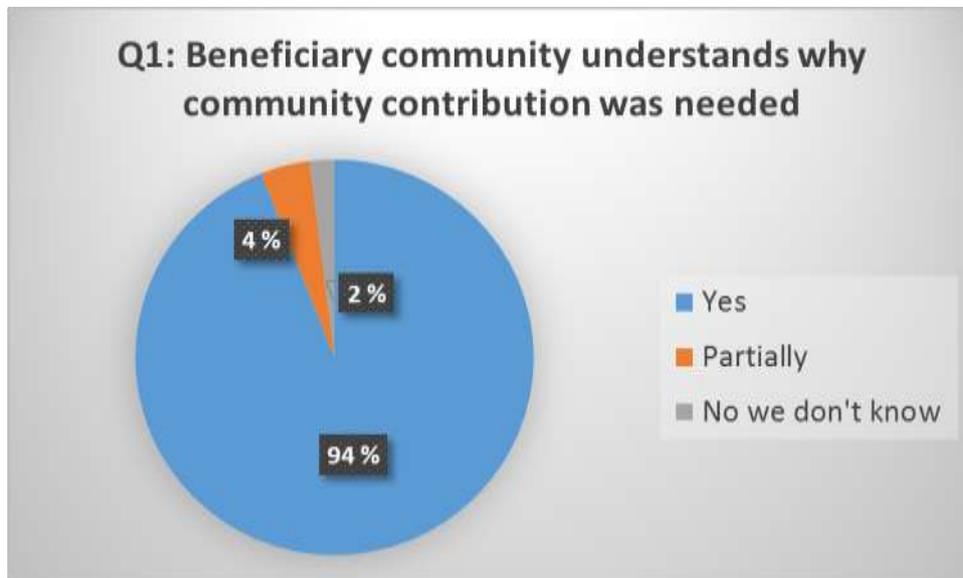


Figure 1 Understanding the importance of the community contribution

The community also seems to have understood well (average scores of different focus groups between 1.05 and 1.5), why they contribute the upfront cash contribution. They know that it is for O&M during the operation time. However, although small, there is an awareness difference between men (average score: 1.05) and women community members (average score 1.28) on understanding of this, which indicates that not all the interviewed women groups had thoroughly understood what was the purpose of this payment.

An important finding is that 50% of the water points visited had a situation where community was not properly aware how the community contribution had been used. Some 60% of these cases were the situations where especially the women target group didn't know how the money had been used. This indicates either a problem in the reporting practices or inclusion of women to those meetings.

A minimum 1 000 ETB is required to be contributed by the community for the purpose of O&M that might be needed for the water scheme if broken. This is accepted by the regions and COWASH project. So, the community is required to contribute and deposit this amount at MFI before the water scheme application is approved by the Woreda WASH Team (WWT) for construction. Accordingly, all the target groups interviewed responded that the community contribution both the upfront cash for O&M, and labor and construction materials was sufficient and affordable.

3.2 Quality and delay of construction

Respondents were also asked to give their perception on the quality of the construction, and if there is also delay in the construction of the water scheme. In general the quality of construction in the visited water schemes was perceived to be good by all the focus groups, and no significant delays in the construction of water schemes were reported. In two cases delay (out of 20) were reported. Both were due to delay in transporting construction materials.

3.3 Involvement of women in site selection and design of water scheme

CMP appraisal checklist expects that the whole community including women are fully included to the site selection and design (considering the opinion of the community) of the water scheme where applicable. This is especially important when ensuring that the water scheme is comfortable to use for women who are mainly responsible for fetching the water. The technical designs as such are coming from the woreda sector offices but some structures can be added to the design such as steps and jar/pot seats so that the facilities are safe and comfortable to use.

In general, 73% of the focus groups reported that women had participated to the site selection and they were happy with the selected site. They reported that the site is not far from their village and located at average distance for all of us. However, only 27% of the focus groups said that they had been part of the design process. Potentially, as a consequence of that, 25% of the water schemes visited (5 cases) had a situation where the water scheme was not comfortable for women to use. Three of these cases were situations where jar seat and steps had been specifically requested by the community but the requests were not taken into consideration.

3.4 Internal Strength of WASHCO

In CMP approach WASHCO has a crucial role during the water scheme construction in the mobilization of the community's work and in coordination of responsibilities. WASHCO members receive three days of training in construction management, financial management and procurement during the pre-construction phase. In general the strong and capacitated WASHCOs are considered being as one success factor of the good performance of the CMP approach and water scheme management. Good relations among the WASHCO members and between the WASHCO and the community are therefore fundamental for the sustainable management of the water scheme.

In general, the study found out that WASHCOs have good relation among themselves. They meet regularly and work as per their roles and responsibilities. As indicated in figure 2 below, 74% of the focus groups reported that WASHCOs cooperate well both during and after the construction and as much as 95% cooperate and function well during the construction time.

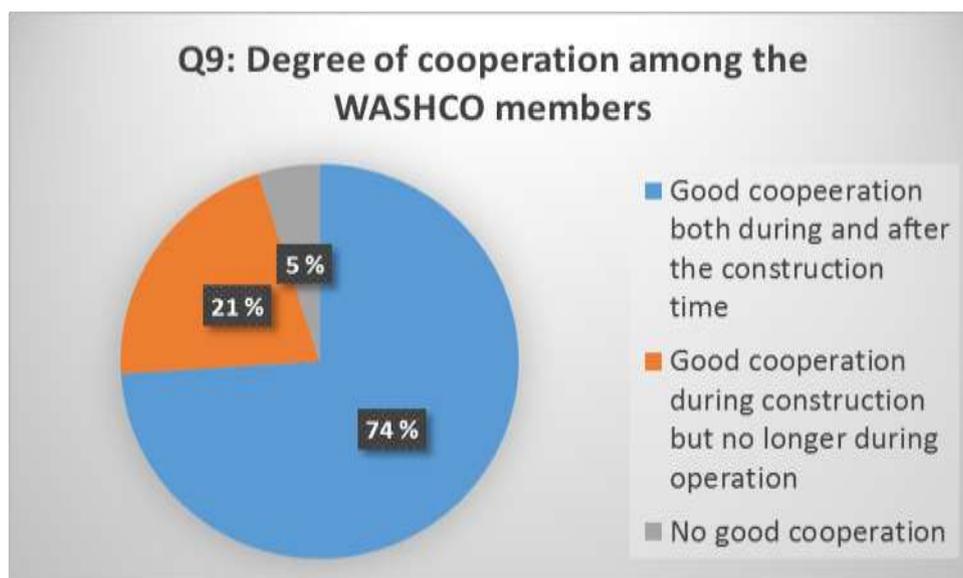


Figure 2 Degree of cooperation among the WASHCO members during and after the construction

However, it was found that WASHCOs become weaker during the operation time and especially WASHCO's cooperation with the community members and reporting weakens. In 13 of the 20 water schemes, the communities reported that WASHCOs do not meet the community regularly on the water management issues. Interestingly in 5 of these cases the WASHCO members themselves disagreed with this claim, which means that if there has been reporting meetings in place, not all the community members, especially women, have been included to the meeting.

Furthermore, Tigray region seems to perform clearly better in WASHCO-community cooperation. The number of water points visited in Tigray region was only five, but three of them were reported to have the practice of monthly WASHCO-community meetings and the remaining two were having regular reporting during other occasions like '*Idir*' or other social gatherings.

Number of female-led water points visited for this study was only six, but it is notable to mention that in two cases the female chair was not actually herself leading the WASHCO, but she was represented in the meetings by her husband. Thus, the study team faced situations where the women chair herself was not at all updated on the WASHCO issues but held the leadership position only symbolically.

3.5 WASHCO selection and motivation

Positive finding was that in 19 of the 20 water points visited, the community told they elected their WASHCO members because they trusted them. The one water point where this was not the case was a good example how important transparent and open WASHCO election is for the sustainable management of the water services. In this water point in Fogera woreda in Amhara region, WASHCO members came from the same family who also owned the land where the water point was located. This had caused serious mistrust between the community and the WASHCO. Community members had refused to contribute anything to the construction of the water point or tariff due to this mistrust.

COWASH project encourages women to take up the leadership positions in the WASHCO. However, it was found out that this is very rarely the case. In Amhara region, it was possible to find women led WASHCOs but in the other two regions this was nearly impossible. Therefore, in the end, only 6 female-led WASHCOs were included to the study. This shows that inclusion of women to the leadership positions of the WASHCO is still very limited.

The guidance in the regional proclamations in WASHCO establishment including CMP guidelines is that minimum 50% of the WASHCO members should be women. Nevertheless, out of the visited 20 water points only 9 of them (45%) met this criterion.

Community members were also asked as to whether they considered electing woman as a chairperson during WASHCO election. In 11 of 20 water points visited, the community members explained that they didn't consider women for the position due to cultural reasons. They explained that because women are responsible for all the household chores they don't have time or ability to travel far from home to manage the material procurements or other activities related to the construction process. Community members also feel that men are stronger for such assignments. One community in Chenchaworeda also mentioned that "women are not heard by the community" which can be interpreted that they are not considered having same kind of authority compared to men when mobilizing the community for construction works. In one case, women also openly accepted this notion. The women group in Farta woreda told that men are better in leading and managing development activities.

Nonetheless, women were often elected to be cashiers and in two communities (10%) it was specifically mentioned that women are considered being more trustworthy in handling money.

3.6 Tariff collection system and use

In the Water Sector policy of Ethiopia (2001), it is indicated that water is an economic good and should not be provided for free. In the case of rural water supply, the beneficiary community needs to pay tariff aiming to cover the operation and maintenance costs and the guard fee. The tariff should be paid to ensure that the rural water supply systems provide sustainable service to the community throughout the service life of the water scheme. Unfortunately, the tariff collection and payment was found out to be one of the major weakness areas in the WASHCO's performance.

In half of 20 water points visited, there was no ongoing practice of tariff collection. Also, it was found out that 29 % of the respondent groups didn't really understand why tariff was collected which reflects clear awareness problem. Despite the promotion and trainings given over the years, the behavior change has not taken place and it is often expected that water should be freely provided by the government or NGOs. Even in 60 % of the water points at least in principle the tariff level had been agreed by the community, however, the WASHCO members were not actively enforcing the practice to take place. At least in one case in Amhara region an unresolved dispute had stopped the tariff payments. Communities often mentioned that they can contribute when there is a need or breakdown, but this is not a sustainable way to finance preventive maintenance or major breakdowns.

In those cases where tariff was collected, it was often only collected for guard's fee and not for operation and maintenance. However, Tigray region provided a positive example in this regard. Four out of 5 water points visited in Tigray had recently increased their water tariff after realizing that the collected funds are not enough in case of a major breakage. They also had a successful practice where tariff was partly contributed in grain which was then sold by the WASHCO when the price got high.

All in all, when assessed all the indicators covering tariff payment and use, Tigray region was performing remarkably better than other two regions as their overall score is much closer to the best possible score (1.00) than in other regions. Table 3 below presents the overall performance of all the visited water schemes in each region, which clearly shows how in Tigray tariff collection, use and planning of future initiatives are handled in a more responsible manner. It has to be noted that as such regional differences are not fully comparable, but they still provide strong indication together with the qualitative data.

The table below shows the performance of the water schemes visited in Tigray region in tariff collection and use compared to Amhara and SNNPR:

Table 3 Performance of the Amhara, SNNPR and Tigray regions in tariff collection and use

Indicators measuring tariff collection and use:	Amhara	SNNPR	Tigray
Commitment and motivation of the beneficiary community to contribute to the tariff	1.83	1.81	1,08
Sufficient tariffs are collected to keep the scheme running.	2.96	2.90	1.77
Tariff is affordable.	2.29	2.38	1.31
Tariff collection system is in place.	2.08	2.00	1.38
Tariff collected deposited immediately	3.96	3.33	2.92
Tariffs are spent for operation and maintenance. (funds are used for the scheme/ as intended)	1,83	2.95	1.00
WASHCO reports regularly to community on tariff collection and expenditure.	2.33	2.26	1.15
The WASHCO and the community have an intention/plan to improve/add the water scheme facilities.	2.50	1.81	1.00
Water scheme is working (functional) at present.	1.50	1.05	1.00

In general, when tariff was collected, community members assessed it to be affordable. However, there were some cases where some community members had no capacity to pay the tariff, and thus were not paying. These were mainly, elderly and poor community groups, who were excluded from the tariff. In general affordability is not a problem. Bigger issue than affordability is the commitment issue as it was found that only 50% of the water schemes visited had the practice of collecting tariff at all.

Another important finding was that tariff collected is not deposited immediately after collection. The result from all target groups interviewed indicates that only 30 % of the water schemes/WASHCOs deposited the collected tariffs at least within two weeks. Some 49% of the WASHCOs did not deposit the tariff collected at all, and it means this amount is still in the hands of the cashier. In 21% of the cases there is no information whether it is deposited or not.

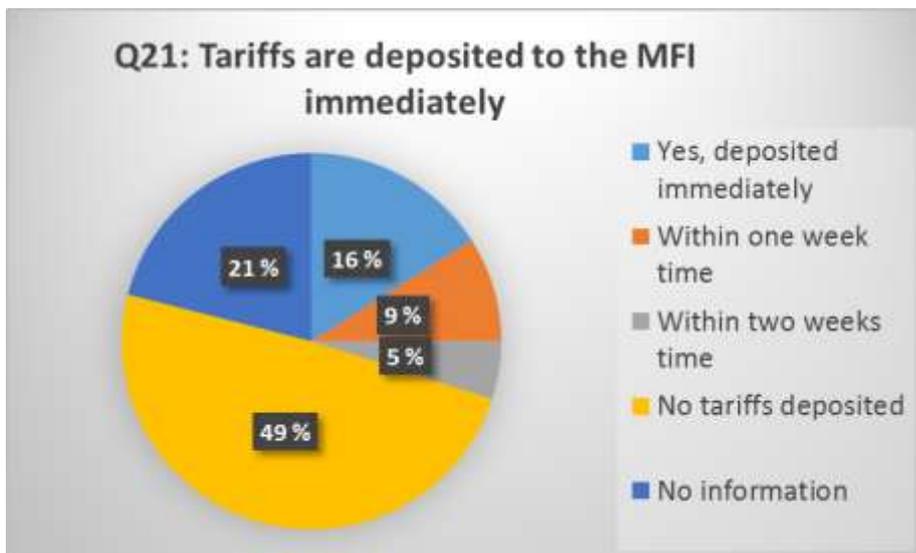


Figure 3 Depositing the tariff to the MFI

Partly the weak practice of depositing the money, could be due to distance to the MFI which makes it more convenient to travel to deposit before the sum is bigger, but also it is just due to lack of awareness and lack of understanding of the risks of holding large sums of cash at someone's house that actually belongs to the community. In Chenchaworeda in SNNP region there was one case reported where a cashier's house was burned and all the collected money had been destroyed with that.

The result from the interviewed target groups indicate that 60% of the interviewed reported that tariff collected has been used as intended for O&M and guard fee. In some 17% of the cases there was no information of the tariff use and 23% of the cases so far no expenditure had been made.

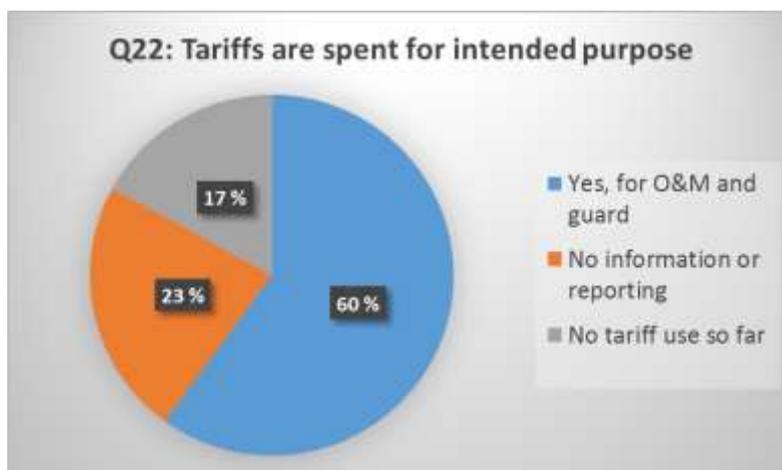


Figure 4 Tariff are spent for the intended purpose

Fourteen water points out of the 20 visited (70%) had plans to expand or construct additional water scheme or facilities like cattle trough and washing basin. The most common plan (9 out of 20) is to construct a cattle trough and washing basin. Five communities wish to build an additional water point. The contradiction in this matter is that despite majority of WASHCOs are planning to expand, the tariffs are not collected and savings not accumulated which does not make these plans very realistic. They are still expecting support from government and other development partners for the realization of their plan.

3.7 Water point functionality - operation, maintenance and repair

As per GTP - I, the national figure on the non-functionality rates of water points by 2014 is 15.5% though the plan was to reach 12%. From the visited water schemes, 88% of them were functional at the time of the visit. Four water schemes reported that despite functional water point the water quantity is not enough for their needs. Two of the four also mentioned that they face a water quality problem especially during the rainy season. For 55% of the water schemes some maintenance had been done so far. In general, the maintenance was conducted in less than a week after the problem occurred. For 45% of the water schemes no maintenance so far had been conducted.

About 65% of the water schemes visited had no pump attendant or care taker in place during the time of the interview which is a very concerning situation from the point of view of sustainability. In some of the water schemes, the caretaker training had not been taken, in some cases the person trained is no longer living in the area. Out of the community groups interviewed 29% reported they don't know who to contact in case of a breakdown. 71% of the community members replied in case of a breakdown they could contact either WASHCO, kebele or woreda.

Close to 81% of the focus groups interviewed reported that both surrounding area and water scheme area within the fence is kept clean. The study team also observed that these water schemes and their surrounding areas were well drained so that no stagnant water, no open defecation, and also no mud around these water schemes. One case of open defecation in the immediate vicinity of the water scheme was observed in Tigray region.

3.8 Watershed management

To protect the water supply schemes from flood hazard, and to get better water yield from improved sources in a sustainable manner; appropriate flood protection measures should be done, and watershed management activities have to be implemented in integration with the water supply project.

Both the water sector policy and water sector strategy of Ethiopia inform to develop and implement comprehensive plan of action to address flood related disasters. These documents promote practices of efficient and appropriate watershed management to maximize water yields and quality, and ensure that watershed management practices constitute an integral part of the overall water resources management.

It was found that 22% of the water schemes visited had suffered from flooding. As much as 55% had some flood diversion ditch constructed, but from perspective of wider catchment protection they were not seen as adequate measures to protect the water services from flooding and to ensure sustainable provision of yield throughout the year as the measures taken were inadequate in size and quality.

It was observed by the study team that out of 20 water schemes assessed 15 of them have no adequate catchment management practice done. Three cases reported where landownership issue is preventing the proper protection of the water scheme as the land owner hasn't given permission for the construction of diversion ditch across their farm land. This may result into not getting sustainable yield throughout the year, flooding causing infrastructure damage and contamination of the source.

It has also been observed by the study team that across the three visited regions, there is very little attention given by the water office to the management of the watershed. This should be done to get sustainable water to the sources through the year, to protect the water scheme structure from flood damage, and contamination by flood.

3.9 Water point properly fenced

As per the observation of the study team, 65% of the water schemes visited were not properly fenced. This means that either there is no fence or if there is one it is not adequate to protect the infrastructure from damage by cattle or human intervention. On the other hand, in case of protected springs often observed situation was that only the collection chamber is fenced leaving the spring box unprotected.

This is because in one hand there is awareness problem that only collection chamber should be fenced. In addition there were four cases of land ownership issues that had prevented the fencing which should have been settled already during the field appraisal time as per the CMP procedures.

As a result, the spring capping structure of three water schemes were already getting damaged as there is farming activities around the structure too close to them. This also allows flood water to enter into the water source making the water turbid and polluted. This has no difference from drinking from an unsafe source.

4 CONCLUSIONS

One of the objectives of the study was to assess the performance and challenges of the visited water schemes through the defined key performance areas. This analysis was done in the result chapter. This chapter will discuss what kind of conclusions can be drawn from women's role and participation in the water management in their communities and summarize the main challenges and key issues based on the data collected as well as the observations made by the study team.

4.1 Comparative analysis between female and male led WASHCOs

The original focus of this study was to undertake comparative analysis between purposively selected women and men-led WASHCOs in terms of performance of water schemes during and after the construction phase. However, this objective lost its importance during the course of the study as it was found out that the critical sustainability issues were shared from water scheme to water scheme and as such clear differences in the performance of the female and male-led WASHCOs could not be found.

Another challenge was that the number of female-led WASHCOs the study team could identify from the project area was extremely limited. Only 6 female-led WASHCOs were met and out of these, two were in reality led by the female chair person's husband and the chairperson herself was not really involved or aware of the water issues in her community. Therefore, comparing 6 female-led WASHCOs (of only 4 actually led by woman) to 14 male led ones wasn't analytically meaningful as the number of female-led WASHCOs really led by women remained insignificantly small.

However, some important observations were made on the WASHCO selection process and women's role and capacity in the WASHCOs which are discussed below.

4.2 Women's role as WASHCO members

Out of the WASHCOs met during the study, only 45% had met the requirement of regional proclamations as well as project direction to have minimum 50% of the WASHCO members' women. Therefore, it can be concluded that at least so far the quota system alone has not been able to secure sufficient female inclusion to WASHCOs.

From the field interviews it was learnt that woredas are playing important role in the selection processes depending on the type of directions they have been giving to the communities. In several water schemes visited they had nominated women as a cashier because of the woreda direction. Also communities stated that they find women being more trustworthy when handling money and that is why in many occasions women were found holding cashier positions.

In Fogera woreda where the study team met 4 female-led WASHCOs, it was also woreda's direction that women should be selected to the position of the chairperson. As it seems woreda's advice is well respected in the communities, it is important to strengthen their gender awareness and understanding. One crucial part that has been so far missing from CMP implementation has been the active and meaningful involvement of Women's Affairs Office, especially Woreda Women Affair Office, and kebele women affair representative. Regional Women Affairs Bureau shall also give their support in this regard. The cooperation should be strengthened between the Women's Affairs Office and Woreda Water Office in order to reach the targets of regional proclamations and empower women to take up the leadership positions in the management of their water schemes.

There is a wide-spread assumption that women should take more leadership in the water management in their communities and this would benefit the service provision as a whole as water is still mainly a women's issue in the communities. There is macro-level research evidence showing that involvement and empowerment of women in water supply project implementation leads to more sustainable results and project-level effectiveness. However, just putting women to the leadership positions may not be enough to reach the assumption.

In rural Ethiopia, women are still much less educated than men and they've had much less exposure to activities and responsibilities outside their households as women are still mainly responsible for their households. Even very limited amount of women-led WASHCOs met by the study team showed that the women chairpersons didn't have very strong leadership in their communities apart from some exceptional individuals.

Therefore, in order to fully empower women to lead and develop their water management, additional support is needed first of all to encourage them to be active outside their households and second to build their skills and capacity. Finally, continuous technical support by woreda and kebele staff members should be provided to WASHCOs regardless whether the water scheme is led by female or male. Woreda Women Affair Office, and kebele women affair representative should work hard in this regard being coordinated with Woreda Water Office, and other members of Kebele WASH Team.

4.3 Female community members awareness and inclusion to water management

Partly due to the same reasons as above, the study team observed continuously during the interviews that women community members were having an information gap compared to the male community members on the issues discussed. It seems that due to women's involvement mainly in the household matters, they have not been participating (or included) to the meetings where the water management related issues such as tariff levels, O&M needs etc. have been discussed and agreed. The study team even encountered four situations where both the WASHCO and the male group told there has been a WASHCO-community meeting, but the women were not aware that such meeting even existed. This reflects a serious inclusion issue but also a sustainability issue as the women who are the daily users of the water point should be aware of any technical, environmental and management level issues that may affect the quantity and/or quality of the water available.

Therefore, steps should be taken to strengthen women's participation to community meetings when water issues are being discussed. Having active female members in the WASHCO is one way to activate the other

women to take part to these gatherings. Also the time and location of meetings has to be as convenient as possible for the women community members to participate. WASHCO members need to clearly understand that for general assembly meetings and other formal WASHCO meetings with the community, all the community members have to be included including women and vulnerable groups and needed measures need to be taken to ensure everyone's ability to participate.

4.4 Key challenges, critical issues and sustainability of the visited water points

Number of challenges, even putting the sustainability of the water services in danger, were identified during the study and many of these issues have already been discussed in the earlier chapters.

The most critical issues that occurred repeatedly were the weak tariff collection. This means that either practice of tariff collection is missing or even the lack of tariff collections systems establishment is missing. In more than 50% of the water points visited, tariff collection was not taking place and in those sites where tariff was collected it was often insufficient. There is a clear commitment and awareness problem both at the community side to pay the tariff but also among the WASHCO members to effectively enforce the community to pay the tariff and ensure everyone understand the importance of sufficient savings for O&M.

In general, WASHCOs were assessed to perform rather well during the construction time but there is a tendency that WASHCO's interest and commitment towards their duties fades away during the post construction phase. This is a serious sustainability problem as without active tariff collection, regular O&M and catchment protection that are all duties of WASHCOs, the long-term sustainability of the water services is at risk.

A special weakness was the practice of reporting. In most cases, WASHCOs don't have regular meetings with the community to report the use of tariff and other ongoing matters to the community which can lead to mistrust between WASHCO and the community. In one water scheme visited in Amhara region, the community is not willing to pay tariff because the community has no information regarding the use of and where about of the money collected so far. This is a transparency and accountability issue that has to be addressed.

Except for very few water schemes, the watershed is not protected, the water schemes are vulnerable to flood hazard, and no diversion ditches are constructed. The constructed protection structures are not adequate to accommodate the flood coming into the protected water sources. Also water scheme fencing has not been given adequate attention specially the spring capping structure has not been fenced.

Many land ownership issues were encountered that should have been settled during the appraisal time, and this is creating critical problem on the sustainability of the water schemes. In some cases, fencing of water schemes and construction of flood diversion structures around has not been possible due to land ownership issue.

4.5 Success factors of the well managed water schemes

In general, both WASHCOs and communities are very committed and active during the construction time of the water schemes. Also, WASHCO members elected were clearly trusted by the community during the construction time. This can be seen in good levels of community contribution, relatively good construction quality and timely completion of the water schemes. Also all the water schemes were functional and in use during the time of the visit.

In Tigray region, there was clearly better performance compared to other two regions in terms of tariff collection and management, regular WASHCO meeting with the community and WASHCO reporting to the community according to the data collected and analyzed. This strengthens the trust building between

WASHCO and the community and improves the long-term sustainability. Further analysis on the good practices in Tigray and even experience sharing visits could be considered.

5 RECOMMENDATIONS

A list of recommendations was developed by the study team to be taken into account when implementing and developing CMP approach in the future. In order to empower and include women fully to the water management both at WASHCO and community level, some specific activities and measures needs to be taken and developed. Therefore, many new activities in terms of women participation and inclusion should be seen in COWASH Phase III.

However, women's role and benefits women receive from the water services are fundamentally interlinked with all the aspects of water management. In the previous chapters, the study team has identified many challenges and critical issues not related to gender as such. Hence, recommendations are provided also in terms of these non-gender related critical issues as all these factors as a whole contribute to the long-term sustainability of the water services benefiting and improving the lives of both women and men.

1. Women shall have equal information and be empowered in all aspects of water scheme management (active participation, decision making) through WASHCO training and continuous technical support. For this to happen Woreda Water Office shall closely work with Woreda Women Affairs Office and Woreda Administration should ensure that this is really happening. Regional Women Affairs Bureau and Zone Women Affair Department shall provide technical support to Woreda Women Affair Office in this regard.
2. Woreda Women Affairs Office, in collaboration with the Woreda Water Office, shall take more active role in the implementation of CMP and empowerment of women in the communities and WASHCOs. Regional and zone line bureau and department shall provide technical support in this regard. COWASH is aimed to have a major impact to the lives of women and girls, and in order to reach these targets women's affairs sector need to be involved at all levels of project implementation including woreda level.
3. Female WASHCO members should receive adequate support and training in order to take up the responsibility of WASHCO chair or any other positions. WASHCOs should be encouraged to be flexible within their roles, so that the female members can fully participate to WASHCO matters even with the limited capability to travel long distances.
4. Women shall be meaningfully consulted and involved during the water scheme site selection, and woreda experts shall consider the opinion of women (when selecting technology and designing the water scheme) to make the water scheme more comfortable for women to collect and carry water. This may include provision of an appropriate area for small water containers used to collect water (pots and jerry cans) including appropriate height from the ground and footsteps to approach the facility so that they can collect and carry water without problem. Footsteps to the water scheme shall also be considered in order the water scheme remains accessible and safe to use also during the rainy season. Woreda Women Affairs Office, in collaboration with Woreda Water Office, shall empower women in terms of participating meaningfully in site selection, and providing their opinion in the design of the water schemes. Woreda Water Office experts especially those who are responsible for site selection and design of water schemes, shall get training on gender sensitive

water scheme site selection, technology selection and design in particular and on gender mainstreaming in general.

5. WASHCOs shall have regular meeting both among members themselves and with the community to solve the water scheme problems effectively and timely. The importance of this practice needs to be enforced and clarified in the WASHCO trainings and CMP management trainings. WASHCO should also report regularly to the community especially the financial matters. Otherwise, community may lose trust to WASHCO, stop paying tariff and thus endanger the sustainability of the water supply service.
6. The operation of the water supply services is mainly under the responsibility of the beneficiary community. However, the result of the study shows that there is limited performance of the community in terms of water point management. This situation has to be changed. Relevant woreda sector offices and Kebele WASH Team need to be aware of their role in the post construction phase in providing technical support, facilitating and ensuring regular WASHCO-community meetings and reports and monitoring and ensuring the regular tariff collection takes place.
7. Environmental sanitation should be given more attention to ensure the safety of the water getting from the protected water source. The open defecation issue and other sanitation gaps identified above may pollute the source leading to the community to drink unsafe water, hence causing health problems. Woreda Water Office and Health Office shall work together for this purpose. Kebele Health Extension Worker is the main instrument to create awareness on these issues.
8. The micro-watershed where the water schemes are found should be protected, and water schemes should be protected from flood hazards. This should be done in collaboration with Woreda Office of Agriculture and Natural Resource Management and with relevant kebele level Agricultural Development Agents. Otherwise, there is problem in getting sustainable water service from those constructed water schemes.
9. Selection of sites for water schemes in less flood prone areas and constructing flood protection structures where the water schemes are located in vulnerable areas is critical. Applying the climate and environmental risk screening tool in the site selection and implementing Climate Resilient Water Safety Plan (CR-WSP) will ensure the sustainability of water schemes in providing safe and adequate water to the community by avoiding or at least minimizing the above mentioned risks.
10. The water schemes including spring capping structure, collection chamber and distribution points should be well fenced. Otherwise, the water scheme is vulnerable to be damaged leading to wastage of scarce resources and the community to use unsafe water source.
11. Land ownership issue is becoming a critical problem, and is one sustainability factor in the rural water supply as it is already now leading to negligence in water scheme protection and fencing. The field appraisal team should identify the issues, together with the community, shall discuss with the land owner, reach an agreement, and properly document the agreement at all levels {land owner,

WASHCO, kebele and Woreda Water Office and Woreda Environmental Protection, Land Administration and Use Authority (EPLAUA), if necessary}).

When doing this, the land owner should be meaningfully consulted and agreement should be reached before construction proceeds. Sometimes the land owner agrees to give his piece of land for free. If the land owner requests compensation, this should be resolved or compensated as per the pertinent national and regional laws. In both cases, minutes should be taken, signed and documented at different levels as mentioned above.

Without adequate legally binding documents, the owner may agree verbally during the appraisal time, but later on he may refuse to give his land for fencing, footpath and construction of other structures like flood diversion ditch crossing on his land. Kebele administration plays great role in managing these disputes, and should be deeply involved in the process.

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