

FINAL EVALUATION OF PROGRAM

"Maternal & Child Health Initiatives through Drinking Water & Sanitation Program"



MARCH 30, 2020
BROADWAY NEPAL PVT.LTD
Baneshowar, Kathmandu, Nepal

ACKNOWLEDGEMENT

I feel proud for entrusting me to conduct the Final evaluation of Program "Maternal & Child Health Initiatives Through Drinking Water and Sanitation Program" done by Tamakoshi Sewa Samiti (TSS) in Support with World Neighbours Canada Society and DFATD-Global Affairs Canada. The program is done in some VDCS of Ramechhap which are now lies in different Rural Municipalities.

I would like to acknowledge the Tamakoshi Sewa Samiti (TSS) Manthali, Ramechhap for entrusting me to do this final evaluation job.

I am grateful to every Persons of Water Sanitation Users Committee (WSUC) and Village Maintenances Worker (VMW) of each scheme who are actively involved in the Survey valuable suggestion. We are also Grateful to all tap stands group and user committee for their kind suggestion regards during the Visit, survey and preparation of this report.

I am Grateful to the Staff of Tamkoshi Sewa samiti (TSS) and my office staffs for helping me in to prepare, analysis, site visits and vehicle arrangements.

Finally, I would also like to thank Mr. Suresh Shrestha and Mr. Govinda Prasad Ghimire for this wonderful experience and opportunities. I hope this report helps to understand the situations of Project Activities and the base for planning new projects (Program).

Er. Pragnyan Ghimire

Managing Director

EXECUTIVE SUMMARY

This report is product of detail observation and investigation conducted by the consultant team for the Final evaluation of Program "Maternal & Child Health Initiatives Through Drinking Water and Sanitation Program" done by Tamakoshi Sewa Samiti (TSS) in Support with World Neighbours Canada Society and DFATD-Global Affairs Canada.

During the detail Observation and Investigation, a preliminary assessment was carried out with field's investigation of selected sample schemes. During the preliminary assessment, the consultant identified the schemes condition. With emphasis, the aspects of technical feasibility, social viability, and sustainability were also considered in analysis of the existing situation. During the study investigation, discussion and consultation with local authorities and people were also done. In the study it is found that the willingness express by the community is highly motivating in lieu of water supply and sanitation system felt need.

The detailed field investigation and survey work included the presents schemes conditions, its source and environmental status, geological study of schemes project area, civil structural status (like intake, reservoir, Brake Pressure tank, Transmission Pipeline, Distribution pipeline and Tap stand post of the project area. The Team also visited the toilets and usefulness of Toilets in the target areas. The area is already declared ODF area in the project period.

Analysis of data is done in excel with comparing the quantitative data obtained from TSS with qualitative data and information obtained from site visit, interaction with community. The Project is unable to archived targeted schemes number but the beneficiaries are more than that of targeted. The work done is of good level and the public is satisfied with the project and needs others same types of projects for others community too.

ABBREVIATIONS

DWs	Drinking Water Schemes
HFP	Home stayed food production
HHs	Households
O&M	Operation and Maintenance
RM	Rural Municipality
TSS	Tamakoshi Sewa Samiti
UC	Users Committee
VDC	Village Development Committee
VMW	Village Maintenances Worker
WSS	Water Supply and Sanitation
WSUC	Water Supply Users Committee

Contents

ACKNOWLEDGEMENT	i
EXECUTIVE SUMMARY.....	ii
ABBREVIATIONS.....	iii
Figures.....	v
Tables	vi
1 Introduction	1
1.1 Background	1
1.2 Project Information	2
1.3 Objectives.....	2
1.4 Approach and Methodology.....	3
A. Sampling.....	3
B. Study Team Composition.....	4
C. Data Collection Approach.....	4
D. Processing	5
E. Review of Sources of Information	5
1. WSUC meetings:.....	5
2. Village Maintenance Workers:	5
3. Scheme Check:	6
4. Tap stand Groups:	6
5. Toilet Constructed households:.....	6
6. TSS Team briefing.....	6
2 Analysis of Findings	7
3 Conclusion and Recommendation.....	20
3.1 Conclusion	20
3.2 Recommendation	20
4 References.....	21
4.1 Visited schemes details	21

Figures

Figure 1 Sampled Scheme Location in Ramechhap district map	4
Figure 2 Targeted Scheme Vs Constructed Scheme	8
Figure 3 Beneficiaries from Water supply schemes in House Hold level	8
Figure 4 No of Beneficiaries population from water supply scheme in different fiscal year	9
Figure 5 Gender wise Beneficiaries from water supply schemes	10
Figure 6 No of Toilet Constructed Households According to VDCs	11
Figure 7 No of Schemes constructed according to types of Tap Constructed	12
Figure 8 RVT of Constructed scheme	13
Figure 9 Support for ODF by toilet Construction	15

Tables

Table 1 Project information.....	2
Table 2 Completed and sampled Water Supply Scheme.....	3
Table 3 No of scheme completed according to fiscal year and beneficiaries.....	9
Table 4 Age sex and VDCs wise Beneficiaries from toilet Constructions works.....	11

1 Introduction

Access to safe drinking water supply and sanitation services is fundamental to improving maternal and child health and meeting national poverty reduction objectives. As is now widely recognized, lack of access to these essential basic services contributes substantially to the high burden of disease that needlessly foreshortens and impairs the lives of far too many of Nepal's citizens. Many people, both in rural and urban areas, are affected by water borne and water related diseases due to use of unsafe water and poor hygiene practices and inadequate sanitation facilities. People have to face several problems and lose opportunity to income sources. Particularly rural women are deprived of finding the income sources including due to hardship of availability of water as they spend several hours a day to fetch water from far away sources. The economic costs of ill health, medical treatment, lost time and opportunities caused by lack of access to these basic services accounts for an estimated cost in South Asia of around \$34 billion. The economic returns on water and sanitation investments in South Asia are around 3.5 for water supply, 6.9 for sanitation and 6.6 for fully integrated projects. United Nations are committed to the Sustainable Development Goals (SDGs). Goal 6 of the SDG is about Clean Water and Sanitation so also, we need to Invest in these sectors.

1.1 Background

As per the first bullet of SDG 6.1 "BY 2030 achieve Universal and equitable accesses to safe and affordable drinking water to all." We need to work on these sectors. Nepal is already declared ODF country (2019 September 30) but still we have lack of water supply and sanitation projects for affordable drinking water and sanitation.

Ramechhap is one of the districts among 77 districts of Nepal and is in categories of Himalayan Districts as per government declaration. Ramechhap with Manthali as its district headquarters, covers an area of 1,546 km² (597 sq mi) and has a population (2011) of 202,646 and a density of 137.4 per km². There are now eight local administrations in the district: Manthali Municipality, Ramechhap Municipality, Umakunda Rural Municipality, Khandadevi Rural Municipality, Gokulganga Rural Municipality, Doramba Rural Municipality, Likhu Rural Municipality and Sunapati Rural Municipality.

Tamakoshi Sewa Samiti (TSS) is a non-governmental organization based and working in Ramechhap district of Nepal since 1984AD. TSS has been working in different sector of social activities with main focus on the health and water supply and sanitation sectors.

1.2 Project Information

Table 1 Project information

Program Title	Maternal & Child Health Initiatives through Drinking Water & Sanitation Program
Background of Project	This program has been implemented by Tamakoshi Sewa Samiti (TSS), a non-governmental organization based in Ramechhap district of Nepal. World Neighbours Canada Society and DFATD-Global Affairs Canada have jointly funded to implement this project.
Project Period	The project period has covered a total of 49 months effective from 1st March 2016 to 31st March, 2020.
Purpose of the Project	This project will focus on improving the health of mothers, young children and infants in Nepal by providing year-round access to drinking water and sanitary toilets to targeted communities of Ramechhap District.
Expected Outcome	<p>The immediate outcome of the program is to increase equitable use of potable drinking water and healthy environments by women, men, girls & boys. For this, the program has aimed to achieve the following two major results.</p> <ul style="list-style-type: none">• It will provide 21 gravity-flow water systems that will deliver clean water year-round to approximately 525 families through public tap stands by the end of the project period.• It will focus on improving the health and sanitation of approximately 4,200 families by facilitating the provision of sealed, hygienic toilet systems next to their houses by the end of the project period.

1.3 Objectives

- Final evaluation of the Program
- Study & identify current status of completed DWs
- Uses of household toilet supported by TSS

1.4 Approach and Methodology

A. Sampling

There are 11 water supply schemes completed in the project period and have covered more than 70% project by sampling. While sampling we have sampled scheme with different Systems, Different geographical coverage and the construction year. The Number of Schemes is only 11 so we have visited more sites for more reliable and accurate information. This sampling of schemes is done by consultant with help of the TSS staff teams. We have sampled the 8 schemes but in time of field visit the lockdown due to Covid-19 started in Nepal so only six schemes were visited in that period.

The completed scheme and sampled schemes are show on in table below

Table 2 Completed and sampled Water Supply Scheme

S.N	Scheme Name	Community	Type of System	Fiscal year of Completion	Remarks
1	Lahachhewar DW	Umakunda-1, Gumdel	Public Tap	2015/2016	Sampled
2	Bhandari Tole DW	Khandadevi-1, Gagal Bhadaure	Public Tap	2016/2017	Sampled
3	Jyamirbote DW	Likhu Tamakoshi-8/9, Khimti	Public Tap	2016/2017	
4	Swara Khola DW	Sunapati-2, Hiledevi	Public Tap	2017/2018	Sampled
5	Chhagali DW	Sunapati-5, Khaniyapani	Public Tap	2018/2019	Sampled
6	Choktekhol DW	Likhu Tamakoshi-2, Saipu	Private Tap	2018/2019	Sampled
7	Pakhatol DW	Likhu Tamakoshi-6, Khimti	Public Tap	2018/2019	
8	Ratokhola DW	Gokulganga-5, Namadi	Upgraded	2018/2019	
9	Sherdu DW	Umakunda-2, Bamti	Public Tap	2018/2019	Sampled
10	Khahare Paga DW	Umakunda-2, Bamti	Private Tap	2019/2020	Sampled
11	Thapratol DW	Umakunda-2, Bamti	Public Tap	2019/2020	Sampled
Total Scheme completed 11 - Sampled scheme 8 - Field visited 6 (due to lockdown)					

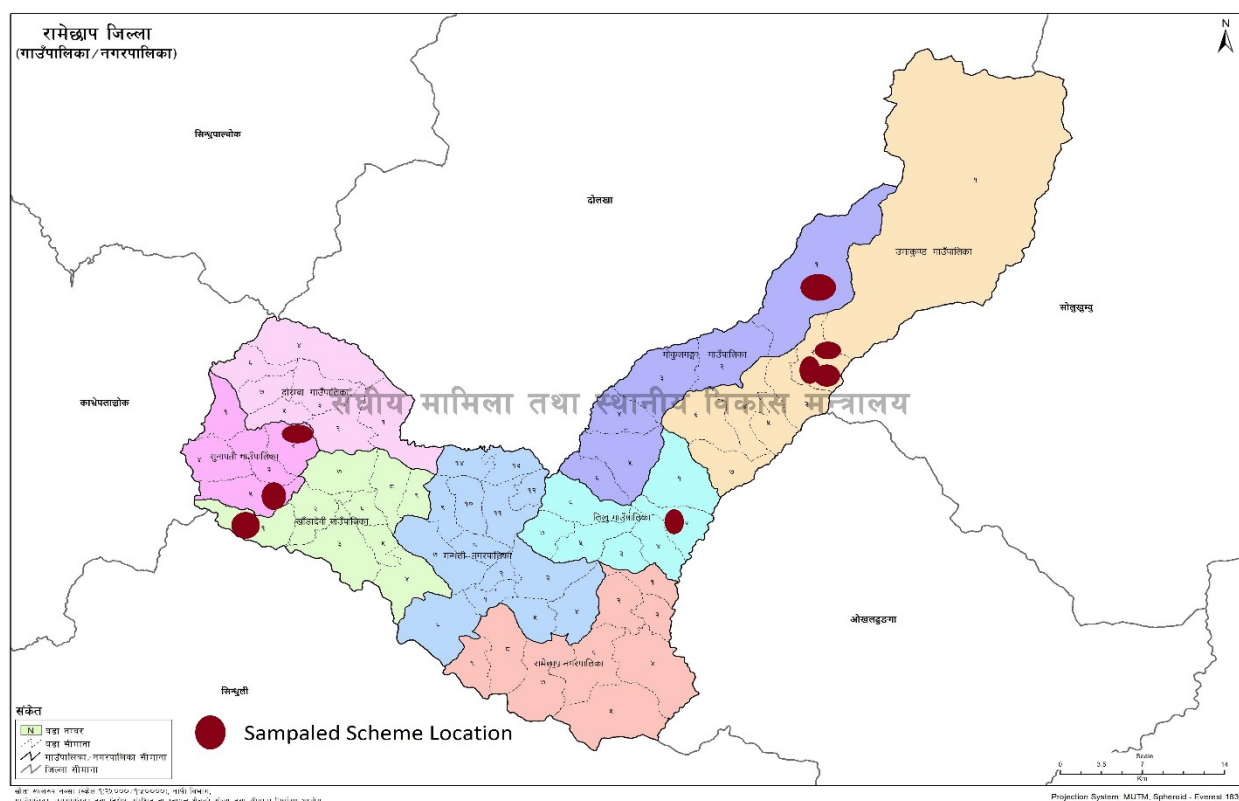


Figure 1 Sampled Scheme Location in Ramechhap district map

We have decided to visit each 5 Households of 3 Previous VDCs among 5 project VDCs (Manthali, Hiledevi, Dimipokhari, Pinkhuri and Deurali) with total 15 Households for the toilet construction. The VDCs are Manthali, Hiledevi and Dimipokhari now these VDCs are lies in Manthali Municipality, Sunapati Rural Municipality and Khandadevi Rural municipality respectively.

B. Study Team Composition

The study is done by the Three team members with the help of TSS staff's team

- Team leader- Er. Pragnyan Ghimire -Wash Engineer
- Member-Er. Ishan Aryal - Civil Engineer

C. Data Collection Approach

For the proposed of Data collection, we have decided to desk study of different data available in TSS and have disused with the TSS Team with field staff, we have checked the different documents available in the office and note have been prepared.

Field observation and Community intersection done in the sampled scheme and VDCs for the validity of the data provided from TSS office. We have not prepared fixed questionnaire form to fill but have focused on discussion to identify the gaps. Mainly we have done below mention work in the field for data collection.

- Participation of beneficiary users in planning and decision making in DW - found from users Committee Minutes
- Current water distribution process (Intermittent, Continuous or Mixed System)- found from Field observation and discussion.
- Status and activeness of Water User Committee - Found from Minutes and discussion.
- Status of Operation & Maintenance Fund-Found from Ledger of the UC
- Tarif and VMW -Found from Discussion and Discussion
- Coordination and support from local government and other agencies- Found from discussion
- Uses of household toilet supported by TSS-Founded from observation and discussion

D. Processing

All data were converting to short scheme reports dealing with information required. The Microsoft Excel is used for data validation and calculation with presentation in data in the tabular and graphical form. The qualitative information is compared with the data provided by TSS and correct data are taken for the analysis.

E. Review of Sources of Information

1. WSUC meetings:

The key informants for each scheme were of course the WSUCs. The focus was on WSUC composition and management, participation, scheme condition and functionality, O&M and finances during the meeting.

2. Village Maintenance Workers:

Village Maintenance Workers (VMWs) were asked to join the team's engineer during the scheme check. A number of questions were asked about their qualifications, tasks, performance and remuneration. VMW Interviews were carried out.

3. Scheme Check:

The scheme check entailed a walk through the system that included all elements from source and intake area visit, along most structures, pipeline network to the taps or water points. In each scheme three elements that are often more prone to damage and O&M neglect were checked in more detail: the intake, one reservoir tank (RVT) and one crossing (if available). More than for any other monitoring visit element, external factors affected the scheme check. While visiting scheme we have looked for environment problem, sustainability of the scheme and possibility of further improvement (Yard connection, Continuous Supply).

4. Tap stand Groups:

The discussions with tap stand groups focused on tap stand functionality, O&M services by VMW and WSUC, sanitation.

5. Toilet Constructed households:

Observation done to the toilets constructed and discussion done to the house member about comfortable of the toilets and effects on the family health after toilet construction works.

6. TSS Team briefing

The Consultant team and TSS team have meetings in different date to carry out the work, Information found from site visit, validation and reliability of the information and data, preliminary findings from the site visit works.

2 Analysis of Findings

1. **Project period**- The project was started and ended in the targeted time period no extension of project time needed for the remaining works.
2. **Targeted scheme** - The project targeted 21 no. of schemes but only 11 schemes were constructed in the project period which is show on in figure 2 below.
3. **Beneficiaries from the Project** -The project estimated to benefit the 525 families through the 21 schemes but achievement was 587 families from only 11 schemes. The target of beneficiary's household is achieved and is 12% more than that of targeted. The Targeted HHs Vs achieved HHs is show on in figure 3 below.

The 11 schemes were constructed in 5 different fiscal year; only one scheme in the first fiscal year and 2 schemes in current fiscal year where as TSS is able to construct the 5 schemes alone in the 4th year of the projects. The total no of projects in each fiscal year and no of beneficiaries are show on in table below.

The total beneficiaries' population from the 11 schemes are 2891 persons with 69 more female than male. The beneficiary's population according to fiscal year is show on in pie chart below in figure 4. In fascial year 2018/19 there is more beneficiaries (almost 50%) than other due to the 5 out of 11 schemes completed in that fiscal year. The Gender wise beneficiaries are show on in bar graph below in figure 5. The figure shows more women beneficiaries in each fiscal year than men except in 2016/17.

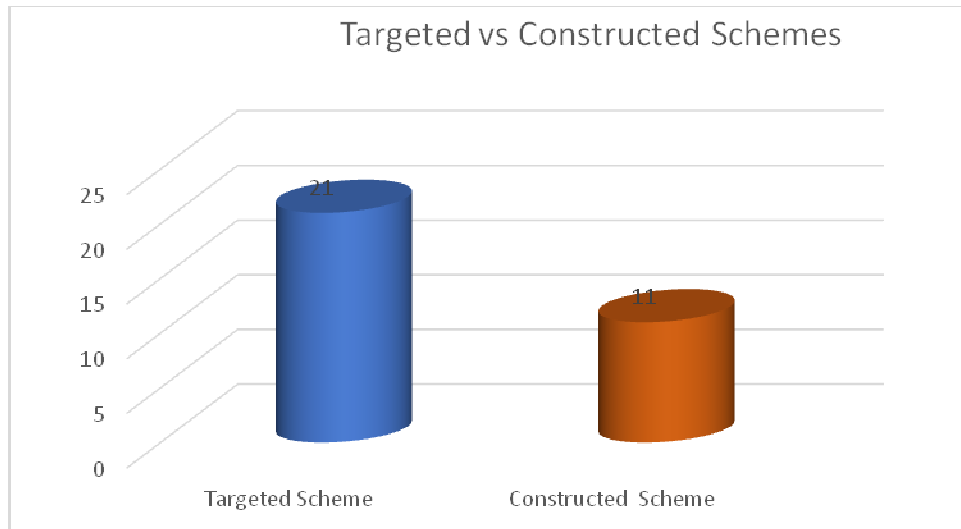


Figure 2 Targeted Scheme Vs Constructed Scheme

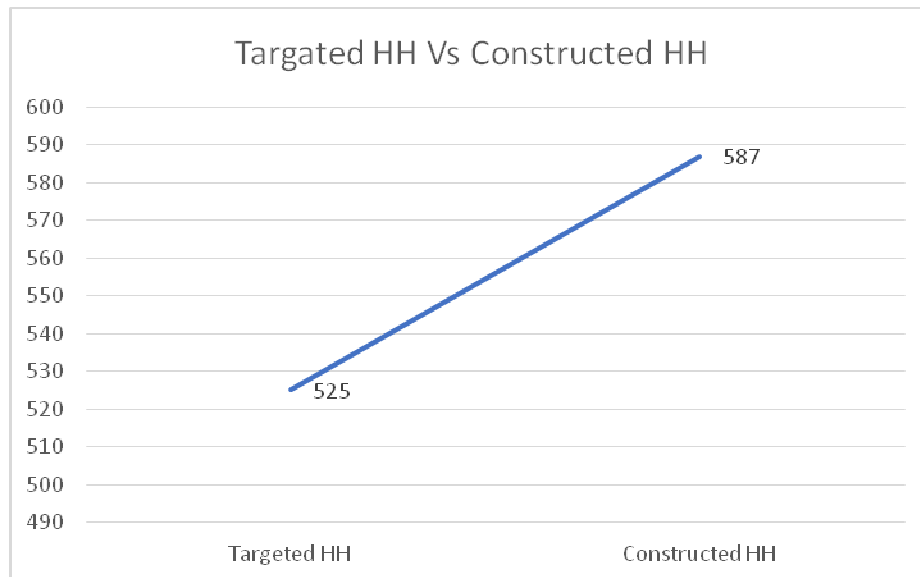


Figure 3 Beneficiaries from Water supply schemes in House Hold level

Table 3 No of scheme completed according to fiscal year and beneficiaries

	Fiscal Year	No. of system constructed	No. of HHs	No. of Population			No. of Taps
				M	F	Total	
1	FY 2015/16	1	30	86	120	206	6
2	FY 2016/17	2	57	157	152	309	11
3	FY 2017/18	1	80	172	174	346	15
4	FY 2018/19	5	281	709	723	1432	90
5	FY 2019/20	2	139	287	311	598	7
	Total	11	587	1411	1480	2891	129

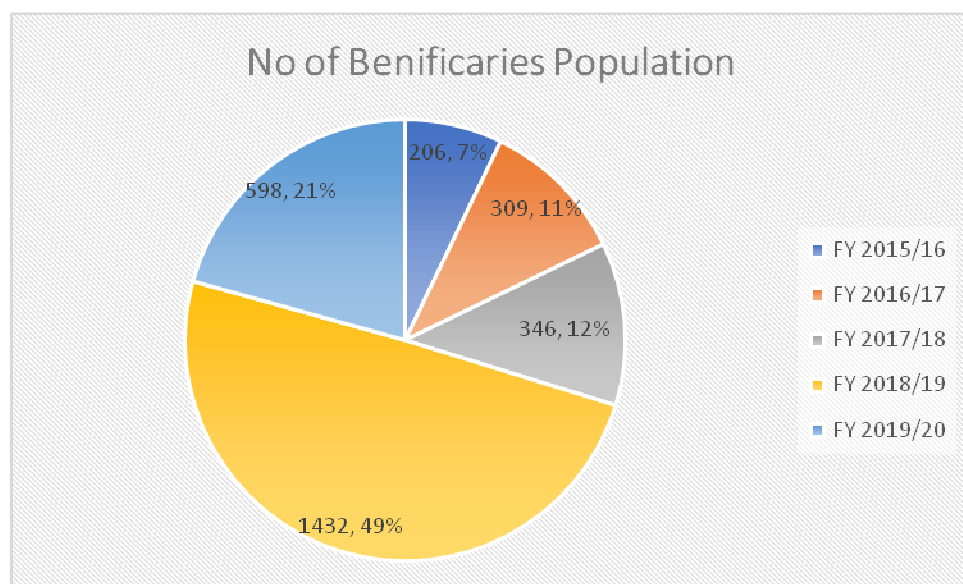


Figure 4 No of Beneficiaries population from water supply scheme in different fiscal year

The program has supported the disadvantage community. The project provided the toilet construction support to disadvantage group of 4,012 households. From this support the local governance successes to declare the ODF VDCs. All ethnicity, male and female, children and disadvantage group are benefitted from this project. Following chart shows the gender composition in this project.

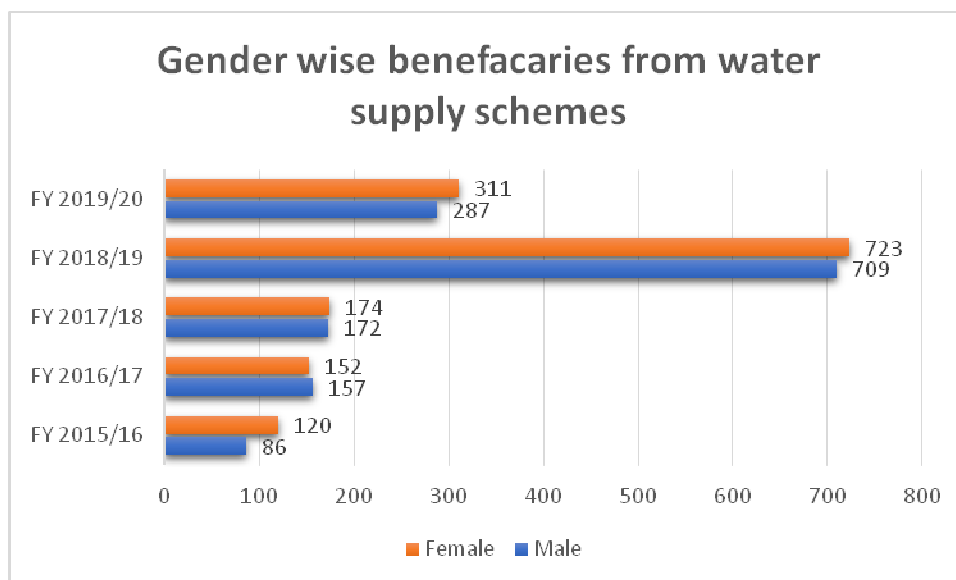


Figure 5 Gender wise Beneficiaries from water supply schemes

4. **The Toilet construction project** target was of 4,200 HHs but able to reach on 4,012 no. of families which is 188 no less than the targeted Households. The toilet construction work done according to VDCs was show on in figure 6 below. More than 50% of toilet constructed is done in Manthali VDCs area in the project time. The toilet constructed activities really helped the government for the declaration of ODF on the particular VDCs (ward of Municipality or Rural Municipality). For doing these Toilet construction work TSS receives many letters of thanks from government agencies.

The total beneficiary's population from the toilet construction is 16,361 people from 4,012 HHs which shows that each toilet benefits more than 4 person in average (exact is 4.078). The beneficiary's women are 8,525 and male are 7,836 which shows that more than 52% of beneficiaries are women. Sex and age wise beneficiaries according to VDCs are show on in table below.

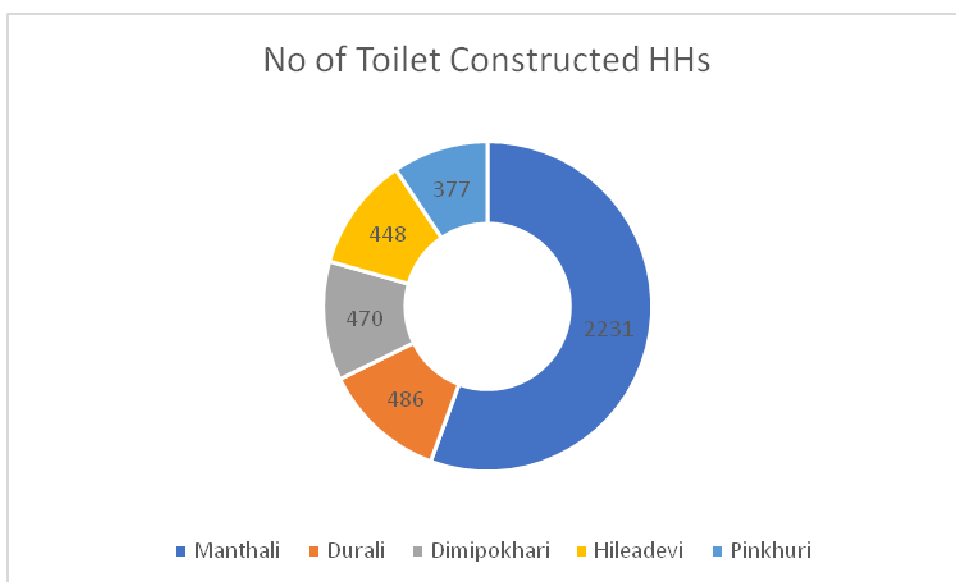


Figure 6 No of Toilet Constructed Households According to VDCs

Table 4 Age sex and VDCs wise Beneficiaries from toilet Constructions works.

Community	Manthali	Deurali	Dimipokhari	Hileadevi	Pinkhuri	Total
Toilet Constructed HHs	2,231	486	470	448	377	4,012
Both Sex Population	8,368	2,254	1,989	1,920	1,830	16,361
-Male	4,248	1,004	902	887	795	7,836
-Female	4,120	1,250	1,087	1,033	1,035	8,525
Age 00-04	611	197	133	143	151	1,235
-Male	308	100	71	71	63	613
-Female	303	97	62	72	88	622
Age 05-09	888	273	185	201	202	1,749
-Male	486	135	89	100	104	914
-Female	402	138	96	101	98	835
Age 10-14	1,078	351	303	278	286	2,296
-Male	565	164	146	146	119	1,140
-Female	513	187	157	132	167	1,156
Age 15-19	1,006	277	256	252	218	2,009
-Male	486	130	125	106	109	956
-Female	520	147	131	146	109	1,053
Age more Than 19	4,785	1,156	1,112	1,046	973	9,072
-Male	2403	475	471	464	400	4213
-Female	2382	681	641	582	573	4,859

5. **Types of Schemes**-There are 11 schemes where most of the schemes are of public taps types of scheme whereas 2 schemes are of yard connection and one schemes is off upgradation over public tap. There is good sign that the TSS also started for yard connections which is in the government polices too. Till date the maximums numbers of schemes are of public taps like schemes but now we need to construct the yard (private tap) and lifting schemes in the Ramechhap area too.

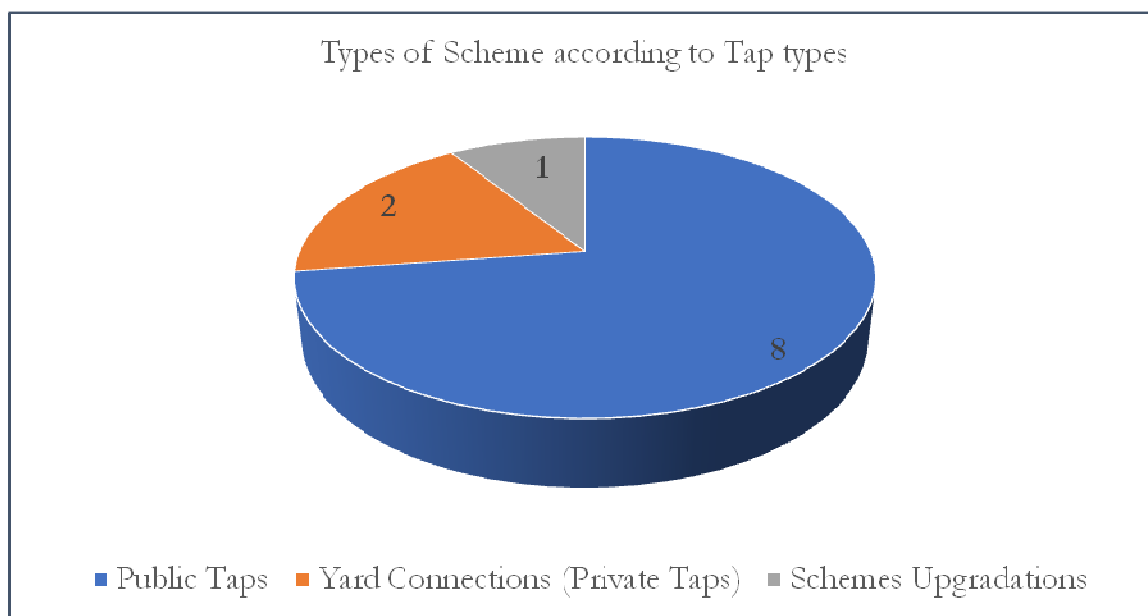


Figure 7 No of Schemes constructed according to types of Tap Constructed

6. **Total Reach** : 4012 HHs has reached from toilet construction. Total 16361 people are reached from the toilet facility and 8525 females; 1235 children are directly reached by the toilet construction program. 587 HHs has directly reached from drinking water and 1515 are directly reach. 2891 population are directly reached for drinking water support program. Following table shows the reach status of household, population, women and children.

	Toilet Construction	Drinking water scheme
Direct reach HH	4012	587
Direct reach Female	8525	1515
Direct reach Children (0-4 yrs.)	1235	
Total Reach Pop	16361	2891

7. Scheme Status-

We visited 6 drinking water schemes. During that period, we found all schemes status are good and functioning. Each scheme has a drinking water user committee.

Drinking water user group has collected the tariff for maintain the schemes. All household are very happy to get access of drinking water. Community people are also happy to get drinking water



Figure 8 RVT of Constructed scheme

the family has made

vegetable garden/home stay food production by using west water. It helps to consume organic seasonal vegetable for child and women. It shows good way to west water management Due to the near drinking water tap women can give save time to her children and access to safe drinking water. So, women children and all community people give thanks to project. Drinking water scheme are fencing for safe.

8. Water User Committee

All schemed has formed the drinking water committee for operation, management and maintenance the scheme. We found all drinking water user committee are active and aware. Drinking water source and tap are clean. Every month they visit the scheme for sanitation and maintenance. They are organizing the meeting monthly basis. The water user committee members are combination of geographical area, gender and ethnicity. Following table shows the

before and after status of water user committee for operation, management and maintenance of the scheme.

S. N	Before	Now
1	There was not formation water use committee	There is formation water use committee
2		Water user committee is very active and aware
3		They are organizing the meeting regular basis
4		All scheme and tap are clean and safe

9. Operation & Maintenance Fund

We visited 8 schemes. During the period we evaluate the operation and maintenance fund impact. We found all scheme has water user committee. They are collecting the monthly tariff for operation and maintenance. Each water user household should provide the fund monthly basis. Drinking water user committees are deciding to manage the area of fund. Operation and maintenance fund using those areas mainly.

- Change Gate ball,
- Cleaning and protection of source
- Payment to village maintenance worker

Before that scheme, community people used to go to the other sources for drinking water. When made those scheme they have access to safe drinking water own their community. Water user communities have expressed thankful to the project team and funding organization. The following table shows the before and after situation of tariff collection.

S.N	Before	Now
1	They used to go to source for drinking water	They are using drinking water from community tap/Individual Tap
2.	They did not collect the tariff	Drinking water user group collect the tariff for operation and maintenance
		They are using the fund for operation and maintenance mainly.

10. Coordination and support from local government

Scheme has worked close coordination with local governance. Local governance also provided in kind support.

They are monitoring the project during the construction period. Local governance technical person sharing the technical knowledge to our staff. Project has constructed 4012 toilets with coordination with local governance. It

is great help to make open defecation free community. Above chart shows, project has supported to toilet construction for 4012 household in 5 VDC. All VDC's are thankful to us.

The local government unit (rural municipality) has also supported for the construction of Swara Khola drinking water scheme in Hiledevi and Khahare Paga DW scheme in Bamti.

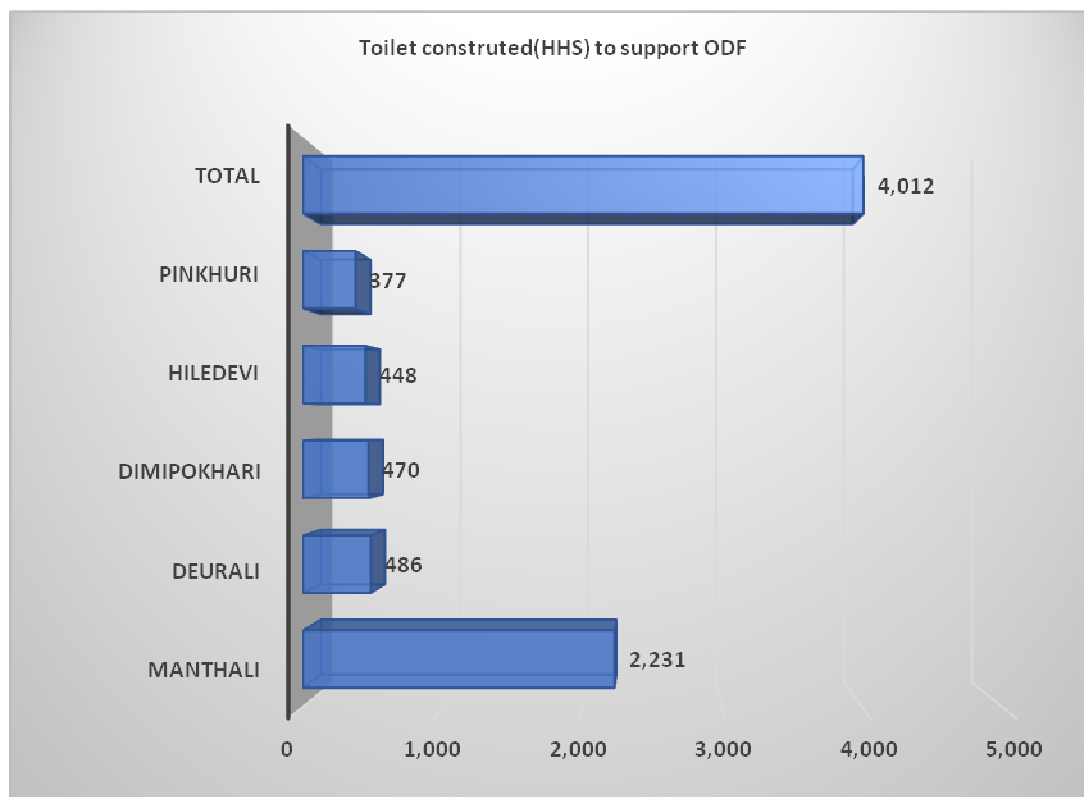


Figure 9 Support for ODF by toilet Construction

11. Sustainability of completed DW system

Sustainability is very important of project. Each and every project needs to make sustainable plan and implement it. During our field visit to evaluate the project we found sustainability plan and implementing it. We can see major three pallor of sustainability in this figure. These three sustainability plans will be kept sustainable in this program.

- **Coordination with local government:** - Coordination and collaboration with local governance is most important component for sustainability of project. The Drinking Water & Sanitation Project has conducted the program through coordination with local governance. Local governance is supporting to monitor the project and take ownership of this program. It helps to sustain the program.
- **Committee formation:** - The Drinking Water & Sanitation Program has made drinking water user group for operate and maintain the scheme. The committee work close coordination with household and local governance. They feel the ownership of this program.
- **Operation and maintenance fund:** - The Drinking Water & Sanitation Program has established the system to collect the operation and maintenance fund regular basis. So, the individual households feel ownership in this program.

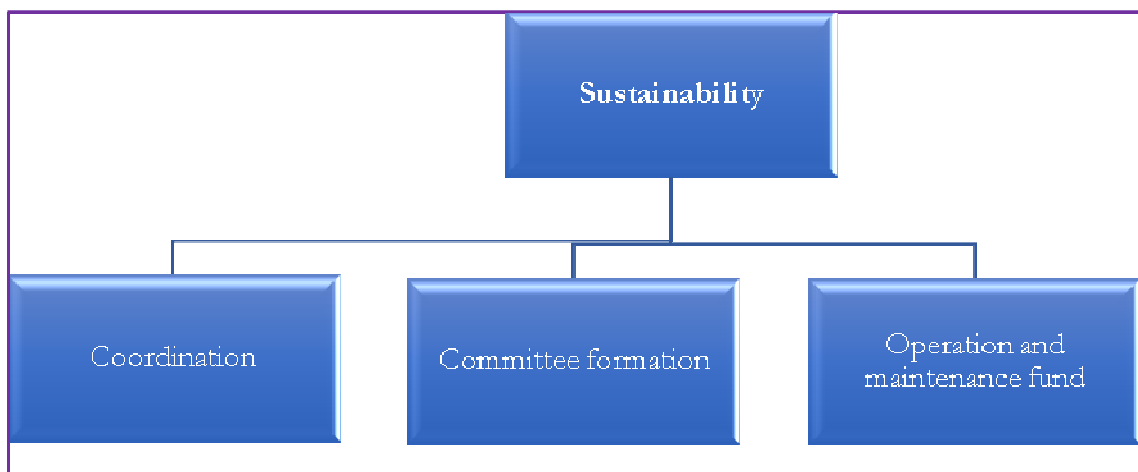


Figure 10 Sustainability Mechanism of project

12. Qualitative Improvement from project

We found so many qualitative benefits from the Drinking Water & Sanitation project. Cleanliness in the community is just as important as cleanliness for individuals and families. Sanitation means public cleanliness — using clean and safe toilets, keeping water sources clean, and disposing of garbage safely. Poor sanitation causes a great deal of unnecessary sickness and death. When human waste (feces) is not managed well, it pollutes water, food, and soil with germs, and leads to diarrhea and other serious health problems. Using toilets prevents germs from getting into the environment, and protects the health of the whole community. Health is not the only reason to build and use toilets. The beneficiary have maintained and improved the following things after the project.

- **Privacy:** Before the project beneficiaries were using open land for fecal. Now, all toilet facility has made with door, roof and wall. All beneficiaries (4012 HHs) are using the toilet and maintain privacy.
- **Safety:** Before the project, toilet was far from the home, or in an isolated place, women were not felt safe using that. Now, toilet is near from home and using the toilet safely.
- **Comfort and cleanliness:** All beneficiaries are using toilet and keeping clean. Almost all toilet was constructed nearby house. So, all are using toilet comfortably.
- **Respect:** All beneficiaries earned respect and they fill proud.
- **Time saving:** Due to access to drinking water facility in their community and yard, time is saving. So, they can give more time for their children. The beneficiaries are working more time than before drinking water project.
- **Increasing home stay food production garden** (vegetable garden) through waste water management. They are using organic vegetable and save the vegetable cost.
- **They are doing sprinkle irrigation** from the tap.
- **Disease spread control through Portable water.** Due to healthy life they can save the treatment cost.

13. Feedback from stakeholders

Project has made positive impact to our beneficiary. During our field visit, we found feedback from Water user group, local governance and women member. Following are important feedback from our beneficiary: -

- The Drinking Water & Sanitation Program is important for our community. Before that project we were suffering to bring drinking water from far source. Now, we get the access near our home. So, we are thankful to project. It is better to connect yard (provide private tap) at all household.

- Women Member of WUG

- We are very happy with this project. It supports to open defecation free in our VDC. Community people get access of drinking water. We advise to expand the project other community.

- Local Government member

- Women are feeling very happy from this project. They are providing more time to their children and they can get the rest than before. So, we want to expand the project at another community also. We want to private tap at all HHs.

- Water User Committee

14. Improvement of personal health through DW and toilet

Before implement the project community people especially women livelihood was very difficult. They could not provide the time for their children. There was not produced the vegetable for day to day use. All people using open place for toilet. When present the project their health status and live hood is changed.

- Now, they are far from communicable disease
- They, are providing more time for their children
- Children illness rate is decrease
- Reduce the diarrhea of under 5 age children
- They are producing verities of organic vegetable own their home stay food production garden
- They are reducing the expenditure like frequently treatment cost, vegetable buying cost etc.
- Mainly women and children are positively affected from this project.

15. Social and Gender Perspective

- **Improvement in women health:** - The beneficiaries are very happy with the project. Before the project they were went to bring drinking water in the source (far from their home and community). Pregnant and Maternal women were also used to bring water from the source. So, most of the lactating mother were suffering from uterine prolapse. Nowadays they have got the drinking water access surrounding their community. So, Women's uterine prolapse rate is decreased. Diarrhea disease of community children is also decreased.
- **Utilization of saved time:** - Before the project women does not have rest time due to long distance traveling for water. They were not able to manage time for their children. now the situation is changed and they are giving their time for children and other family members.
- **Male support to women after DW project:** - Not only women males are also doing household works and after the easily available of water both genders have time for their family and other household work as well as the agricultural production work. They have free time for entertainment too.
- **Privacy for girls and women through toilet:** - The toilet makes easy for all types of population but the effect is seen mainly in the women, girls and children. The house member does not need to get up early for defecation purpose, the danger from the wild animals and other different types of problem during night time defecation is minimized by the toilet construction work. The girls and women feel safe in the toilets rather than jungle.
- **Other.** We have discussed direct effect of toilets and water supply in above bullets but there are lots of indirect positive effects of the toilets. Sanitation of surrounding environment is improved due to the use of toilets. The Home stay food production (HFP) work is done by the waste water collected in the small pond.

3 Conclusion and Recommendation

3.1 Conclusion

The project was completed in a time with the more than targeted beneficiaries but not able to construct water supply schemes as per targeted in the start of the project. The TSS works very hardly to accomplish the work in time with difficulties times of country. The project not only completed the project targets but also helps directly to the ODF declaration of the district.

The work done in the field is good with the proper structure and construction technique. The components in the structure are managed and the beneficiaries are happy with their users committee and donors. The operation and maintenance fund and coordination to the local body make the sustainable of the projects.

We are hoping to monitors these types of work in the future to so thank you again for TSS for this opportunity.

3.2 Recommendation

Although the project completed in time with more than targeted beneficiaries, we have made some recommendations which also may helps in future while designing the projects.

- Need of post ODF work for total sanitation in place of toilet Construction.
- The Ramechhap district is very dray compare to other periphery district and the source depletion occur each year so need to focus on the source revives works with environment protection activities.
- The government policy of yard connection, so if possible need to work yard connection system (private Tap) for the new schemes.
- Need to construct electricity or solar lift schemes also due to the depletion of the source.
- Need some capacity developments activities for the users committee in the different phase of projects.

4 References

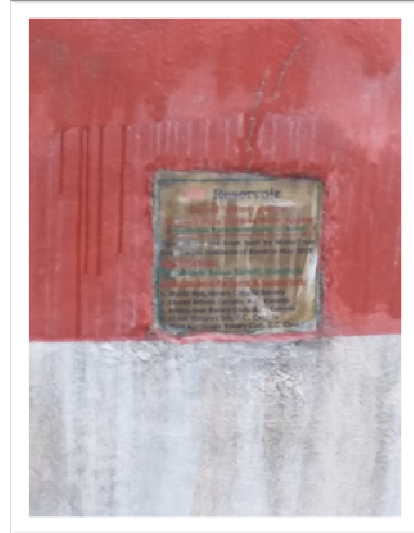
4.1 Visited schemes details

I) SHERDU VILLAGE DRINKING WATER SYSTEM

Sherdu village drinking water system is a type of gravity flow water supply system. It provides drinking water to the residents of Sherdu Village. It was well operated by the team of water user committee of that village. According to the president and treasurer of that Committee, “Some fund has been collected from the tap users and this fund has been used for operation and maintenance of that system”.

Here is the some glimpse of reservoir and public tap of that system.





II) KHAHARE PAGA DRINKING WATER SYSTEM

It is also a gravity flow drinking water system. It is located at Bamti village of Umakunda rural Municipality. This system was constructed in two phase. Construction of source to reservoir is the first phase which was constructed by Tamakoshi Sewa Samiti. Construction from reservoir to tap stand is the second phase which is constructed by local bodies. The construction of second phase is going on. The construction of second phase is delayed due to the delayed budget allocation from local bodies.

Here is the some glimpse of Khahare Paga drinking water system.



III) THAPRATOLE DRINKING WATER SYPLY SYSTEM

It is one of the type of gravity flow drinking water system which is located at Umakunda-2, Bamti. It is operated in well conditions. It is well operated by the team of water user committee of that area. Here is the some glimpse of that drinking water system.



IV) LAHACHHEWAR DRINKING WATER SYSTEM

It is also a type of gravity flow drinking water system which is located at Umakunda-1, Lahachhewar. This system is well operated. Some funds has been collected for the operation and maintenance of that system. It provides enough drinking water for that community. Before this system, there is scarcity of drinking water.

Here is the some glimpse of Lahachhewar drinking water system.





V) BHANDARITOLE DRINKING WATER SYSTEM

It is also a type of gravity flow drinking water system. It is located at Gagalbhadra-7, Bhandaritole. This system has been well operated and some fund has been collected for the operation and maintenance of that system. Certain number of toilet pan has also been provided by Tamakoshi Sewa Samiti, Manthali. Before this system, there was a great problem of drinking water. It makes the lifestyle easier by providing neat drinking water in that community. Here is the some glimpse of drinking water system and toilet.







VI) CHOKTE KHOLA DRINKING WATER SYSTEM

It is also a gravity flow drinking water system. It is located at Likhu Tamakoshi-2, Saipu. This system has been well operated and some fund has been collected from water users. There was a problem of drinking water before this water system. Tap has been provided for each house of that tole and water has been controlled by connecting water meter in each tap. Minimum charge has been collected from each house and collected to the fund of that drinking water system. Some fund has been provided from ward for the proper regulation of that water system.

Here are the some photos of that water system.



