Capacity Building training on Climate-Resilient Water Safety Plan

Field visit, CRWSP training, borehole 3 Butajira town Photo Eyob MoWIE 13 Feb 15

CRWSP training, a participant presenting risk assessment matrix of Butajira town water supply system, photo Eyob 14 Feb 2015

Field visit, CRWSP training, borehole 1& 2 junction point with open manhole Butajira Town Photo Eyob MoWIE 13 Feb 2015

CR-WSP Trainers group photo at Kassech Fikadu Assore Hotel, Butajira town photo Eyob MoWIE 14 Feb 2015

11-15 February, 2015
Butajira town, SNNP Region

- Following the International Training of Trainers on Climate resilient Water Safety Plan Organized by Ministry of Water, Irrigation and Energy in Collaboration with WHO Ethiopia Country Office, cascading of the capacity building training conducted in selected pilot sites for the implementation of Climate Resilient Water Safety Plan.

- The training objectives include:
    - Enable participants to understand concepts of Climate resilient Water Safety Plan
    - Participants will able to use the skill and knowledge gained on Climate Resilient Water Safety Plan to facilitate project implementation and train others in this regard.
    - Encourage participants to present/share their experiences on Water Safety Plan and learn from each other.
    - Develop Plan of Action/improvement plan/ for the implantation of Climate Resilient Water Safety Plan.
- Before the training core facilitators/trainers identified and did adequate preparation for the training including:
    - Training package adopted using the WHO training packages including translating to the local language.
    - Practical group exercises were also adopted to fit the local situation/context including translating to local language.
    - Baseline assessment data for the respective pilot water supply system was used as an input during the theoretical sessions and practical exercises.
    - 5 small groups of 5-6 members identified considering to have mixture of different backgrounds including working area, education levels, level of experience and others.
    - Throughout the training participants were encouraged and supported by facilitators to gain the maximum knowledge and practical skill on Climate resilient Water Safety Plan through:
        - Two ways interactive communication.
        - Theoretical presentations were emanated from the practical aspect of the local situation.
        - Each session is followed by practical group exercises.
        - Presentation of group exercises enables further discussion among participants.
        - Pop Quiz given to participants to assess the level of understanding for which most participants score high results.
- Participation and involvement of all government actors including Ministry of Water, Irrigation and Energy, SNNP Regional Water resource development Bureau, Meskan Woreda Water Office, Butajira town water supply service enterprise and Elli Keble rural community managed water supply scheme.

- Training participants were critically identified and timely invited through the involvement of the above actors.
- Selected town officials have also attentively attended the training. Elli Keble Administrator and Meyer of Butajira town were also attended the opening and closing session. They express their full commitment to implement this program to implement effectively.
- All necessary logistic support was timely done to successfully conduct the training as planned.

Butajira town Mayer delivering opening speech CR-WSP Training at Butajira, photo Eyob, MoWIE, 11 Feb 15

Achievement:

- A total of 30 participants successfully attended the capacity building training on Climate resilient Water Safety Plan from 11-15 February 2015 at Butajira town, SNNP region. The participants were drawn from Butajira town water supply and sewerage service enterprise, Elli kebele rural water supply scheme, relevant Meskan woreda Offices and participants from SNNP regional Bureaus.
- Participants acquired the necessary knowledge and skill as to Climate Resilient Water Safety Plan that will enable them to implement the pilot project in their respective selected sites/areas.
- Adequate practical experiences gained on Water Safety Plan as a result of participants interaction guided by trained facilitators.
- During both theoretical and practical field sessions and using the baseline assessment data completed for the respective sites, participants were able to thoroughly identify and assess risks using adopted risk assessment matrix **(attached risk assessment matrix)** to their water supply system from catchment/source to consumers. Based on the Risk assessment table participants has developed Plan of Action/improvement plan for the respective water supply system (Urban utility and Rural community managed water supply system).

Field Visit CRWSP near to water source junction point open manhole photo Eyob, MoWIE, 13Feb 15

Field visit on CRWSP, a HH using dirty jerican to store water, Ellie kebele, photo Osman WHO, 11 June 2015

Field visit on CRWSP, reservoir with no fence and damaged manhole, Ellie kebele, photo Osman WHO, 11 June 2015

Field visit on CRWSP, public water point with damaged fence, Ellie kebele, photo Osman WHO, 11 June 2015

Field visit on CRWSP, public water point with no fence, open manhole with full of dirt and damaged faucet, Butajira town, photo Osman WHO, 13 June 2015

Field visit on CRWSP, open inlet manhole in one of the reservoir at Butajira town, photo Osman WHO, 13 June 15

Field visit on CRWSP, latrine facility near to the reservoir, Butajira town, photo Osman WHO, 13 April 2015

Field visit on CRWSP, public water point with no fence and open manhole around a health post, Butajira town, photo Osman WHO, 13 June2015

CRWSP training, group exercise, Presentation from Ellie Kebele, Photo Eyob MoWIE, 14 Feb 15

CRWSP training, group presentation on system description of Butajira town, Photo Eyob, MoWIE, 14 Feb 15

Challenges/Gaps:

- Delay to start the training against planned schedule with an hour mainly due some participants not timely arrived. This problem was compensated by using time from health break time and pushing closing session of the first day by an hour.

Lessons:

- Continue the involvement of concerned government actors from top to down level in organizing/facilitating the training.
- Prior identification of proposed participants and timely send the invitation letter through adequate follow up using telephone communication and/or in particular woreda focal point to integrate in their regular supervision activities to communicate proposed participants mainly from the rural community managed water supply systems.
- Prior arrangement to secure rental vehicle intended for one day field visit.
- Good to select the training period not involving weekends and to make sure that other religious holidays are not involved in the specified schedule through consulting regional Water Bureau and the respective Woreda Water Office.

Way forward:

- Revise the plan of action/improvement plan for the respective pilot CR-WSPs implementation sites through the involvement of Water Bureau, Woreda Water Offices and the respective water supply system. The improvement plan will cover for the coming 3 months i.e. until the end of 2007 EFY through the financial and technical support of MoWIE.
- Detail improvement plan for each site that has been identified based on the risk assessment table need to be included in the respective Woreda Annual work Plan to be supported by the community, woreda, region or other WASH development partners operating in the respective area.
- SNNP Region Water Resources development Bureau to timely submit cash request to Ministry of Water, Irrigating and Energy based on the revised plan of action on behalf of Meskan Woreda Water Office in general and the two selected pilot implementation sites in particular (i.e. Butajira Water supply & Sewerage enterprise & Elli Keble water scheme). Moreover, budget for supportive supervision and monitoring activities to be transferred to SNNPR Water Resource development Bureau and Meskan Woreda Water Office so that they can provide the necessary technical support in the implementation of the project.
- Ministry of Water, Irrigation and Energy to facilitate timely disbursement of cash to SNNPR Water resource development Bureau based on cash request made considering the revised plan of action.
- Ministry of Water, Irrigation and Energy and SNNP region water resources development Bureau to provide continuous technical support throughout the project implementation.

Table 1. Revised Plan of action on Climate Resilient Water Safety Plan, Butajira town Water supply and Sewerage Enterprise, April 2015

S. No	Specific improvement activities	Responsible Party	Budget (Birr)	Time frame (April-June 2015)			Remark
				April	May	June	
1	Conduct technical training on CR-WSP to operators, care takers, water quality technicians, environmental health workers, natural resource experts and others.	Butajira town Water supply service	30,000.00	X			Regional/Zonal Water Resource Bureau to support
2	Conduct sensitization and awareness creation on CR-WSPs to stakeholders.	Butajira town Water supply service	27,000.00	X			
3	Construct and/or maintain fencing for 3 public water points with focus to the disadvantaged groups	Butajira town Water supply service	60,000.00		X	X	
4	Construct/cover 5 manholes with sheet metal manhole cover.	Butajira town Water supply service	20,000.00				
5	Plantation of indigenous species around water sources	Butajira town Water supply service	3,000.00				
5	Monitoring, review and evaluate achievements.	Butajira town Water supply service	20,000.00	X	X	X	
	Total Budget		**160,000.00**				

Table 2. Revised Plan of action on Climate Resilient Water Safety Plan, Ellie community water supply, April 2015

S. No	Specific improvement activities	Responsible Party	Budget (Birr)	Time frame (April-June 2015)			Remark
				April	May	June	
1	Conduct sensitization and awareness creation on CR-WSP to stakeholders	Woreda Water Office/ WASHCO	13,000.00	X			
2	Conduct technical training on CR-WSP to operators, care takers, water quality technicians, health extension workers, teachers, development agents & others	Woreda Water Office/ WASHCO	18,000.00		X		
3	Construct and/or maintain fencing for 2 public water points and one reservoir. Construct/maintain well head, maintain pipelines at junction points and also construct diversion ditch.	Woreda Water Office/ WASHCO	61,000.00	X	X	X	
4	Monitoring, review and evaluate achievements.	Woreda Water Office/ WASHCO	8,000.00	X	X	X	
	Total Budget		**100,000.00**				

Annex A: Agenda

Training on Climate-Resilient Water Safety Plan for pilot Regions
11-15 February 2015
Butajira town

DAY 1 (Wednesday, 11 Feb 2015)
Introduction to WSPs
System description (Step 2) and hazards (Step 3) & control measures / validation (Step 4)
DAY 2 (Thursday, 12 Feb 2015)
Improvement plans (Step 5) and operational monitoring plans (Step 6) & Verification (Step 7)
DAY 3 (Friday, 13 Feb 2015)
Field trip/Visit
Preparation of group presentations
Group presentations
DAY 4 (Saturday, 14 Feb 2015)
Management procedures (Step 8) and supporting programs (Step 9), WSP team (Step 1) & WSP review (Step 10) and activity
DAY 5 (Sunday, 15 Feb 2015)
Impact of Climate Change on each steps of WSP
Improvement Planning Exercise

Annex B: List of participants

S/N	Name of Participant	Organization	Email	Telephone
1	Seife Haile	Butajira town water supply & Sewerage Enterprise		
2	Jemanesh Darunga	Butajira town water supply & Sewerage Enterprise		
3	Shemsu Sherfe	Butajira town water supply & Sewerage Enterprise		
4	Yewhalshete Fulassie	Metrology Hawassa		
5	Eyob Mekonnen	Elli School Director		
6	Shemsu Hussien	Elli Keble administration		
7	Nesru Beshir	Elli Keble WASHCO		
8	Sirwana Yesuf	Elli Keble WASHCO		
9	Shemsu Faris	Elli Keble WASHCO		
10	Abdulfetha Hassien	Meskan Woreda Agriculture office		
11	Tekam Worku	Meskan Woreda Women's & Children affairs office		
12	Rute Negashe	Meskan Woreda Agriculture office		
13	Mohammed Amman	Meskan Woreda Water office		
14	Jemila Gossa	Butajira town Women's & Children affairs office		
15	Ahemed Nesiru	Meskan Woreda Health office		
16	Ibrahim Awole	Meskan Woreda Health office		
17	Weliyou Sermolo	Meskan Agriculture office		
18	Ezedin Dessie	Butajira town Health office		
19	Habtemaryiam Tilahun	SSNP Water resource Bureau	habtetilahun35@gmail.com	0916864668
20	Shafi Bedru	Meskan Woreda Water office		
21	Mohammed Tessema	Elli Keble WASHCO		
22	Nesru Jemal	Butajira town water supply & Sewerage Enterprise	nesrujemalw@gmail.com	0926854678
23	Jemal Nuri	Elli Keble WASHCO		
24	Tofik Mossa	Butajira town water supply & Sewerage Enterprise		
25	Hussein Mohammed	Butajira town Meyer		
26	Heryue Balngo	Elli Keble Manager		
27	Shafi Hassen	Meskan Woreda education office		
28	Tadessie Regassa	SNNP Environmental protection Bureau		
29	Abate Bekele	SSNP Water resource Bureau		
30	Mohammed Ebro	Butajira town Municipality Manager		
31	Eyob Abebe	Trainer/ Ministry of Water, Irrigation & Energy	eyobak67@gmail.com	0911675714
32	Endalkacwe Landu	Trainer/ Ministry of Water, Irrigation & Energy	endalkachewlandu2007@yahoo.com	0913190728
33	Belacwe Eshetu	Trainer/ Ministry of Water, Irrigation & Energy	belachewaregash27@gmail.com	0913796596
34	Goitom G/Medhin	Trainer /WHO	goitomgab@gmail.com	0914728687

Annex C: Risk assessment table on Climate- resilient Water Safety Plan, Butajira town Water supply service, Feb 2015

				Are controls effective?				Risk assessment				Additional control needed?		
Process Step	**Hazardous Event**	**Hazard Type**	**Existing control measures**	**Yes**	**No**	**Somewhat**	**Validation notes**	**Likelihood**	**Consequences**	**Risk score**	**Risk level**	**Yes**	**No**	**If yes, proposed controls** *(to be further detailed in improvement plan)*
Catchment	Contamination of water sources due to nearby agricultural practice and settlement	Microbial Physical & Chemical	None		✓			1	3	3	M	✓		Prohibition of nearby agricultural practice and settlement as per the regulation
Catchment	Contamination of water sources due to run off and flood	Microbial & Physical	None		✓			1	3	3	M	✓		Prevent flood by Constructing appropriate flood control structure and Plantation around the catchment
Catchment	Faecal contamination of water source due to animal waste/grazing in the source (only at source #2 back of town police station)	Microbial	Improper fence		✓			1	3	3	M	✓		The existing fence at source #2 back of town police station need to be maintained
Catchment	Contamination of water sources due to leakage at well head only at source #2	Microbial Physical	None		✓			2	3	6	H	✓		Maintain leakage at well head in source #2 back of town police station
Storage/Reservoir	Contamination of water due to damaged fencing at reservoir #2 near to Butajira Health Center	Microbial	Improper Fence		✓			1	3	3	M	✓		Maintain damaged fence around the Reservoir #2 located near to the Health center.
Storage/reservoir	Contamination of water due to open inlet manhole and nearby latrine facility	Microbial	None		✓			1	3	6	M	✓		Construct manhole cover and relocate the nearby latrine facility

Distribution	Contamination of water due to old/damaged/leaked pipelines and absence of manhole covers at pipeline junctions to solid and liquid wastes and run offs	Microbial & physical	Maintain damaged pipe lines			✓	Reported that they are regularly maintaining damaged pipes.	2	3	6	H	✓		Regularly maintain damaged pipelines, replace old pipelines and construct cover for more than 20 open manholes in distribution lines.
Distribution	Contamination and wastage of water in public water stand points due to absence/damaged fence	Microbial & physical	Fence			✓	It is observed that public water points has no fence or with damaged fence	3	3	9	H	✓		Construct /maintain fence with secured gate, replace damaged faucet and maintain check valve.
Consumer Practice	Contamination of water at HH level due to un clean storage containers, poor basic sanitation and hygienic practice	Microbial	Hygiene promotion activities			✓	Observation showed that HH store water in Un clean container, poor compound sanitation and hygienic practice. Dirty/algae plastic hose used to fetch water from tap	2	3	6	H	✓		Hygiene promotion activity Promote basic sanitation activities

Annex D: Risk assessment table on Climate-Resilient Water Safety Plan, Elli Kebele community managed water supply, Feb 2015

				Are controls effective?				Risk assessment				Additional control needed?		
Process Step	**Hazardous Event**	**Hazard Type**	**Existing control measures**	**Yes**	**No**	**Somewhat**	**Validation notes**	**Likelihood**	**Consequences**	**Risk score**	**Risk level**	**Yes**	**No**	**If yes, proposed controls** *(to be further detailed in improvement plan)*
Catchment	Contamination of water sources due run off and flood	Chemical, Microbial Physical	None		✓			3	3	9	H	✓		Prevent flood by Constructing appropriate flood control structure and Plantation around the catchment
Catchment	Contamination of water sources due flood/runoff in the well head	Microbial Physical	None		✓			2	3	6	H	✓		Maintain well head and prevent flood/runoff to water source.
Storage/Reservoir	Contamination of water due to absence of fencing around the reservoir	Microbial Chemical	None			✓		2	3	6	H	✓		Construct Standard fence around the Reservoir.
Storage/Reservoir	Contamination of water due to crack in the reservoir mainly due to the presence of eucalyptus trees around the area	Microbial Physical Chemical	None		✓			3	3	9	H	✓		Replacing the eucalyptus trees with compatible vegetation and construct manhole cover

storage/reservoir	Contamination of water due to improper and/or absence of chlorination	Microbial	None		✓			2	3	6	H	✓		Water to be treated with Chlorine on daily basis. Train operator on the correct formulation of chlorine solution. Provide chlorine reading apparatus
Distribution	Contamination of water due to pipeline leakage.	Microbial physical	None		✓			2	3	6	H	✓		Regularly maintain damaged pipelines
Distribution	Contamination of water in public water stand points due to improper fence and use of dirty plastic hose	Microbial Physical	Fence			✓	It is observed that public water points has no proper fence and damaged faucet	3	3	9	H	✓		Construct /maintain fence with secured gate and replace damaged faucet
Consumer Practice	Contamination of water at HH level due to un clean storage containers, poor basic sanitation and hygienic practice	Microbial	Hygiene promotion activities			✓	Observation showed that HH store water in un clean container, poor compound sanitation and hygienic practice. Dirty/algae plastic hose used to fetch water from tap	2	3	6	H	✓		Hygiene promotion activity Promote basic sanitation activities

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Annex E. Plan of action on Climate Resilient Water Safety Plan, Butajira town water supply service, Feb 2015

S.NO	Specific improvement action	Arising from *(relevant hazardous event)*	Responsible party	Budget (BIRR)	Due date	Status *(not yet started, actions undertaken to date, etc.)*
1	Conduct sensitization and awareness creation to stakeholders on CR-WSP	Risk of different types of water and sanitation related diseases due to inadequate /poor capacity at all level.	Butajira town Water Supply Service	70,000.00	April-June 15	Not started
2	Conduct technical training on CR-WSP to operators, care takers, water quality technicians, environmental health workers, education experts, natural resource experts & others	Risk of different types of water and sanitation related diseases due to inadequate /poor capacity at all level.	Butajira town Water Supply Service	78,600.00	April-June 15	Not started
3	Promote hygiene and sanitation through creating adequate awareness in the community	Risk of microbial contamination of water due to poor sanitation and hygienic practice	Butajira town Water Supply Service	_	April-June 15	Not started
4	Sanitation campaign around public water points and other through mobilizing the community	Risk of microbial contamination of water due to open manhole	Butajira town Water Supply Service	_	April-June 15	Not started
5	Construct/cover manholes with sheet metal manhole cover.	Risk of microbial contamination of water due to poor sanitation and hygienic practice	Ginchi town Water Supply Service	188,853.00	April-June 15	Not started
6	The existing fence of the source #2 located back of Butajira town police station need to be maintained/reinforced	Risk of microbial contamination of water due to animal grazing around the well	Butajira town Water Supply Service	30,000.00	April-June 15	Not started
7	Properly maintain damaged pipelines and replace the old pipes	Risk of physical, chemical and microbial contamination of water due damaged and old pipelines	Butajira town Water Supply Service	947,200.00	April-June 15	Not started
8	Construct/Reinforce the existing fence of public water points and replace damaged faucets	Risk of microbial contamination of water due to different wastes around public water points	Butajira town Water Supply Service	398,000.00	April-June 15	Not started
9	Maintain fence around the reservoir #2 located near to Butajira Health center	Risk of microbial contamination of water due to solid and liquid wastes around the reservoirs	Butajira town Water Supply Service	20,000.00	April-June 15	Not started
10	Supportive supervision, monitoring and review of CR WSPs		Butajira town Water Supply Service	40,000.00	April-June 15	Not started
	Total			**1,772,653.00**		

Annex F. Plan of action on Climate Resilient Water Safety Plan, Ellie Kebele rural water supply Feb 2015

S. No	Specific improvement action	Arising from *(relevant hazardous event)*	Responsible party	Budget (BIRR)	Due date	Status *(not yet started, actions undertaken to date, etc.)*
1	Conduct sensitization and awareness creation to stakeholders on CR-WSP	Risk of different types of water and sanitation related diseases due to inadequate /poor capacity at all level.	Woreda Water, Office/WASHCO	30,000.00	April-June 15	Not started
2	Conduct technical training on CR-WSP to operators, care takers, water quality technicians, health extension workers, teachers, development agents & others	Risk of different types of water and sanitation related diseases due to inadequate /poor capacity at all level.	Woreda Water Office/WASHCO	30,000.00	April-June 15	Not started
3	Promote hygiene and sanitation through creating adequate awareness in the community	Risk of microbial contamination of water due to poor sanitation and hygienic practice	Ellie Health Center	–	April-June 15	Not started
4	Sanitation campaign around public water points and other through mobilizing the community	Risk of microbial contamination of water due to poor sanitation and hygienic practice	WASHCO and Health Extension workers	–	April-June 15	Not started
5	Divert flow of runoff and also construct diversion ditch around the source	Risk of physical, chemical and microbial contamination of source water due to run off and flood	Woreda Water Office, Natural Resource Office /WASHCO	329,000.00	April-June 15	Not started
6	The existing fence of the source need to be properly maintained/reinforced using wire	Risk of microbial contamination of water due to animal grazing around the well	WASHCO	50,000.00	April-June 15	Not started
7	Maintain the nonfunctional public water points	Risk of microbial contamination of water due to using water from unsafe sources.	Woreda Water, Office/WASHCO	120,000.00	April-June 15	
8	Regularly treat water with chlorine at Storage/ reservoir	Risk of microbial contamination of water due to untreated water distributed to community	Woreda Water Office, WASHCO & CRWSP team	20,000.00	April-June 15	Not started
9	Maintain source well head	Risk of Physical and microbial contamination of water from runoff	WASHCO Woreda Water Office	30,000.00	April-June 15	Not started
10	Construct proper fence around the reservoir and remove nearby eucalyptus trees	Risk of microbial contamination of water due to wastes around the reservoir	Woreda Water Office, WASHCO & CRWSP team	42,060.00	April-June 15	Not started
11	Reinforce the existing fence for 4 public water points and replace damaged faucets	Risk of microbial contamination of water due to different wastes around public water points	WASHCO / Woreda Water Office	80,000.00	April-June 15	Not started
12	Supportive supervision, monitoring and review of CR WSPs		WASHCO Woreda Water Office	30,000.00	April-June 15	Not started
	Total			**761,060.00**		

Summary of baseline data assessment on Climate Resilient Water Safety Plan for Butajira town water supply and sewerage service enterprise, Feb 2015.

- It is estimated that more than 48,609 people (24,625 Male and 23,984 Female) served by the water supply.
- It is located in midland agro ecological zone
- Source of water is from five deep wells
    - Borehole #1 and Borehole #2 each with 240m depth and yield of 16.5 lit/second established in 2005 Ethiopian Calendar
    - Borehole #3 with 150m depth and yield of 10 lit/second established in 1974 Ethiopian Calendar
    - Borehole #4 with 120m depth and yield of 14.5 lit/second established in 1984 Ethiopian Calendar
    - Borehole #5 with 260m depth and yield of 16.5 lit/second established in 2007 Ethiopian Calendar
- Three reservoirs made of concrete
    - The 1st reservoir with capacity of 500m^3.
    - The 2nd reservoir with capacity of 350m^3 and
    - The 3rd reservoir with capacity of 200m^3
- A total of 56 public water stands, out of these, 48 public water points are functional, the other 8 are not functional because of household pipeline connection/access.
- A total of 5,416 households are customers each with household taps
- No plan exists as to operations and management practices including:
    - Operational monitoring plan such as sanitary inspections, water quality monitoring
    - Compliance monitoring plan
    - Consumer satisfaction monitoring
    - Standard operating procedures
    - Emergency response plan
    - Operator or caretaker training programs
    - Consumer education/training programs
    - Equipment maintenance/calibration schedules
- Annual operating costs per unit of water produced is 2,713,001.80 Birr / 690,498m^3 = 3.92 Birr
- Annual operating costs per # of consumers is 2,713,001.80 Birr / 48,609 consumers = 55.81Birr
- Total revenue collected per consumer over past 12 months is 3,698,078.05 Birr/48,609 = 76.07 Birr
- Total revenue as a % of total operating costs over past 12 months is 3,698,078.05 Birr/2,713,001.80 Birr = 136.3%
- A total of Birr 400,000 Birr received from government for current year for water supply system operations, maintenance, management and improvements. However, government budget provided is not specific to WSP and no budget was dispersed in the previous year. This budget is used mainly for the replacement of old pipes.
- No water safety training or awareness raising events conducted. Moreover, water safety meetings within water supply and other relevant organizations in past 12 months was not also conducted.
- Understanding of water supply system, hazards and hazardous events that threaten the water supply system is found to be poor
- No data or records available on the extent to which equity is considered by water supplier.
- Water supply coverage of the town is about 98%.
- Unaccounted water loss is reported to be 17.54%. A total of 121,113m3 water lost in the last 12 months out of 690,498m^3 water produced.
- Water treated with chlorine at reservoir.
- No records and/or data available regarding water sample tasted for microbial, physical and chemical parameters over past 12 months.

- Despite they have reported that an average of 70% consumer satisfaction, no records available/shown. No formal record of consumer complaints presented.

- No data available on proportion of HHs practicing correct use of recommended HWT technologies
- Wuha Agar and Boiling of water is reported common water treatment technologies in the area
- A total of 8,500 households(out of 9,920 HHs) have latrine facility in Butajira town with coverage of 85.7%
- 4,800 HHs have hand washing facility that account 48.4%. However, no data available on hygiene practice of the community.
- No data available on Diarrhea disease prevalence for Butajira town
- Diarrheal disease is among top 10 diseases reported in Butajira town.
- No reported outbreaks of water-related illness for the past 12 months.
- Butajira town Water Supply and sewerage service enterprise has 54 employees
    - Manager 01
    - Water quality technician 02
    - Electrician 01
    - Mechanic 01
    - Water engineer 01
    - Finance section 04
    - Operator 12
    - Plumber 06
    - Customer service workers 02
    - Other supporting staff members 24
- Butajira town Water Supply and sewerage service enterprise has an established and active board with 09 members represented from relevant sectors cabinet members in the town and community representatives. The board is chaired by mayor of the town.
- Ato Nesru Jemal is manager of Butajira town water supply and sewerage service enterprise.
    - Cell phone +251926854678
    - Office telephone +251461150078

Summary of baseline data assessment on Climate Resilient Water Safety Plan of Ellie Kebele community managed water supply, Feb 2015.

- It is estimated that more than 5,000 people (700 households) served by the water supply.
- It is located in midland agro ecological zone, 12 km from Butajira town
- Source of water is from one motorized deep well with 88m depth and yield of 3.6 lit/second.
- One reservoir made of concrete with capacity of $50m^3$.
- A total of 08 public water stands, out of these, 07 public water points are functional
- A total of 70 households are customers each with household taps
- No plan exists as to operations and management practices including:
    - Operational monitoring plan such as sanitary inspections, water quality monitoring
    - Compliance monitoring plan
    - Consumer satisfaction monitoring
    - Standard operating procedures
    - Emergency response plan
    - Operator or caretaker training programs
    - Consumer education/training programs and Equipment maintenance/calibration schedules
- Annual operating costs per unit of water produced is 28,000 Birr / $18,921m^3$= 1.48 Birr
- Annual operating costs per # of consumers is 28,000 Birr / 5,000 consumers = 5.6 Birr
- Total revenue collected per consumer over past 12 months is 30,000 Birr/5,000 = 6.0 Birr
- Total revenue as a % of total operating costs over past 12 months is 30,000 Birr/28,000 Birr = 107.14%
- No budget received from government for current year for water supply system operations, maintenance, management and improvements.
- No water safety training or awareness raising events conducted. Moreover, water safety meetings within water supply and other relevant organizations in past 12 months was not also conducted.
- Understanding of water supply system, hazards and hazardous events that threaten the water supply system is found to be poor
- No data or records available on the extent to which equity is considered by water supplier.
- Providing water up to 5 hours during driest season
- Water supply coverage of Ellie kebele is reported to be 100%.However, water supply coverage for Meskan woreda is reported to be 64%.
- Unaccounted water loss is observed during the visit. However, the amount of unaccounted water loss is unknown.
- No community water treatment practice in place
- No water sample tasted for microbial, physical and chemical parameters over past 12 months
- No consumer satisfaction surveys done and no formal record of consumer complaints.
- No data available regarding Household Water Treatment and Safe storage practice
- No data available on household latrine coverage specific to Ellie Kebele. However, a total of 39,332 households have latrine facility in the woreda (Meskan woreda) with coverage of 80%.
- No data available on hygiene practice of the community.
- No data available on diarrhea disease prevalence for Ellie kebele. However, it is reported that diarrheal disease is the second among top 5 diseases reported in under five children in Ellie kebele.
- No reported outbreaks of water-related illness for the past 12 months.
- Ellie kebele community managed water supply has established WASHCO with 7 members.
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- Ato Mohammed Aman Hamid: Head, Meskan Woreda Water Office
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