

Proceedings for workshop on Water Safety Planning



March 5, 2014
Capital Hotel, Addis Ababa

MOWIE, COWASH

Introduction

A one day water safety plan workshop, organised by Ministry of Water, irrigation and Energy in collaboration with Finland Government supported by COWASH, was convened on March 5, 2014 in Addis Ababa, at Capital Hotel.

Objectives: The main objectives of the workshop were:

- to give insight about water safety planning by sharing Ethiopian experiences on rural water safety planning, from different organisations namely: COWASH, UNICEF, Help for a Drop of Water and German Agro action
- to explore how Ethiopia can scale up water safety planning as an instrument to improve WASH sector performance

Participants: Ministry offices (Ministry of Agriculture and Ministry of Water Irrigation and Energy), Civil Society organisations, donor organisations, private sector, COWASH (Annex 1)

Outputs: Main outputs of the workshop were:

- Sharing of experience about ongoing WSP activities in Ethiopia which are available as PowerPoints on <http://www.cmpethiopia.org/page/706>
- A workshop report that summarizes the discussions from the meeting which gives suggestions for 1) the strategic and institutional development needed to scale-up WSP in Ethiopia and 2) the approach and actors needed to implement rural WSP.

Programme:

The workshop started with a welcome note by Ato Nuredin from MoWIE, followed by presentations and group and plenary discussions (Annex 2). Presentations were made by: UNICEF, Help for a drop of Water, German Agro Action, COWASH and Agricultural Office of Yilmana Densa Woreda. The presentation by UNICEF introduced the concept of WSP illustrated with examples from other countries. The other presentations focused on emerging experience with rural water safety planning in Ethiopia.

Presentations

UNICEF – The presentation introduced the WSP approach starting from the WHO Guidelines for Drinking Water Quality (GDWQ). The three main steps to apply WHO GDWQ at national level are:

- The development of health based targets by national authorities using Quantitative Chemical and Microbial Risk Assessment (QCRA/QMRA) tools
- Risk assessment of water supply systems from catchment to consumer, and
- Risk management, remedial action and systematic monitoring (water safety plans).

WSP are now becoming central to the quantity and quality assurance of drinking water in many countries, including Portugal, USA, England, and Australia with the latter having established the most comprehensive approach.

The presentation included the description of the 12 steps in the development of a water safety plan and gave some examples of common risks and hazards in piped water supply. Sanitary inspection is one of the main tools and may be used with simple tests such as residual chlorine, temperature, turbidity, and pH. Several risks may then be identified and may vary in severity, which implies that a need exists to prioritize risks. Thereafter control measures have to be taken and a monitoring system needs to be put in place. The latter however again can particularly build on sanitary inspections and physic chemical parameters and checking microbial/chemical parameters at a much lower

frequency. Two case studies were presented i) on the concept and application of drinking water safety plans (WSPs) conducted in India and Uganda and ii) on Grey water safety plans in India.

Help for a drop of water – this presentation concerns an emerging WSP experience in Tigray region which was initiated because the organization is concerned with providing safe drinking water for their client communities. In the study three water schemes were selected and hazards and risks related to water safety were assessed in these schemes (by checking turbidity and PH), Furthermore a knowledge attitude and practice (KAP) study was made which also look at water use, sanitation and hygiene practices of the community using the schemes. Findings include that families in the area spend less than 30 minutes on collecting water, take on average some 29 liters per day home from the water points, and only very few use household water treatment (chlorine, solar disinfection). Another point was that only 60% of the community used the protected systems, the others preferred the unprotected sources. Important risks were also identified in sanitation and hygiene and as a result their main recommendation for the area was that awareness creation is needed to improve the situation.

German Agro Action (GAA) – The presentation addressed an experience in Arsi Negele, in Oromia region, by Welthungerhilfe (GAA) in collaboration with its local partner Bole Baptist Church organization (BBBC). This project is aimed at building the capacity of community and woreda office staffs to initiate, plan, implement, monitor and sustain water and sanitation projects, so as to meet the MDG targets for Water and Sanitation. It uses approaches namely: CLA , CLTS and other cross cutting issues like: gender sensitivity, HIV/AIDS prevention and other cross cutting issues. The project is focused on both construction and capacity building/capacity building, with special focus on water safety plan.

The WSP intervention was done in the gravity supply Guna Dole safe water supply scheme (GD-SWSS) that was constructed in 2009 and serves 18 Kebeles. Staffs from GAA supported programmes were given a TOT by GAA and WHO – Ethiopia. Then a pilot area was selected to start the process for WSP. They adopted a five steps approach: i) mapping the water supply scheme, ii) identifying hazards and assessing and prioritising risks, iii) implementing improvement plans, iv) reviewing the adequacy of preventive control measures and v) reviewing WSP achievements of the WSP programme.

Training materials were provided in Oromifa. Subsequently the Woreda Wash Team was trained in WSP and thereafter the GD SWSS management and board members which concluded with the formation of the GD SWSS WSP team from different sectors and backgrounds by WWT and GD SWSS management board members. This team carried out the WSP and identified several problems and initiated activities to overcome them. The main finding was that 86 % of the users drink polluted water. The pollution seems mainly to result from using dirty funnels and jerry cans and poor water storage. That finding justified the WSP launch for the scheme.

Some improvements include fencing 54 water kiosks leading to a cleaner environment around the kiosks, backfilling all pipeline trenches, leakage on spring boxes were maintained, implementation of scheme disinfection. An important risk that needs further attention is the problem of water being contaminated in the process of collection and storage. The main challenge in WSP implementation was resource limitations in terms of staff time and financial resources for mobilization and per diem. This point was raised as an important point that needs due attention in the scaling up process. In addition, giving equal attention to point of use/post collection contaminations are recommended, for effectiveness of the programme.

COWASH supported two presentations focused on Kebele/micro-watershed based intervention. One was on the approaches adopted in the implementation of the Kebele Water Safety plan (KWSP) approach, and the other on the results of assessments and action plans developed to address the water problems in one water shed.

With regards to the approach: it followed a number of steps including: selecting trainees from relevant offices from woreda, Zone and regional level including COWASH staffs, conducting a kick off workshop to brief participants about the concept of Kebele WSP, to guide them on how to use the training materials and also on what is expected from them. GLOWS training module and poster based power points were distributed to participants so that they can review and do the exercises before doing field assessment. Then orientations were given to important offices like WWT and KWT so as to get the necessary support including: allocating time for woreda staffs/trainees to actively take part in the training and in identifying the pilot intervention area, especially the micro watershed. Do the KWSAP assessment. Then the assessment was made together with WASHCOs to identify water safety risks at each water point in a given micro watershed, review action plans with trainers and did re-assessment accordingly and developed an action plan together with the WASHCOs and KWT.

The next presentation was about the assessment report and action plan developed for the intervention area. Accordingly, a summary of assessment report of nine water points in a micro watershed was presented. In the assessment report the technical conditions and risks related to water safety were discussed. In addition, financial and managerial problems were also discussed, and action plans, developed by WASHCOs with a facilitation of the team, for the problems were also presented. Important problems were identified showing a clear lack of preventive maintenance, urgent need of repairs, water quality problems (taste) that need further analysis, strong reduction in discharge in 4 wells in dry season, poor management of pump environment, water committees not monitoring and reporting to the community, two committees no functioning (one already replaced after the WSP activity) and serious risk of contamination in water collection, transport and storage

Discussions on the presentation -

Some points of discussion triggered by the presentations include:

- Well heads differ a lot in Ethiopia and often entail risks. There seems to be a need for a more standardized well head design
- Health sector needs to actively participate in the WSP activities, as it is missing from or only loosely linked to the initiatives presented. Furthermore the health sector was not present in the workshop although invited.
- A strategy needs to be developed for putting more attention to sanitation and hygiene practices, which is more focused on behavioural change.
- One generic problem from the study is that, the jerry cans used for water collection and storage often are not clean, so efforts need to be made to address the issue.
- The assessment report from the Kebele WSP can serve as a baseline for interventions; only in the case of doing detailed research a more extensive baseline would be needed.
- Kebele Water Safety Action Plan and GLOWS adopt an approach that gives opportunity to people to learn by doing – which is more efficient- than telling them what to do. It is believed that the approach helps participants to understand the problem on the ground, so that proposed solutions can help to meet their targets.
- Area based approach is adopted where all systems in the area are visited, because people use different water sources in different seasons and for different purposes, that water safety planning needs to take into consideration.
- The term ‘action’ in the name ‘Kebele water safety action planning’ is included to emphasize the importance of actionable plans that can be carried out by relevant actors, with a given

resources in a given time period. In addition, the action plan also helps address accountability issue, in the process.

- Sanitary survey was used to rank risks with regards to water safety, and no chemical and bacteriological testing was carried out. A water quality problem however was identified in most of the water points which now requires a more in-depth analysis including water quality testing.
- The area-based approach is a timely one, as sustainability of water schemes are related to three components namely: i) water quality, ii) watershed management – as there is a risk related to rural water supply, which is caused by climate change. Many existing rural water supply schemes have low resilience to these risks, and will require catchment management and iii) Operation and financial management. In addition, these components WSP needs to consider other important components like: Sanitation and hygiene, and household water treatment and safe storage technology to be effective.
- It would be important to review the WHO checklist used in sanitary surveys and particularly look at prioritization and make this available.

Group discussion

Group 1: WSP strategy development and institutionalisation

- *Do we need WSP Strategy for Ethiopia?*
 - Yes for several reasons including: we have been engaged only in construction giving less attention to O&M; climate change impact puts water supply systems at risk (need also a clear link to catchment protection; serious risk as many people use polluted water (will also need to think at for example Household water treatment
- *Who should lead the strategy development?*
 - The national WASH coordination office
- *Who should be the partners involved in the WSP strategy development?*
 - All WASH partners including also Ministry of Urban Development, Ministry of Agriculture, Environmental Protection Agency
- *Do we need to establish WSP Strategy Task Force to get the WSP strategy done?*
 - Task force is needed;
- *If yes, who should be the members of the Task Force?*
 - National WASH coordination office will invite the members, but we recommend to include from government, development partners, and practitioners; options mentioned WHO, UNICEF, Drop for Water, Agro Action, COWASH, urban water utilities)
- *Do we need separate Task Force for Urban and another for rural?*
 - Not a separate task force but separate strategies are needed for rural and urban areas because of different complexities, actors, and capacities
- *What needs to be done next to take the WSP strategy development and WSP institutionalization to scale?*
 - Share draft workshop proceedings among workshop participants for comments and additions
 - Workshop proceeding officially (also because they opened) submitted to national WASH steering committee chair through the water supply and sanitation directorate
 - Approval of need for strategy and establishment of task force as outlined in the proceedings and to include WSP as a strategy in the One WASH program
 - TOR to be developed for Task Force (which can be drafted by Task Force themselves for review or the informal group can make suggestions or both) and this needs also approach for financing the activities

- The Task Force engages to work as per June 2014

Group 2: Rural WSP Process:

- *What organisations need to be involved in the rural WSP process? At the different level: at woreda level, at kebele and at community level? Who needs to be informed and who should do the work?*
 - **At Woreda level** - Parties that need to be informed and that need to support the process are mainly members of WWT (Health office, Water office, education office, women and youth group and agriculture office). However, WWT misses representatives from important organisations that can have significant contribution to WSP (EPLAU and MFIs). The support to the WSP needs to be provided by a technical team led by the WWT. This technical team is suggested to have members from offices including: water health, women and youth, education, EPLAU and agriculture offices.
 - **At Kebele level** - KWT members including: HEW, soil and water conservation DAs, Kebele Manager, Women and youth group, water extension worker, School director and other actors such as: Small and Micro Enterprises, artisans were suggested as parties that should form the KWSP team to carry out the WSP activities in the different water sheds.
 - **At community level** – WASHCOs, Community based organisation (CBOs) like Edir and HEW; some of them can become member of the Kebele WSP team
- *Does the water & sanitation safe Kebele concept need to be taken further in Rural WSP development?*
 - YES, it is important to be taken further. And it needs to include components like: water supply, Sanitation and hygiene, watershed management, Household water treatment and safe storage. In relation with this it was suggested that a practical approach would be to organize the activities at micro watershed level looking at the risks all water point risk assessment and household water safety risk assessments. However the Kebele will lead and organise the interventions at micro watershed interventions in the kebele and woredas will give support to Kebeles in any way needed. This set up is assumed to address the issue of integration between watershed development and sanitation into WSP planning and implementation.
- *What needs to be developed next to take the RWS WSP to scale?*
 - Developing a national strategy and guidelines in a participatory way
 - Organising experience sharing platforms, especially by actors like water sector working group and others
 - Allocating resources for scaling up
 - Establish a model demonstration site either by strengthening the effort in the pilot area or by expanding the intervention in other areas
 - Carrying out evaluation of water safety plan interventions done so far
 - Strengthening capacity building and promotion of the activities
 - Involving private sector
 - Promoting the idea of WSP at each level to get support from leaders of each level, so that, it can become part of their job.
 - Strengthening integration among sector offices to ensure safe water supply. It can be done by assigning an accountable body, that is heavily responsible – especially water bureau.

Information received after the workshop

WHO Ethiopia informed the WSP stakeholders with the following message on March 7, 2014:

Thank you very much for pushing forward this initiative. As I have informed you in our previous communication, WHO has received project support from Climate resilient WASH which includes WSP. Thus, WHO can support financially and technically the development of National strategic framework and implementation guideline. We can also support implementation of pilot WSP for rural and urban. (Waltaji Terfa by E-mail)

Annex 1. List of participants

1. Abrham Kebede, COWASH RSU, Amhara Region
2. Alemu Geremew, Yilmana Densa Woreda Agriculture Office, Amhara Region
3. Addisu Fente, COWASH RSU, Amhara Region
4. Melkamu Jaleta, Millennium Water Alliance, Addis Ababa
5. Tamene Gossa, UNICEF, Addis Ababa
6. Samuel Godfrey, UNICEF, Addis Ababa
7. Martha Solomon, DFID, Addis Ababa
8. Takeshi Ono, JICA, Addis Ababa
9. Ephrem Fufa, JICA, Addis Ababa
10. Itsuro Takahashi, JICA, Addis Ababa
11. Girma Senbeta, JICA, Addis Ababa
12. Balew Sibel, MoWIE, HWQD, Addis Ababa
13. Abiy Girma, MoWIE, NWCO, Addis Ababa
14. Nuredin Muhammed, MoWIE, WSSD, Addis Ababa
15. Alemayehu Mekonnen, MoWIE, WSSD, Addis Ababa
16. Lakech Haile, MoWIE, WAD, Addis Ababa
17. Tamene Hailu, MoWIE, WSSD, Addis Ababa
18. Tamiru Gedefe, MoWIE, WSSD, Addis Ababa
19. Belay Siyoum, MoWIE, WSSD, Addis Ababa
20. Gezahegn Alemu, Embassy of Finland, Addis Ababa
21. Marko Saarinen, Embassy of Finland, Addis Ababa
22. Bekele Abate, Catholic Relief Service, Addis Ababa
23. Rahel Kaba, World Bank, Addis Ababa
24. Yohannes Solomon, Welthungerhilfe, Addis Ababa
25. Hermella Wondimu, Help for a Drop of Water, Addis Ababa
26. Jan Teun Visscher, MetaMeta, Netherlands
27. Likimyeles Nigussie, MetaMeta, Addis Ababa
28. Arto Suominen, COWASH, MoWIE, Addis Ababa
29. Melaku Worku, COWASH, MoWIE, Addis Ababa

Annex 2 Programme

Timing	Item	Objective
8.30 – 9.00	Registration and expectations	Get information of the participants for future communication
9.00 – 9.15	Welcome, and Introduction by Ato Nuredin Mohammed	Getting overview and major objectives of workshop
9.15 – 09.45	Introduction to Water Safety Plans and Experience with the development of WSPs by Dr. Samuel Godfrey from UNICEF	Overview of the principles and approach involved in the WSP approach and sharing the information of WSP case studies of another countries
09.45 – 10.10	Experience with the development of WSPs in Tigray by Hermella Wondimu from the Help For a Drop of Water	Experience with the implementation of a WSP in Tigray
10:10 - 10.35	Experience with the development of WSPs in Oromia by Tiringo Kinfegabriel from German Agro Action	Experience with the implementation of a WSP in Oromia
10.35 – 11.00	The Kebele/Micro-Catchment Water Safety Plan approach used in Amhara by Addisu Fente from COWASH Amhara	Principles and approach involved in the micro-catchment based WSP approach in Yilmana Densa Woreda in Amhara
11.00 – 11.30	Coffee/tea	
11.30 – 11.55	Kebele/Micro-Catchment level Community Water Supply System Assessment and water safety action planning in Amhara by Alemu Geremew	Practical results of the micro-catchment level Water Safety Planning process in Yilmana Densa woreda in Amhara
11.55 - 13.00	Plenary discussion of the presentations	Clarifications for the presentations provided
13.00 – 14.00	Lunch	
14.00 – 14.10	Formation of two groups for proposed group work	Mutual understanding what to achieve from the group works
14.10 – 15.30	Group discussions to reflect on the WSP institutionalization, WSP approaches and processes and provision of “way forward”	Group work followed by plenary
15.30 - 16.00	Coffee/tea	
16.00 – 17.00	Presentation and discussion of the group work results	Achieve consensus on the way forward in WSP development in Ethiopia
17.00 – 17.15	Evaluation and closing	Plenary