

Rural Climate Resilient Water Safety Planning in Tanzania

Training Report



*15 – 19 May 2017
Morogoro, Tanzania*

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Cover picture: Elevated storage tank, Mkambarani water supply system, Tanzania (Credit: M. Djerma, Consultant, Burkina Faso).

Overview

A rural climate resilient water safety plan (CR-WSP) training event was organized by the Tanzanian Ministry of Health in collaboration with the Ministry of Water and Irrigation, with support from the WHO Country Office. The event was held in Morogoro, Tanzania from 15 – 19 May 2017.

The purpose of this training event was to strengthen national capacity for the development and implementation of rural CR-WSPs, and more specifically, to support the development of rural CR-WSPs for two pilot water supplies, namely, the communities of Mbande and Mkambarani. This training event was a follow-on activity from an urban CR-WSP training event that took place in Kigoma in September 2016.

Following the recent review of a draft CR-WSP for the community of Mbande, a tailored CR-WSP training programme was developed to address the areas within the draft CR-WSP that required further strengthening. In addition, and to support future CR-WSP roll-out in Tanzania, a tailored 'template' or generic CR-WSP was developed to be trialed during the training event, to seek feedback and customization prior to finalization and piloting.

Objectives

The overall objectives of this training were to:

1. Provide an understanding of the principles of rural water safety planning incorporating climate resilience;
2. Gain practical experience applying these principles through a field visit;
3. Trial and customize a rural CR-WSP template to support future piloting and roll-out activities;
4. Determine the next steps for rural CR-WSPs in Tanzania.

Scope of the report

The report summarizes the key outcomes of the rural CR-WSP training through presentations made, and activities conducted to achieve the training objectives.

Structure of the meeting

The CR-WSP training was structured as follows:

Part I (Day 1 [AM]): Rural CR-WSP sensitization/orientation - to provide the knowledge foundation for rural CR-WSP implementers and prospective future trainers.

Part II (Day 1 [PM] – 5): CR-WSP training programme (including field visit) - four-day training programme on how to develop and implement a CR-WSP.

	Activity
Day 1: (May 15)	Rural CR-WSP sensitization and orientation
Days 1-5: (May 15-19)	Rural CR-WSP training (classroom)
	Field visit (including WSP template trialing)
	Workshop on: 1- Template WSP review/tailoring 2- Next steps

Participants

38 participants attended the training (excluding the trainers), representing government staff from ministerial, regional and district levels, as well as including members of the Mkabarani Community Owned Water Supply Organization (COWSO). For the full list of participants, please see **Appendix 1**.

Training proceedings

The training programme was based on the 6 tasks of WHO's *WSP manual for small community water supplies*.¹ Consideration of climate-related risks as part of rural water safety planning was an integral component of the training. Guidance on integrating climate considerations was built into each WSP task, based on UNICEF's *WASH climate resilient development*² and a forthcoming WHO publication titled *Climate resilient water safety plans: Managing risks associated with climate variability and change*.³ Climate considerations were discussed at each stage of WSP development (i.e. and not as a bolt-on component at the end of the training programme as has typically been the approach in the past). Further, all of the exercises throughout the 5-day training programme, including the field visit, included consideration/integration of climate impacts and the assessment and management of climate-related risks.

Given the majority of the community and district level participants had limited command of English, the decision was made at the start of the training to translate from English to Swahili in series. The translation was made by one of the participants, who has previously undertaken urban WSP training led by the Ministry of Water. Although translation in series was the most opportune approach to ensure the training was accessible to all participants, this approach introduced several challenges, notably, the significant time pressures introduced as a result of the increase in the amount of time needed for translation in series, as well as impacting the flow of participant discussion and interaction. The training approach and agenda were altered accordingly as much as practical to minimize the impacts from these challenges.

¹ http://www.who.int/water_sanitation_health/publications/small-comm-water_supplies/en/

² https://www.unicef.org/wash/files/GWP_UNICEF_Tech_A_WEB.PDF

³ WHO (in press).

For the training component, participants were divided into 4 working groups. The groups were divided such that each group contained representatives from national, regional, district and community-level representatives, to ensure a balance of backgrounds and experience, and to ensure each group had sufficient understanding of English to translate the printed workbooks and exercise materials from English to Swahili.

Day 1

The day 1 presentations targeted the following topics for CR-WSP sensitization and orientation:

- Global perspectives on WSPs
- Overview of rural WSP approach
- Benefits of adopting rural WSPs
- Integrating rural WSPs with other WASH initiatives, including climate resilience

On day 1, as part of the WSP training, the following task was covered:

- Task 1: Engage the community and assemble a water safety plan team

Open discussion was held after each session for the duration of the training, to clarify any areas of concern / confusion.

Where possible, these discussions were held in Swahili, with simultaneous translation for the trainers into English (as opposed to translation in series) to best promote open and flowing discussion. For the training component on Days 1 to 5, presentations were followed with group activities (exercises or games) to illustrate each of the WSP tasks covered. Exercises were based on the template rural CR-WSP, to familiarize participants with the template format prior to trialing the template during Day 3 field work.



Classroom room training sessions were designed to be informative and participatory, with exercises and games to illustrate practical application of CR-WSP principles for rural systems

Day 2

During day two, the following tasks of the WSP process were covered:

- Task 2: *Describe the community water supply*
- Task 3: *Identify and assess hazards, hazardous events, risks and existing control measures.*

Day 3

The morning was dedicated to the fieldtrip to Mkambarani village situated 20 km from Morogoro.

The purpose of the fieldtrip was to:

- (1) provide participants with an opportunity to apply the CR-WSP theory covered in the classroom in the field;
- (2) trial the template WSP and provide feedback to strengthen prior to finalization; and
- (3) develop a draft CR-WSP for the community of Mkambarani.

Working in groups, participants were required to complete the draft template for WSP Tasks 1-4 during the fieldtrip exercise. During the fieldtrip, participants visited Mkambarani's water storage, distribution system, and community households to identify and assess water supply risks, including those relating to climate resilience. To support this exercise, participants were required



Hazard identification at a water kiosk in Mkambarani distribution system

to incorporate the climate information into their WSP system description (Task 2), and consider how current/predicted climate impacts may impact the risk profile of existing risks, as well as introducing new risks into the Mkambarani water supply system (Task 3). Further, a detailed improvement plan (Task 4) was to be prepared for any significant risks identified during Task 3, which required further control. A visit to the catchment area and source water intake was not possible as the road was

inaccessible following heavy rainfalls on that area; however, the system operator provided information on the catchment in the system overview description of the Mkambarani water supply.

In the afternoon, a representative from the Tanzania Meteorological Agency (TMA) gave a brief presentation on current and future climate predictions in Tanzania. As the TMA are currently working to translate 'big-data' from various international and regional sources (e.g. IPCC), into localized climate predictions for Tanzania, it was advised that detailed information on specific climate impacts for Tanzania or the region of Morogoro are not yet available. Overall, it was advised that annual rainfall is set to increase in the region; however, the distribution of this rainfall is set to alter, with changing patterns of wet/dry seasons. Participants then integrated this climate information into their draft CR-WSP for the Mkambarani community water supply. The role of the TMA in supporting local-level CR-water safety planning was also discussed.



Discussing household-level water quality risks in Mkambarani water supply

Following this presentation, participants worked in-group to finish their assignments for presentation on Day 4.

Day 4

On Day 4, each group presented its WSP team, system description, risk assessment and improvement planning tables. Participants were also invited to provide their comments to strengthen and improve the WSP template.

The training presentations on Day 4 covered WSP Task 4 (*Develop and implement an incremental improvement plan*) and Task 5 (*Monitor control measures and verify the effectiveness of the water safety plan*) of the CR-WSP process. Each presentation was followed with a game or practical exercise, based around completion of the WSP template based on the fieldtrip findings.

Day 5

Activities on Day 5 included:

- Presentations on Task 6 (*Document, review and improve all aspects of water safety plan implementation*)
- Group activities to illustrate Tasks 5 and 6
- Overview of the 'trainee' and 'trainer' electronic handover packages for rural CR-WSPs.

A 'trainee' handover package was electronically given to all participants. This package contained electronic versions of all of the training presentations, workbooks, WSP template as well as other electronic resources to support rural water safety planning activities.

In addition to the standard training component, the opportunity was taken to support prospective future trainers present at the event. A separate 'trainer' electronic handover package was provided to prospective future CR-WSP trainers, in addition to the standard 'trainee' handover package. This package included editable version of all of the training presentations, workbooks and games/exercises, as well as specific resources to guide and support the development of training and facilitation skills.

Side meeting with CR-WSP project team

A side meeting was held with the WSP project team to discuss the status and next steps for the existing draft rural CR-WSP for Mbande. Clarification was provided on previous guiding comments on the draft CR-WSP that was provided by WHO HQ. The project team advised that the situation on the ground in Mbande is desperate with regards to the availability of freshwater, with water quantity being the immediate and pressing concern for the community. The lack of sufficient quantities of freshwater is already gravely impacting community livelihoods and health. Concern was expressed by the project team regarding the achievability of project timelines (i.e. by March 2018), considering that any system improvements will require that procurement procedures are adhered to, and that this may take time.

As such, it was agreed that the project team would immediately begin to apply the newly acquired knowledge from the tailored training programme to strengthen the climate considerations within the existing draft of the Mbande CR-WSP; specifically, strengthening the climate aspects within the system description (Task 2), hazard identification and risk assessment stages (Task 3), to demonstrate clear linkages between the current/predicted climate impacts and the system improvement plan (Task 4); and, that this would be reflected in the next revision of the concept note for Mbande.

Given the time sensitive nature of this project, it was agreed that the consultant would provide more targeted and specific comments to facilitate the speedy addressing of the aforementioned issues, alongside examples from other countries. Further, for efficiency, it was agreed that the existing Mbande WSP did not need to be repackaged into the new WSP template at this stage; rather, the consideration and assessment/prioritization of climate-related risks should immediately be strengthened throughout the existing format. (However, the new CR-WSP for Mkambarani should be developed using the new CR-WSP template.)

Conclusions and next steps

(Adapted from a meeting report on the next steps meeting chaired by the Project Team on 19 May 2017).

The training was appreciated by the participants as well as the members of COWSO and representative from the Regional Secretariat/Morogoro District Council, and has increased knowledge of the participants on the concepts on the linkage of impacts of climate change to the hazards and hazardous events identified in their water supply system.

After the training, it was agreed that the Ministry of Health in collaboration with the Ministry of Water and Irrigation will organize a session for development of the CR-WSP for Mkabarani village.

Based on the training completed in Morogoro, it was realized that the five (5) days spent on each station for training and developing the concept notes for Mbande COWSO and KUWASA was not realistic to come up with concrete information particularly regarding climate change issues in the respective locality. It was also realized that this approach had contributed significantly on the gaps observed in the concept notes.

In view of the above, it was consensually agreed that the Mbande and KUWASA concept note need to be refined by the project team and representatives from the respective water supply organizations and departments and resubmitted to WHO support and for further actions. To ensure that the refining was done accordingly, the team members and some invited guests from the department dealing with COWSOs were given different tasks as shown below:-

Table: Tasks to be accomplished

SN	ACTIVITY	RESPONSIBLE PERSON	DATES DUE
1.	To prepare the concept note on refining the Mbande COWSO and KUWASA Water Safety Plans and submit to MoHCDGEC. Revised plans should be submitted to WHO by June 30.	Alex George	23 rd May, 2017 <i>Note- Rory McKeown to provide further detailed comments to assist with the targeted and efficient update of the Mbande CR-WSP</i>
2.	Share the draft concept Mbande and KUWASA concept notes to TMA	Alex George	19 th May 2017

SN	ACTIVITY	RESPONSIBLE PERSON	DATES DUE
3.	TMA (Hellen) to organize and share climatic information for Dodoma (Kongwa) and Kigoma	Hellen Msemo	Before 3 rd June,2017
4.	To share with the team members documents on regional and country climatic information available	Joseph Bwire	Immediately
5.	To prepare concept note for development of WSP for Mkambarani and submit to MoHCDGEC.	Eng. Issa Osen	23 rd May,2017
6.	Re share Project Work plan	Theophil Likangaga	Immediately
7	To share the status of fliers and print out of the WSP guideline	Barthasar Rwelengera	Immediately

Once all materials have been finalized following piloting, consideration must be given to allocating sufficient resources for the translation of rural CR-WSP training materials, resources and the WSP template into Swahili to support community-level implementation.

Appendix 1 List of participants

S/N	NAME OF PARTICIPANTS	TITLE	ORGANIZATION
1	BILL NUMBI	VILLAGE CHAIRMAN	MKAMBARANI
2	IDD USSUPH	VEO	MKAMBARANI
3	STEPHEN MKAUMOTO	DWE	MOROGORO DC
4	MODESTUS HERMAN	WEMO	MOWI-DWR
5	ROSEMARY SEMIONO	EMO	MOROGORO DC
6	RUBEN CHABOLIKO	CHAIRMAN	COWSO
7	SIWAJIBU BINDI	SECRETARY	COWSO
8	HASSAN KISEYU	M/HAZINA JUMUIYA	COWSO
9	MTORO LUBARATI	MEMBER	COWSO
10	AZIZA ATHUMANI	MEMBER	COWSO
11	NGOMA RASHIDY	MEMBER	COWSO
12	SAID KONDO	MEMBER	COWSO
13	MWANAIIDI SELEMANI	MEMBER	COWSO
14	HAPPYNESS MZAGO	MEMBER	COWSCO
15	AGATA MAROLO	MEMBER	COWSCO
16	EVODIUS RULAZI	ENG	RAS MOROGORO
17	STANLEY DAUDI	SENIOR CHEMIST	MORO WATER LAB
18	BUMIJA MBOYA	PHO	MOHCDGEC
19	ALEX GEORGE	P. CHEMIST	MINISTRY OF WATER
20	KASIMBAZI BEATRICE	AASLWD	RAS MOROGORO
21	NDAYAHUNDWA HENRY	CDO	RAS MOROGORO
22	JULIETHA MAJALIWA	CDO	WRBWO DSM
23	THEOPHIL LIKANGAGA	PHO	MOHCDGEC
24	GEORGE MKONDO	PHO	RHMT MORO
25	TUMAINI GWATALILE	CDO	CDO-MOWI
26	BEATUS SAANANE	DWE	MDC
27	JOSEPH KUNAMBI	CDO	MDC
28	MARY MLOGE	EHO	MOHCDGEC
29	IKUPA ZITEREKO	O/ASST	MOHCDGEC
30	ISSA OSENA	PEMO	MOWI
31	ABDALLAH MOHAMED	DRIVER	TMA
32	CONSOLATA JOHN	CDO	PORALG
33	PHILIPO CHANDY	ADWQ	MOWI
34	BWIRE MASINDE	PEMO	VPO-DODOMA
35	HELEN MSEMO	PMO	TMA

S/N	NAME OF PARTICIPANTS	TITLE	ORGANIZATION
36	HUSSEIN MOHAMMED	LECTURER	MUHAS
37	BARTHASAR RWELENEGRA	NPO HECC	WHO
38	THEOPHIL LIKANGAGA		MOHCDGEC