PaCWaM+

PACIFIC COMMUNITY WATER MANAGEMENT-PLUS

IMPLEMENTATION GUIDE

Supplementary Activities for Drinking Water Safety & Security Planning (DWSSP) in Fiji

June 2022

International WaterCentre

Griffith UNIVERSITY Queensland, Australia

USP THE UNIVERSITY OF THE SOUTH PACIFIC

Water For Women

Australian Aid

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Government of Fiji

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Acknowledgements

The authors would like to thank the research communities that have contributed to the research project, as well as the Fijian Government. In particular, we would like to thank the representatives from Ministry of Health and Medical Services and Water Authority Fiji for their time and valuable contributions to this work.

This project was supported by the Australian Government Water for women Fund and implemented by the International WaterCentre at Griffith University, Australia. Water for women is the Australian Government's flagship WASH program and is being delivered as part of Australia's aid program, investing $118 million over five years from 2018 to 2022.

Disclaimer: This publication was funded by the Australian Government through the Department of Foreign Affairs and Trade. The views expressed in this publication are the contributing authors' alone and are not necessarily the views of the Australian Government.

Suggested citation: Souter, R.T., Love, M., Sanderson, R.P., Shrestha, S., Pene, S., Ravai, A., and Beal, C. (2021) Pacific Community Water Management Implementation guide: Supplementary activities for Drinking Water and Security Planning (DWSSP) in Fiji. International WaterCentre at Griffith University.

Cover images: D Gonzalez, International WaterCentre (front), C Benjamin, Solomon Islands National University (back)

Version: v2 (July 2022)

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Drinking Water Safety and Security Planning supplementary activities implementation guide

The International WaterCentre (IWC), in partnership with the Fiji Government Ministry of Health and Medical Services (MHMS) and the University of the South Pacific (USP), have prepared this Implementation Guide for Supplementary Activities for Drinking Water Safety & Security Planning (DWSSP) in Fiji.

Community-based water management is the dominant water service model in Fiji and is likely to remain so for the foreseeable future. Good community-based water management is necessary for communities to achieve good WASH services: water supplies, sanitation and hygiene practices that are inclusive, safe and sustainable.

The purpose of the Guide is to:
1. Deliver a suite of modifications to the existing DWSSP framework
2. Improve the sustainability, inclusivity, and resilience of rural water supplies in Fiji

Where did this guide come from?

This guide was developed as part of the Pacific Community Rural Water Management PLUS (PaCWaM+) research project. It draws on the experience of DWSSP facilitators from MHMS, and from research conducted by the PaCWaM+ research team with communities in Fiji, as well as with other government and civil society stakeholders. The supplementary activities draw on participatory, dialogic and Pasifika community development approaches and aims to better contextualise Water Safety and Security Planning to the Fijian context, and to the needs of Fijian water committees and communities.

Who is this supplementary guide for?

This Supplementary Activity Guide provides DWSSP field facilitators with additional resources, activities, and guidance to deliver a suite of modifications to the existing DWSSP framework, **to improve the sustainability, inclusivity, and resilience of rural water supplies in Fiji**.

There are elements of this supplementary guide that will be useful for communities and water committees to make use of directly or with “arms-length” facilitation provided by DWSSP practitioners.

When should this supplementary guide be used?

Consistent with the existing DWSSP Facilitators Guide, this supplementary guide should be used when engaging with rural communities and their Water Committees (or Water, Sanitation and Hygiene – WASH – Committees) to develop a Water Safety and Security Action Plan.

How to use this supplementary guide

This Guide is intended to be used in conjunction with the DWSSP Facilitators Guide and materials produced and maintained by MHMS. This guide contains recommendations to modify or replace existing activities, and add new activities, to the DWSSP activities.

Summary overview – types of supplementary guidance

The existing DWSSP framework by MHMS has three modules – (1) Community Engagement, (2) Drinking Water Safety Planning (DWSP), and (3) Water Security Upgrade Planning (WSUP). Each of these modules have several sessions comprising activities for the facilitator and participants to follow. This supplementary guide is organised by the same modules.

The supplementary 'add-ons' contained within this guide comprise three types of guidance. Look for the symbol that signposts the type of guidance.

Replacement Session – a full session that replaces the MHMS-driven session at that part of the program. The session will require some additional materials (provided here) and time to implement. In some instances, elements of the MHMS session have been incorporated into the replacement session.

Additional Activity – a defined activity intended to complement the existing MHMS-driven session of relevance. The activity will likely require some additional materials (provided here) and/or time to implement. All other sections of that session, as defined in the MHMS guide, would be normally followed.

Supporting Advice –more concise information or reference material intended to support an existing DWSSP session. This might simply be a hint or suggestion to include something within a given DWSSP activity. It does not require additional materials to implement.

A summary of the proposed supplementary add-ons is as follows:

SG1. Supporting Advice – Intro to Community

Purpose: To provide context and additional support to ensure community voices, perspectives and needs are at the forefront of the DWSSP process.

SG2. Replacement Session - Strong Water Committees-Strong WASH Communities Part I

Replacing session: *M1-D1-S3: Establishing and strengthening Water Committee*

Purpose: To (i) improve the sustainability of Water Committees by raising awareness on the importance of having strong committee membership and to encourage the existing committee to reflect on how it could be stronger, (ii) encourage committees to consider better engagement with others in the community, and (iii) encourage collective action by all community members.

- 2A Strong Water Committees (Water Committee membership activity)
- 2B Strong Water Committees (Talanoa)
- 2C Water is Everyone's business (activity and handout)
- 2D Water Committee communication (being heard activity)

The above activities are to be undertaken on the first day, as a half-day activity, with the community water committee and any other community members with a role/interest in community water management. For *koros* this might include representatives from different *mataqali*, while in other contexts it might be representatives from different areas or 'water zones'.

SG3. Supporting Advice – DWSSP community team configuration

Purpose: To ensure the team conducting the DWSSP is inclusive, representative, and active. The base inclusion is the Water Committee, but in addition, consider geographic-based representation in the DWSSP, to ensure different WASH situations from one end of the community to the other are included.

SG4. Additional Activity - Risk Management – Identifying Hazards

Purpose: To build a shared understanding of water pathways (water cycles and environments, and water systems to provide people with water) and contaminants in water environments.

- 4A Water pathways
- 4B Identifying Water Quality and Availability Hazards
- 4C Climate Change Effects

This activity takes place on the second day prior to Community Mapping. It is intended as an additional activity to be inserted into the standard S2: Identifying Hazards session. Support

SG5. Replacement Session - Describing the supply - Community Mapping

Replacing DWSSP session:

Purpose: To gain a detailed understanding of the water situation of the community.

- 5A Community and zone water maps
- 5B Household surveys and water stories
- 5C (Following session) Talanoa summary

This activity takes place during the individual community days. Results and a short discussion start the second half of the cluster training activities with Talanoa.

SG6. Additional Activity – Risk Management – Identifying Improvements & Planning

Purpose: To remember that improvements and actions are required at all levels of the community, not just the household or the committee level.

- 6A Improving and planning: Water is everyone's business – action planning at all levels

This activity will act as a wrap-up to the action planning process and will allow the committee and facilitators to summarise actions and identify any gaps in the different levels of water management.

SG7. Additional Activity – Strong Water Committees-Strong WASH Communities Part II

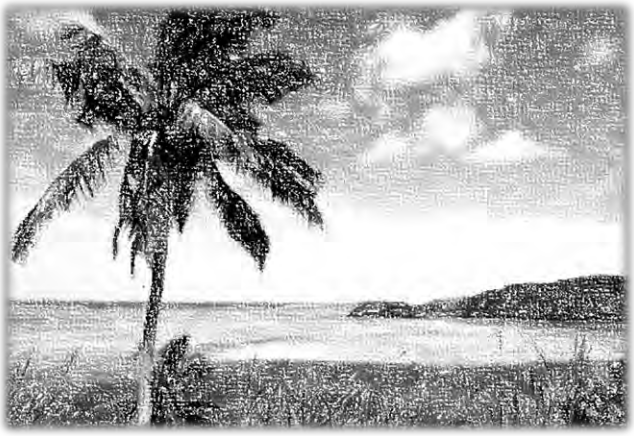
Purpose: To raise awareness on the importance of having strong committee linkages with other groups and individuals in the community, and to encourage the existing committee to reflect on how these linkages could be strengthened.

- 7A Water Committee linkages

This activity is included in the management procedures session (or the 'System Monitoring and Operational Maintenance' session).

SG8. Additional Activity – Whole of Community feedback

Purpose: To socialise the DWSSP in the wider community and gain increased support for water actions – water is everyone's business.



General implementation recommendations to improve DWSSP outcomes

The capacity, effectiveness and engagement of community Water Committees are often mentioned by facilitators and community members as one of the most difficult things to maintain over the long-term. Implementation effectiveness of the DWSSP process naturally varies across rural Fiji from community to community, and region to region. There are also resource and engagement considerations that influence that effectiveness. Based on the Phase 1 PaCWaM formative research in Fijian villages and settlements, and more recently interviews with Ministry of Health and Water Authority of Fiji staff, several recommendations have emerged that may be adopted to support DWSSP implementation effectiveness.

Community Buy-in

We reinforce and support the practice of some MHMS DWSSP facilitators who do not proceed from “Day Zero” (i.e., the first community engagement day where interest in the DWSSP process is established and assessed) to “Day One” of the DWSSP unless clear and enthusiastic interest is presented by the community. Every community has many development priorities, and water or WASH may not be the most pressing one at the time DWSSP is proposed for implementation. In this situation, gaining effective engagement of the community members is very difficult and the DWSSP is less likely to bring about sustained improvements. It would be wiser to defer implementation until the community readily identifies water and/or WASH as a priority.

Non-intensive and hands-on training for effective capacity building

If an objective of the DWSSP process is to develop skills and knowledge amongst community members that can continue to be used after the DWSSP training is completed, it is important to consider the overall training approach. It is well-known that it is difficult to absorb all new information and skills during training that is intensive – full days for several days in a row. It is more effective to allow time in between sessions for participants to consider their updated knowledge and skills, discuss it with others, and even try to use what they have learned. It is also difficult to ensure engagement of community members for 3-5 days consecutively, as they have busy lives with many competing priorities.

For these reasons, it is recommended that implementation timetables be spread out over several weeks, with sufficient time for reflection and embedding of updated knowledge and skills. In addition, this allows for a second effective method of learning, that is to task participants with “homework” – action-based learning activities they can progress individually or in small groups. This allows gradual and hands-on learning. This less intensive approach could be aligned with the following ‘Cluster training’ arrangement, to minimise the logistical difficulties associated with a staggered implementation timetable.

Cluster training arrangement

As noted above, maintaining momentum in training over many consecutive days runs the risk of disengaged participants or absences from the final days of training. It also requires significant investment of time and travel by facilitators as they conduct training in each individual community. As an alternative, a clustered approach presents opportunities to implement less intensive training in a more manageable way, as well as adding another effective learning strategy - bringing members of different communities together to share experiences enables peer-to-peer learning, can build a catchment scale awareness, and also support the creation of informal WASH networks.

Format of Training Resources

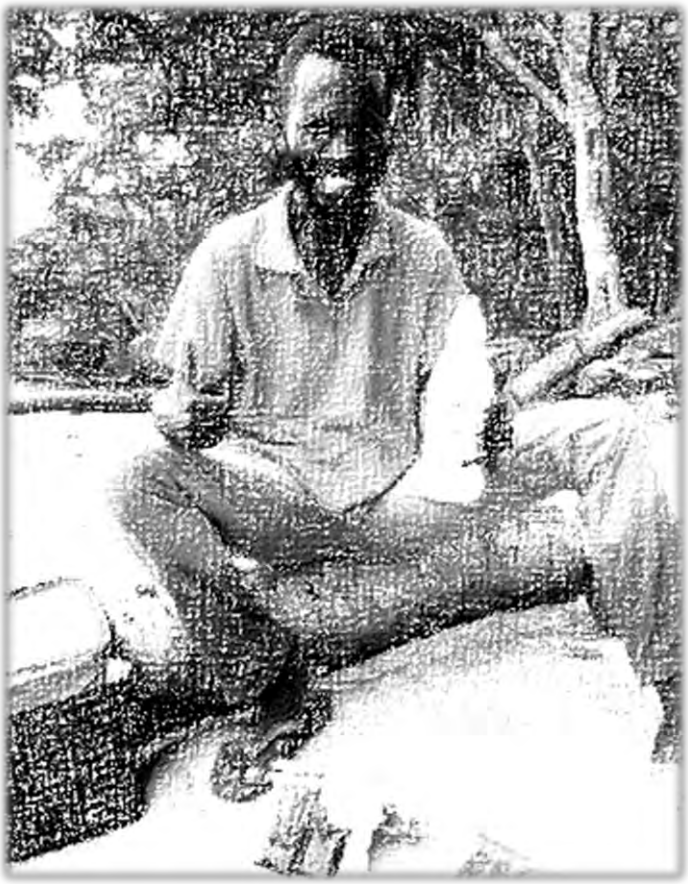
Relying on PowerPoint presentations and electronic communications in rural communities can be difficult and unreliable, and its acknowledged that much of the MHMS documentation is provided in PowerPoint format. Some of this useful information could be printed in large format in advance or created “on-the-fly” during a session – which may in fact encourage greater engagement with participants and therefore improved learning outcomes. Images, flipcharts, and videos are powerful communication methods.

Community expertise

Many communities have existing experience and expertise that may not always be incorporated into the WASH Committee or their activities. Such expertise might include plumbers, village nurses, or visitors from other communities. These individuals are well-placed to facilitate group discussions or present a session during the DWSSP training. Some experts should be engaged with early in the process and encouraged to participate.

Working with existing social networks using zones

Managing a community water system requires: understanding what access everyone has; what problems they experience; and, actions from everyone in the community. However, engaging and communicating with the whole community can be difficult – it can be easier if existing social networks are involved. For example, a group of households that share the same tap, or a few taps from one part of the water system, have similar experiences and are (ideally) working together to look after the taps. It is also more likely that in this small group, individuals are closely related and feel that they can speak-up about problems; more easily than at a whole-of-community meeting.



For water planning and management, it can be helpful to divide the community into ‘water zones’ (unless the community is very small, and the water system and access is similar throughout). These ‘water zones’ don’t necessarily need to be newly defined areas – they could relate to existing areas or zones or social groupings within a community. For example, they might relate to a cluster of households dominated by a single extended family (*mataqali/toktoka)* who reside near each other. Whatever the 'zones/groupings’ are, **they should relate to groups of households in the same location within the community, accessing the same part of the water system.** The goal is for as much information and views about the status and problems of the water and waste systems can be captured. Then, actions that are suited to different parts of the water system can be agreed and more easily communicated.

Proposed Training Program

Our recommended timetable for supplementary activities spans six days in a clustered approach:

- Two initial "classroom" days involving multiple communities in a central location.
- One day where the facilitator visits each community individually.
- Two final "classroom" days involving multiple communities in a central location.
- One day where the water committee facilities a community feedback session, and the DWSSP facilitator attends.

These six days are unlikely to be consecutive. Thus, for example, five communities could be trained and guided through the DWSSP process by a facilitator spending four days in the classroom, and ten days visiting communities (fourteen days total). This is in comparison to the existing experience of three to five days each community, under which arrangement would require a total of fifteen to twenty-five days total to cover five communities. This is represented graphically below.

Each of the proposed supplementary add-on elements are matched with the module, day, and session number from the MHMS DWSSP Facilitators Toolkit, as shown in Table 1 on the following page. The detail of each element is then described in the following sections.

FIGURE 1: CLUSTERED TRAINING APPROACH

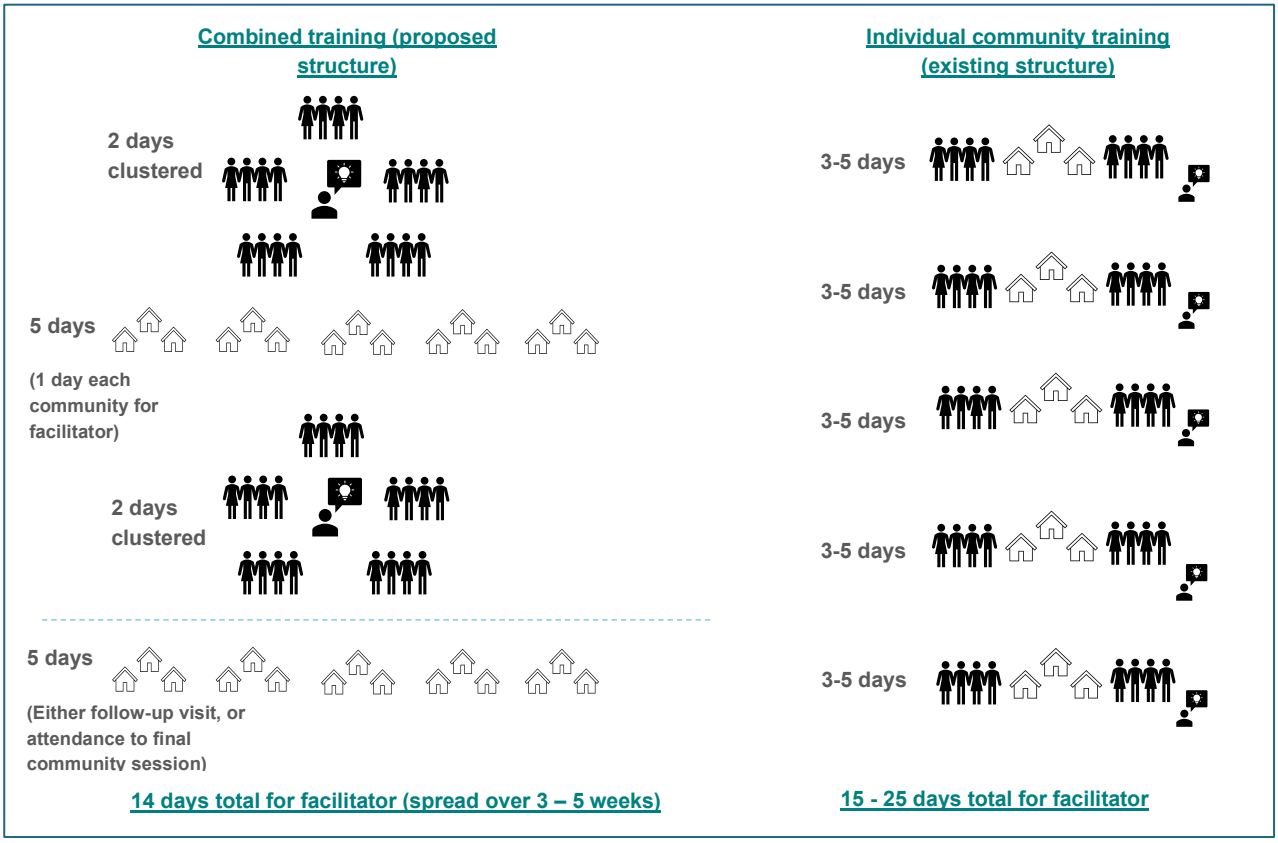


TABLE 1: STANDARD AND SUPPLEMENTARY DWSSP TRAINING MODULES

Module	Sessions - 1.5hrs each			
Day Zero	**Community awareness, sensitisation and developing buy-in**			
Day One – facilitated classroom sessions with multiple communities present				
Module 1- Community Engagement	*M1-D1-S1: Intro to WASH & Health*	*M1-D1-S2: Intro to WSP* M1-D1-SG1: Supporting Advice – Intro to Community	~~*M1-D1-S3: Establishing and strengthening Water Committee.*~~ M1-D1-SG2: Replacement Session – Strong Water Committees-Strong WASH Communities – Part I *(1/2 day)*	*M1-D1-S4: Feedback & Committee Agreement*
Day Two – facilitated classroom sessions with multiple communities present				
Module 2 – Drinking Water Safety Planning (DWSP)	*M2-D1-S1: Introduction to WSP* *M2-D1-S2: Assembling the Water Safety Planning Team* M2-D2-SG3: Supporting Advice – WSP team configuration	M2-D2-SG4: Additional Activity - Risk Management – Identifying Hazards *M2-D2-S1: Risk Management – identifying hazards and control measures*	~~*M2-D1-S3-4: Describing the supply – Community Mapping*~~ M2-D2-SG5: Replacement Session - Describing the supply - Community Mapping *Activities 4A-4B – preparing inclusive maps*	
Day Three – facilitated community session in individual communities				
Module 2&3 – Drinking Water Safety & Security Planning (DWSSP)	M2-D3-SG5: Replacement Session - Describing the supply - Community Mapping– *household surveys and water stories (Activity 4C)*	*M2-D1-S3-4: Describing the supply – Community Mapping (sanitary inspections / risk assessment) (Activity 4D)*		
Day Four - facilitated classroom sessions with multiple communities present				
Module 2 – DWSP	M2-D4-SG5: Replacement Session -: Describing the supply – Talanoa *(Activity 4E)*	*M2-D2-S2: Risk Management – Assessing Risks*	*M2-D2-S3-4: Risk Management – Identifying Improvements & Planning* M2-D4-SG6: Additional Activity – Risk Management – Identifying Improvements & Planning	
	M2-D3-S1-2: System Monitoring & Operational Maintenance	*M2-D3-S3: Management Procedures* M2-D4-SG7: Additional Activity – Strong Water Committees-Strong WASH Communities – Part II	*M2-D3-S4: Summary & Closing of w/shop*	
Day Five - classroom sessions with multiple communities present				
Module 3 – Water Security Upgrade Planning (WSUP)	*M3-D1-S1: Intro to Water Security Upgrade Planning*		*M3-D1-S2-4: Review of WSP Team and Mapping, Risk Management, System Management*	
	M3-D2-S1-2: Assessing Needs – Water Supply System		*M3-D2-S3-4: Assessing Needs – Waste System*	
	M3-D3-S1-2:System Design Water Supply		*M3-D3-S3-4:System Design Waste*	
	M3-D4-S1-2: System Monitoring & Operation & Maintenance	*M3-D4-S3: Budget Requirements*	*M3-D4-S4: Summary & Closing of Workshop*	
Day Six – WC facilitated community session in individual communities				
Module 4 – Community	M4-D6-SG8: Additional Activity – Whole of Community collective action			

M1-D1-SG1. Supporting Advice – Intro to Community

OVERVIEW FOR FACILITATORS

The following section is for facilitators to understand. It need not be shared directly with the community or DWSSP team.

Drinking Water Safety and Security Planning is best conducted by communities, for communities, and in communities. But what is a community?

In Fiji, a localised residential community can consist of either a *koro* (a legally registered iTaukei village) or a settlement peopled by iTaukei, by Indo-Fijian's or "People of Indian descent in Fiji", or both.

It is important to recognise that all communities have social capital, the ability to take collective action, and social networks that extend beyond communities. However, not all *koro*'s or settlements are the same as each other – population size, history, geography, number of *mataqali*, economic activities etc. – can all inform how social capital and collective action play-out in practice.

SOCIAL CAPITAL: *"The sum of resources acquired by an individual or a group by virtue of possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition"* (Bourdieu, 1986). Social capital involves concepts such as social networks, reciprocity, and trust.

COLLECTIVE ACTION: Actions taken by a group of people together for their mutual benefit.

SOCIAL NETWORKS: Families, friends, communities, co-workers, and voluntary associations (amongst others)

Some of the key **principles** used to develop the *DWSSP process* include considering that:

- Learning becomes most relevant when it is built on the basis of people's experience.
- The energy a community will put into any activity will be in proportion to their involvement in the planning of that activity.
- Knowledge and capability of community members are more likely to be strengthened through practical activities, with a dominance of oral rather than written information
- DWSSP must be pragmatic and suited to the local capacity to manage the operational and maintenance aspects of the systems.
- DWSSP must build on existing local water management practices and governance systems.
- DWSSP is a continual process of incremental improvements.
- DWSSP must be adaptive and flexible for ongoing use and implementation by the community.
- DWSSP must be inclusive of all users in the process to ensure all users' water needs are met.
- DWSSP is going to be more effective if it incorporates ongoing monitoring and support by external organisations

M1-D1-SG2. REPLACEMENT SESSION –STRONG WATER COMMITTEES-STRONG WASH COMMUNITIES - PART I

OVERVIEW FOR FACILITATORS

Good community water management, supporting reliable, safe, inclusive, resilient, and sustainable water supply, refers to people working together to look after a water system; everyone has a role to play. However, it is important there is a group of people taking on leadership of the management of the water system so that it continues to function as designed and everyone has access to safe and plentiful water.

In Fiji, the government requires all rural communities to have a Water Committee, who has leadership on WASH – although they should be working with the Health Committee and others in the community on sanitation and hygiene. The Water Committee has leadership on managing community water supplies, ensuring everyone has access to safe, reliable, and sustainable supplies.

In July 2021, the Department of Water and Sewage released their updated Rural Water and Sanitation Policy. Whereas the previous policy mentioned water committees just twice, the new policy mentions it ten times. This highlights the growing appreciation for the importance of having a strong water committee. The government acknowledge the following as key water management challenges:

- *Over reliance on a single water source*
- *Lack of initial training in operation and maintenance*
- *Lack of support for maintenance*
- *Inadequate estimates of water demand*
- *Increasing impact of climate change on water resources*
- *Lack of clear management responsibility.*
- *Communities lack the awareness that they are responsible for minor maintenance*
- *Adequate and appropriate training is not provided to communities*

(Fiji Gov, 2012, 2021)

It is important the water committee is *strong* so that it can manage a range of water, and indeed sanitation and hygiene, management problems. To be strong, a committee needs to have *appropriate membership*, and to be *working with other community members and groups*.

This session is designed to encourage the committee to reflect on how they can make their committee stronger and work better with the community as a whole. This is to be used in Module 1 (Community Engagement), instead of Session 3 – Establishing or Strengthening the WASH Committee.

The session involves:

- Collecting information about the existing WASH Committee (Activity 2A)
- *Talanoa* session that includes information from other WASH Committees in rural Fiji (Activity 2B).
- Water is everybody's business (Activity 2C)
- WASH Committee communication (Activity 2D).
- Session wrap-up

ACTIVITY 2A. CURRENT WASH COMMITTEE DETAILS

Aim	To identify and recognise all existing members of the committee present, and any that may be missing
Duration	10 mins
Training materials and preparation required	WASH Committee attributes form (printed)
Outputs	WASH Committee attributes form – can be included into DWSSP Plan

Start with a discussion about the current Committee:

1. Complete the WASH Committee Members form below.

Community: _____ Date:_____ Document filled-in by:_____

Name	Gender	Age	How long have you been a member?	Roles in water comm.*	Roles in any other committees§	For Koros: Mataqali

* E.g., Chairman, secretary, treasurer, general member
§ E.g., *Turaga ni koro or other community leaders*, village nurse, President of Youth Group, member of Women's group, School committee treasurer etc.

Participants in this Session:

Total Number men:_____(number of men under 35 years old):_____

Total Number women:_____(number of women under 35 years old):_____

For *koro's*: Number of *mataqali* represented in workshop:_____

(Total number *mataqali* in the village):_____

ACTIVITY 2B. SHARING TALANOA

Aim	By end of the activity participants would be able to: - Recognise how inclusivity and representation can increase the strength of the water committee - Be able to critically reflect on the membership of their own WC - Identify any additional members or input that would strengthen the committee in their community.
Duration	60 mins
Training materials and preparation required	Guidance notes for *Talanoa* (printed stories for facilitator to read) Butchers paper, pens, camera (to photograph the butcher's papers)
Outputs	List of strengths, challenges and opportunities for WASH committee

IMPORTANT!! The facilitator, or note-taker, should jot down discussion points made by committee members on a large sheet of paper to summarise at the end of the activity and leave with the community

The stories below are about *koro's* – they should be adjusted to suit communities that are not koros.

PARTICIPANTS INTRODUCTION TO THIS ACTIVITY

Facilitator should read the following introduction aloud to participants before starting the activity.

"I would like to tell two short stories of two villages. These examples are taken from research in eight villages in Fiji. There are differences between these villages and their Water Committees, so let's discuss."

KOROS

***Koro 1** is a small village with a water Committee that has 4 main members. The members are all men, and all are older (above 30 years old). They are fairly knowledgeable and can solve problems quickly, but it is mainly just one member – the chairman – who cleans the dam regularly, usually every month. The dam is a long way away and many younger villagers and even one of the Water Committee members has never seen the dam. The village, which has no fresh water sources of its own other than shoreline springs. The younger generation are so accustomed to having piped water they don't know where the old shore-line springs are located. The Turaga ni koro renewed solesolevaki over a decade ago and the first week of every month is community work, which includes cutting the grass and cleaning the main drain that all the village tap stands and some household kitchen sinks drain into. There are growing problems with low water pressure because more and more households are connecting straight into the water pipes – some houses have three taps, others have none and rely on the older village tap stands. The Water Committee plan to meet every month, but sometimes they can't meet because one of them is looking after his sick wife whilst another has a yaqona business and travels regularly to town, so sometimes it takes the committee a long time to take any proactive action and if they are not around there is very few people who know how to fix things. The community health worker is formally listed as a member of the Water Committee, but in practice she has never been invited to attend a Water Committee meeting, other than being present at the village Bose Vakoro. The nurse is married into the koro and has no maternal links to the village and feels she does not have the right to speak-up. She is frustrated because she feels that she has much to offer because she understands the links between water and health, and she could assist the Water Committee and the community in reducing sickness from unsafe water.*

Na I matai ni Koro *e koro lailai ka 4 na lewe ni komiti ni wai. E ra turaga kece na lewe ni komiti ka ra sivia toka na 30 na yabaki ni bula. E tu na nodra kila, ka rawa ni ra walia totolo na leqa, io levu na gauna e dau dua ga na lewe ni komiti – o 'chairman' - e dau savata vakawasoma na I lati ni wai – ena veivula. Na I lati ni wai e yawa mai nakoro, e levu vei ira na tabagone ka vaka kina e dua vei ira na lewe ni komiti ni wai e sega ni sa raica na I lati ni wai. Na koro e sega kina na vure ni wai me vaka I koya, ka tiko ga na wai vure e na baravi. O ira na tabagone era sa matau ena bula ena wai ni paipo, ka ra sega ni qai kila na vanua makawa e dau vure mai kina na wai e baravi. E a vakavoutaka na solesolevaki ena 10 na yabaki sa oti o Turaga ni Koro ka dau vakayacori ena I matai ni macawa ni vei vula ka ra dau sasamaki vakoro kina, e dau caka na koti co, sasamaki ena veisala ni wai duka mai na vei paipo ka vaka kina na veisala ni wai duka mai na wai ni siqi ni valenikuro. E sa rui levu sara tiko na vei leqa ni malumu ni wai baleta ni sa rui levu na veivale era vakayagataka na paipo, e so vei ira e tolu na nodra paipo, e so e sega na nodra ka ra vakararavi vei na vei paipo makawa era dau tu e tautuba. E ra dau tuvatuva na komiti me ra dau bose ena vei vula, eso na gauna era dau sega ni rawa ni sota baleta ni dua e dau veiqaravi tiko vei na marama na watina ni tauvimate, ka dua tale e tiko na nona bisinisi ni yaqona ka dau lako vakawasoma e tauni, na vuna e dau tara e dua na gauna balavu me ra qai dau bose na lewe ni komiti, ka so na gauna ni ira dau yali eso na lewe ni komiti e dau lailai na tamata e dau kila na kena vakavinakataki e so na ka. E lewe talega ni komiti ni wai e dua vei ira na tabana ni tiko bulabula, io ena levu na gauna edau sega ni sureti vei na veibose ni komiti ni wai, io e dau tiko vakalevu ena bose vakoro. O nasi e vakawatitaki ena koro ia e sega ni vasu ki na koro ka mani levu na gauna edau nanuma ni sega kina na nona dodonu me vosa cake. E dau rarawataka vakalevu sara baleta ni tu na nona nanuma ni levu na veivuke kei na vakasala e rawa ni solia baleta ni matata vei koya na veiwekani ni wai kei na tiko bulabula, ka vaka kina na nona rawa ni soli veivuke vei na komiti kei na koro ena kena taguduvi na mate e dau yaco ni duka na wai*.

Koro 2 *is another small village, but the Water Committee has 8 members - including 4 women, some youth (male and female) and the female community health worker. There are 4 mataqali in the village and they each have at least one member on the Committee. They meet as a committee every 4 weeks, and they report every month to the community at the Bose Vakoro about actions they are taking to manage the water system or making requests or giving instructions for community members to take certain water actions. They also meet every few months with the Health committee and the Youth committee, which they find helps with gaining further support for community water management actions and getting agreement on solesolevaki activities that they suggest at the Bose Vakoro, such as cleaning the five village rainwater tanks in the dry season every year. The village nurse has maternal links to the village and is very active and vocal. She makes regular announcements about cleaning household water containers and washing hands with soap, as well as keeping drains free of rubbish and waste. The committee found that involving some of the youth as members in the Water Committee was initially a bit difficult, but now they say that training and involving younger people has been advantageous as they have lots of energy and the rest of the younger people are now more active when they request assistance with maintenance activities and contributions to fundraising for new parts for the water system. Each house is allowed a kitchen tap and water piped to a bathroom and toilet, but must request permission from the Water Committee. During the dry season, the water pressure sometimes gets low and does not reach houses at the far end of the village. After raising the issue at the Bose Vakoro, at the next Water Committee meeting they decided to solve the problem by having a member of the Water Committee turn off the gate valve at the reservoir tank late in the evening and turn it back on early the next morning, so the storage tank fills-up more overnight and has enough water pressure to reach every household in the village for at least the first half of the day.*

Na I ka rua ni Koro *e dua talega na koro lailai io e 8 na lewe ni wai komiti - e 4 na kena marama ka so na kena tabagone (gonetagane kei na goneyalewa) ka vaka kina na marama e tiko ena tabana ni bula. E ra yadua mai na vei mata era mata taka mai na 4 na mataqali era lewena tale tikoga na komiti. Era dau sota na lewe ni komiti ena vei macawa 4 era qai dau soli tukutuku ni veivula vei ira na lewe ni koro ena gauna ni bose vakoro me baleta na I tuvatuva kei na cakacaka e ra cakava na komiti me baleta na kena maroroi na veisala ni wai, se na kena soli vakasala vei ira na lewe ni koro me baleta na kena mareqeti na wai, se na kena kerei se soli na vakasala vei ira na lewe ni koro me baleta na wai. E ra dau bose ena vei vula kei na komiti ni tiko bulabula kei na komiti ni tabagone, ka dau laurai ni levu na veivuke kei na veitokoni mai vei ira na lewe ni*

koro me baleta na kena maroroi na wai kei na kena vakadonui me caka na cakacaka ni solesolevaki era dau vakatura ena Bose Vakoro me vaka na kena samaki na lima na taqi ni uca ena loma ni koro ena gauna ni draki mamaca ena veiyabaki. Na nasi ni koro e tiko na kena I sema vakavasu ena loma ni koro ka dau gugumatua ka doudou. E dau vakarogotaka na kena dodonu me sava na I talotalo ni wai kei na kena sava na liga ena sovu, ka vaka kina na kena tiko vakasavasava ni veisala ni wai duka ka kua kina na benu ca. Era raica na komiti ni a dredre na matai ni gauna e oka kina na I tabagone ena komiti ni wai, io na gauna oqo era sa tukuna ni yaga vakalevu sara na nodra mai vakaitavi na tabagone me vaka ni ra se bulabula ka levu tu vei ira na kaukauwa, ka vaka talega kina na nodra makutu na kena veivuketaki ni cakacaka ena kena vakavinakataki na sala ni wai kei na kena cakacakataki na kena vaqarai na I lavo me voli kina eso na gacagaca ni sala ni wai. E vakatarai me ra vaka paipo ni valenikuro kei na paipo ni valenisili kei na vale ni vakacegu, io era dodonu mera vaqara na veivakadonui mai vei ira na lewe ni komiti ni wai. Ena gauna ni draki mamaca edau malumu na wai ka dau sega ni yacova yani na veivale e yawa sara toka ena yasa ni koro ka dua. E a mani vakaturi cake yani kina bose vakoro na leqa oqo, ka sa tukuni ena bose tarava ni komiti ni wai me I wali ni leqa me dua vei ratou na lewe ni komiti ni wai me dau sogota na I doladola ni wai ena taqi ena veibogi qai dola tale ena matakalailai ni siga tarava, me rawa ni tawa tale na taqi ni wai ena bogi ka me rawa ni bau kaukauwa tale na wai ka yacova yani na veivale ena loma ni koro ena loma ni veimama ni dua na siga.

SETTLEMENTS

Settlement 1 *is a small settlement with a water committee that has 4 main members. The members are all men, and all are older (above 35 years old). They are fairly knowledgeable and can solve problems quickly, but it is mainly just one member – the chairman – who cleans the dam regularly, usually every month. The dam is a long way away and many younger people and even one of the water committee members has never seen the dam. Most of the younger people in the settlement leave when they can to continue their education, so there is not many from the younger generation around to help with the committee. The committee plan to present each month at the settlement meeting, but only a few people usually turn-up to the meetings. This means that the same people tend to be active in lots of different committees in the settlement, including the water committee, and sometimes there is no time to work on the water supply. The community health worker is formally listed as a member of the WC, but in practice she has never been invited to attend a water committee meeting, other than being present at settlement meetings. The nurse is married into the settlement and is from a different religion to the rest of the committee and feels she does not have the right to speak-up. She is frustrated because she feels that she has much to offer because she understands the links between water and health, and she could assist the committee and the settlement in reducing sickness from unsafe water. A few years back there was a serious drought in the settlement and the dam could not supply enough water to all the residents in the settlement. This caused some resentment because those nearest the dam were better off, while those further away often struggled and had to sometimes rely on bottled water. For those that could afford this, it was ok, but there were many who could not. Eventually some help was received from the District Advisory Councillor, but this was a long process as they had many other communities to work with.*

Settlement 2 *is another small settlement, but the water committee has 8 members - including 4 women, some youth (male and female) and the female community health worker. There are 4 main family groups in the village and they also each have at least one member on the committee. They meet as a committee every 4 weeks, and they report every month to the settlement at the general settlement meeting. They briefly talk about the actions they are taking to manage the water system and make requests or give instructions for settlement members to take certain water actions (e.g., conserving water, cleaning the drains around the tap stands). They also meet every few months with the Health Committee, and they find this helps with gaining further support for water management actions and getting agreement on activities that might need help from the broader settlement that they suggest at the settlement meeting, such as cleaning the five village rainwater tanks in the dry season every year. The village health worker is from one of the largest family groups in the settlement and is very active and vocal. She makes regular announcements about cleaning household water containers and washing hands with soap, as well as keeping drains free of rubbish and waste. The committee found that some of the youth that left the settlement to study in the city were studying subjects such as*

engineering and accounting. When they come home during religious and other holidays, some of them are no involved with the water committee. Whilst involving them in the actions of the committee was initially a bit difficult, the committee say that involving younger people has been advantageous as they have lots of energy, new knowledge, and the rest of the younger people in the settlement are now more active when they request assistance with maintenance activities and fundraising for new parts. The committee also introduced a small levy a few years back, which allowed them to arrange water trucking for the whole settlement during the last period of serious drought and this meant they did not have to ask the government for additional help. The committee is now looking at ways to address emergency water supplies for the settlement in a more sustainable manner, such as having enough household, settlement, and institutional water storage tanks to last them the whole year. They plan to use some of the levy to pay for this and to be used for operation and maintenance of the system.

FACILITATE A DISCUSSION, USING THE FOLLOWING QUESTIONS:

1. What do you think are some strengths and weaknesses of each of these committees?

   (Prompt- Having women on the committee? Having youth on the committee? Having an active village nurse on the committee? Reporting to the whole community? Gaining community support?)

2. Write five strengths and five weaknesses

   (From the combined stories) on a piece of butcher's paper in two columns:

3. For anything listed as a strength ***– ask if this is a strength they have in their existing committee?***
4. How could you use these strengths in your own WC if they aren't already being used?
5. For weaknesses/challenges – *is this a challenge they have faced with their committee?*
6. How could those challenges be overcome or addressed?
7. Are there other people in the community that could make the committee stronger and more sustainable? How else could the committee become stronger?
   (*Some prompts/ideas:*
   - *Women's roles?*
   - *Mentoring youth to join (future leaders)*
   - *People from different areas of the community (where the water experience is different)?*
   - *Community health worker?*
   - *Representatives from different family groups (mataqali)*

Write down the main points on the butcher's paper. Summarise and read back the key points that have emerged from the discussion.

Keep this paper and/or take a photo to keep in your records

Activity 2C. Water is Everyone's Business

Aim	By end of the activity participants would be able to: - Identify different levels of action for water management - Recognise that water is everyone business.
Duration	60 mins
Training materials and preparation required	Pre-prepared butchers' paper with 'Water management levels" written across at top and four vertical lines/columns (see Table below for example). Pens, camera (to photograph the butcher's papers) Water is Everyone's Business handout (Appendix C)
Outputs	Table with levels of action – to be retained for use in M2-D4-SG6, can be included into DWSSP Plan

Participants Introduction to this activity

Facilitator should read the following introduction aloud to participants before starting the activity.

"Different people and different households have different WASH experiences; water access can be different in different parts of the community *– some areas and households have better water pressure, or more reliable water, or cleaner water, than other areas and households. This means that even though there are some actions that should apply to everyone in the* community*, there will also be some actions that are suited only to some people or some households, or some areas of the community.*

It is important for the Water Committee to be identifying and promoting actions that happen at these other levels in the community*. **Water is everybody's business** – everyone has a responsibility to take action to look after water, not just the WASH Committee.*

*A strong water committee works to identify **specific management actions and policies** at **different levels** in the* community*:*

- *All individuals in the community*
- *Households*
- *groups of households located near one another (area or zones)*
- *family-related groups (in koros - mataqali)*
- *the community level.*

A strong committee also communicates regularly with people at these different levels – to keep the committee up-to-date with the WASH situation, and to help build ownership of the water system and responsibility for caring for the water system across the community."

Using the pre-prepared butchers paper table (below) use the prompt questions to facilitate a discussion and fill-in the Water management at different levels table.

Discussion prompts:

What do we think it means when we say water is everyone's business? What does it mean in practice?

Let's identify some examples in practice. Ask the group (and add their responses to a table on the butchers paper)

a) What are some examples of actions that the water committee, or other community members, already do or might do, at the **community-wide level** to look after the water system?
(e.g., clean the dam, clean the main pipes, announcements at church and Community meetings)

b) What about the **household level**? What is an example?
(e.g., clean roofs and rainwater tanks, asking permission from the committee to install new taps)

c) **Individual level**? What is an example?
(e.g., turn off taps when not using them, save drinking water for drinking and cooking)

d) What about **areas** or **zones** of the community? Are there groups of houses that physically share a discrete part of the water system or that face similar water problems? Would this be a useful level of action? *(e.g., if several households share a water tank, tap stand or a drain, they need to work together to use and look after that system. Do households work together to manage water use or undertake infrastructure maintenance in any way? Do households work together to raise money for contributing to water maintenance?)*

e) What about at the larger family or *mataqali* and *toktoka* level? What is an example?
(e.g., do members of the same mataqali undertake soli *together with regards to water management?)*
What about other community groups - church youth groups, women's groups?

f) How about the *yavusa* or *vanua* level: Is fundraising or other support garnered through these social networks?

Pass out Water is Everybody's business handout (and/or use ppt) for other examples.

TABLE 2: WATER MANAGEMENT AT DIFFERENT LEVELS

Level of action	Examples of WC actions/policy/communication
Individual	
Household	
Zone	
Extended family and/or other groups (e.g. mataqali,tokatoka, youth, women, church)	
Community	

ACTIVITY 2D. BEING HEARD AND HEARING OTHERS IN THE COMMUNITY

Aim	By end of the activity participants will be able to: - Identify existing means of communication in the community - Recognise, and plan to address, any gaps….
Duration	40 mins
Training materials and preparation required	Guidance notes for facilitator to read Pens
Outputs	List of means of communication for the WC to include into the DWSSP

PARTICIPANTS INTRODUCTION TO THIS ACTIVITY

Facilitator should read the following introduction aloud to participants before starting the activity. There is a version prepared depending on the type of community – *koro* or otherwise.

KOROS

"Good water management is dependent on clear communication, transparency and accountability.

The Bose Vakoro is the respected forum where decisions on village activities, regulations and protocols are made, but today many people across Fiji ***report that regular attendance at the Bose Vakoro is declining****. A strong Water Committee should be aware that announcements or decisions made at the Bose Vakoro are not always heard by all residents, or that decisions made in those forums reflect the view and experience of everyone in the koro.*

As we have discussed, ***Water is everyone's business*** *– a good water system needs everyone in the village doing their part. That cannot happen if not everyone in the village is hearing announcements, or knows about decisions, or has the opportunity to share their views.*

A strong Water Committee should ensure that announcements or consultation with community members is not only taken at the Bose Vakoro but also in other ways, such as announcements after church services, at Youth group meetings and at Women's church group meetings. Only then can we be really sure that everyone has heard what the committee has to say, and that the committee has heard from the whole community."

SETTLEMENTS

"Good water management is dependent on clear communication, transparency and accountability.

Most communities have community meetings, where decisions on community activities, regulations and protocols are made. However, today many people across Fiji ***report that regular attendance at these meetings is declining****. A strong water committee should be aware that announcements or decisions made at community meetings are not always heard by all residents, or that the decisions made in these forums necessarily reflect the view and experience of everyone in the community.*

As we have discussed, ***Water is everyone's business*** *– a good water system needs everyone in the* community *doing their part. That cannot happen if not everyone in the* community *is hearing announcements, or knows about decisions, or has the opportunity to share their views.*

A strong water committee should ensure that announcements or consultation with community members is not only taken at the community meeting but also in other ways, such as announcements after church services, at

Youth group meetings and at Women's church group meetings. Only then can we be really sure that everyone has heard what the committee has to say, and that the committee has heard from the whole community."

DISCUSS WITH THE COMMITTEE, AND WRITE ON BUTCHERS PAPER:

1. What are the existing ways the Water Committee communicates with the community? How effective are they?
2. What other ways could be used to ensure that:
    a. Messages from the Water Committee are heard by everyone.
    b. The Water Committee has the opportunity to hear from everyone in the community about their WASH situation.

WRAP-UP STRONG WASH COMMITTEE SESSIONS - PART I

Aim	By end of the activity participants would be able to - Reflect on the previous four activities - Link the lessons learned to their existing WC situation.
Duration	30 mins
Training materials and preparation required	Nil
Outputs	Nil

Discuss the key lessons and how these can be used by the Water Committee.

As this Committee moves forward with developing a DWSSP action plan, some of the key lessons we have discussed in the Strong Water Committee workshops include:

- *The critical need for diverse membership on the committee, so that is the strongest it can be and more likely to last into the future, considering:*
    - *women*
    - *youth [Male and Female]*
    - *area representatives*
    - *for some communities – family or mataqali representatives may be helpful*
- *Transitional processes – how does the next generation of Water Committee leaders and participants get introduced and mentored into the process*
- *Maintaining regular links (e.g., meeting every month or two) with other committees and helpful people*
- *Water is everybody's business - Identifying water actions for different levels in the community:*
    - *community -level actions*
    - *area actions*
    - *household actions*
    - *individual water user actions*
- *Two-way communication between the committee and community members needs to happen in more than one-way to ensure that everyone's voice is heard, and that the Committee is heard by everyone.*

At the end of the session, the Facilitator should take photographs of all Butcher's papers for your records

M2-D2-SG3. Supporting Advice – DWSSP community team configuration

Overview for Facilitators

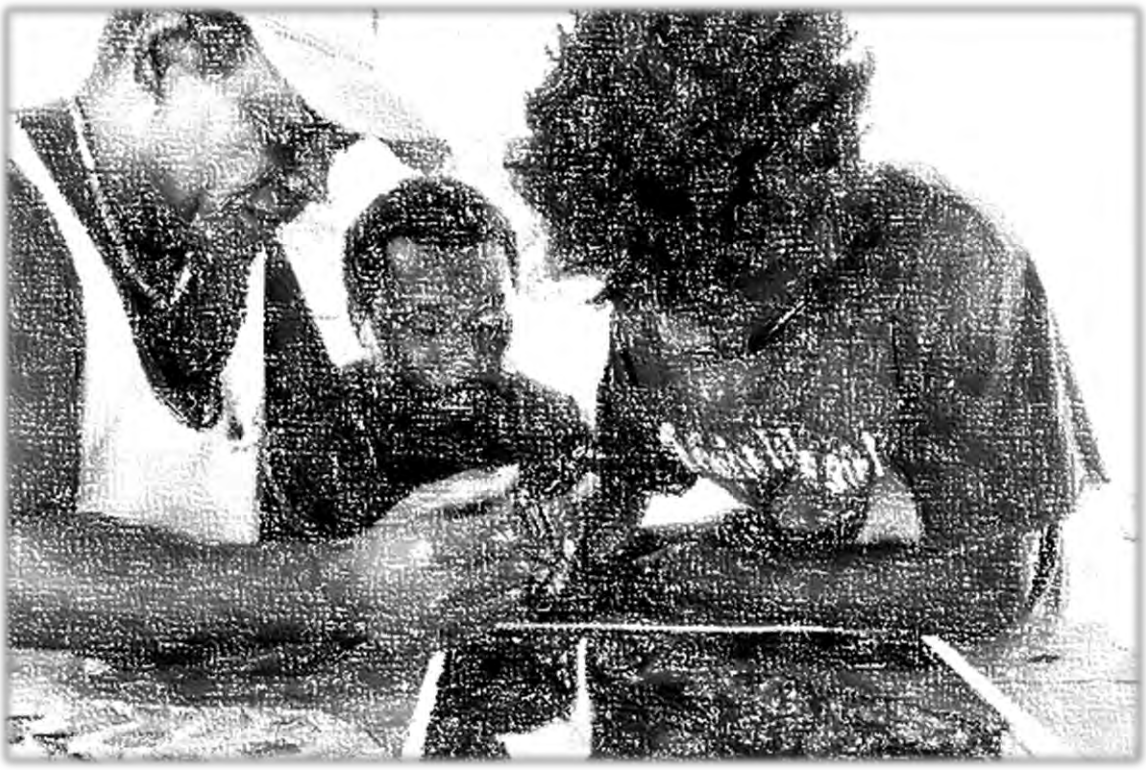
A DWSSP should not be developed by a single person in the community. Ideally, the process should be:

- Supported by the community leadership,
- Led by the water committee,
- Undertaken by a wide representation from the community, and
- Involving many diverse voices.

Some questions that the water committee might ask before commencing the DWSSP process include:

- Does our DWSSP team have a mix of genders?
- Are people of different ages (including younger adults, and the elderly) represented?
- Should we consider representation of persons with different abilities on the team?
- If the community is split into zones or areas (formally or informally, e.g., by *mataqali*), are all areas represented? If no zones or areas exist, consider ensuring there are people that live in different areas of the community involved because the water experience can be quite different in different areas and this needs to be considered when developing the DWSSP. An example of this might be people who live at the top of a hill compared to those at the bottom of a hill, with a gravity-fed water system. The water pressure and quantity experienced in these different locations is likely to be quite different.

The WASH Committee may consider altering the composition of their DWSSP team between the first set of sessions and the second set.



M2-D2-SG4. Additional Activity – Risk Management – Identifying Hazards

Overview for Facilitators

This step will involve providing training and knowledge about water pathways (ways the water moves through the natural or manmade environment), how contaminants move through water pathways, the causes of water contaminants, the causes of water reliability problems and the specific hazards and risks that climate change contributes to each of these.

This activity is intended to be inserted **prior** to discussions about possible contaminants, hazards and water risks in the M2-D2-S1 session, and **prior** to the Community Mapping exercises.

This is a training session specifically targeted to the WASH Committee, though other community members may be interested in being involved also.

The session involves:

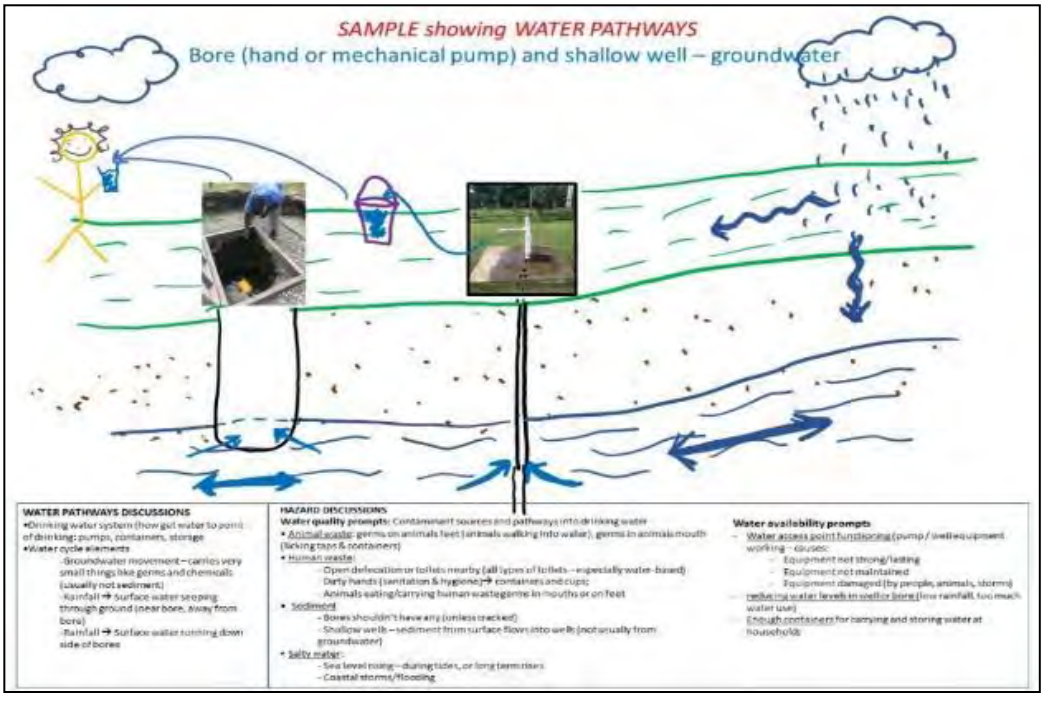
- Understanding, and drawing water pathways in the community (Activity 4A)
- Identifying hazards to water quality and availability (Activity 4B)
- Discussing possible effects from climate change (Activity 4C)

Activity 4A. Water Pathways

Aim	The aim of the activity is to: - Build shared understanding of water pathways (water cycles and environments, and water systems to provide people with water)
Duration	120 mins
Training materials and preparation required	**Review** the Facilitators background information in Appendix A: • **A.1**. How Water Moves Through the Environment (Water Cycle) • **A.3**. Water pathways drawings – samples **Print** copies of community activity resources in **Appendix A**: • **A.2** Water cycle graphic (print on A3 if possible, or draw a copy on butchers' paper) • **A.4.** Water pathways – community discussion resources (print the Water Pathways template sheets as A3 size) **Prepare** water pathways sheets. Using the picture resources printed from Appendix A.4, glue the pictures of water sources, reservoirs or storage, and access types that are relevant, onto the large, blank sheets of paper (or take glue to community meeting and glue during discussion) **Take**: • 5 pieces of sheet paper (with water pathways photos and glue) and coloured markers • Other printed resources (as above)
Outputs	Water pathways drawings to inform Community mapping and risk assessment activities at later stages of the DWSSP.

Facilitate a discussion for the DWSSP team and interested other community members to learn about the water cycle and specifically where their water comes from.

- Use the poster of the water cycle to explain generally where water comes from and where it goes to, and that it moves over the land and through the land (background information for Facilitators in **Appendix A.1 and A.2**). 4
- Use the resources in **Appendix A.4** to support discussions about each water source and system type – Select the pictures that are relevant to this community, glue these on to the paper. DRAW and discuss where water comes from and how it moves through the environment.
- Below is an example of a water pathways sheet that is prepared and ready for use in the community, and further below is an example of a sheet that has been drawn during the community discussions.



ACTIVITY 4B. IDENTIFY HAZARDS TO WATER QUALITY AND WATER AVAILABILITY

Aim	The aim of the activity is to: - Build shared understanding of hazards affecting water availability and reliability
Duration	60 mins
Training materials and preparation required	**Review** the Facilitators background information in Appendix A: • **A.6.** Common hazards, sources & causes, and pathways **Print** copies of community activity resources in **Appendix A**: • **A.5.** Hazard picture cards
Outputs	Water pathways drawings to inform Community mapping and risk assessment activities at later stages of the DWSSP.

1. Discussion of contaminants

Discuss the main **contaminants that make water "unsafe/unhealthy"**. Use the HAZARDS picture cards (**Appendix A.5**). with discussion prompts on the back, to help with discussion.

- **Germs** in faeces from animals or people – these make water unsafe to drink. Make sure everyone understands what germs are, where they come from, and they cannot be seen.
- **Sediments** (mud and dirt) – these make water look dirty.
- **Salt** – this makes water taste bad.
- **Chemicals** – these can make water unsafe but not common in community water sources.

For each contaminant, ask group to name sources (activities or places) these contaminants might come from.

2. Annotate water pathways drawings (contaminants)

Add **contaminant pathways** to the water pathways drawings. Use the same drawings as earlier and add to them the sources (draw or write on the picture) and add arrows showing how the contaminants can move through water systems into drinking water).

- Use the reminders at the bottom of the drawing to help discussion and drawings.
- Refer to Facilitator's information Appendix A.3 for a sample drawing showing these hazards

3. Annotate water pathways drawings (hazards)

Add **hazards that affect water quantity or availability** to water pathways drawings. Use the picture cards of these three water availability hazards if they have not been discussed already. Add drawings to help discuss and identify the types of activities or situations which make water not available, or less available, *at any time*.

- Use the reminders at the bottom of the drawing to help discussion and drawings.
- Refer to Facilitator's information in **Appendix A.3** for a sample drawing showing these hazards

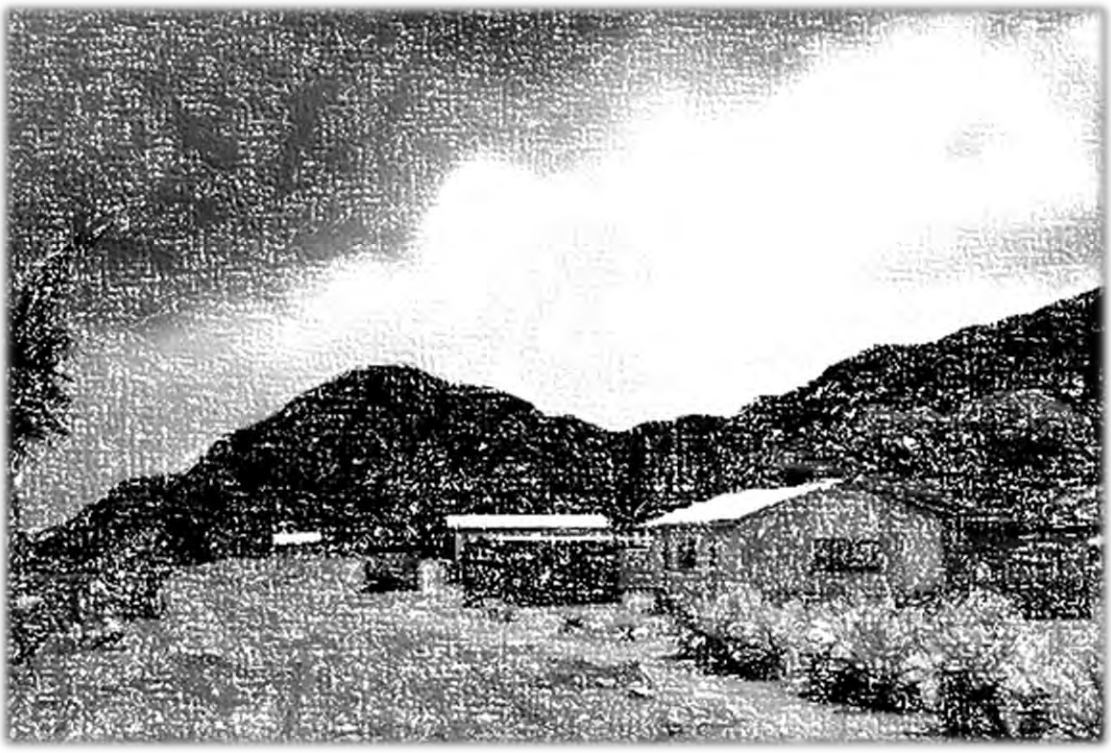
Activity 4C. Climate Change Effects

Aim	The aim of the activity is to: - Build shared understanding of changes to water systems that might occur due to changing climate (e.g., rainfall variation, storm frequency/severity, drought, flooding, sea level rise) and populations (e.g. increased water demand).
Duration	60 mins
Training materials and preparation required	**Review** the Facilitators background information in Appendix A: • **A.7.** Climatic impacts on the water cycle
Outputs	Water pathways drawings to inform Community mapping and risk assessment activities at later stages of the DWSSP.

After the water pathways have been identified in in Activity 4A, facilitate a discussion about climate-related water problems (the purpose is to start getting community members to be thinking about problems that are not always present but happen sometimes, including the types of problems that might become more common as climate continue to change). There is some guidance for Facilitators in Appendix A.7.

Add the key points discussed to the water pathways drawings

- *What happened to these water sources during past storm events?*
- *What about during droughts or times when there is less rain?*
- *What about when there is a lot of rain?*
- *What about strong wind or flooding?*
- *What about if sea level increases – would this affect these water sources?*



M2-D2-SG5. Replacement Session – Describing the supply - Community Mapping

Overview for Facilitators

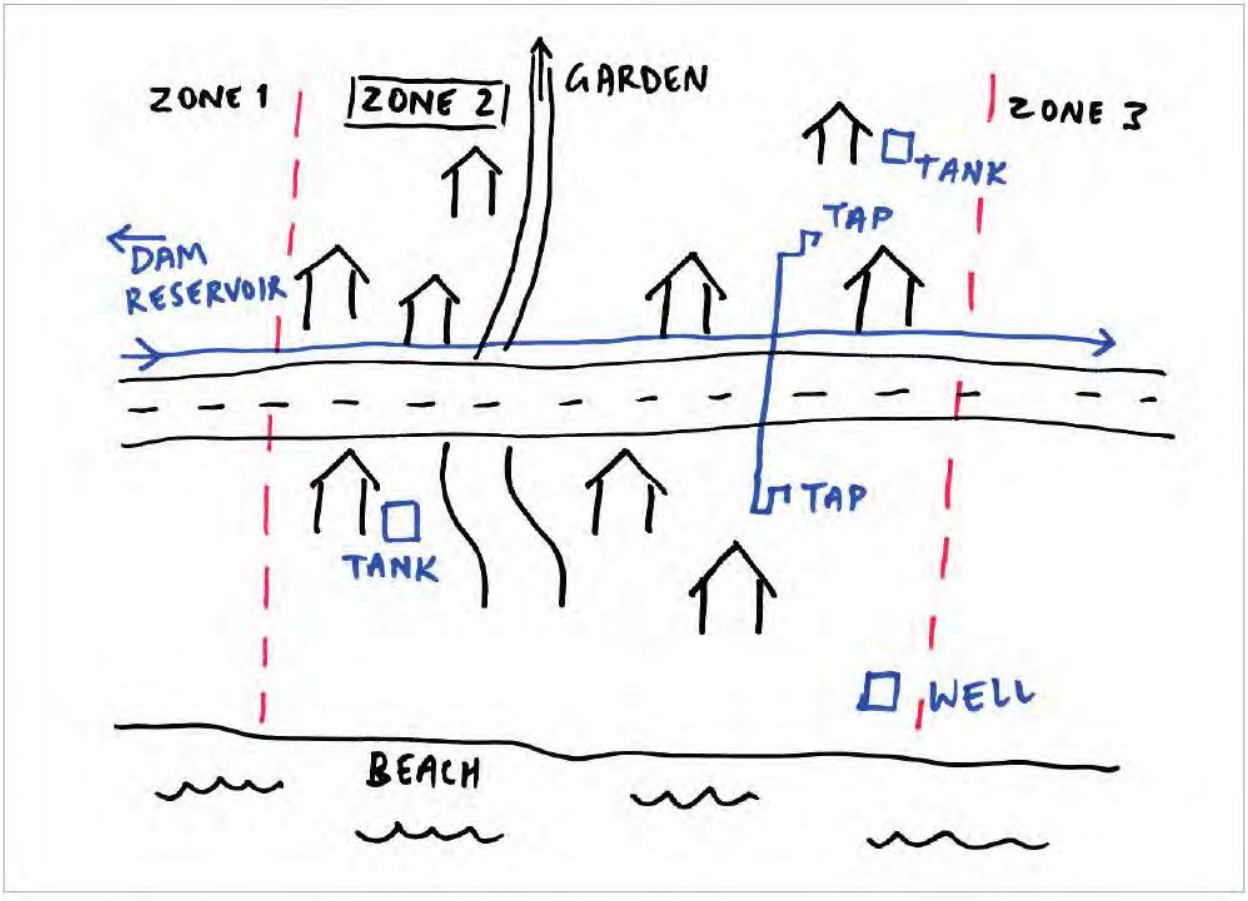
This step of the DWSSP is a chance to properly understand the water situation across the whole community. Community mapping is important to identify problems, provide information for future planning, and offer a baseline for the community to monitor changes and improvements.

These activities will be completed for each 'community water zone' within the community, rather the whole community in one go (unless the community is very small, and the water system and access experiences similar throughout). These 'water zones' don't necessarily need to be new areas – they could relate to existing zones or areas or social groupings within the community. For example, they might relate to areas where extended family, a church group, or *mataqali/toktoka* live near each other. There might already be extant groupings used for *solesolevaki*. Whatever the 'zones/groupings' are, **they should relate to groups of households in the same location within the community, accessing the same part of the water system** (e.g., Figure 2). This is so that as much information and views about the status and problems of the water and waste systems can be captured, and so that actions that are suited to different parts of the water system can be agreed.

This is the first opportunity to speak widely throughout the community about the DWSSP process.

Following the community mapping exercise, the WASH Committee will gather further detail to assess water availability, access, and safety. The committee will be asked to retain and consider the stories and perspectives of the community as they continue through the DWSSP process.

Figure 2: Sample zone map



The session involves f**ive activities**, and the suggested schedule is described below:

Day Two	Classroom	Activity 5A - Community mapping, with a focus on describing differences in different areas of the community ("community water zones")
Day Two	Classroom	Activity 5B - Water availability and quantity assessment (*this step is as per the standard DWSSP process)*
Day Three	Community	Activity 5C - Household surveys (HHS), story gathering (4 in each community water zone)
Day Three	Community	Activity 5D - Sanitary surveys and hazard assessments of water sources (*this step is as per the standard DWSSP process M2-D1-S3-4, including water quality testing as required)*
Day Four	Classroom	Activity 5E - *Talanoa* summary and HHS summaries

The **WASH Committee should lead** this activity and may seek information from other community members who are not members of the WASH Committee, e. g. Health workers, Community or Church leaders, Mataqali representatives and other interested participants (e.g., youth, women).

The DWWSP team will divide into groups – one for each water zone/area in the community. Try to have at least **three people for** each zone – one that can ask questions, one that can record answers and update the map as you go, and one to do the arranging/logistics as the team progresses (it can be helpful to involve someone who can precede the survey team through each area to line-up survey participants).

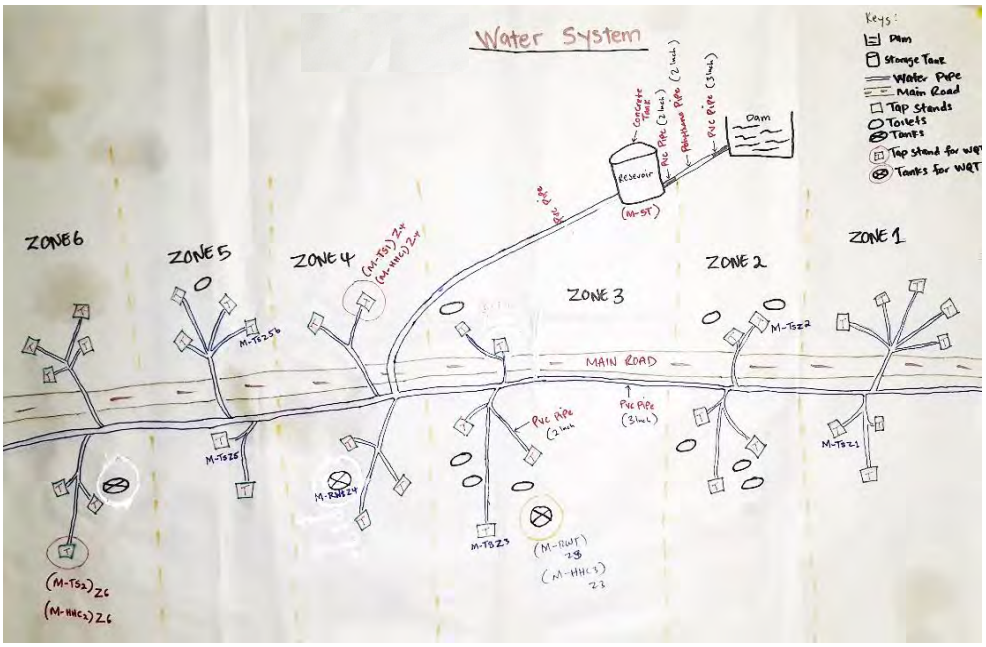
ACTIVITY 5A. WATER ZONE MAPPING

Aim	By the end of this activity, participants should be able to: - Describe their community and its WASH situation spatially - Recognise different areas or zones of WASH users
Duration	120 mins
Training materials and preparation required	Large pieces of paper (one per area/zone) plus markers for mapping
Outputs	Water zone map

Ask **each zone/area group to prepare a map** of their area that shows:

- Roads, building and houses and any other community landmarks.
- Water supply sources and access points - these are the locations that water comes from, to be used by the households in their water zone (e.g., location of springs, bore, rainwater, tap stand, etc).
- Identify access points which are used for drinking, and which are not used for drinking.
- Include all sources used by households – some might be household-scale, and some might be shared amongst several households, or the whole community. Some may be used at different times of the year (e.g., drought, flood, dry period) or for different purposes (e.g., washing, bathing, drinking)
    - Identify if there are households that access an open water source – no need to identify individual households, just how many that do access open water sources (e.g., rivers, streams, open well)
    - Some water sources might lie outside the *mataqali* area map area – if they do, write the name of the source (e.g., community dam; spring name) on the edge of the map nearest to the location of the source).
- Water infrastructure (e.g., pipes, reservoirs, storage tanks, bore pumps, wells, spring boxes etc). Include both piped and non-piped water infrastructure.
- Any other fresh water sources not used by households.

- Ask which households have people who may have trouble accessing water – elderly, single mothers with young children, people with a cognitive or physical disability. Ensure these houses are visited as part of the survey. Provide each zone group with a sheet of paper and coloured markers to complete this task. As long as the map shows this information, and the zone group can understand their own map, it does not matter what the map looks like.



ACTIVITY 5B. WATER AVAILABILITY AND QUANTITY

Complete water availability and quantity assessment as per MHMS DWSSP Guidance (Task 3A).

ACTIVITY 5C. HOUSEHOLD SURVEYS AND WATER STORIES

Aim	By the end of this activity, participants should be able to: - Gain a detailed understanding of the water situation as experienced by different people across the community. - Ensure a diverse selection of community members participate in the DWSSP process – either as team members or in the survey and mapping activities, including: representatives from different zones or areas of the community, from every faith or ethnic group – for *koro's*, from every *mataqali*, 50% women, people with different abilities and economic status This activity is also intended to contribute to the socialisation of the DWSSP process throughout the entire community.
Duration	3-4 hrs (household surveys should take about 15 mins each)
Training materials and preparation required	- Copies of the household survey (HHS) and answer sheet (Appendix B) (25 x HHS, 10 x summary sheet) - Spare paper to record water stories - A copy of the water zone map
Outputs	Household survey summary sheet (one for each water zone), plus water user stories. These will be used in Activity 5E.

Household surveys: Ask zone group members to visit at least four households within their area and complete the household survey. The survey will provide important information about water use in the area, which will be used to prepare the community DWSSP.

Do at least 2 HHS with the representative: DWSSP Facilitator does one with rep watching; zone group does one with DWSSP Facilitator watching

It is important that information about all water sources used is collected – this helps to plan for climate change effects. And it is important that a diverse mix of households are visited – this helps to ensure the DWSSP is inclusive of everyone's needs. 'All water sources' means not only types of water that is shared by the community, but also any that might be used only by one household, such as wells, bore-pumps and household rain tanks.

Water stories: While the zone group members are visiting each house to do the survey, they should also collect some stories from community members that help to explain…

- Things people **like** about their water situation
- Things people **don't like** about their water situation

Specific difficulties that are faced by people that are marginalised in some way – for example, households with someone in the house that has a disability, or a faith or family group with few people in the community, or a very small or very large household, or a household that is living far from any water source. It is important to try to capture the worst cases of problems faced by all kinds of people.

The purpose is to collect stories about these topics – that means to collect specific examples of good and bad water situations that have happened and how they affected people. Stories are a very important way to share the experiences that different people have, so it is important to collect detailed stories. These questions are very open, so that we can hear what people's experiences are – this is important for helping to identify problems and future actions.

Make sure zone groups know **it is important to collect stories from different kinds of people** (different gender, age, locations, *mataqali*, *yavusa*, church denominations). This helps to ensure the DWSSP is inclusive of everyone's needs.

The water zone groups will be asked to share between 2 and 5 stories from each zone during the next meeting. As well as the zone stories, ask for some members of the DWSSP team to consult with any women's groups in the community, and invite some women to come to the next session to discuss water issues that women experience or are familiar with.

[Appendix B] contains:

- Instructions for community members on doing the household survey (HHS) and how to summarise the results. Ensure you have enough copies for all zone groups.
- The template for the Household survey, including the survey questions (2 pages). Ensure that enough copies of the survey itself are printed and provided, to cover the number of households in the community (with 2 spares for each zone area). Each zone group member should receive one copy of the instructions and summary sheet.

Be sure to take photos of the HHS forms and summary document for all zones for MHMS records

ACTIVITY 5D. SANITARY SURVEYS – WATER SOURCE

Conduct water source sanitary surveys as per MHMS DWSSP Guidance (Task 3B, P2-D3-S2-4-DWSSP).

Note 1: In SURFACE SOURCE AND ABSTRACTION Sanitary Survey, include the question:
11. DIRT/DEBRIS – is there a build-up of sediment/dirt/debris within the surface water storage / minimum head device / dam?

Note 2: Remind team members to think about the hazards and water pathways that were discussed during that training session, as a guide to the types of hazards that should be recorded in the sanitary surveys

ACTIVITY 5E. TALANOA ON COMMUNITY WATER SYSTEMS

Aim	By the end of this activity, participants should be able to: - Appreciate the use of collecting and collating data and information - Assess water sources, barriers to water accessibility for households, water use and water management practices.
Duration	2 hrs
Training materials and preparation required	- Materials from previous activities (maps, household survey summaries, water user stories) - Printed copies of the table – 'Water Source Descriptions'
Outputs	Water situation table (filled)

Have each water zone representative share with the wider group what they found from the mapping and sanitary surveys. Encourage other members of the DWSSP group to ask questions, to make sure they understand the water situation in all areas of the community.

As each zone group is making their presentation on household survey results and map and stories, on a sheet of paper, complete the following table – keep adding to the table as each member talks.

They should share:

- water zone map, to point out the different water supplies being used.
- Share the household survey summary.
- 2-4 stories highlighting the different experiences of people, and the different perspectives on what is good and what is not good. (Ask if you can record these on your phone)
- After each presentation, ask the zone group members:
  - ***What do people think of the water sources? Does anyone think differently? Are all water sources listed, not only those that are shared by the community***
  - ***Do people in different areas of the zone have different experiences?***
  - ***Did any households, or household members have less access to water, or access what they considered unsafe water, compared to other HHs?***
  - ***Were there any elderly people or people with a disability in your zone? If so, how did this effect their ability to access to safe and reliable water?***
  - ***Do people think water is safe to drink? Any treatment?***
  - ***What do people think makes water unsafe?***
  - ***Remembering our discussion on climate change effects like more or less rain, more severe storms, sea level rise, flooding and drought, how would the water sources be affected by these? Any surprising or interesting information?***

TABLE 3: WATER SOURCE AND SYSTEMS DESCRIPTIONS

Types of water sources and systems	Zone (that use this type of water)	Uses: drinking (treated or not?), swimming, washing, etc	Good things	Bad things	Climate change impacts? (more rain, less rain, more severe storms)

M2-D4-SG6. Additional Activity – Risk Management – Identifying Improvements & Planning

Overview for Facilitators

It is important when the DWSSP team identify improvements and conduct planning, that they consider actions at different levels within the community, as a follow-up to the ***Water is Everybody's Business*** activity from Day One (Activity 2C).

This activity is designed complement the existing module on Risk Management – Identifying Improvements and Planning (S2-4). The facilitator should go through the identification of improvements and planned actions first as per the existing module, and then use Activity 6A below as a summary and prompt to fill gaps.

Activity 6A. Improving & planning for Water is Everybody's Business

Aim	By the end of this activity, participants should be able to: - remember that improvements and actions are required at all levels of the community, not just the household or the committee level.
Duration	2 hrs
Training materials and preparation required	Pre-prepared butchers' paper with 'Water management levels" written across at top and four vertical lines/columns (see Table below for example). Water is Everyone's Business handout (Appendix C)
Outputs	Improvements and actions table – can be included in DWSSP Plan

Participants Introduction to this activity

Facilitator should read the following introduction aloud to participants before starting the activity

"*We have discussed already the responsibility for good water is everyone's business. We are now going to check that the improvements and actions we have identified appropriately consider the different levels of actions we have available.*

It is important for the WASH Committee to be identifying and promoting actions that happen at these other levels in the community. ***Water is everyone's business*** *– everyone has a responsibility to take action to look after water, not just the Water Committee.*

A strong Water Committee works to identify ***specific management actions and policies*** *at* ***different levels*** *in the community:*

- Individual people
- Households
- Groups of households located near one another ("water zones")
- Extended family/ethnic/*mataqali*/faith/community groups
- Community level (not individuals within community, but actions done for the whole community e.g., cleaning out the community dam).

A strong Water Committee also understands there are many very useful actions that do not require funding, especially actions relating to the use of water, such as water conservation – turning off taps, not using drinking

water for non-drinking uses like washing), and to maintenance actions such as cleaning out the dam or storage tanks, cleaning roofs for rainwater collection etc.

Including some actions that don't require funding means that there is something that community members can already do to start making improvements – this helps to create interest in the DWSSP, and to share the message that water management is everybody's business,

So, we will also check our DWSSP have included some actions that do not require funding.

FACILITATE A DISCUSSION, AS FOLLOWS:

1. Using the pre-prepared butchers paper table (below) to facilitate a discussion and fill-in the table with the actions that have already been identified.
2. Identify whether significant funding (such as from a grant, or community fundraising) is required for each action.
3. Where there are gaps at a level of action, or not very many actions requiring no-funding, ask the team to consider if there are actions that could be included.

TABLE 4: WATER MANAGEMENT ACTIONS AT DIFFERENT LEVELS

Level of action	Identified IMPROVEMENTS and ACTIONs for Drinking Water Safety and Security Planning	
	Actions requiring no additional funding (unfunded or existing funds available)	**Actions requiring additional funding (new, external funding OR community fundraising)**
Individual		
Household		
Zone		
Other groups (family/ethnic/*mataqali*/ faith/community groups)		
Community-level		

M2-D4-SG7. ADDITIONAL ACTIVITY – STRONG WATER COMMITTEES-STRONG WATER COMMUNITIES- PART II

OVERVIEW FOR FACILITATORS

This activity builds on the earlier 'Strong Water Communities – Strong WASH Committees' Part I, activities (1A-D), undertaken as part of the DWSSP Community Engagement activities – 'Establishing or Strengthening the Water Committee'. This activity sits under Module 2, Session 3, 'Management Procedures', and is an extension that highlights the **importance of how the Water Committee engage with other groups and individuals in the community.**

ACTIVITY 7A. WATER COMMITTEE LINKAGES

Aim	By the end of this activity, participants should be able to: - Identify important links to other groups and individuals that the Water Committee should engage with during their work. - encourage the existing committee to reflect on how these linkages could be strengthened.
Duration	60 mins
Training materials and preparation required	Pre-prepared butchers' paper with 'Water Committee linkages" written across at top and three vertical lines/columns (see Table below for example).
Outputs	Committee linkages table – can be included in DWSSP Plan

PARTICIPANTS INTRODUCTION TO THIS ACTIVITY

Facilitator should read the following introduction aloud to participants before starting the activity

"*Every* community *is different. Thus, each Water Committee needs to understand the water, sanitation and hygiene (WASH) situation in their own community and identify water management actions and policies to suit their own situation. Having a good understanding of the WASH situation in a whole community means understanding that different people, different households, have different WASH experiences – because not all people are the same, and not all WASH is the same in different places in this community* - ***Water is Everyone's business.***

A strong Water Committee also understands that over time, these actions and policies might need to change - what works today might not work in five years' time (with pollution increase, weather changes, population growth etc.).

Earlier sessions focused on the membership of Water Committees, the importance of diversity in the types of members, and we are aware that water management actions need to happen at different levels across the community *– individual-level, household-level, zone-level and community--level.*

Today, we are talking about how a strong Water Committee is a committee that does not work in isolation but rather actively works with other groups and individuals in the community.

A strong and effective Water Committee understands this and has a clear plan that targets different communication and management strategies at these different levels.

FACILITATE A DISCUSSION, USING THE FOLLOWING QUESTIONS:

1. Who does the water committee currently engage with outside the Water Committee – both individuals and groups from this community (i.e., who is linked to the Water Committee?)
   In the left-hand side column, write down the individuals and groups mentioned.
   After each name is recorded, or once the list is complete, ask …

2. What is the nature of the linkages between the Water Committee and the Individual/group?

3. How does this link influence water management in the community?
   Write down – just in dot form and a few words – the details in the middle column (e.g., "youth group clean tanks", "Tevita gets spare parts from Suva", "Health committee – made sure the new toilets not built near the creek")

4. Is each link 'strong', 'medium', or 'weak'?
   Add this to the 3rd column, next to each link). For the weak ones – should this be improved? (write 'to be improved' – if this is the case)

5. Are there any other individuals or groups that the Water Committee don't currently link with but should? (Who else in this community would be helpful in discussing actions or policies?)
   Write these down at the bottom of the butcher's paper in a different colour.
   (Prompts): Teacher? Pastor? Business person? Health worker

6. For those links with 'medium' or 'to be improved': why might linking with these individuals/groups improve water management outcomes in the community?
   Ask the group to think about what they might do differently in the future to either make new links or strengthen current links.

TABLE 5: WASH COMMITTEE LINKAGES (EXAMPLE)

Individual/groups *(example)*	**Type of link** *(example)*	**'Strong', 'medium' or 'weak' & 'to be improved'** *(example)*
Turaga-ni-Koro or other formal leaders	Member of WC. Provides governance support (e.g., at community meetings)	Strong
Health Committee	Nurse on WC and Health committee Provides guidance on health and water issues. Reports to WC on outbreaks of diarrhea, issues with drainage and mosquitos (dengue), speaks to community about boiling water after flood events when water is dirty. Has policy about sanitation (where toilets can go)	Strong (nurse on WC)
Women's Group	2 WC members in Women's group, but no formal linkages. No real management linkages, but have provided information to WC in the past when an elderly widowed woman had issues with her water connection (low pressure)	Medium
Youth committee	Youth go and clean dam when asked, but not involved in planning or any decision making	To be improved
Links that should also exist:		
Teachers/headmaster	No links Linking with school could provide a platform for sharing important information on: hygiene, water conservation, looking after taps, maintaining drains etc.	To be improved

M4-D6-SG8. ADDITIONAL ACTIVITY – WHOLE OF COMMUNITY DWSSP TALANOA & FEEDBACK

OVERVIEW FOR FACILITATORS

Communities are busy places, and many community members have many different responsibilities and things they need to consider, contribute to, and fundraise for. Stakeholders have suggested that increased socialisation of the DWSSP beyond the Water Committee to the whole community can have benefits, such as encouraging the community to further prioritise water and its management, as well as discussing the merit and possibility of organising some water management activities beyond the WC - at the household, zone/area level, *mataqali*, or certain community groups (e.g. youth group, other church groups).

Aim	The purpose of this activity is to: - Socialise the DWSSP in the wider community - Gain increased support for water actions – water is everyone's business!
Duration	Length depends on each community
Training materials and preparation required	The materials required for this activity should be materials prepared and used in earlier activities during the DWSSP – butchers paper maps, summaries of HHS, a copy of the plan, a number of copies of Water is Everyone's Business flyer.
Outputs	Any feedback or suggestions from the community to include in DWSSP Plan update

Facilitators might choose to attend this session in communities, or instead support DWSSP team members to plan for undertaking this session alone on their return to the community.

Exactly *what* from the final DWSSP is presented back to the community is less important than the *how*, and this will likely be adapted to suit each community. However, this is the best opportunity to communicate that everyone in the community is responsible and there are things that everyone can contribute and do. The following is a guide only.

Activities: WASH Committee to present a summary of the DWSSP process and outcomes. Including the actions under the plan, to the wider community. This will be through:

- Sharing illustrative water stories from the community that informed the preparation of the DWSSP
- Presenting the community zone water maps and a summary of the HHS survey
- Explaining the key actions that comprise the DWSSP
- Action Plan, including the different levels of action
- Handing out Water is Everybody's Business flyer or make into a community poster for display.
- Seeking feedback and Q&A session

FACILITATORS CHECKLIST

This contains he full list of DWSSP sessions – from both the MHMS DWSSP guide and this supplementary guide (identified with *supp.*)

TABLE 6: MODULE CHECKLIST FOR FACILITATORS

Module	Completed?	Date	Notes
M1-D1-S1: Intro to WASH & Health	☐		
M1-D1-S2: Intro to WSP	☐		
M1-D1-SG1: Supporting Advice – Intro to Community *(supp)*	☐		
M1-D1-S3: Establishing and strengthening WASH Committee.	☐		
M1-D1-SG2: Replacement Session – Strong WASH Committees-Strong WASH Communities – Part I *(1/2 day) (supp)*	☐		
M1-D1-S4: Feedback & Committee Agreement	☐		
M2-D1-S1: Introduction to WSP	☐		
M2-D1-S2: Assembling the Water Safety Planning Team			
M2-D2-SG3: Supporting Advice – WSP team configuration *(supp)*			
M2-D2-S2: Risk Management – identifying hazards (general)	☐		
M2-D2-SG4: Additional Activity - Risk Management – Identifying Hazards *(supp)*	☐		
~~M2-D2-S3-4: Describing the supply – Community Mapping~~	☐		
M2-D2-SG5: Replacement Session - Describing the supply - Community Mapping *Activities 4A-4B – preparing inclusive maps (supp)*	☐		
M2-D3-SG5: Replacement Session - Describing the supply - Community Mapping– *household surveys and water stories (Activity 4C) (supp)*			
M2-D4-SG5: Replacement Session -: Describing the supply – Talanoa *(Activity 4E)) (supp)*	☐		
M2-D3-S2: Risk Management – Assessing Risks	☐		
M2-D3-S2-4: Risk Management – Identifying Improvements & Planning	☐		

Module	Completed?	Date	Notes
M2-D4-SG6: Additional Activity – Risk Management – Identifying Improvements & Planning *(supp)*	☐		
M2-D3-S1-2: System Monitoring & Operational Maintenance	☐		
M2-D3-S3: Management Procedures	☐		
M2-D4-SG7: Supplementary Activity – Strong WASH Committees-Strong Water Communities – Part II *(supp)*	☐		
M2-D3-S4: Summary & Closing of w/shop	☐		
M3-D1-S1: Intro to Water Security Upgrade Planning	☐		
M3-D1-S2-4: Review of WSP Team and Mapping, Risk Management, System Management	☐		
M3-D2-S1-2: Assessing Needs – Water Supply System	☐		
M3-D2-S3-4: Assessing Needs – Waste System	☐		
M3-D3-S1-2: System Design Water Supply	☐		
M3-D3-S3-4: System Design – Waste System	☐		
M3-D4-S1-2: System Monitoring & Operation & Maintenance	☐		
M3-D4-S3: Budget Requirements	☐		
	☐		
M3-D4-S4: Summary & Closing of Workshop	☐		
M4-D6-SG8: Additional Activity – Whole of Community DWSSP Talanoa & feedback *(supp)*	☐		

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The PaCWaM+ research project has produced a range of implementation guides and resources to support Pacific Community Water Management Plus, which are freely available from the PaCWaM+ webpage: www.watercentre.org/research/pcwm. These include

- **Strong Water Committees – Strong WASH Communities in Fiji – Implementation Guide**
- **Water is Everyone's Business poster** – Fiji (Fijian and English versions)
- **Strong Water Committees – Strong WASH Communities in Solomon Islands – Implementation Guide**. Including associated resources:
  - **Video "Strong Water Committees – Strong WASH Communities** - standalone copies can obtained from iwc@griffithedu.au (with or without English subtitles), or viewed on the webpage: www.watercentre.org/research/pcwm
- **Water is Everyone's Business – Community workshop in Solomon Islands – Implementation Guide**. Including associated resources
  - **Video: Water is everyone's business**
  - **Video: Youth and Water**
  - **Video: Women and Water**
  - **Poster: Water is Everyone's Business**
- **Water Committee Backstopping in Solomon Islands and Fiji – Implementation Guide**
- **Supplementary activities for Drinking Water and Security Planning (DWSSP) in Fiji - Implementation guide**
- **Community-based Water Security Improvement Planning – Solomon islands – implementation guide (3 volumes)**

Appendix A

A.1. How Water Moves Through the Environment (Water Cycle)

To understand how contaminants get into drinking water it is useful to understand the water cycle (Figure A1). The water cycle has no start or end, and water can exist in different states throughout the various stages. The sun is what keeps the water cycle going around and around.

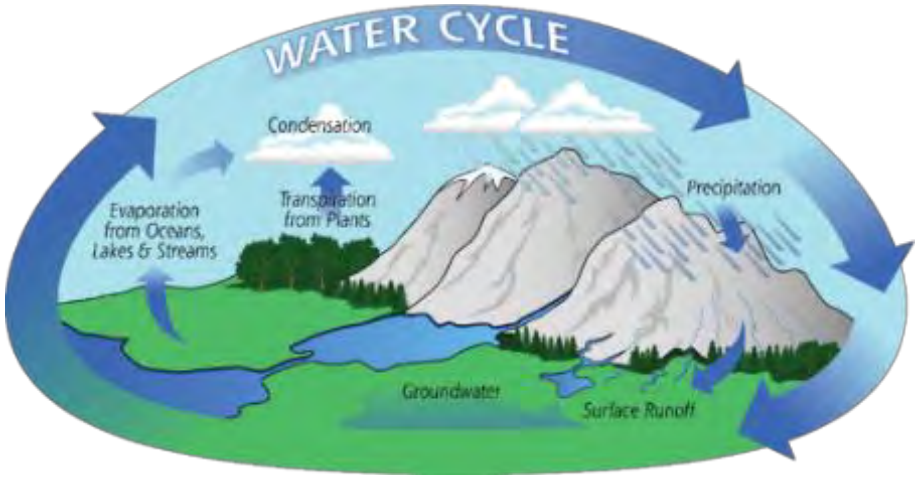
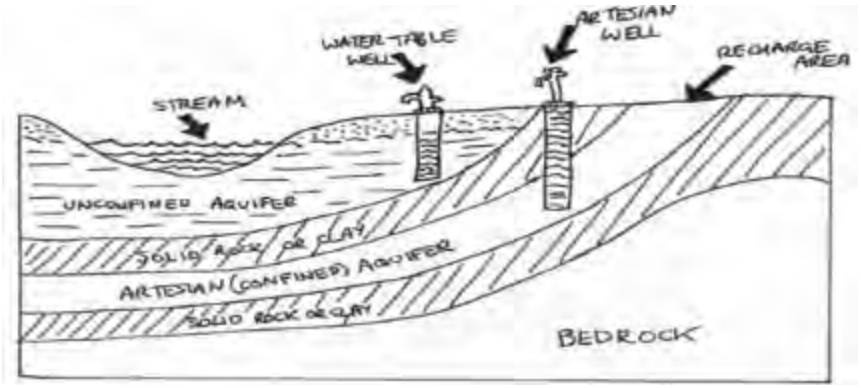


Figure A1 - The water cycle (source: NASA)

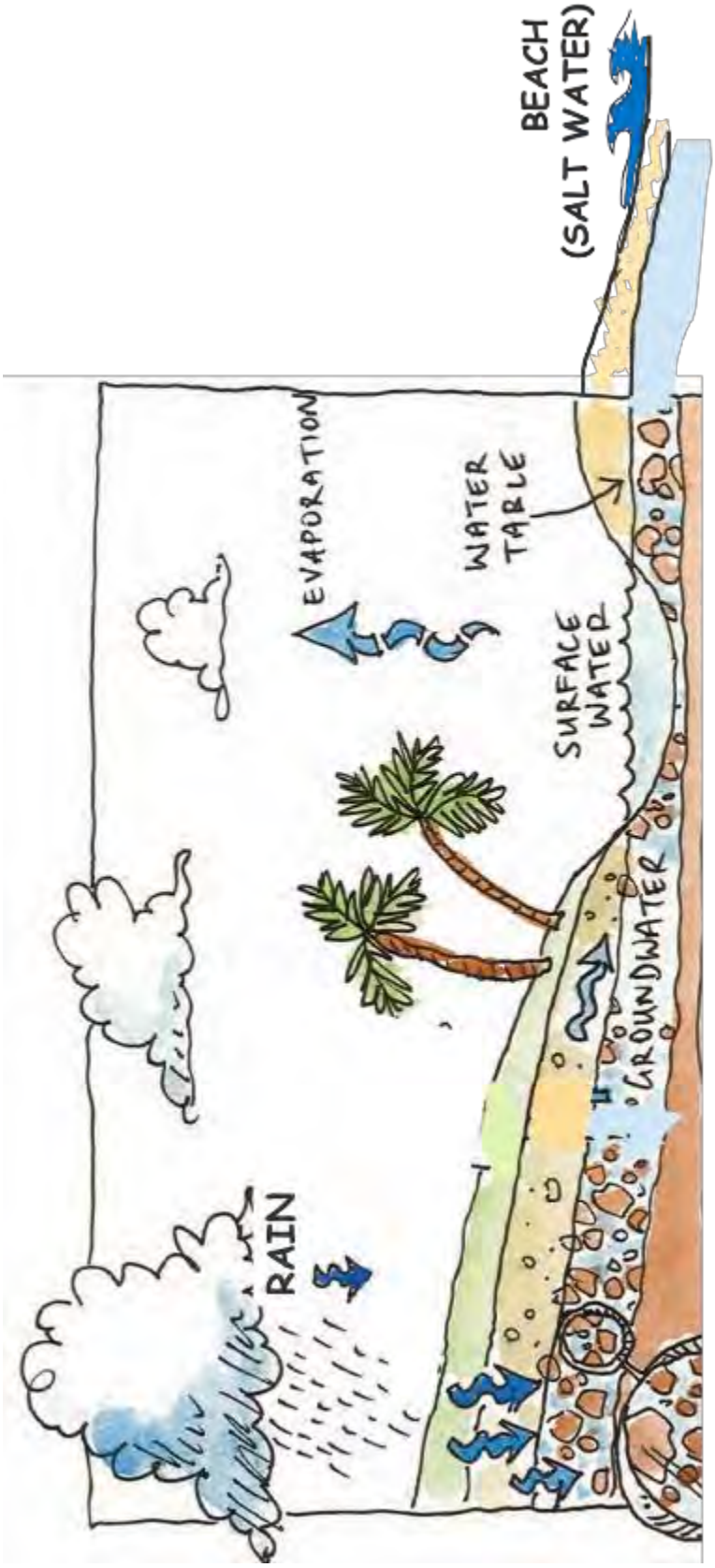
Key parts of the water cycle are:

- Evaporation – This is the process by which energy from the sun turns liquid water into water vapour. Water vapour rises into the atmosphere. Most evaporation occurs over oceans.
- Precipitation – where water vapour returns to liquid water (rain) and falls to the ground.
- Surface runoff – rain that does not soak into the ground runs off forming creeks, streams, rivers, lakes before returning to the ocean
- Infiltration – Some water seeps into the ground/earth to become groundwater.
- Groundwater – The top of groundwater is referred to as the water table (image below), the level of which typically follow the ground surface but is constrained by streams, rivers, lakes and the ocean (unconfined aquifer). Depending on the ground and soil type water can also recharge deep aquifers (confined aquifers). A confined aquifer may be accessed by a deep well or bore or come out naturally via a spring. The water from a confined aquifer can come from a long distance away.



Different types of groundwater and where they come from (source: Live & Learn Environmental Education 2008 : Water Safety - Making and keeping our drinking water safe, a teachers toolkit)

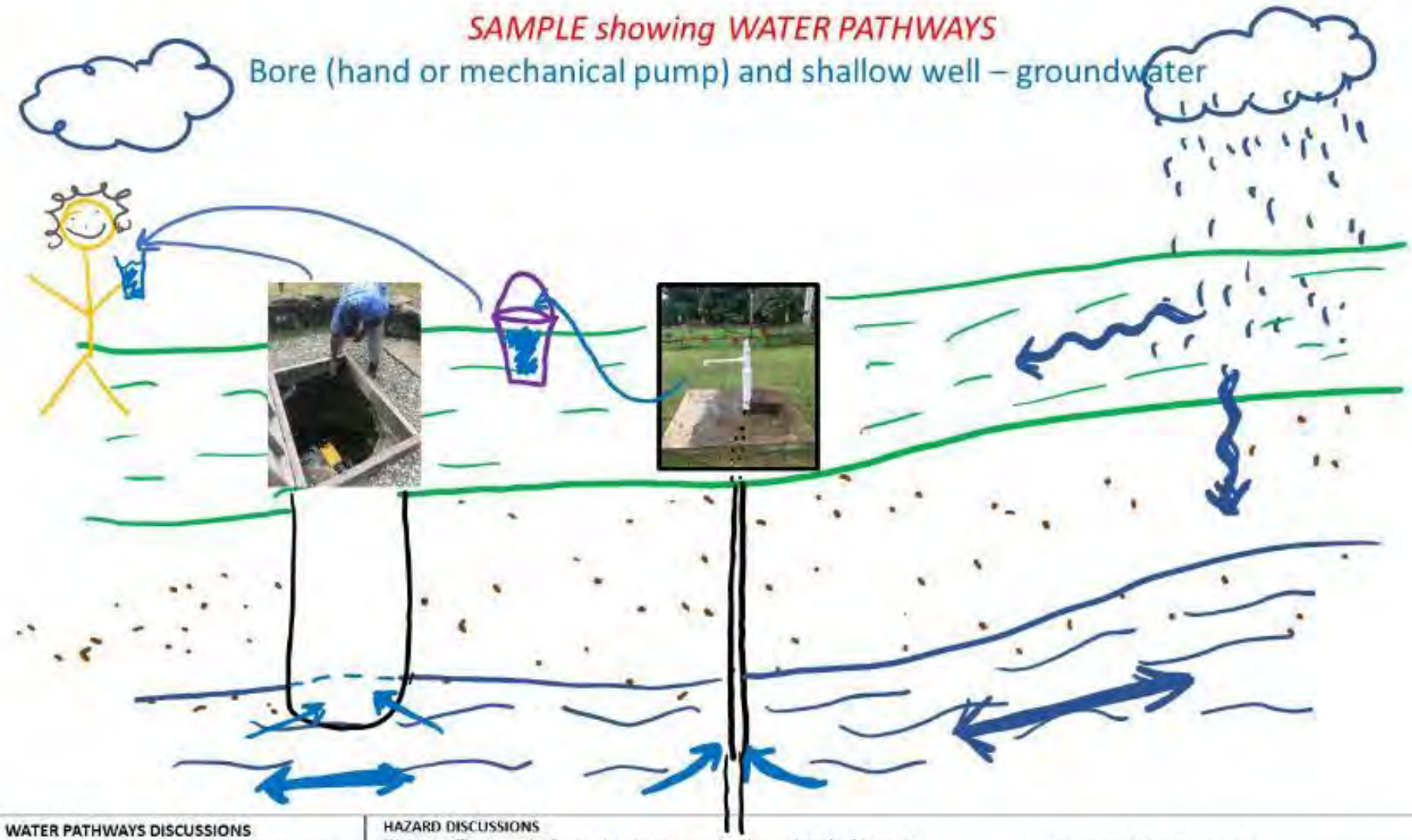
A.2. Water cycle graphic



A.3. Water pathways drawings – samples

SAMPLE showing WATER PATHWAYS

Bore (hand or mechanical pump) and shallow well – groundwater



WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking: pumps, containers, storage
- Water cycle elements
  - -Groundwater movement – carries very small things like germs and chemicals (usually not sediment)
  - -Rainfall → Surface water seeping through ground (near bore, away from bore)
  - -Rainfall → Surface water running down side of bores

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

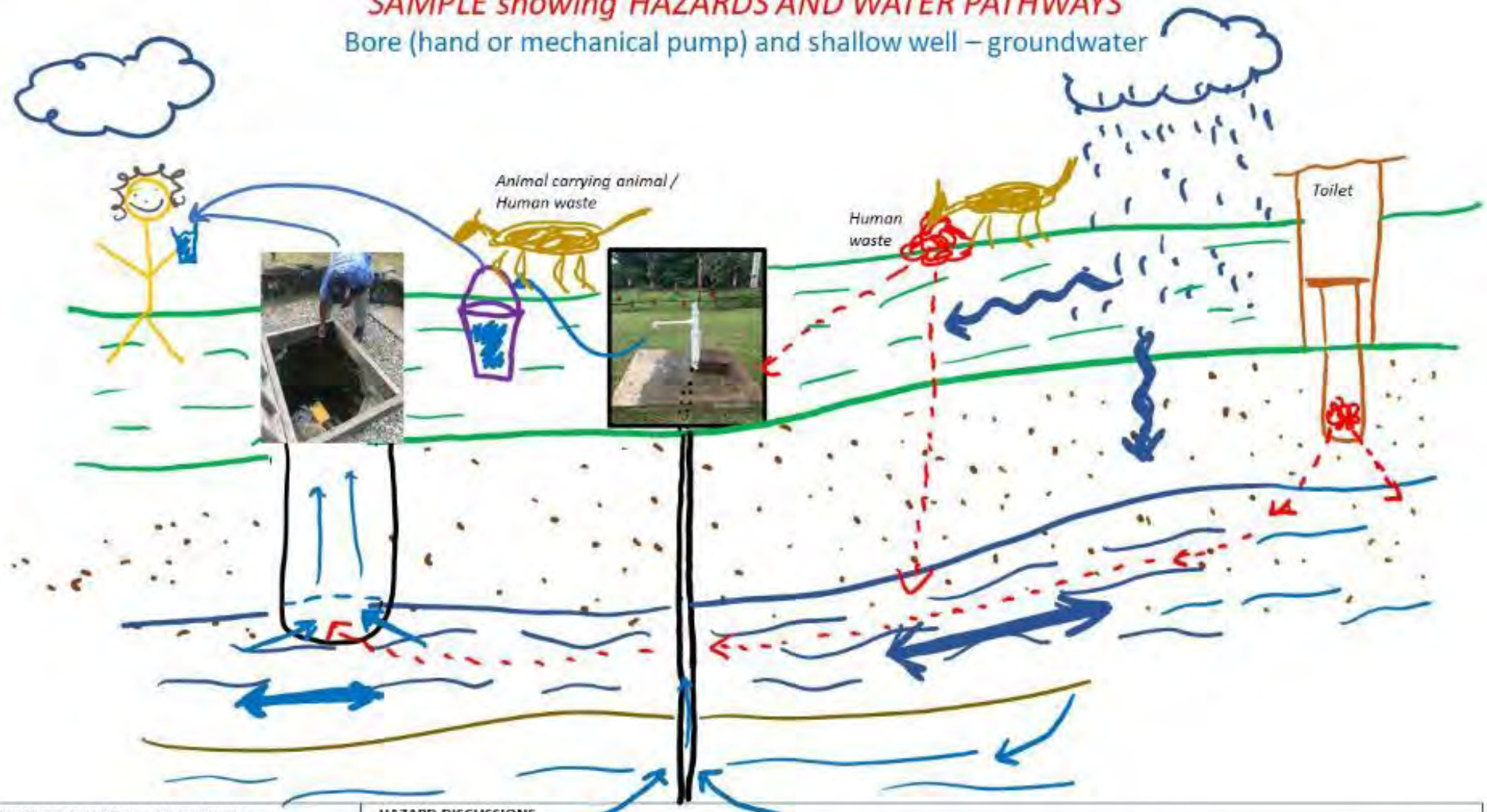
- Animal waste: germs on animals feet (animals walking into water), germs in animals mouth (licking taps & containers)
- Human waste:
  - Open defecation or toilets nearby (all types of toilets – especially water-based)
  - Dirty hands (sanitation & hygiene) → containers and cups;
  - Animals eating/carrying human waste germs in mouths or on feet
- Sediment
  - Bores shouldn't have any (unless cracked)
  - Shallow wells – sediment from surface flows into wells (not usually from groundwater)
- Salty water:
  - Sea level rising – during tides, or long term rises
  - Coastal storms/flooding

Water availability prompts

- Water access point functioning (pump / well equipment working – causes:
  - Equipment not strong/lasting
  - Equipment not maintained
  - Equipment damaged (by people, animals, storms)
- reducing water levels in well or bore (low rainfall, too much water use)
- Enough containers for carrying and storing water at households

SAMPLE showing HAZARDS AND WATER PATHWAYS

Bore (hand or mechanical pump) and shallow well – groundwater



WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking: pumps, containers, storage
- Water cycle elements
  - -Groundwater movement – carries very small things like germs and chemicals (usually not sediment)
  - -Rainfall → Surface water seeping through ground (near bore, away from bore)
  - -Rainfall → Surface water running down side of bores

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste: germs on animals feet (animals walking into water), germs in animals mouth (licking taps & containers)
- Human waste:
  - Open defecation or toilets nearby (all types of toilets – especially water-based)
  - Dirty hands (sanitation & hygiene) → containers and cups;
  - Animals eating/carrying human waste germs in mouths or on feet
- Sediment
  - Bores shouldn't have any (unless cracked)
  - Shallow wells – sediment from surface flows into wells (not usually from groundwater)
- Salty water:
  - Sea level rising – during tides, or long term rises
  - Coastal storms/flooding

Water availability prompts

- Water access point functioning (pump / well equipment working – causes:
  - Equipment not strong/lasting
  - Equipment not maintained
  - Equipment damaged (by people, animals, storms)
- reducing water levels in well or bore (low rainfall, too much water use)
- Enough containers for carrying and storing water at households

A.4. Water pathways – community discussion resources

On the following pages are resources that can be used to assist with training and discussions about water pathways – this means where water comes from and how it gets to where it is being used in the community.

The following are designed to be double sided cards that are used based on the water source in the community, with an image on the front for discussion and prompts on the back to assist you.

Print some extra copies of the photos you want to use in the community - you can glue these on to large paper or butchers paper and add your own drawings around each of the photos – see the example in the description of the activity.

SHALLOW WELL

Photo credit: *Gud wata plan blong iumi* (CWISP Guidebook for Facilitators)

SHALLOW WELL:

WATER PATHWAYS DISCUSSIONS

•Drinking water system (how get water to point of drinking: containers, storage

•Water cycle elements

-Groundwater movement – carries very small things like germs and chemicals (usually not sediment)

-Rainfall →Surface water seeping through ground (near well, away from well)

-Rainfall →Surface water running down side of well

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

• Animal waste: germs on animals feet (animals walking into water), germs in animals mouth (licking taps & containers)

• Human waste:

- Open defecation or toilets nearby (all types of toilets – especially water-based)

- Dirty hands (sanitation & hygiene)→containers and cups;

- Animals eating/carrying human waste germs in mouths or on feet

• Sediment

- Shallow wells – sediment from surface flows into wells (not usually from groundwater)

• Salty water:

- Sea level rising – during tides, or long term rises

- Coastal storms/flooding

Water availability prompts

- Water access point functioning (pump / well equipment working – causes:

- Equipment not strong/lasting

- Equipment not maintained

- Equipment damaged (by people, animals, storms)

- reducing water levels in well (low rainfall, too much water use)

- Enough containers for carrying and storing water at households

GROUNDWATER BORE

Photo credit: C. Lfioa, SINU/IWC

GROUNDWATER BORE:

WATER PATHWAYS DISCUSSIONS

•Drinking water system (how get water to point of drinking: pumps, containers, storage

•Water cycle elements

-Groundwater movement – carries very small things like germs and chemicals (usually not sediment)

-Rainfall →Surface water seeping through ground (near bore, away from bore)

-Rainfall →Surface water running down side of bore

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

• Animal waste: germs on animals feet (animals walking into water), germs in animals mouth (licking taps & containers)

• Human waste:

- Open defecation or toilets nearby (all types of toilets – especially water-based)

- Dirty hands (sanitation & hygiene)→containers and cups;

- Animals eating/carrying human waste germs in mouths or on feet

• Sediment

- Bores shouldn't have any (unless cracked)

• Salty water:

- Sea level rising – during tides, or long term rises

- Coastal storms/flooding

Water availability prompts

- Water access point functioning (pump / well equipment working – causes:

- Equipment not strong/lasting

- Equipment not maintained

- Equipment damaged (by people, animals, storms)

- reducing water levels in well or bore (low rainfall, too much water use)

- Enough containers for carrying and storing water at households

DAM

Photo credit: *Gud wata plan blong iumi* (CWISP Guidebook for Facilitators)

DAM:

WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking:
- Water cycle elements
  - Surface water movement – carries whatever is on the ground surface. Sediment and germs
  - Rainfall → Surface water following over ground to creek/ stream/ river

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste:
  - Animal poo in catchment
  - Animals drinking from, walking in water or dam with germs on animals feet
- Human waste:
  - Open defecation in or above dam
  - Animals eating/carrying human waste germs in mouths or on feet
- Sediment
  - High rainfall → increased erosion →more sediment in water
  - Clearing land (eg. logging) → increased erosion → more sediment in water
  - Breakage in pipeline

Water availability prompts

- Water access point not functioning (dam, pipeline, tap) – causes:
  - Dam blocked with sediment
  - Breakage in pipeline
  - Equipment damaged (by people, animals, storms)
- Reducing pressure - causes
  - Break in pipeline

TAP STAND

Photo credit: C. Lifioa, SINU/IWC

TAP STAND:

WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking: dam / spring → reservoir → , pipeline, taps, containers, storage
- Water cycle elements
  - See Dam / Spring

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste:
  - Animals drinking from, walking in water with germs on animals feet
  - germs in animals mouth (licking taps & containers)
- Human waste:
  - Dirty hands (sanitation & hygiene)→ containers and cups;
  - Animals eating/carrying human waste germs in mouths or on feet
- Sediment
  - Breakage in pipeline

Water availability prompts

- Water access point not functioning (pipeline, tap) – causes:
  - Breakage in pipeline
  - Equipment damaged (by people, animals, storms)
- Reducing pressure - causes
  - Leaking taps or taps not turned off
  - Too many taps or illegal connections
  - Break in pipeline
- Enough containers for carrying and storing water at households

SURFACE WATER (creek, river, stream)

Photo credit: D. Gonzalez, IWC

SURFACE WATER (RIVER / STREAM / CREEK):

WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking: river, containers, storage
- Water cycle elements
  - Surface water movement – carries whatever is on the ground surface. Sediment and germs
  - Rainfall → Surface water following over ground to creek/ stream/ river

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste:
  - Animal poo in catchment
  - Animals in water
- Human waste:
  - Open defecation above collection point
  - Bathing or washing clothes in water
  - Dirty hands (sanitation & hygiene)→ containers and cups;
- Sediment
  - High rainfall → increased erosion →more sediment in water
  - Clearing land (eg. logging) → increased erosion → more sediment in water

Water availability prompts

- Water access point not functioning
  - Long distance to walk
  - Difficult to access waterway – steep / slippery
- reducing water levels (low rainfall)
  - Low rainfall / drought
- Increasing water levels (high rainfall)
  - Flood
  - Debris (eg. logs) in river
  - Fast water → dangerous to collect water
- Enough containers for carrying and storing water at households

RESERVOIR TANK

Photo credit: D. Gonzalez, IWC

RAINWATER TANK

Photo credit: D. Gonzalez, IWC

RESERVOIR TANK:

WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking: Dam / spring to reservoir by pipeline
- Water cycle elements
  - See Dam / Spring

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste:
  - Reservoir open to access by animals
- Human waste:
  - Animals eating/carrying human waste germs in mouths or on feet
- Sediment
  - Breakage in pipeline

Water availability prompts

- Water access point not functioning – causes:
  - Breakage in pipeline
  - Crack in tank
  - Equipment damaged (by people, animals, storms)
- Reducing pressure - causes
  - Break in pipeline
-

RAINWATER TANK:

WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking): roof, gutter, pipe, tank, containers, storage
- Water cycle elements
  - Rainfall – carries whatever is on roof / gutter usually dirt, bird poo, leaves

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste:
  - Bird / animal poo on roof
  - germs in animals mouth (licking taps & containers)
  - Tank open to access by animals
- Human waste:
  - Dirty hands (sanitation & hygiene)→containers and cups;
  - Animals eating/carrying human waste germs in mouths or on feet
- Sediment
  - dirt on roof

Water availability prompts

- Water access point functioning (gutter / tank / tap):
  - Leaking tap
  - Break in gutter or pipe
  - Crack in tank
  - Equipment damaged (by people, animals, storms)
- reducing water levels in tank (low rainfall, too much water use)
- Enough containers for carrying and storing water at households

BARRELS (small storage)

Photo credit: *Gud wata plan blong iumi*
(CWISP Guidebook for Facilitators)

SPRING BOX

Photo credit: *Gud wata plan blong iumi*
(CWISP Guidebook for Facilitators)

BARRELS (small storage)

WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking: dam / spring → reservoir → , pipeline, taps, barrels, containers, storage
- Water cycle elements
  - See Dam / Spring

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste:
  - Animals drinking from, walking in water with germs on animals feet
  - germs in animals mouth (licking taps & containers)
- Human waste:
  - Dirty hands (sanitation & hygiene)→ containers and cups;
  - Animals eating/carrying human waste germs in mouths or on feet
  - Animals eating/carrying human waste getting in barrel
- Sediment
  - Breakage in pipeline

Water availability prompts

- Water access point not functioning (pipeline, tap) – causes:
  - Breakage in pipeline
  - Equipment damaged (by people, animals, storms)
- Reducing pressure - causes
  - Leaking taps or taps not turned off
  - Too many taps or illegal connections
  - Break in pipeline
  - Hole in barrel
- Enough containers for carrying and storing water at households

SPRING BOX:

WATER PATHWAYS DISCUSSIONS

- Drinking water system (how get water to point of drinking:
- Water cycle elements
  - Groundwater recharge – unknown location
  - Groundwater movement – carries very small things like germs and chemicals (usually not sediment)
  - Rainfall →Surface water flooding spring box

HAZARD DISCUSSIONS

Water quality prompts: Contaminant sources and pathways into drinking water

- Animal waste:
  - Animals drinking from, walking or defacating in spring
  - Spring open to access by animals
- Human waste:
  - Open defecation in or near spring
  - Animals eating/carrying human waste germs in mouths or on feet with access to spring or tap
- Sediment
  - If springbox gets flooded which can be caused by high rainfall or clearing land (e.g. logging)
  - Breakage in pipeline

Water availability prompts

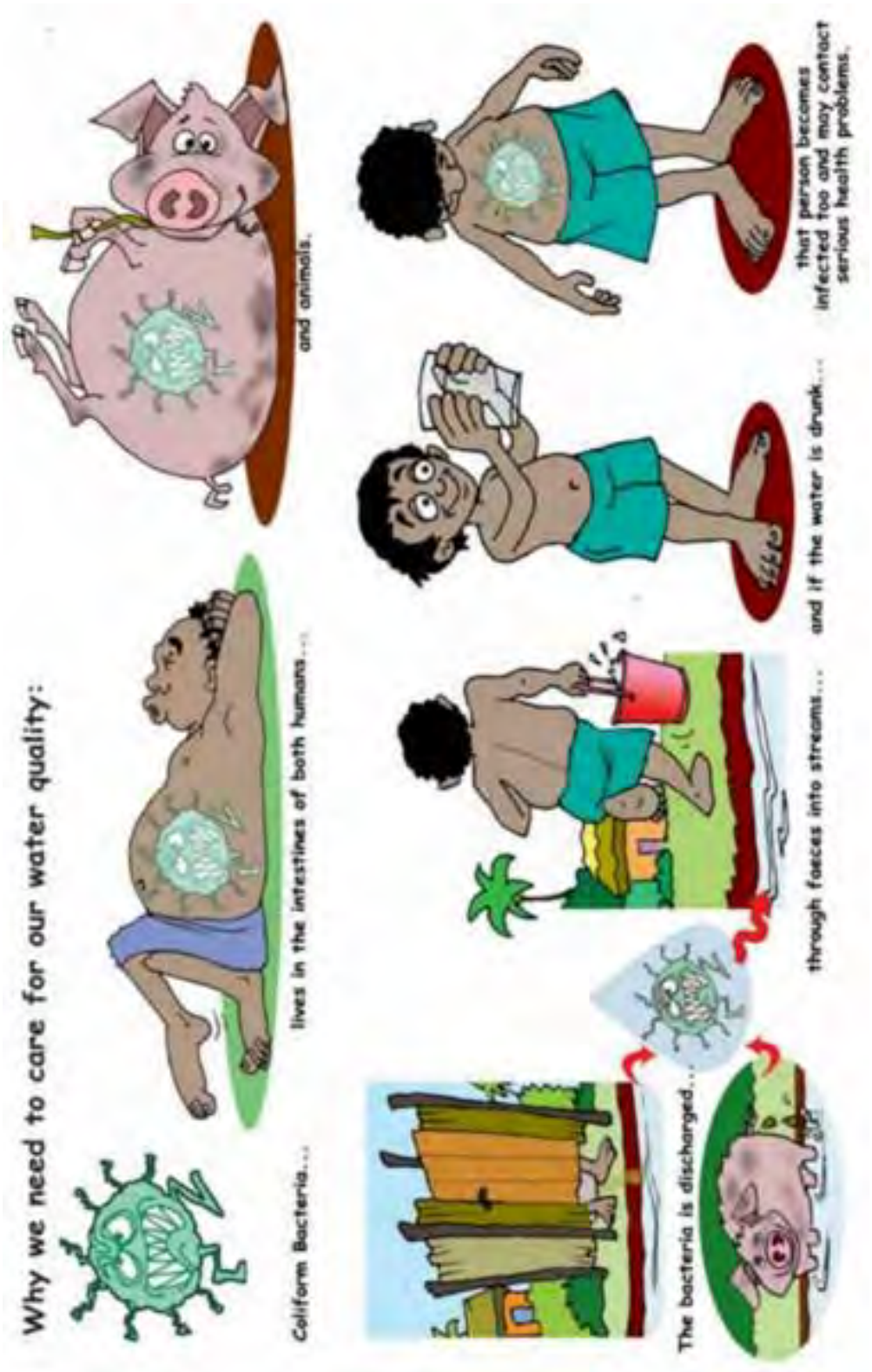
- Water access point not functioning (spring) – causes:
  - Spring blocked with sediment / tree / structure
  - Breakage in pipeline
  - Equipment damaged (by people, animals, storms)
- - Reducing pressure - causes
  - Spring is drying up
  - Break in pipeline

A.5. Hazard picture cards

The following pages contain picture cards of the 7 hazards for discussion during Supplementary Activity I4.

These should be printed DOUBLE-SIDED and cut in half (except for the GERMS sheet).

Then you will have a picture on one side and the key points for discussion on the other side. These can be laminated and kept to use as a resource for all community engagement activities.



WHY WE NEED TO CARE FOR OUR WATER QUALITY (SOURCE: LIVE & LEARN ENVIRONMENTAL EDUCATION , KEEPING YOUR DRINKING WATER SAFE: AN INTRODUCTORY GUIDE)

GERMS INFO

DISCUSSION POINTS:

- **CANNOT SEE GERMS**, even in if water looks clean it may still have germs in it – option to do siti in clean water activity (CLTS activity)
- **HUMAN GERMS ARE MORE HARMFUL TO PEOPLE THAN ANIMAL GERMS,** but animals also carry

SOURCES and CAUSES (Where from):	**PATHWAYS INTO DRINKING WATER** **How GERMS get into drinking water:**
Human siti – - open defecation - toilets that leak into the ground - nappies in rubbish piles - dirty hands after siti	- **Germs leak into ground** from open defecation or toilets, then **into groundwater** and **into wells, bores** (especially when raining) - **Rain washes germs over ground** from **open defecation or nappies** in rubbish and into streams, dams, wells - **Water pipes are broken** and germs from open defecation or toilets enters water systems through cracks in pipes - **Animals eating/touching siti** – pick up germs on feet and mouths and then enter water sources or lick taps or containers - **Dirty hands** after defecation touching water containers - **Bathing / washing clothes in or next** to watersource
Animal siti - on ground; - on house roofs	- Animal **germs leak into ground** from open defecation, then **into groundwater** and into wells, bores - **Rain washes animal germs over ground** from open defecation and into streams, dams, wells - **Rain washes animal germs on roof** into rainwater tank

SALT WATER

CHEMICALS

FUEL DRUM

HERBICIDES
PESTICIDES
FERTILISERS

used for MANUFACTURING
(making products e.g. glue)

SALT

DISCUSSION PROMPTS

- Salt in water makes the water taste bad – you will not be able to drink water with levels of salt that can cause harm to your health
- Salt (like germs) cannot be seen in drinking water

SOURCES and CAUSES (Where from): Common sources and causes of SALT:	**PATHWAYS INTO DRINKING WATER** How SALT get into drinking water:
Sea	- **Storms cause coastal flooding** – sea water comes over land into wells, shallow bores, streams, rivers - **Sea level rising pushes sea water into groundwater** - **Extracting too much groundwater from bores and wells causes sea water to get sucked into the fresh groundwater**

CHEMICALS

DISCUSSION PROMPTS:

- Can harm human health – significantly less common than germs
- May only present at health issues after a long time
- THESE ARE NOT COMMON IN COMMUNITIES IN FIJI – AND LESS IMPORTANT THAN GERMS, SEDIMENT OR SALT.
- WE WILL NOT BE PLANNING FOR IMPROVEMENTS ABOUT CHEMICALS YET – unless there is a clear evidence of a chemical problem in water sources. (this can be done if future plans if there is a concern about chemicals)

SEDIMENT (DIRT)

WATER AVAILABILITY – SOURCE SUPPLY

SEDIMENT

DISCUSSION PROMPTS:

- Makes water look bad – looks like milo
- Makes water unpleasant (not as nice) to drink but sediment by itself does not harm health

SOURCES and CAUSES (Where from): Common sources and causes of SEDIMENT:	**PATHWAYS INTO DRINKING WATER** How SEDIMENT get into drinking water:
Plants removed for logging, gardening, farming, mining Ground dug for construction	- Rain washes the sediment into rivers, streams, dams, wells

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WATER SOURCE AVAILABILITY

DISCUSSION PROMPTS:

- Why might water to not be available at the source?

HAZARD:	**CAUSES: (when / why does this happen)**
Not enough water – **not enough supplies**	• **Drought – less rain than usual** - dam or tanks are empty • **Tanks or dam not big enough** for the number of people (now, or in the future) • **Spring is drying up**
Not enough water – **source / pipe is blocked**	• Storm / flood – **more rain than usual** – high amounts of sediment enter source (dam) or flood source (spring) and block inlet pipe

WATER SUPPLY SYSTEM (SOURCE TO ACCESS)

WATER ACCESSIBILITY

WATER SUPPLY SYSTEM

DISCUSSION PROMPTS: Why might water stop coming to an access point (tap)?

HAZARD:	CAUSES: (when / why does this happen)
Not enough water at access points – **low water pressure at taps**	• Low water pressure – not enough water in tank or spring to reach all taps with strong water • Pipes are a blocked • Too much water being used - people leaving taps running
No water or not enough water at access points – **system is broken or not working properly** (broken pipes or taps; guttering for rainwater tanks is broken;	• Pipes blocked (leaves and dirt – when rains) • Floods (rain) damage water system • Floods (sea) damage water systems • Storms damage water system • Sea level rise (slow increase in height of sea water) • Earthquake damages water system • People broke taps, pipes, pumps or other parts of water system • Pipes or taps broken by animals • Pumps not maintained • Crack in Dam / Reservoir / Tank

WATER ACCESSIBILITY

DISCUSSION PROMPTS: Why might people not be able to access water?

HAZARD:	CAUSES: (when / why does this happen)
Difficult to get **enough water** to the house to meet all household needs	• Water access location is too far from houses to carry/take enough water home • The Water access location is shared by too many people (it is too busy) • The path from the water access location is difficult to walk with water for some or all people • Containers are too heavy • Not enough containers

A.6. Common hazards, sources & causes, and pathways

HAZARDS - WATER QUALITY

HAZARDS	SOURCES and CAUSES (Where From)	WATER PATHWAYS
Germs	Human faeces – open defecation; toilets that leak into the ground; nappies in rubbish piles	- Germs leak into ground from open defecation or toilets, then into groundwater and into wells, bores (especially when raining) - Rain washes germs over ground from open defecation or nappies in rubbish and into streams, dams, wells - Water pipes are broken and germs from open defecation or toilets enters water systems through cracks in pipes - Animals eating/touching faeces – pick up germs on feet and mouths → enter water sources - Dirty hands after defecation touching water containers
	Animal faeces - on ground; on house roofs	- Animal germs leak into ground from open defecation, then into groundwater and into wells, bores - Rain washes animal germs over ground from open defecation and into streams, dams, wells - Rain washes animal germs on roof into rainwater tank
Sediment (mud, dirt)	Plants removed for logging, gardening, farming, mining Ground dug for construction	- Rain washes the sediment into rivers, streams, dams, wells
Salt	Sea	- Storms cause coastal flooding – sea water comes over land into wells, shallow bores, streams, rivers - Sea level rising pushes sea water into groundwater
Chemicals	Farming	- Rain washes chemicals into rivers and streams

HAZARDS - WATER QUANTITY or AVAILABILITY

HAZARD	CAUSES (when/why does this happen)
Not enough water – not enough supplies	• Drought – less rain than usual - dam or tanks are empty • Tanks or dam not big enough for the number of people (now, or in the future)
Not enough water at access points – low water pressure at taps	• Low water pressure – not enough water in tank or spring to reach all taps with strong water • Pipes are a blocked • Too much water being used - people leaving taps running
No water or not enough water at access points – system is broken or not working properly (broken pipes or taps; guttering for rainwater tanks is broken;	• Pipes blocked (leaves and dirt – when rains) • Floods (rain) damage water system • Floods (sea) damage water systems • Storms damage water system • Sea level rise (slow increase in height of sea water) • Earthquake damages water system • People broke taps, pipes or other parts of water system • Pipes or taps broken by animals
Difficult to get enough water to the house to meet all household needs	• Water access location is too far from houses to carry/take enough water home • The Water access location is shared by too many people (it is too busy) • The path from the water access location is difficult to walk with water for some or all people

A.7. Climatic impacts on the water cycle

(adapted from: https://www.pacificclimatechange.net/sites/default/files/documents/climate-change-and-the-water-cycle-transcript.pdf)

Climatic events can impact the water cycle, this can either be a gradual onset (e.g. drought and climate change) or sudden onset / shock (e.g. flood or cyclone). The impact on the water cycle can be:

More rain:

Hotter weather causes more evaporation and more water in the air (humidity). In some areas, this leads to more rain. More rain can result in greater infiltration and surface runoff and can cause flooding.

Less rain:

In some areas, increased temperatures and evaporation dries out the ground, leaving less water to move to the atmosphere, fewer clouds, and less rain. This can lead to drought conditions.

Rising Sea Levels:

Earth's vast oceans are also affected by climate changes. Sea levels rise with increased temperatures partly because of melting glaciers and ice caps in the polar regions. Sea levels are also affected by increased temperatures. By increasing the temperature, water actually expands, increasing the size of the ocean. Coastal regions are at risk of flooding from potential sea level increases.

Appendix B

B.1. Household survey

HOUSEHOLD SURVEY (HHS) INSTRUCTIONS FOR COMMUNITY MEMBERS

PRINT a copy of this page for each zone group member who is doing the HH survey (take 10 copies to each community)

PRINT MANY COPIES of the household Survey template – make sure every zone group has enough for every household and 2 spares (take 25 copies to each community)

- Ensure you complete the survey with AT LEAST FOUR households in your zone (depending on time, if you can do more that is even better). If no one is home, come back at another time.
- Introduce the purpose of the survey, and seek consent to undertake the survey (ask "Are you ok to complete the survey, it will only take 5-10 minutes")
- Tell the HH representative that no names are collected (responses are anonymous), just HH numbers and other information.
- Do not comment or judge responses – be respectful of each person's views.
- Make sure every question is asked.
- Try to undertake the survey with a mix of both male and female HH representatives.
- With the 'open' questions, e.g. "Why do you think…." Try and capture their full response (Fijian is fine)
- The survey asks questions about drinking and non-drinking water. We want to learn about which water is used for drinking and which is used for non-drinking, because different types of water can be used for these different needs.
    - Drinking water means the water source that is used for drinking (and cooking). Drinking water should be clean and safe for drinking – sometimes it needs to be treated to make it safe.
    - Non-drinking water means the water source that is used for all other purposes other than drinking/cooking, such as washing, cleaning, for animals, for sanitation, handwashing etc. Non-drinking water does not need to be as safe or clean as drinking water.
- At the end of the survey, thank people for their time and insights.

On the other side of this sheet is a summary table to filled-out when ALL surveys have been completed.

Please look through the completed HH surveys for your zone and write – in Fijian or English – a summary of the key results. This will be used to help guide discussions and, inform the water use and hazards identification process at later stages of the DWSSP process. Please ensure that the DWSSP facilitator or USP researcher takes a photo or copy of this summary document.

WATER ZONE HOUSEHOLD SURVEY SUMMARY TABLE

Name of water zone/area/group member completing this summary:

Name of Water Zone			
How many households (HHs), in total, in the zone? How many HHs surveyed?			
What is the total population of the zone (HH member numbers combined)?			
(1a) What was the main/preferred source of water households in the zone used for **DRINKING***?*	Main source 1:	Main source 2:	Main source 3:
(1b) How many people used this as their preferred DRINKING water source?			
(1c) Did HHs think their DRINKING water was safe? (how many HH said their main source was): • Very good_____ • OK / sometimes good _____ • Not good_____			
(1d) Did any HHs treat or do anything to make the water safe (e.g., boil the water before drinking)?			
(1e) Was it always available? Give a summary overview of responses. (How many HH said yes, and how many said no and why was it not available)			
(1f) Were there any people in the zone who had trouble accessing water due to age or physical/cognitive disability? How many in total?			
(2a) What were the main sources of **Non-drinking** water used?			
(2b) Was the main non-drinking source always available? (How many HH said yes, and how many said no and why was it not available).			
(3) How happy were people – overall – with their current water supply?			
Any comments you would like to make?			

Water Zone Household survey form (English)

Household name:	Date:
Community and water zone:	Water Zone group member conducting survey:

People sleeping in this house last night

	GENDER	AGE		GENDER	AGE
1			6		
2			7		
3			8		
4			9		
5			10		

1a) **What is the <u>main/preferred</u> <u>source</u> of water your household used for DRINKING**? *(not access or outlet, but source – see picture guide below)*

b**) How safe do you think this water is to drink?** *Please circle*



1. *Not at all* **2.** *Mostly OK / Usually OK* **3**. *Very good*

c) Do you do anything to make it safe? Yes / No.

If yes, what is done? ……

d) Is this source always available when you need to use it? When is it not available? How often/when?

e) Why do you think it is not available?

f) Is there anyone in this house that cannot access this water on their own due to age or a disability? *(write gender, age and why they cannot)*

g) **Do you, or people in your house, use this drinking water for any other household needs?**

☐ Swimming (washing people) ☐ Washing (clothes, kitchen equipment) ☐ Cooking ☐ Garden
☐ Cleaning (house) ☐ Toilet flushing ☐ Handwashing ☐ For animals ☐ Other:……

h) What other sources of drinking water do you have access to (that you can use for drinking if you want to)? *(tick all other sources used; refer prompt sheet – photos – for guidance)* When do you use these?

- ☐ Shared Rain Water Tank ……...
- ☐ Household Rain Water Tank …….
- ☐ Protected Well ……..
- ☐ Unprotected Well ……..
- ☐ Bore …….
- ☐ Protected spring……
- ☐ Unprotected Spring ……..
- ☐ Surface water – stream, river, dam ……
- ☐ Bottled water …….
- ☐ Other: ……..

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2 a) **Which of these possible drinking water sources do you use for non-drinking purposes?** (e.g. washing, cleaning, bathing)?

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3 a) **Are there times of the year when there are more people staying in the house than now** (e.g. at Christmas, New Year, Church/sporting/ community events)? Yes/No

b) If yes, **how many extra people come and stay in your house, and for how long**?

c) **How does this affect your water availability?**

B.2. Water source picture resources – a guide for HH surveys

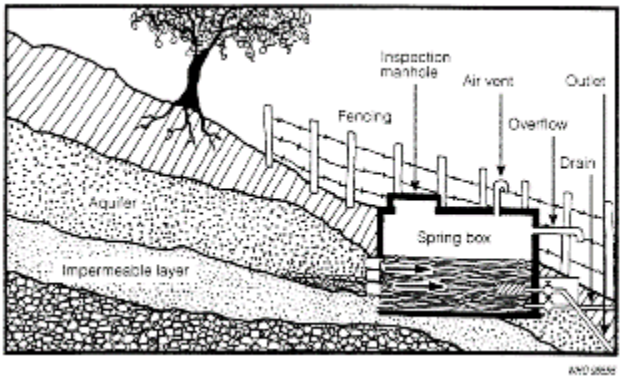
Rainwater tank (shared or household-owned)

Bore (hand or mechanical pump) - groundwater

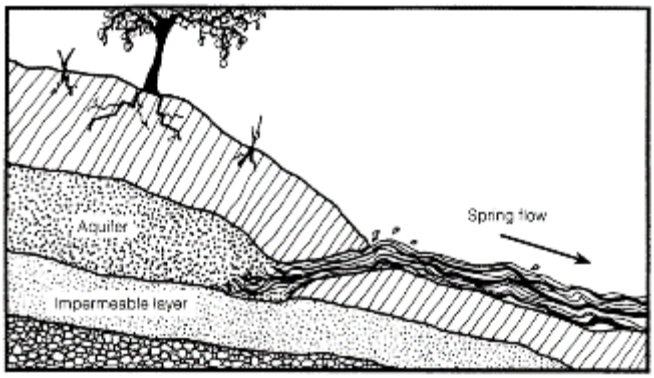
Protected well

Unprotected well

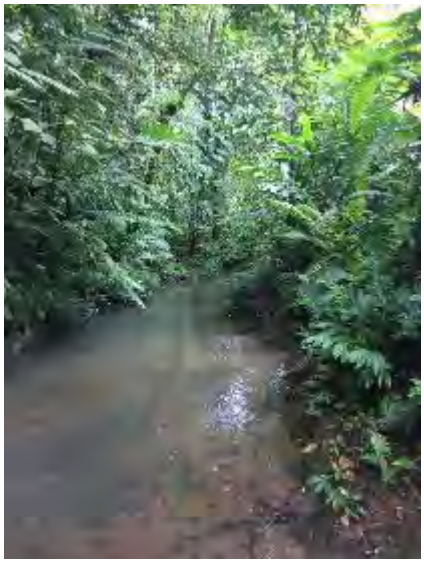
Protected spring



Unprotected spring



Surface water (stream, river, dam)



Bottled water (but not refilled old water bottles)

Shoreline spring (non-drinking)

Appendix C

C. 1 Water is Everyone's Business handout

Water is everyone's business!

In my water-smart family we...

- Wash my hands and my children's hands before collecting or handling drinking water

- Store my drinking water in a container with a lid
- Don't let people dip their hands or cups into the water

- Wash my water containers with soap or bleach once a week, or leave in sun

- Save drinking water for drinking and cooking and use other water for washing and cleaning

- Keep animals fenced in so they can't touch taps or water source

- Contribute to community actions to maintain the water system
- Help pay for the repairs
- Help clean out the system

- Fix leaking taps, or ask the water committee for help

Na wai e noda I tavi kece!

Ena loma ni neitou vuvale, keitou dau...

- Vakasavasavataka na ligaqu kei na ligadratou na gone ni bera ni vakatawani se vakayagataki na wai ni gunu

- Maroroya na wai ni gunu ena loma ni itawatawa vaka i sogo
- Vakatabui ira na tamata me ra kakua ni toni-a na ligadra se luvuca na bilo e loma ni wai

- Vakasavasavataka na itawatawa ni wai ena sovu se na wainimate ni sasamaki me vaka dua ena loma ni macawa, se sigani e tautuba

- Maroroya na wai ni gunu me vakayagataki vakatabaki dua me wai ni gunu se wai ni vakasaqa ka vakayagataka na vei wai tale eso me baleta na savasava kei na sasamaki

- Vakabaitaka na manumanu me ra kakua ni tara se volekata na gusu ni vaivo kei na i takataka ni wai

- Veivuke ena loma ni itikotiko me baleta na kena maroroi na veisala ni wai
- Veivuke ena kena saumi na vakavinakataki ni veisala ni wai
- Veivuke ena kena vakasavasavataki na veisala ni wai

- Vakavinakataka na gusu ni vaivo era leqa, se kere veivuke vei ratou na komiti ni wai

PaCWaM+

PACIFIC COMMUNITY WATER MANAGEMENT-PLUS

International WaterCentre

Griffith UNIVERSITY Queensland, Australia

USP THE UNIVERSITY OF THE SOUTH PACIFIC

Water For Women

Australian Aid