Gud wata plan blong iumi

A process to support Community-Based Water Security Improvement Planning in rural Solomon Islands

Community-based Water Security Improvement Planning for village water systems

VOLUME 2

STEPS 4 - 7

Guidebook for Facilitators

This document was produced through the *The New Times, New Targets Project*, which aims to improve sustainable and inclusive access to water, sanitation and hygiene (WASH) services and facilities with schools, clinics and communities in rural Solomon Islands. The project is an Australian aid initiative implemented by Plan International Australia in partnership with Live & Learn Environmental Education on behalf of the Australian Government.

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Community-based Water Security Improvement Planning for village water systems

VOLUME 2

We define water security as:

the ability of a village to safeguard availability of, access to, and use of a safe, reliable, and resilient quantity and quality of water for the health and wellbeing of everyone in the village[1].

Rather than including irrigation and other larger scale uses of water in water security, our focus is on improving domestic water security for villages in Solomon Islands. This covers water for all domestic needs, including drinking, washing, bathing and cleaning.

The goal of village-scale water security improvement planning is to get **water users and managers in villages thinking about key risks to their local water security.** This type of risk-based approach involves assessing hazards, which are events, currently happening or that might happen, that could reduce water security. **A risk assessment considers how likely a hazard is to occur**, and how serious its consequences. By conducting a risk assessment, water managers can focus on reducing hazards that can cause the most harm. By removing or managing high-risk hazards, communities can prevent water problems from occurring, or reduce their impact, which means it is more likely they will have enough safe water for drinking and other household needs.

This Community-based *Water Security Improvement Planning (CWSIP) process is designed to make rural water supplies in Solomon Islands more sustainable, inclusive and resilient. As well as supporting communities to identify and manage existing and future risks to their water supplies*, **including the effects of climate change** and changing populations, it **considers social inclusion** and the need for **'safe access for all'.**

A Community-based Water Security Improvement Plan will identify these risks, together with actions that will prevent or reduce these risks – it is a **plan of action** for the community. These actions should include improving operation and maintenance of water facilities, awareness raising, behaviour change of water users, and good community water management.

1 Adapted from Sustainable Water Partnership, 2017

This is Volume 2 of the CWSIP process.

It should only be used with a village after the steps 1-3 described in Volume 1 are completed.

Glossary of key terms

Controls	Activities and processes that can be used to prevent, remove or reduce the risk of a hazard.
Equity	Each person or group of people are treated according to need. For CWSIP, this means that all people and groups should have the opportunity for meaningful participation in, and equitable benefit from, water security improvement planning.
Gender and Social Inclusion (GSI)	Transformed social norms that create a supportive and equitable environment where all people have agency over their own lives and input into the decisions that affect them. Water for all: Not excluding any person or group of society based on gender or other factors such as age, cognitive or physical disability, economic status, political orientation, marriage status (e.g. single mothers), migrants/people from another place, or people who follow a different faith.
Germs	Microorganisms and pathogens that carry illness and can make you sick (e.g. bacteria, viruses)
Hazard	Hazards are events or situations that are currently happening or might happen, and which could reduce the availability or security of water. They may be physical, biological or a chemical agent that can cause harm to people or result in no water for people.
Hazardous event	An event that introduces hazards to, or fails to remove them from, the water supply or an event that causes interruption to the supply of water to consumers.
Resilience	The ability to recover quickly from setbacks.

Risk	The risk of a hazard is based on the likelihood of identified hazards causing harm in exposed populations, the number of people that would be affected, and the severity of the consequences of that harm.
Risk Assessment	A risk assessment considers how likely a hazard is to occur, how many people would be affected, and the severity of the consequence of that hazard. By conducting a risk assessment, water managers can prioritise action for those hazards that are likely to have the greatest negative consequences.
Water quality	The health/safety of water.
Water security	The ability for a village to be able to safeguard the sustainable availability of, access to, and use of a safe, reliable, and resilient quantity and quality of water for the health and wellbeing of everyone in the village. For this CWSIP process the focus is on domestic water security for residents of villages in Solomon Islands – this includes water for all domestic needs, e.g. drinking, washing, bathing, cleaning, sanitation, hygiene.
Water Zone/Area	A number of households in close proximity to one another, within a village, that share access to a water point either as a component of a larger water system (e.g. a tapstand) or as a standalone source (e.g. handpump, well, spring, rainwater tank).

Gud Wata Plan Blong Iumi

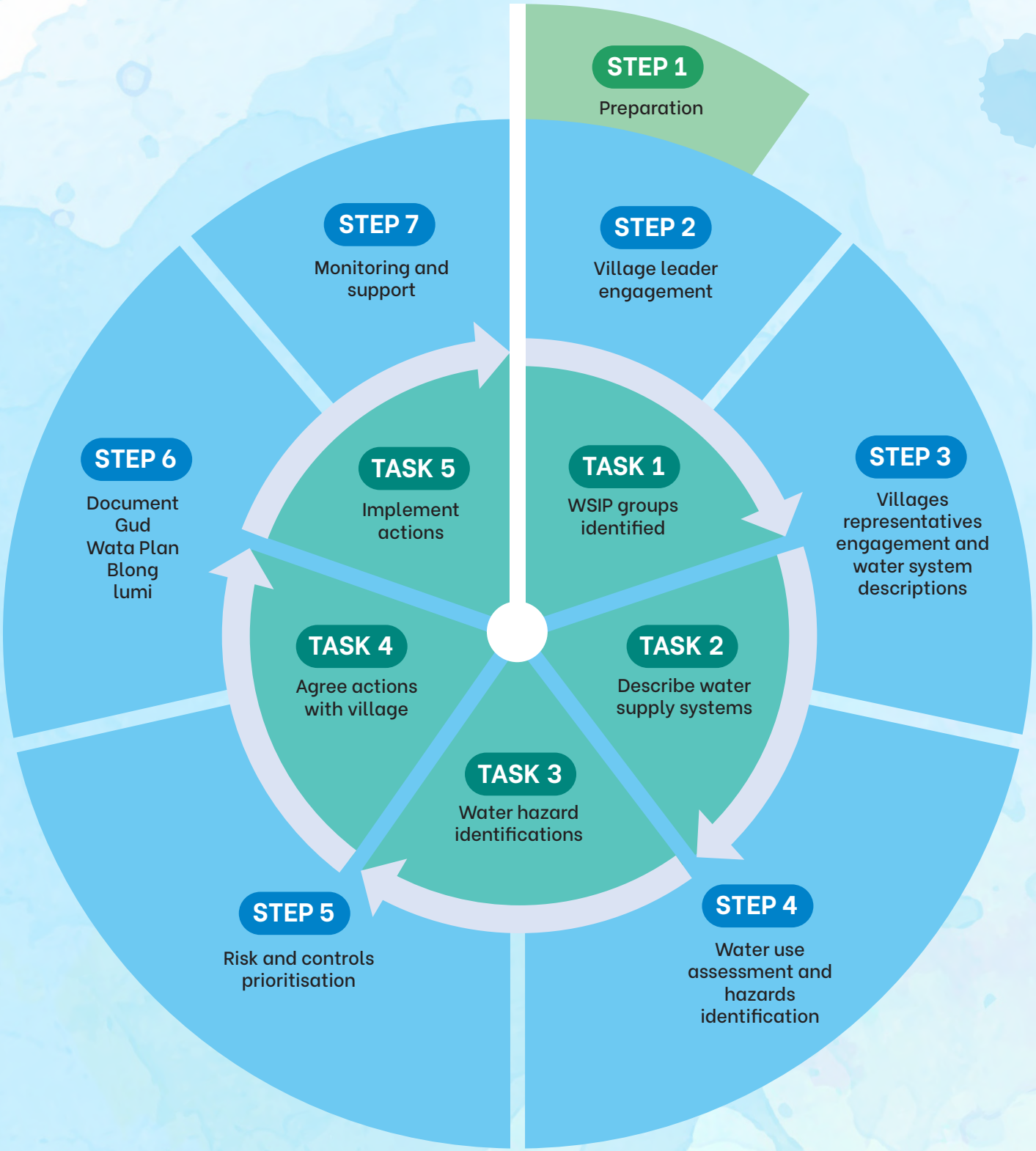
CYCLE

7 community engagement steps

for WSIP facilitators

with 5 tasks

for village members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TASK 5
Implement actions

What is the

Gud Wata Plan Blong Iumi?

- A process to help villages improve access to safe and regular water
- Supports people to identify and then manage (reduce and remove) risks to their water
- Increases understanding about how germs get into water
- Gives better understanding of how, when and where all people in a village use and access water
- Help people better understand the types of problems that affect water quality and water reliability
- Identifies actions the village can do now, and in the future, to improve water safety and reliability
- Works with a village through training to support 5 tasks to develop a village Water Plan
- Works not just with a village committee or leadership but also with people from zones or areas across the whole village. This improves the Water Plan.

What the Wata Plan is not:

it is NOT a new water system – it is NOT a project

Roles for Facilitator and Village

	Facilitator steps	Village Tasks	Actions that will enable GSI	Actions that will enable Climate Resilience
STEP 1	**Activity:** Gather Village background **To:** confirm groups and zones and water types **When:** 2 weeks before Step 2 **Duration:** ½ day		Identify all groups to ensure they will be engaged in WSIP process	Identify climate predictions
STEP 2	**Activity:** Engage village leaders on water sources and zones **To:** Motivation and permission for **WSIP** (zone approach) **When:** Week 1 **Duration:** ½ day	Organise zone meetings for Step 3	Seek identification of all groups	
STEP 3	**Activities:** 3a. Zone meetings 3b. Introduce water systems task **To:** motivate WSIP and identify representatives and gather data on water systems **When:** Week 2 **Duration:** 1-2 days	**TASK 1** **WSIP groups identified** Identify all water sources available, when used and for what uses. Zone reps complete household survey, collect stories and map water systems	Seek meaningful participation of all marginalised people in zone group meetings. Incorporate experiences and needs from all marginalised people in stories and HH survey	
STEP 4	**Activity:** Village meeting of zone reps **To:** share water systems (maps, survey) and stories from each zone; and training in water pathways and identifying hazards **When:** 1-2 weeks after Step 3 **Duration:** 1 day	**TASK 2** **Describe water supply systems** Zone representatives identify hazards & hazardous events within their respective zones	Incorporate hazards experienced by all people	Consider expected climate related hazards in assessment of existing and future hazards
STEP 5	**Activity:** Village meeting of zone reps **To:** Share hazard assessment results and prioritise controls When: 1-2 weeks after Step 4 **Duration:** 2 days	**TASK 3** **Water hazard identifications** Zone reps present, discuss & agree action & priorities with village & village leaders	Prioritise improvements to achieve equitable access Discuss positive and negative impact of controls	Identify actions for prioritised climate related hazards
STEP 6	**Activity:** village meeting of zone reps **To:** Document Gud Wata Plan Blong lumi **When:** 1 week after Step 5 **Duration:** 1 day	**TASK 4** **Agree actions with village** Ongoing implementation and monitoring of village Plan	Include all sources and needs of all people	Include climate hazards and actions
STEP 7	**Activity:** Ongoing implementation, monitoring & support-monitor water quality **To:** Support sustained village water security **When:** 1 month after Step 6 (then every 2-3 months) **Duration:** 1 day	**TASK 5** **Implement actions**	Strengthen equitable implementation	Adaption of plan to emerging hazards

STEP 4

STEP 4

Water use assessment and hazards identification

Timing

1-3 weeks after Step 3 (enough time for the Water Planning Group to complete step 3, but not too long that they lose momentum)

Summary

This step allows for knowledge to be shared across the village once data collection is completed by the Water Planning Group. Sharing this knowledge is the start to developing a common understanding of water access and challenges.

This step involves providing training and knowledge about water pathways, 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.

Step 4 is a very busy time, with at least 6 different types of meetings with different groups in the community. So make sure you have reviewed all the information and are clear on all the different groups of people who need to be involved before you start any facilitation.

All water points identified by the community should be geo-located for future reference if possible.

Objectives

- Share stories and information between zones about water situations to build a collective understanding about some of the strengths and weaknesses of the current water systems, specifically considering accessibility for all.
- Share stories and information about the water issues faced by women.
- Build shared understanding of water pathways (water cycles and environments, and water systems to provide people with water).
- Build shared understanding of contaminants that affect water quality, sources of these and pathways through water systems.
- Build shared understanding of hazards affecting water availability and reliability.
- 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 population shifts (e.g. increased water demand).
- Geo-locate all water sources identified by the community, including characteristics. You can use the mWater application to 'create water point' and complete 'CWSIP Water Point Survey'. Or check with government contacts as to what is the best method for locating and recording the water sources.

Duration

1 or 2 days

Preparation and resources

Ensure that meetings are organised before-hand. As there are many activities in this section, involving different groups, you may like to spread the activities across two or more days, so that invitations to participants can be given and time set aside.

Read through the following facilitators' background information:

- How water moves through the environment
- Climatic impacts on the water cycle

Print copies of the following community activity resources:

- Pictures of the water sources in that community - one for each zone (Volume 3, page X)
- Pathways and hazards picture cards (Volume 3, page X)
- Completed Household survey summary table (one for each zone, done in Step 3):
- Hazard assessment form – 8 blank copies for for each zone
- Water cycle graphic (print on A3 if possible, or draw a copy on butchers paper)

Take:

- 5 pieces of sheet paper and coloured markers
- Glass/clear cup (for 'Can you see germs?' activity)

Water Cycle:

How Water Moves Through the Environment

To understand how contaminants get into drinking water it is useful to understand the water cycle (see below). 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.

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

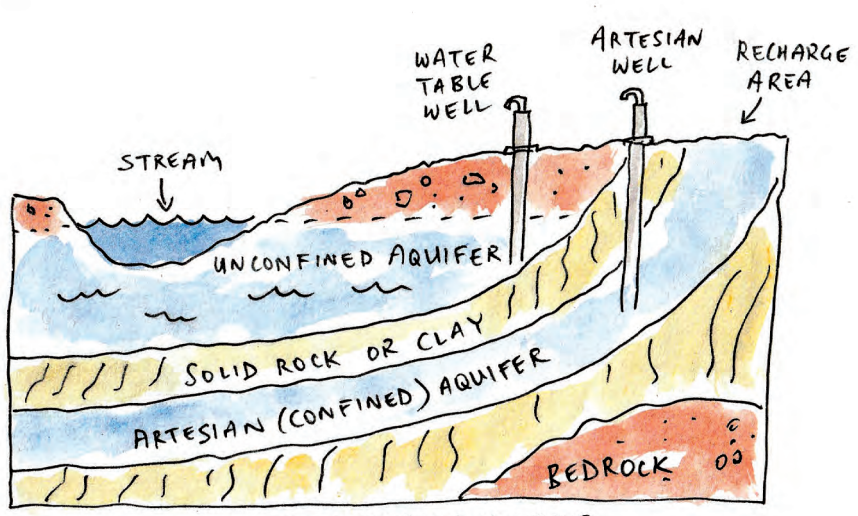
Rain that does not soak into the ground runs off forming creeks, streams, rivers, lakes before returning to the ocean.

Infiltration

Some water seeps into the ground/earth to become groundwater.

Groundwater

The top of groundwater (see image below) is referred to as the water table, the level of which typically follows 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

Climatic impacts on the water cycle:

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.

Activities

Day 1:

- Separate women's discussion group
- Water Planning Group discussion on results of household surveys (1 hour)
- Water Planning Group report from women's discussion (30mins – 1 hour)
- Tokstori on water systems in the village (2–3 hours)

Day 2:

- Training session on water pathways and identifying hazards (3 hours)
- Briefing on hazard assessment task (to be completed before Step 5)

It is always helpful to invite village leaders to listen to the discussions in any of the meetings. They do not need to play any role in these discussions – they are just there to hear more details about the existing water situation. Involving the village leaders is helpful for enlisting their support and for giving importance to the information that is shared (especially from the women), as well as helping to create some accountability for the Water Planning Group to continue with developing the plan.

Women's discussion group (45 mins)

- Hold a discussion group amongst women from across the community – this does not need to be limited to women already in the Water Planning Group. Invite 4-8 women to participate in the discussion.

- The discussion facilitator can be either the CWSIP facilitator or 1-2 women from the Water Planning Group (if interested and able).

- Ensure someone is taking notes (on sheet paper).

- Explain that the purpose is to discuss the water situation and issues in the village, and that the voices of women are important because of the important role women play in using and managing water. Discuss all of the water sources that are being used – some of these might be managed by the community, and some might be at the household level (such as rainwater tanks) – and ask the following:

    - **What do women like about the current water situation? What is good about it?** *(When taking notes, add information about what type of water systems the women are talking about – e.g. household rain tanks, community tap stands, shared bore pumps.)*

    - **What do women not like about the existing water situation? What do they find difficult? (***Add note about types of water systems being discussed.)*

    - **What things would they like to be able to do that they can't do, using the existing water system?** *(Encourage discussion about how they would like to use water, rather than what type of infrastructure they think is needed. For example: "I want to be able to wash the clothes and kitchen equipment closer to the house", "I want to be able to have water any time of the day".)*

- At the end, identify 2 or 3 of the women who are willing to share this information, on behalf of the women's group, with the Water Planning Group.

Water planning group meeting – Summarising household survey data (~1 hour)

Get the Water Planning Group members together for a meeting. The purpose of the meeting is to review the household surveys and stories collected by the zone representatives after Step 3. If the zone representatives have not completed the Summary of Household Surveys form (see Volume 1, page 58-59) provide help in completing the forms.

Once the summary of household surveys is completed and stories are collected, move on to presenting a report from the earlier women's discussion.

Report from women's discussion (~30 mins)

In the water planning group meeting, invite representatives from the women's group discussion to share some of the main points raised by the women. They can use the sheet paper of notes if they would like. Emphasize that they should not try to repeat everything that was said in the women's discussion, but to focus on some messages that they think will help others to understand the perspective of women.

- Encourage the water planning group to ask questions and discuss the feedback from the women.
- Once the women have finished giving their report and it has been discussed, they are free to leave the planning meeting. Or they might like to stay to listen to the results of the survey and stories from each zone (the facilitator can best decide which is more appropriate).
- The village leaders can also be invited to leave at this time, or to stay longer to hear the results of the survey and stories (again, the facilitator is best placed to determine how to involve the village leaders).

Tokstori on different water systems in this village and people's experiences with them (2-3 hours)

Have each zone share with the wider group what they found from the research.

They should share:

- zone map, and point out the different water supplies being used
- the Zone Household Survey Summary Report (completed in Step 3)
- 2-5 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 representatives:

- **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** (e.g. including bore pumps and household rainwater tanks)**?**
- **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 households?**
- **Were there any elderly people or people with a disability in your zone? If so, how well could they access safe and reliable water?**
- **Do people think the water is safe to drink? Any treatment?**
- **What do people think makes water unsafe?**
- **Any surprising or interesting information?**

Make a table on sheet paper (example below) and as each zone representative is making their presentation on household survey results and map and stories, keep adding to the table.

Encourage other members of the Water Planning Group to ask questions, to make sure they understand the water situation in all zones.

Types of water sources and systems	Zones (that use this type of water)	Uses: drinking (treated or not?), swimming, washing, etc	Good things	Bad things	Storms and heavy rain (e.g. wind, flooding, lots of rain)	Less rain	Sea level increase

After **all** of the zone representatives have shared their results, facilitate a discussion about climate-related water problems (to get community members thinking about problems that are not always present but happen sometimes, including the types of problems that might become more common as climate continues to change). Add the key points discussed to the table (as in the example above).

- What happened to these water sources during past storms?
- 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 if sea level increases – would this affect these water sources?

If maps have been developed, arrange to take a photograph of the whole village's systems. If a map has not been developed this can be done at a later stage. The objective is for village members to share an understanding of the range of water sources and how they are used.

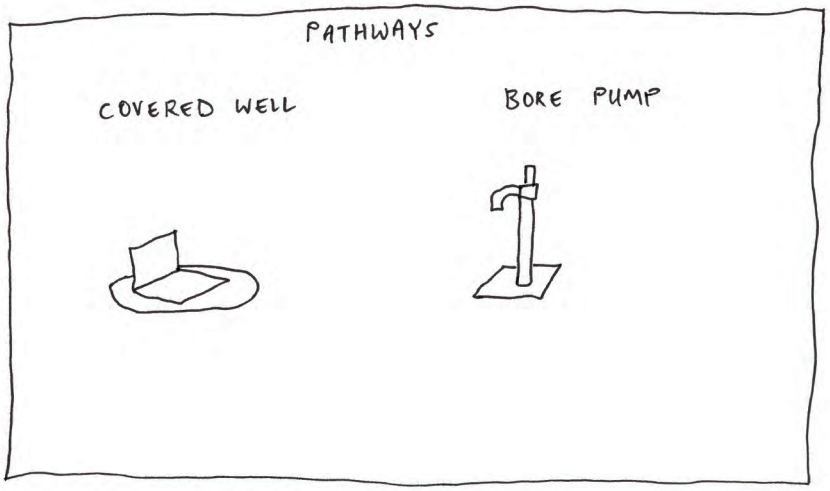
Training Sessions – Water Pathways and Identifying Hazards (3 hours)

Water pathways – how water moves through the environment

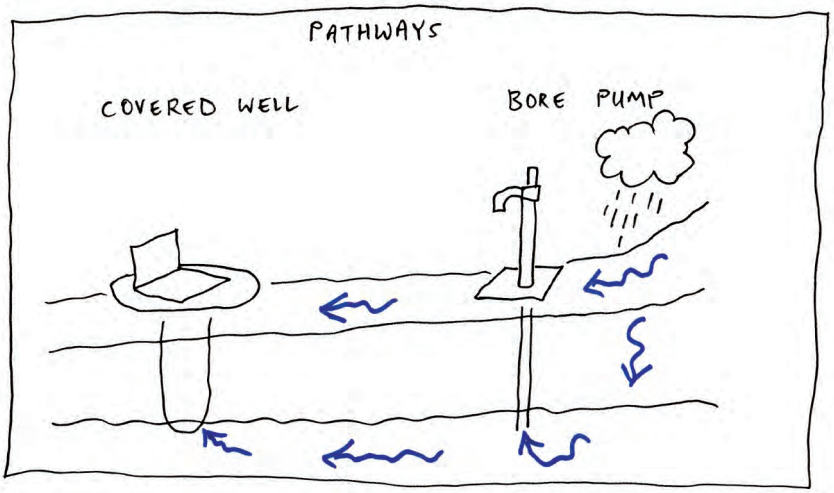
This is a session for the Water Planning Group, and other interested village members, to learn about the water cycle and specifically where their water comes from.

1. Draw on a large piece of paper, or use images of the water cycle, to explain where water comes from and where it goes. Explain that water runs across the land and into the ground.

2. Discuss where water comes from in the village. Identify each water point. On another large piece of paper make a simple drawing of, and label, the water points. (Below is an example of what you can draw.) Use the photographs in the appendix to help identify water points.



3. Discuss how water gets to these water points (the water pathways) and draw this on the paper (see example below). In Step 6 you will add hazards to the drawing.



Identifying hazards to water quality and water availability

1. *Discuss the four main* **contaminants that make water "unsafe/unhealthy"**, *as listed below. Use the HAZARDS picture cards with discussion prompts on the back – see Volume 3 – to help with discussions.*

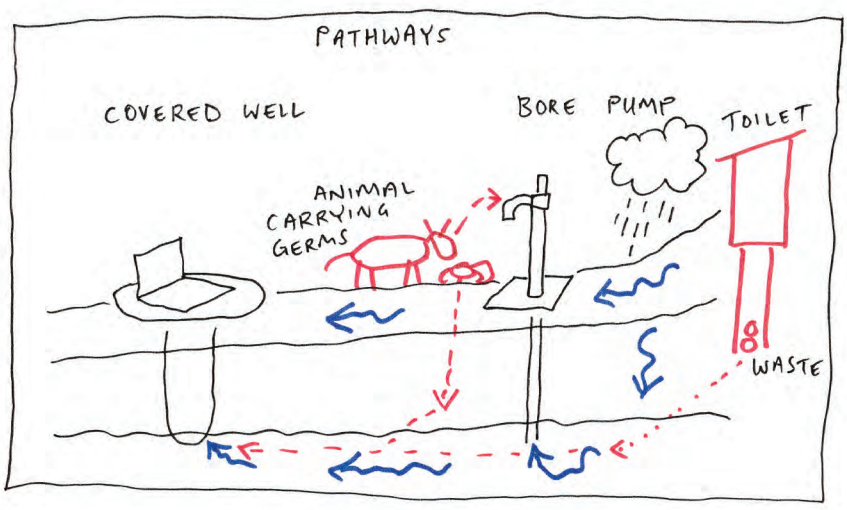
   - **Germs in** *siti/waste from animals or people – these make water unsafe to drink. (Make sure everyone understands what germs are, where they come from and that they cannot be seen.)*
   - **Sediments** *(mud and dirt) – these make water look dirty.*
   - **Salt –** *this makes water taste bad.*
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

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

Optional activity: can you see germs?

With a glass of drinking water or clean bottle of water offer it to someone and ask if they could drink it. If they say yes, then ask others until everyone agrees that they could drink the water. Next, pull a hair from your head and ask what is in your hand. Ask if they can see it. Then touch it on some faeces on the ground so that all can see. Now dip the hair in the water and ask if they can see anything in the water. The answer should be 'no'. Next, offer the water to anyone standing near to you and ask them to drink it. Immediately they will refuse. Pass the water on to others and ask if they could drink. No one will want to drink that water because they have seen the faeces touch the water. Ask if they can see the germs of faeces in the water. So how do people know if water is safe to drink or not?

2. Add **contaminant pathways** to the water pathways drawings. Use the same drawings as earlier. Draw or write the sources on the picture, and add arrows showing how the contaminants can move through water systems into drinking water. Use the table of water hazards below to prompt what is added to the pathways picture.



HAZARDS - WATER QUALITY

HAZARDS	SOURCES and CAUSES (Where From)	WATER PATHWAYS
Germs	Human *siti* – 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 siti – pick up germs on feet and mouths and then enter water sources • Dirty hands after defecation touch water containers
	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
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

3. Add hazards that affect **water quantity or availability** to the water pathways drawings (example below), as described in the table below. (You can use the picture cards of these water availability hazards in Volume 3 if they haven't been discussed already.)

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 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

VILLAGE TASK 3

Hazard assessment in zones.

Ask the Water Planning Group to complete a hazard assessment and agree on a meeting date to share the results.

The hazard assessment can be written on any paper, or you can use the hazard assessment template following.

Discuss and agree which water sources and which water access points they should assess.

- This should include 3 or 4 water sources – make sure the main sources used for drinking are included.
- For each source, also choose 1 or 2 access points.
- The total number of hazard forms for each zone should be between 4 and 8.

Go outside to a water point with the Water Planning Group and show them how to do a hazard assessment. Only write down the hazards that are relevant to this water point.

Tip: Some Water Planning Group members from different zones may want to work together as a team to do this hazard analysis, to support each other.

You may want to do several hazard assessments with the Water Planning Group, until they feel confident. For each extra assessment you do with them, encourage them to take more responsibility for identifying the hazards.

Ensure the zone representatives all have at least 8 copies of the Hazard Assessment Form to use in their zones. Explain that the results of the zone hazard assessment will be used together to complete Step 5.

HAZARD ASSESSMENT FORM

FOR VILLAGE WATER SOURCES AND ACCESS POINTS

VILLAGE_____ ZONE: _____ DATE:_____

Zone representatives completing this form:

_____

Water point assessed is: (CIRCLE): water access point water source

Name of water point (code on map): _____

For access points: what is the source name: _____

Type of source: _____

Type of access point (e.g. shared tap, shared well, HH tap, bore pump tap etc.)_____

How many people use this water point: _____

- Older than 50: _____
- People with a disability (which disabilities): _____
- Any others that have more difficulty than others in using this water source? _____

Impacts to people from not being able to use this water point:

Hazard	Causes	When (now, future, how often)

Map water sources

It is helpful to map the water sources. Check with a government advisor as to the best method to use.

If you are using mWater, you can use the list of water sources for different households at different times of year developed in previous steps, 'create a water point site' and complete the 'CWSIP Water Point Survey' in the mWater app for each of these water sources. This data will form a record of the diverse water sources being used in rural areas and create a baseline for water quality and quantity at these sources.

Monitoring

In the monitoring system:

- Add women's discussion, Water Planning Group meetings (village, date, location of meeting, participants names, and zone they represent), reflections on process (what worked well, what did not etc.).
- Add photographs of the zone maps.
- Add photographs of all household surveys and summary form for each zone.
- Add photographs of the water pathways drawings (completed) and the hazard summary table.

Confirm and record next meeting date.

Checklist

Please refer to the ***Gud Wata Plan Blong Iumi*** Facilitator Checklist for this village (a blank master Checklist is given in Volume 1) and ensure you have completed all activities in Step 4.

STEP 5

Develop and prioritise hazard controls and improvement plan

Timing

Complete Step 5 after Step 4, or within the next three weeks

Summary

This step allows the village representatives to identify measures to remove or reduce the effects of hazards on their water supply. The existing water quality will be tested in this step to provide a baseline (before the *Gud Wata Plan Blong Iumi* is implemented) and representatives will develop a prioritised list of activities (control measures) prioritised by their impact and the communities resources and capacity to implement.

Objectives

- Shared understanding of hazards to water quantity and quality, for different water sources across the village
- Water quality tests completed and data stored
- Prioritised list of actions and improvements considering impact, equality and capacity (cost and resources) to implement
- Water Planning Group feels empowered to start implementing actions to improve access to safe and reliable water for all.

Duration

- 2 days over a 3-day period (You can begin the activities in the afternoon after arriving in the community)

Preparation and resources

- Sheet paper (10 pieces) and markers
- Materials required for water quality sampling test in section 2 below.
- Make sure the village members bring with them the hazards tables prepared in Step 4.
- Print the following resources:
    - Water testing form (1 copy)
    - Assessing water system risks (print enough copies for all zone representatives)
    - Hazards and controls (print enough copies for all zone representatives)

Activities

Day 1:

- Facilitate session “Hazard assessment” (2-2.5 hours)
- Undertake “Water quality sampling (Part I)” (1 hour)

Day 2:

- Facilitate session “Introducing controls and existing controls” (45min)
- Facilitate session “Assessing and prioritising risks” (2-2.5 hours)
- Facilitate session “Managing hazards using controls” (3 hours)

Day 3:

- Facilitate session “Water quality results (Part II)” (1 hour)
- Facilitate session “Selecting controls for the CWSIP” (1 hours)
- Give task to community to socialise and agree plan (30 mins)

Hazard assessment (2-3 hours)

On a large sheet of paper, copy the hazard assessment table below. One sheet will be needed for each zone.

WATER SYSTEM (source and access point)	PEOPLE using this water system	HAZARDS Affecting water quality AND Water availability	CAUSES of this hazard

Ask zone representatives to report the hazards they identified for each water system, in order to develop a table of hazards for each type of water system. As they are reporting, fill in the details of the table.

At the **end of <u>each</u> zone representative report, discuss the following with the whole group:**

- Have all of the water sources and access points been listed?
- Have all **hazards to water quantity/availability** been identified? Have all **hazards to water quality** been identified? Use the tables prepared in Step 4 as a checklist (and the list below).
- Check whether these hazards relating to climate change have been considered:
    - Droughts
    - Floods (rivers, streams, fresh water)
    - Coastal floods (sea water coming in during storms)
    - Sea level rise (slow increase in height of sea water)

- Before moving to the next activity, ask...
    - Are the hazards impacting all people in the village, or are some zones or households or individuals experiencing less water quantity or quality than others?
    - Are there households/individuals who have poor access to water?
    - Identify whether the WASH needs of women are affected by any of these hazards – are there any hazards missing that make it difficult for women to meet their WASH needs in the ways they want? (Think back to the women's discussion group, especially about the challenges, but also about what they want to be able to do, using the water system.)
    - Make sure this information is recorded in the table (in the column 'People using this water system')

TIP: A long list of hazards may make village members feel there are too many problems to be fixed. Remind them that the reason for doing this is to identify problems that might occur and to prevent them or reduce their impact, and encourage them to focus on hazards causing the biggest problems (affecting many people or causing serious water problems like very unsafe water or no water available.)

Here is an example table:

ZONE: _____

WATER SYSTEM (source and access point)	**PEOPLE using this water system**	**HAZARDS**	**CAUSES of this hazard** (hazardous activities/events)
Dam + storage tank + shared taps + containers	8 Households = 56 people 26 women; 4 people over 60 years old, 1 person blind	Human germs	• Toilets nearby and defecation in near gardens • Dirty hands in containers • Animals swimming in dam
		Animal germs	• Animals swimming in dam • Animals licking taps and containers near taps
		Water stops at taps	• Blocked pipe from dam – leaves blocking when raining • Dam too low – no rain • Dam too low – too much water use • Dam too low – too many people
Household rainwater tanks	4 tanks – shared by 11 households	Human germs	• Dirty hands in containers use to carry and store water
		Animal germs	• Animals licking taps and containers near taps • Animal siti on roof gets into tank – dirty tank
		No water in tank	• No rain for long time • Tank is not big enough for this many people • Tank or gutters broken from storms

Causes of water quantity hazards

Identifying the causes of hazards is important so that improvements (or management actions) can be made. Examples of causes of poor water quantity include blockage of pipes during wet season, or pipe breakages.

It is likely that the understanding of what causes water shortages (*wata dry)* is very high. Through a facilitated session, capture what causes *wata dry* (hazardous events) along with what is currently done (existing controls).

Use the following discussion points to capture the causes of wata dry:

- What causes *wata dry?* (Capture a list of causes/hazardous events.)
- Which households/zones have this for the most time? Why? (Ensure development of an improvement plan for these households/zones.)
- What happens in the dry season? What happens in the rainy season?

The following information can be used to further prompt discussions about types of hazards that affect water reliability or availability to ensure they are properly covered in the hazard lists.

Water quality sampling (Part I) (1 hour)

The water tests will detect whether there are germs from humans or animals in the water, and therefore how safe water is for drinking.

Zone representatives should be involved in the water testing BUT the testing should be done by a trained CWSIP facilitator.

Number of tests

The exact number of samples to be tested will vary with each village, depending on how many different water sources and access points are in use, and how many hazards there are. *Not more than 10 water samples should be done in each village.*

Water locations to test

The CWSIP facilitator should select the locations for water testing, in consultation with the zone representatives. Please consider the following when choosing water locations for testing:

- Not all sources and access points can be tested due to a limit on the number of tests that can be done. Choose a mix of types of water systems. For example, if there are many household rainwater tanks, or many bores or wells, choose only one or two.
- If the village has a piped water system (e.g. from a dam or spring), one sample should be taken from the source, one at the storage tank and one taken from a tap that is at the end of the pipe system.
- If there are many bores or wells, choose 2 or 3 that are spread across the village. Try to choose bores/wells that are in different types of environments (e.g. some near the coast, some further inland, some near/far from gardens or toilets).
- Include at least one household water container. (Try to find one that already has water in it.) If there isn't one, ask the owner of a water container to fill the container for testing – it is important that they fill the container themselves, not the CWSIP facilitator. (This is because some contamination comes from people's hands and the testing might be able to detect this.)
- It is useful to include a positive control test – this is a sample of water that definitely has human or animal germs. There are two reasons for doing this:
    - It confirms the testing has been done properly.
    - It helps to reinforce the message that germs that come from human or animal waste and get into water sources make the water dirty even if it looks clean, and helps to reinforce the 'disgust' trigger of CLTS.
- You can decide whether to include a negative control. This is a sample of water that you know is not contaminated with germs. One option could be to boil some water in a pot in the village (boil it for at least 2 minutes of rolling bubbles and leave it to cool in the pot it was boiled in). Only use a kettle if you can keep the water boiling for 2 minutes with big rolling bubbles.

At each water sampling location

Use the following procedure to collect the water samples and complete the tests.

Water quality test procedure

Materials needed for water quality testing:

AquaGenX Bag for *E. coli*

Additional Equipment:

- *Disposable plastic gloves*
- *Disinfectant cleaning solution*
- *Wipes to clean work area*
- *Bleach to disinfect sample*

How to use AquaGenX Bag:

STEP 1: *Collect 100 ml water sample*

- Use plastic gloves to avoid touching inside of jug/AquaGenX bag with bare hands.
- Collect 100 ml water sample with jug.
    - It's always a good practice to collect just above 100 ml to compensate for spillage during transfer of sample from AquaGenX bag to compartment bags.
- Open AquaGenX bag and pour sample from jug into AquaGenX bag to just above 100 ml mark.
- Record sample details on template.
- Store the sample bag safely until all samples have been collected and then proceed to Step 2.
- Testing should begin within 6 hours of sample collection.

STEP 2: *Add E. coli growth medium to sample*

- Open growth medium pouch and add test bud to sample.
    - Do not touch growth medium with bare fingers or hands (always use plastic gloves).
- Dissolve growth medium in sample for 10–12 minutes in the AquaGenX Bag.
    - The growth medium should dissolve from its carrier when the plastic carrier turns white or nearly white.
- The sample should change colour – yellow OR yellow-brown.

STEP 3: *Pour sample into compartment bag*

- Label compartment bag first, before filling, according to your sample identification requirements.
- Tear off at top of compartment bag.
- Rub top and sides of bag together in each compartment before pouring in sample.
- Use white tabs at top of bag to pull open.
- Slowly pour sample into bag while gently squeezing or tilting bag to evenly distribute samples amongst five compartment.
- Fill sample evenly to top of fill line. Leave test bud/plastic carrier in AquaGenX Bag while pouring.

STEP 4: *Seal compartment bag*

- Attach seal clip across the bag above the fill line and below the compartment top openings.
- Roll down top of the bag toward the seal clip.
- Snap in both sides of the bag into U-shape to lock in place across the bag.

STEP 5: *Incubation Period*

- Incubation period works at 25 – 44.5$^{C.}$
- Leave sample in compartment bag and incubate for 20–48 hours.
- (See section 6 below for recording results)

While at each water sampling location complete the following **water testing form**:

Village		**Date**		
CWSIP facilitator				

Number	Water sample location name	Description – type of water source, type of access point (if sampling access point)	Hazards observed	Result (MPN)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Positive control	Source of germs:			

After collecting the samples

Complete the sample testing.

The samples need to be stored safely overnight – they need to be left to incubate (grow) for 24 hours.

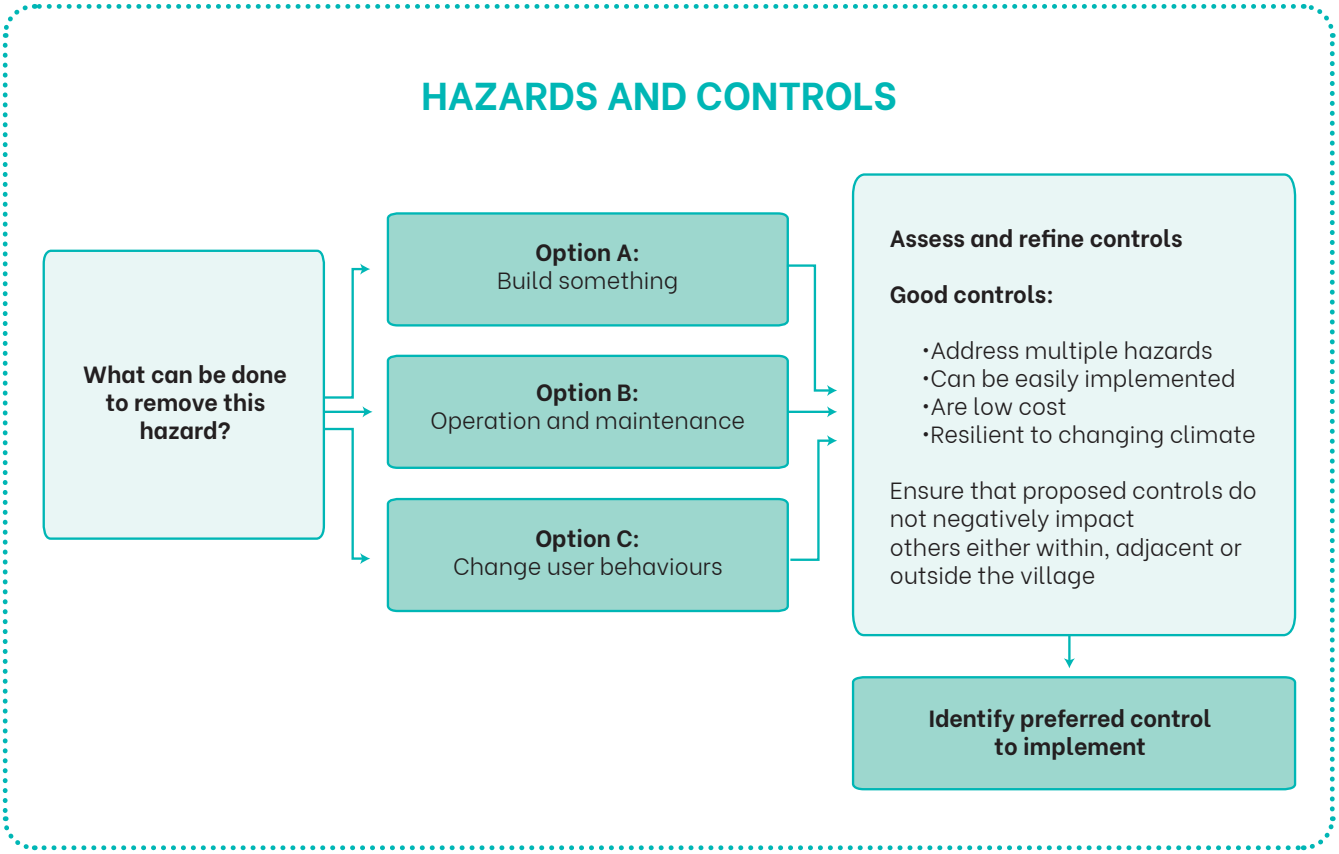
Discussing the results (on Day 3)

On Day 3 the sample bags can be inspected - let them develop for at least 24 hours. See section 6 for procedure for recording results.

Introducing controls and existing controls (45 mins)

Discuss with the Water Planning Group that controls are used to manage hazards. Controls are actions (things people do) or infrastructure designed to reduce the risk of hazards occurring.

Discuss some examples of controls (see below for some examples).



The following tables summarise the most common hazards and controls relevant to Solomon Islands villages. Add any extra controls you or community members identify. Many village members will have ideas about how the hazards can be prevented – discuss these and if they are likely to work, support village members to use controls and actions they are familiar with.

CONTROLS & ACTIONS

Hazard	Cause	Control
Germs from human siti/ faeces	• Open defecation • Leaking toilets • Nappies in rubbish • Animals touching siti • Dirty hands	• Stop open defecation • Construct and/or Move toilets • Wash hands after toilet • Move gardens away from source • Move rubbish away from source • Treat water • Plant along streams • Fix pipes • Fence animals • Fence taps, wells

Hazard	Cause	Control
Germs from animal siti	• Rain washes germs into streams, groundwater • Animals lick taps • Rain washes germs from roof into gutter, tank	• Fence animals • Fence tap, well • Clean gutter, tank • Treat water

Hazard	Cause	Control
Sediment, mud from cleared/ dug ground	• Rain washes sediment from logged/dug/cleared land and roofs into streams, wells, gutters	• Stop clearing land near water • Replant at water edge • Filter water • Clean roof, gutter • Clean sediment from dam, well • Build wall around well, bore

Hazard	Cause	Control
Salt from sea	• Storms flood wells, bores • Sea level rise floods bores, wells	• Relocate wells, bores to higher ground

Hazard	Cause	Control
Not enough water supply	• Drought • Tank or dam empty • Low pressure or broken system • Water source too far away	• Increase size of tank or dam • Add water supply – tank, bore, well • Fix or clean pipes, tanks • Bury pipes to avoid breaks • Lower water use (lessen waste) • Add piped supply • Improve water containers

Ask the Water Planning Group to add any existing controls that are already in place in their water systems to the table begun in activity 1 (above). Put these in a new column "Existing CONTROLS". Discuss these as a large group and ensure the teams update or make corrections to the existing controls listed in the table.

WATER SYSTEM (source and access point)	PEOPLE using this water system	HAZARDS Affecting water quality AND Water availability	CAUSES of this hazard	Existing CONTROLS			

Use the following points in a discussion about existing controls for water availability:

- What is done when *wata dry?*
- Where do people get water?
    - Who collects the water? For cooking? For washing clothes? For drinking?
- How does the *wata dry end?*

Assessing and prioritising risks (2 hours)

It is important to prioritise risks. This is because there are many improvement controls that could be put in place by the village, but it is **difficult to do everything at the same time.** Prioritising risks helps to focus village resources and energy on the hazards causing the biggest and most severe problems.

Future cycles of the CWSIP process can address risks that aren't addressed this time.

Each zone team should determine the risk level for each hazard for every water system. Other members of the Water Planning Group should assist zone representatives in this task.

First, ask them to add 3 headings to their last 3 columns on their hazards tables: 'SEVERITY', 'LIKELIHOOD & EXPOSURE', 'RISK level'.

Explain what these words mean (see below).

ZONE: _____ Risk assessment

WATER SYSTEM (source and access point)	PEOPLE using this water system	HAZARDS Affecting water quality AND Water availability	CAUSES of this hazard	Existing CONTROLS	SEVERITY	LIKELIHOOD & EXPOSURE	RISK level

Assessing water systems risks

Assessing the risks to a water system is a way to identify hazards with the highest priority, so that the resources of the village are focused on those hazards.

To assess risk for each water system, we need to assess the risk of each hazard. To do that we need to assess (i) the severity level and (ii) the likelihood and exposure level.

Severity:

an assessment of how serious (bad) the effects of this hazard are, for example, could they cause death, or are they less severe? Three levels of severity will be used:

Hazards	Severity level
• Human germs – likely to cause illness, hospitalisation or death(s) • Will have no water for a long time	High
• Animal germs – could cause illness • Might have no water, or will have no water only for a short time	Medium
• Sediment, Salt (cause minor irritation or discomfort) • Unlikely to have no water	Low

Likelihood and exposure:

an assessment of how likely a hazard is to happen and how many people would be affected. Three levels of likelihood and exposure will be used:

Hazards	Likelihood and exposure level
Very common, occurs often OR many people would be affected	High
Hazard could happen ***now or in the future*** (with changing climate or changing population) OR a medium number of people would be affected	Medium
Hazard does not happen often ***now or in the future*** OR only a small number of people would be affected	Low

Risk level:

an assessment of the overall importance of a hazard – based on the severity and the likelihood and exposure.

Likelihood & exposure	Severity		
	Low	Medium	High
High	Medium	High	Urgent
Medium	Low	Medium	High
Low	Low	Low	Medium

Once this information has been discussed, **show the Water Planning Group how to assess the risk level of the hazards they have listed.**

For **each hazard in the table of hazards for water systems, assess the severity level, then likelihood & exposure and the risk level.**

Add the water test results

When the water quality tests are completed, this information will be added to this risk assessment to help with prioritising risks.

For each water system type, add the water testing result to the HAZARDS column. **Check the likelihood and exposure assessment – does this need to be changed now** that the water test results are available?

For water sources with water test results of High Risk (MPN 13.6 – 48.3) or Unsafe (MPN >100) – the likelihood/exposure level should be high.

For water sources with water test results of Intermediate Risk (MPN 1.0 – 9.6) – the likelihood/exposure level should be medium (if was high, leave it at high).

For water sources with water test results of Low Risk (MPN 0.0) – the likelihood/exposure level should be low (if it was already medium or high, leave these levels).

If the likelihood/exposure level changed with the water test results, check **whether the final risk level** should also change.

Prioritise the risks:

Using the risk levels, identify the highest priority risks (for example, circle them in red):

- Select all 'urgent' risks.
- Select up to 3 risks in each zone.

Explain that the next step is to plan improvements to reduce these risk levels.

Managing hazards using controls

With a list of hazards developed and prioritised it is time to develop strategies to remove or reduce the hazard as far as possible.

Ask each zone team to think about controls that could be taken to remove the hazard or lessen the effects of the hazard. Ask them to focus on the highest priority risks.

Ask them to think about how feasible or possible it is to do each of these controls and to choose controls that are more likely to be adopted in this village.

Ask them to think about hazards that create unequal water access for different households. Are there actions that can be made to improve equal access to water?

Ask them to identify controls that require individual water users or households to take action (such as changing water use behaviours, reporting leaks) and controls that require changes to water systems at zone level (such as managing water access at different times, sharing responsibility to repair taps), or village or other levels (such as cleaning the dam, storage tanks or mains pipes).

Encourage them to choose controls that reduce the hazard the most – the *best is to remove the hazard* altogether.

Good controls:

- have a big effect on reducing the hazard
- address multiple hazards
- can be easily implemented
- are low cost
- are resilient to changing climate
- don't cause harm or difficulty for anyone.

Give them time to work on this in small groups and write their conclusions on paper. If you think it is helpful, you can provide them with copies of the lists of hazards and controls in section 3 (above). These controls should be discussed as to their appropriateness for the village context.

Remember – local people may have different ideas about how to manage a hazard – as long as it is likely to reduce the likelihood or exposure of a hazard, then it is good to build on knowledge and practices already familiar to the village.

This list of controls for hazards can be **written in any format** – a basic table such as this might be useful:

Table of Hazards and Controls

ZONE: _____

High and urgent risks (name the hazard)	Individual or household controls	Zone controls	Village or other controls

After possible controls have been identified:

Ask zone teams to ***share with other zone teams the controls they have suggested.***

Discuss whether these controls will remove or reduce the risk well, or whether there are other controls that might work better.

Discuss whether there are some controls that have been identified more than once (for a zone) – these are controls that can help to manage more than one hazard and which should be prioritised for implementation.

Discuss whether any controls might negatively affect any people either within, adjacent to or outside the village and identify alternatives that are not harmful.

Discuss and ensure that the water needs of women will be improved through these controls.

Ask teams to update their choice of controls based on these discussions.

Water Quality Results (Part II)

This is the second half of the water quality testing procedure begun in section 2.

STEP 6: *Score and record test results (after 20-48 hours)*

- Align compartments in correct sequence to MPN table (see below) to determine E. coli concentration.
- Yellow/yellow to brown indicates negative (absence) of E. coli.
- Blue/blue-green indicates positive (presence) of E. coli.
- Any trace of blue or blue/green in a compartment is considered positive.
- Record MPN results.

STEP 7: *Decontaminate sample*

- Open bags and pour bleach into sample to kill E. coli.
- Pour contents into sink, toilet or hole in the ground and safely dispose the empty compartment bags.
- Retain seal clip for re-use.

Record the results on the water quality testing form (see section 2) – and take a photo of this form to add to the monitoring systems. The form can be left with the village once a photo has been taken.

Remember, people will react differently to the water quality results; some may react negatively. They may be upset, angry, not willing to believe the results, worried or confused.

Record the water quality test results and note which water point they relate to.

If you are using mWater, you can capture the water quality test results using the 'water quality test' survey and link the water quality tests with the water point created in Step 4.

Discuss the results with the Water Planning Group:

- Remind everyone that the reason for measuring the water quality is to help prioritise which hazards should be addressed and where and when improvements should be made. The improvement plan should help to improve the water testing results, though it may take some time for the improvements to be completed.
- Discuss what the MPN numbers mean (see the guidelines below). These indicate how many germs were in the sample. More germs mean it is more likely the water could cause illness of it is drunk.
- For the water tests that had high numbers, discuss the hazards that likely caused this result (refer to the water testing form) – this will help to get people thinking about actions that could improve water quality.

Most Probable Number (MPN) Table

The MPN Table is based on the World Health Organization "Guidelines for Drinking Water Quality," 4th Edition. Table 5.4 in the Guidelines has risk categories for drinking water based on E. coli levels as ranged: 0/100 mL = Safe; 1-10/100ml = Intermediate Risk; 11-100/100,l = High Risk; and >100/100mL = Very High Risk. The general consensus is drinking water should contain on E.coli, but in some countries E.Coli numbers up to 10 or 20/100 mL may be tolerated as being of intermediate but allowable risk

Align your compartment bag so compartment #1 is on the left and compartment #5 is on the right. Match the colour or blue fluorescence sequence of your five compartments to one of these 32 rows. Additional scoring instructions are found below the MPN Table.

Compartment Number					MPN/100ml	Upper 95% Confidence Level/100ml	WHO Health Risk Category Based on MPN and Confidence Level
1	2	3	4	5			
10ml	30ml	56ml	3ml	1ml			
					0.0	2.87	Low Risk / Safe
					1.0	5.14	Intermediate Risk / Probably Safe
					1.0	4.74	
					1.1	5.16	
					1.2	5.64	
					1.5	7.81	
					2.0	6.32	
					2.1	6.85	
					2,1	6.64	
					2.4	7.81	
					2.4	8.12	
					2.6	8.51	
					3.2	8.38	
					3.7	9.70	
					3.1	11.36	Intermediate Risk / Possibly Safe
					3.2	11.82	
					3.4	12.53	
					3.9	10.43	
					4.0	10.94	
					4.7	22.75	
					5.2	14.73	
					5.4	12.93	
					5.6	17.14	
					5.8	16.87	
					8.4	21.19	
					9.1	37.04	
					9.6	37.68	
					13.6	83.06	High Risk / Possibly Unsafe
					17.1	56.35	
					32.6	145.55	High Risk / Probably Unsafe
					48.3	351.91	
					>100	9435.10	Unsafe

Selecting controls for the Water Security Improvement Plan

A. Individual, household and zone-level controls (actions to control hazards)

Ask zone teams to prioritise the household and zone level controls. Choose controls that help to manage more than one hazard, manage urgent risks, do not negatively affect any people, and can be implemented by the village.

They can choose these priority controls by ***circling them on their 'Hazards and Controls' table or list***

The priority list should:

- not include more than 5 household and zone controls
- include some controls that village members can do now, without any extra resources or support
- not include any controls that are harmful to anyone
- only include controls that people will know how to do, or can easily learn from zone representatives (or others in the village).

B. Village-level controls (actions to control hazards)

Village controls need to be discussed by the whole group. Make sure all zones are represented in these discussions.

Discuss the village controls that were identified by each zone team.

Are there too many to be all included in the plan for this year? Think about what resources the village has or can get access to and ensure there are not too many control actions for the resources that are available.

Recommend only selecting 1 or 2 large village controls that require extra resources or support. If there are more than 1 or 2, discuss:

- Which will manage the most urgent risks, for a long period of time? These might be affecting everyone or only some people. Urgent risks must be managed first.
- Which will benefit the most people?
- Which will benefit marginalised people?
- Which will not harm anyone?
- Which can be managed in the long term by members of the village?

C. Prepare a plan. (This last step is to ensure everyone is clear about which controls will be included in this cycle of the CWSIP, and how they will be progressed.)

Ask each zone team to prepare a plan to implement the household and zone controls.

First, they should list the controls they plan to implement.

For each they need to list

- what HH or others will need to do
- who will raise awareness and assist implementation of this control the cost
- source of money (e.g. householders, fundraising, request from MPs etc)
- when control will be implemented

Repeat this for the village-level controls.

Representatives may need assistance with estimating costs and identifying a feasible source of funding and timeline.

Identifying who will do what may require some discussion. It is not necessary that all controls are championed by only zone representatives. There may be some controls that would be better championed by someone else in the village – for example, handwashing with soap could be championed by a health worker in the village (if there is one), or by someone who is interested in health. But if other people are nominated to take responsibility, it is essential they are consulted and join STEP 6, so everyone is sure that person is willing to take the responsibility.

They might want to turn this list into a table like this:

ZONE IMPROVEMENT PLAN

ZONE NAME: _____ VILLAGE NAME:_____

Zone representatives:_____

HAZARD	RISK LEVEL	Priority CONTROLS	HH/others actions	Who to support HH	Cost and source of money	When implemented

ZONE IMPROVEMENT PLAN

ZONE NAME: _____ VILLAGE NAME:_____

Zone representatives (list all) :_____

HAZARD	RISK LEVEL	Priority CONTROLS	HH/others actions	Who to lead this control	Cost and source of money	When implemented

VILLAGE TASK 4

Get agreement on Zone Improvement Plans with village.

Zone representative task: agree plan with village

With a prioritised improvement plan developed, it is a good time to report back to the village and village leaders. Encourage the representative to discuss the plan with village members and village leaders to ensure that there is agreement. Improvements/controls will likely require a range of people to implement.

- Some actions will require the whole village working together (e.g. system repair or upgrades).
    - Discuss how young people and women can contribute here – try and ensure that women, youth and any marginalised people attend the 'report back' meeting and are given a voice (try and ensure young people, for instance, are not just given a 'task' but actively and willingly agree).
- Some CWSIP actions will be for specific households (e.g. those who experience the most *wata dry*).
    - *Is the control within the household's ability to implement? Do they need additional support to implement? Who will assist?*
- Some actions will be for all households to implement (e.g. cleaning storage containers).
- Does the plan provide equitable access for all? Prompt people to think about this and consider if this is reflected in the plan. This does not mean everyone receives the same improvements – the goal is for everyone to have equitable access to water, but this might require making improvements differently in differently places.

It is ok for the list of priorities to change through discussions with the broader village. The first *Gud Wata Plan Blong Iumi will be captured at the next step.*

Monitoring

In this step the following information will need to be captured in the monitoring systems (take photos of all sheets of paper made in the village and leaves sheets in the village):

- Hazard tables with risk assessments
- Water quality results
- Control plans for zones
- Control plans for village
- Date agreed for step 6
- Reflections on process (what worked well, what did not etc.)

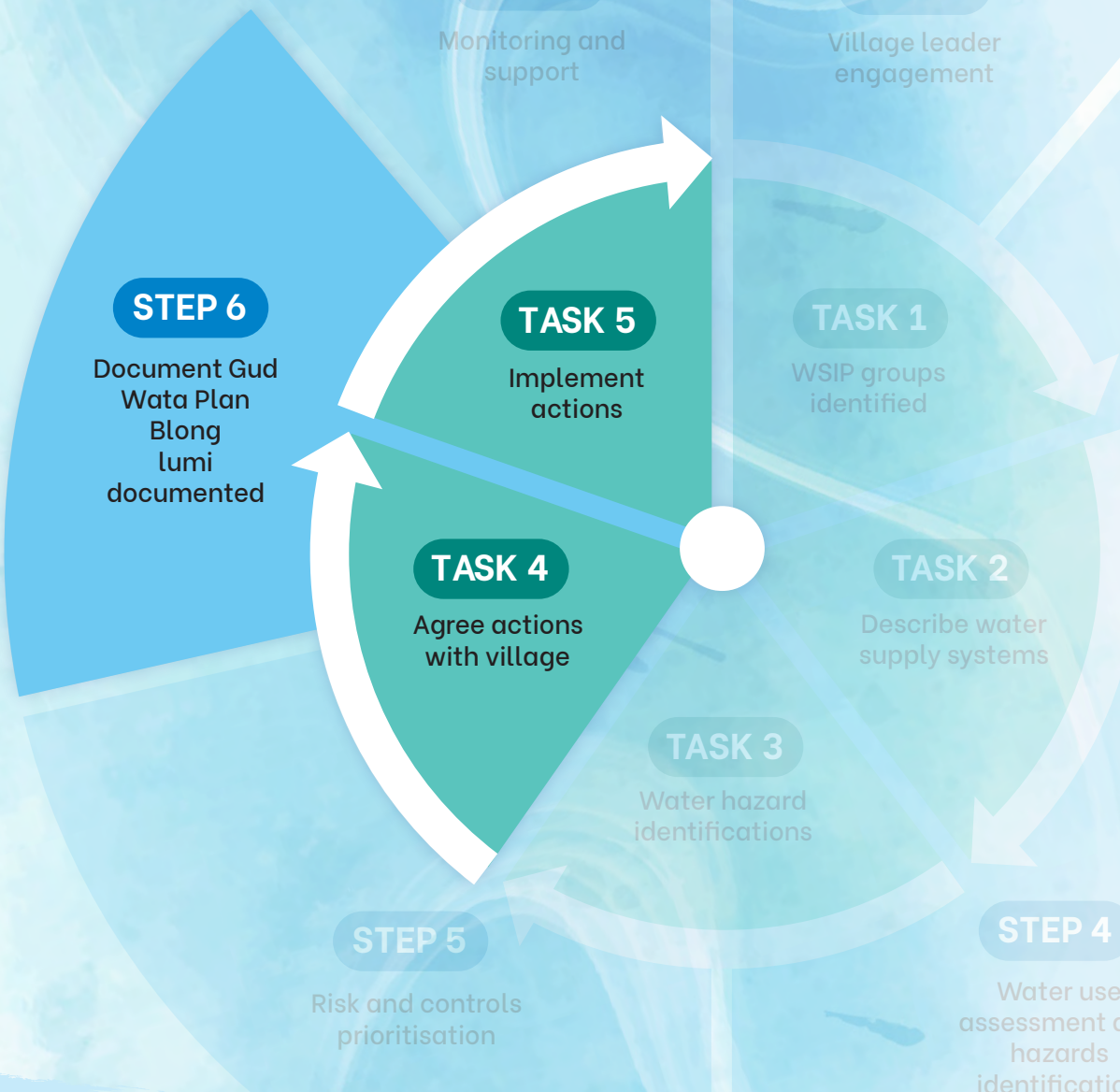
Checklist

Please refer to the CWSIP Facilitator Checklist for this village to ensure Step 5 has been completed.

STEP 6

STEP 6

Document Gud Wata Plan Blong lumi



Timing

0–3 weeks after Step 5

Summary

Documenting the process allows village members and village leaders to gain support from external parties (e.g. donors, government, NGOs) for expensive or technical improvements. It also serves as a useful reference for the village that can continually be updated as actions are implemented.

Objective

To collate knowledge and agreed actions in a documented plan

Duration:

Completing the *Gud Wata Plan Blong Iumi will require preparation in the office and 1 day in the village to finalise and hand over.*

Preparation

Using information recorded from previous steps, **much of the plan template (below) can be completed prior to returning to the village and confirmed again.** (Or, if there are very engaged members of the Water Planning Group and they have the capacity and resources, they might be able to prepare a draft of the template, or you can work together to prepare this. If this is the goal, make sure you bring all of the required documents, and a blank copy of the action plan template.)

- Village details are collected during Step 2
- Zone representatives collected during Step 3 (these may however have changed)
- Map of water sources captured at Step 4
- Water quality results collected at Step 5
- Risk assessment (hazards and identified improvements) developed at Step 5
- Prioritised improvement plan developed at Step 5. This may change as the Water Planning Group discuss with the village and village leaders
- Ongoing maintenance activities developed at Step 5 completed.

GUD WATA PLAN BLONG IUMI Template

This plan should be **reviewed every year,** to check that progress has been made, and to identify future priority actions.

Village Details	
Village Name	
Area / Province	
No. of households	
Village Population	
Village Contact Person	

Zones & Representatives

Representative contact details

Name	Contact	Zone

Water Sources

Zone(s)	Main Drinking water source	Number people using this main source for drinking		List all water sources available to this zone (not only drinking water)
		SHARED ACCESS POINT	HOUSEHOLD ACCESS POINT	
ZONE:	Rainwater tanks			
	Spring source			
	Wells			
	Bore pumps			
	River, stream, dam			
	Other			
ZONE:	Rainwater tanks			
	Spring source			
	Wells			
	Bore pumps			
	River, stream, dam			
	Other			

ZONE:	Rainwater tanks			
	Spring source			
	Wells			
	Bore pumps			
	River, stream, dam			
	Other			
ZONE:	Rainwater tanks			
	Spring source			
	Wells			
	Bore pumps			
	River, stream, dam			
	Other			
VILLAGE TOTAL:	Rainwater tanks			
	Spring source			
	Wells			
	Bore pumps			
	River, stream, dam			
	Other			

Refer to water quality testing instructions for comparing results to guidelines

Water quality results

SITE (draw location on the water map) & GPS coordinates	Type of water source and type of test location	Date of water test	E. Coli Results (MPN)	Comparison to guideline levels	HAZARDS noted & comments

Risk Assessment

Combine all risk assessments from all zones in the village into one table *List only the HIGH and URGENT risks*	TOTAL NO. RISK ASSESSMENT PAGES

WATER SYSTEM (source-distribution-access)	HAZARD (Water quality, quantity, other)	CAUSES	CURRENT CONTROLS (working?)	RISK ASSESSMENT			PRIORITY ACTIONS (CONTROLS) TO REDUCE RISK		
				Severity	Likelihood	RISK LEVEL	Scale of action (Village, zone, HH, other (name)	Description of action	Type of action (improvement, maintenance, HH or user action)

IN THIS TABLE, list the actions from the risk assessment that are **improvements** (e.g. upgrades to infrastructure). There should not be more than 1-3 major improvements for each village. If necessary, prioritise these based on the risk level and benefits from the improvement (e.g. choose improvements that manage more than 1 hazard).

This plan should be checked for progress regularly by the zone representatives or other village leaders or champions – who will monitor progress needs to be agreed.

NAME OF PERSON WHO WILL MONITOR PROGRESS OF THIS PLAN AND REPORT TO VILLAGE _____

Prioritised Improvement Plan

IMPROVEMENT REQUIRED	COST	SOURCES OF FUNDING (who, how much?)	STEPS TO GET/IMPLEMENT IMPROVEMENT				
			Step	Who	When	Support required for this step? What, who?	Status (completed)?

In this table, list the actions from the risk assessment table that are **maintenance.**

Different people can be assigned to checking that maintenance is completed and reporting this to the zone representatives. If helpful, zone representative can develop a maintenance schedule which is monitored (this lists specific dates for maintenance activities and each date is ticked when completed).

Ongoing Maintenance Activities

Zone	Maintenance activity	When (how often, which days)	Who to do maintenance	Who to monitor/check on maintenance

HH or Water User Actions

ZONE	ACTION	WHO	WHEN / HOW OFTEN	SUPPORT NEEDED	WHO WILL GIVE SUPPORT	STATUS (COMPLETED? WHEN? OR PROBLEMS?

Ongoing Support Request			
WHAT TYPE OF SUPPORT IS REQUESTED	WHEN (HOW OFTEN)	WHO (AND CONTACT)	STATUS (Has support been given? Enough?)

Activities

Step 6 is about presenting back all the knowledge that the village has developed and monitoring the improvements. It includes five activities:

- Share the draft *Gud Wata Plan Blong Iumi document with the Water Planning Group (2 hours)*
- *With Water Planning Group discuss "monitoring of Village CWSIP" (1 hour)*
- Identify "ongoing support" (1 hour)
- Discuss the ongoing arrangements of the Water Planning Group and the WASH Committee (if appropriate) (1 hour)
- Assist the Water Planning Group to present the plan to the village leaders and members (2 hours)

Share the *Gud Wata Plan Blong Iumi* with the Water Planning Group **(2 hours)**

The details for the *Gud Wata Plan Blong Iumi have been developed by the village and should be now included in the documented plan. Present the information to the Water Planning Group, seeking input to ensure the following*:

- Has it been recorded correctly?
- Is there something they want to change or add? (This is a **living document** so it is ok to keep changing and adding to it.)
- Are the Water Planning Group member details and responsibilities correct? Update as required.
- Have priorities been amended or changed? (This is ok.) Update plan as required.

Once you have presented the whole document to the Water Planning Group, hand the document over. Make sure you note any changes that were required.

Assist the Water Planning Group to present the main actions of the *Gud Wata Plan Blong Iumi* to village leaders and the broader village.

Monitoring of Village CWSIP (1 hour)

With the plan now in the hands of the village, hold a session to develop a progress monitoring approach for the village.

Use the actions identified in step 5 and captured in the completed plan as a framework for the village to monitor progress. These improvements, maintenance and water user actions should all have indicators for **who** and **when** they will be done, but also for **who** and **when** will monitor them. Discuss:

- How will completed items be recorded?
- How will maintenance be recorded?
- How will monitoring be recorded?
- How will monitoring results be shared in the zone or village?
- How will households and zones provide feedback?
- How will monitoring results be used to improve future actions and plans?

It is important to remind the village that the *Gud Wata Plan Blong Iumi is a living document, so as time progresses there will be new hazards and priorities, and the plan should be updated to reflect these changes.*

Ongoing support requested (1 hour)

The plan will likely need ongoing support to implement. Hold a meeting to identify what ongoing support the village requires to implement the plan. This should be a discussion between the CWSIP facilitator and the village. Capture this information directly in the *Gud Wata Plan Blong Iumi* plan.

Types of support that may be useful for the village might include those identified in step 7. There may also be others. Ensure you know how, when and what support can be provided.

Some of the agreed actions require funding beyond what the village can find on their own. (This is a useful discussion to have – how much can the village fundraise, rather than waiting for funding to appear?). If additional funding is required, identify potential sources (such as local Member for Parliament, the provincial government health division or the Rural Development Program). The newly developing Ward Development Committees or NGOs may also be an opportunity to submit requests for funds for infrastructure.

If any outside funding is secured, it is important that the Water Planning Group maintains control and ownership of the improvements that are made and that they align with the control actions identified in the plan. Any funders should be introduced to the plan, and the preferred control actions explained by the Water Planning Group / WASH Committee.

The SIG RWASH Community Engagement Guidelines include several training activities that may be useful for helping communities to implement their action plans (for example, technical training, financial management training and conflict management).

This is an important time to ensure that the villagers feel empowered to implement the plan, but that they also feel supported should they require assistance.

Document the actions in the *Gud Wata Plan Blong Iumi* and take a photo. This creates a greater sense of accountability.

Discuss the role of any existing WASH Committee

In communities where there is an existing WASH Committee, discuss with the Water Planning Group, the village leaders, and WASH Committee members the ongoing relationship between the Water Planning Group and the WASH Committee. It may also be useful to discuss the engagement of other community groups that might assist in delivering the action plan.

Every community will have a different situation, and CWSIP facilitators will need to consider the best arrangements of groups and committees and encourage the village to also think about the best way to ensure the plan is implemented and looked after.

It is critical to make sure that everyone in the village knows there is now a water plan, and that it is everyone's responsibility to assist with managing the water system.

Monitoring and Checklist

The first *Gud Wata Plan Blong Iumi* should be finalised during this visit and the plan can then be captured in the monitoring system.

Refer to the CWSIP Facilitator Checklist for this village to ensure Step 6 has been completed.

VILLAGE TASK 5

Ongoing implementation and monitoring of Village Gud Wata Plan Blong Iumi.

Congratulate the Water Planning Group on reaching the end of the first cycle of the CWSIP process!

Plan a celebration with the community and encourage those selected to lead the village in the implementation of actions in the plan, and the monitoring of the plan.

Set a date for a follow-up visit (at least 1 month after completing the plan).

STEP 7

STEP 7

Ongoing implementation, monitoring and support

Timing

No longer than 1 month after Step 6 then at least once every 2–3 months

Summary

This step is to provide ongoing support in implementation of the *Gud Wata Plan Blong Iumi* plan, monitor implementation progress, assess effectiveness of controls and to update the plan in a cyclical approach of incremental improvements.

This important step – which is an ongoing activity – provides information for the next cycle of the CWSIP process about what risks have been addressed and whether things have improved, and what risks remain to be addressed.

Objectives

- Support ongoing water security improvements to improve health outcomes
- Provide encouragement and support (technical and financial)
- Reinforce 'assess, plan, act, monitor' cycle within community
- (Other objectives of step 7 to be developed in training)

Preparation

Before heading to the village ensure that you have a copy of the *Gud Wata Plan Blong Iumi* printed to show to village members.

Activities

There may be some specific activities the village has identified at step 6; there are also additional activities which can be undertaken to support ongoing CWSIP. These could include the following:

- Review of community implementation and monitoring of *Gud Wata Plan Blong Iumi*
- Provide RWASH's Community Engagement Guidelines and other technical support and training:
    - Advice and support
    - Operation and maintenance training
    - Fundraising and financial management for water O&M
    - Hygiene training
    - Good governance training focusing on roles, responsibilities and how to be a good leader
    - Water storage techniques
    - Assisting with troubleshooting
    - Check on village monitoring plan (step 6)
- Provide assistance to network and partner with other organisations for support (finance and resources) (e.g. RWASH, GPHED, MP). Water quality testing (twice yearly)
- Adapting and updating CWSIP plan (yearly)
- Recognition and/or incentive for improvements
- Link schools and villages that share water sources

Discuss with the Water Planning Group or Water Committee that the *Gud Wata Plan Blong Iumi* should be updated once any new infrastructure is in place. Doing this is an excellent way to ensure any new infrastructure avoids major existing and future hazards, provides 'access for all', is well-managed and functions for a long time.

Monitoring

Details of visit and activities undertaken should be captured in the monitoring system.

Checklist

Please refer to the CWSIP Facilitator Checklist for the village to ensure Step 7 has been completed.

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Live & Learn and **Plan International Australia** in collaboration with **International WaterCentre** has developed a contextualised Community-based Water Security Improvement Planning guide for Solomon Islands.

The tool aims to support community-led water management through knowledge sharing, provision of a practical and inclusive process and a risk-based approach to community-led water management.

The three-volume tool is a facilitation guide to:

- Support community-led water management through knowledge sharing and provision of a practical process
- Promote "access for all" by amplifying the voices of marginalised community members and prompting decision makers to consider WASH inequalities in water management
- Provides a risk-based approach to community-led water management, including specific risks related to climate change