



RESEARCH BRIEF

Strengthening Community Water Management through a follow-up DWSSP activity – Results of a pilot in Vanuatu

DECEMBER 2022



KEY RESEARCH FINDINGS

Community Water Management (CWM): Most of the water management findings reflect the experiences captured in our PaCWaM + research in Solomon Islands and Fiji. Of key relevance to DWSSP are:

1. **Communities need ongoing support to build and sustain good water management**, which is necessary to ensure safe, resilient and inclusive WASH outcomes
2. **Water Committees (WC) are struggling to meet the prescribed gender quota of 40%**, however many community members and all implementors interviewed recognise that women must be engaged in water management
3. **Zones were not used for water management purposes**. However, they exist, are frequently used for fundraising for non-WASH objectives and were reportedly used in other provinces
4. **The three most active WCs were all strongly connected with the village council** and, in some cases, Area Council of Chiefs (Lelepa, Taloa, Mangaliliu)
5. **Water management was a low community and individual priority**

DWSSP review: A combined analysis of village DWSSP reports and qualitative data (implementors, community members) as well as surveys and risk assessments revealed the following:

6. **In terms of progressing improvement plans and taking active ownership**, the success of DWSSP was seen by many as low
7. **All implementors interviewed displayed a solid understanding** of the content and process of DWSSP training
8. **Various training challenges were identified** (e.g., a lot of information, highly technical, not enough time, capacity constraints) - some of these issues can be addressed through follow-up
9. **Dependency on external support is high** whilst problem and solution ownership is low
10. **COVID-19 greatly disrupted community, government, and NGO operations and plans**, including village Improvement plans
11. **Engagement in overseas Seasonal Worker Programmes has had both positive and negative consequences for CWM and rural WASH** – it has delimited implementation progress in some sites but also enhanced the WASH situation for some individual households
12. **DWSSP reporting is not meeting required standards**
13. **Information sharing** – which is required for progressing improvement plans – is delimited by the weak and dynamic character of WCs
14. **Some of the Improvement plans are overly ambitious and unrealistic**
15. **The roles, responsibilities and practical differentiation between the village WC and DWSSP team following the DWSSP training** is not clearly articulated and potentially eroding collective action and improvement plan progress
16. **Follow-up was viewed as critical by all stakeholders**

Pilot DWSSP Follow-up activity: Key findings from monitoring the pilot DWSSP Follow-up activity include:

17. **Two WC's changed WC members straight after the DWSSP follow-up visit** and three other villages all expressed an intention to change the WC in the near future
18. **There were proactive material actions & improvements evident in two villages** within 4 weeks of the intervention
19. **Three of the villages held meetings with the community to share information** following the intervention
20. **The videos and structured discussions were deemed highly effective** by both the pilot facilitators and participants

PACWAM+ RESEARCH PROGRAM

The Pacific Community Water Management Plus (PaCWaM+) research objective was to investigate how governments and Civil Society Organisations (CSO) can better enable rural community water management to improve SDG6 outcomes: specifically, WASH outcomes that are resilient to natural hazards and disasters, that are sustainable (exist for the long-term), and that are inclusive (meet the needs of everyone).

The research seeks to provide regionally appropriate evidence about what kinds of support are needed to complement and improve community capacities for water management across different village, island and country contexts, focusing on Fiji and Solomon Islands.

The research involved two phases: PHASE 1 research sought to identify what the WASH and community water management (CWM) situation was and explore 'plus' factors might look like in two Pacific Island countries; that is, what type of support is needed by communities and how that support might be best achieved. PHASE 2 activities focussed on further exploring and – where possible – piloting, some potential 'plus' approaches.

This **Research Brief** focuses on a companion action research activity undertaken in Vanuatu, made possible through a Water for Women Fund Impact & Innovation Grant (WIIG12). The goal of the research was to extend the impact of the PaCWaM+ research by sharing lessons and tools on supporting community water management gained from Fiji and Solomon Islands with stakeholders in Vanuatu.

More information about the research program can be found here:

www.watercentre.org/research/pcwm

COMMUNITY WATER MANAGEMENT PLUS (CWM+)

Government and private sector water services to rural populations in Pacific Island Countries (PICs) are limited and likely to remain so. Consequently, community water management (CWM) will remain the dominant model for rural water service delivery into the future, as reflected in many Pacific government WASH policies. 'Good' CWM is necessary for the achievement of WASH services, and the health and wellbeing they provide.

However, evidence from the Pacific and elsewhere indicate that basic models of CWM, in which communities bear full responsibility to manage water systems after their installation, typically have low sustainability (Clarke et al., 2014; Bond et al., 2014; Hutchings et al., 2015; World Bank, 2017). This leads to poor WASH outcomes, such as inadequate accessibility, quality, and reliability of water and compromised hygiene practices.

The **community water management plus (CWM+)** model is considered a viable improvement to the basic CWM model (Baumann, 2006; Hutchings et al., 2015, 2017). The CWM+ model includes long-term support from external organisations or people following the initial hand-over of water infrastructure to a community. The balance of responsibility for operations and maintenance for water systems has to shift “...away from rural communities that have for too long been overburdened with the expectation that they should be independently successful ‘public service managers’” (Hutchings et al., 2017:166).

Pacific Island governments appreciate that communities require further support and many countries do provide some follow-up support to communities. Nevertheless, the PaCWaM+ research demonstrates that **most water committees are still struggling to remain active and effective water managers** - illustrating that further, and/or different kinds of support, is required.

Previous CWM+ research has identified a range of generic intrinsic and extrinsic factors that influence 'good' CWM outcomes. However, the unique context of PICs requires rigorous place-based evidence about which approaches are most feasible and effective in the region.

Figure 1 (below) is a conceptual overview of the CWM+ approach. The type of support required, and the way that it is provided, must be tailored to local contextual and structural factors, and thus may be different in different communities.

This CWM+ support could be direct, from government or CSOs straight to water committees, or it could be indirect, such as leveraging urban-rural social networks (Love et al., 2022) or other kinds of networks (e.g. church, area councils of chiefs). Irrespective of the mode of support, it is clear that communities will continue to face challenges – both technical and social in nature – and any ongoing support must be pragmatic and place-based, complement existing policy and actions, and strike a balance between fostering dependency (undesirable) and encouraging self-help (desirable).

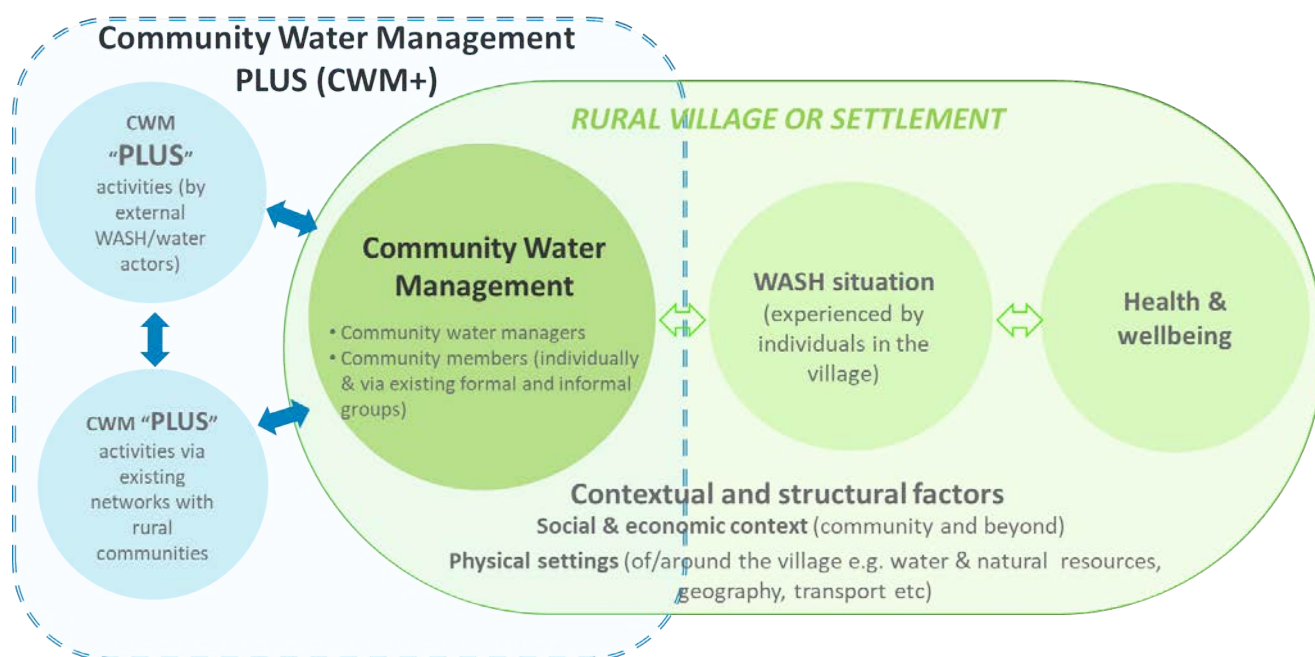


Figure 1: Community Water Management Plus model

INTRODUCTION

This action research project sought to [pilot and assess some modifications to Vanuatu's Drinking Water Safety and Security Planning process, drawing on the PaCWaM+ lessons and experience.](#)¹

Drinking Water Safety and Security Planning (DWSSP) is the Vanuatu government's preferred approach to building community capacity to ensure safe and secure water, and is implemented by both government and civil society organisations (CSOs) (DoWR, 2018). The PaCWaM+ research in Solomon Islands and Fiji gained insights about the support required by communities to strengthen CWM outcomes, and developed new approaches for governments and CSOs to implement these alongside existing approaches. This included strengthening the DWSSP approach in Fiji and assisting in the design and monitoring of a Community Water Safety Planning (CWSIP) approach in Solomon Islands.

Based on a literature review and discussions with WASH actors within Vanuatu, many of the CWM challenges experienced in Solomon Islands and Fiji are also found in Vanuatu. We identified several key CWM challenges that could be strengthened through developing a DWSSP+ approach for Vanuatu. [The goal of this action research project was to trial some of these approaches in the Vanuatu context.](#)

More specifically, the **research objectives** were to:

- Conduct some formative research with DWSSP implementors and community members in Vanuatu who have been involved with DWSSP
- Conduct a workshop / *storian* with key DWSSP stakeholders, sharing some of the PaCWaM+ lessons and initial results from the Vanuatu research, and identify some tools to apply in Vanuatu
- Co-design and pilot a DWSSP activity (of some sort), using the chosen PaCWaM+ tools and approaches
- Assess the learning from the pilot activity.

The pilot activity identified by the majority of stakeholders at the workshop, and ultimately piloted, was a structured one-day **DWSSP follow-up** activity using a mix of PaCWaM+ tools – primarily the [Strong Water Committees in Solomon Islands Implementation Guide](#) – and some refresher DWSSP activities, namely a transect walk, risk assessment mapping exercise, and revisiting the community DWSSP Improvement Plan. Additionally, the Department of Water Resources (DoWR) Provincial Water Officer also incorporated the DoWR *DWSSP follow-up form* and *Water Committee Functionality Check-list* in the follow-up activities.² This Research Brief focuses on the results of the formative CWM research, a review of DWSSP and assessment of the follow-up pilot implementation activities.

Methodology

Research methodology consisted of action research to pilot and improve the DWSSP follow-up activity, supported by mixed-methods assessment of this approach, combining surveys, interviews, focus group discussions (FGDs) and group interviews (GIs), structured observation, infrastructure mapping and risk assessments.

In total, 37 interviews (including a few FGDs and GIs) were undertaken, primarily with water committee (WC) members and DWSSP implementors. Interviews were conducted in Bislama, audio-recorded (with consent), translated and into English and transcribed. All qualitative data was entered and coded in NVivo™ to assist with descriptive and thematic analysis, using a grounded theory methodology (cf. Strauss & Corbin, 1997).

Additionally, 33 surveys were undertaken during the pilot DWSSP follow-up action research activity itself, on tablets linked to the mobile data collection platform SurveyCTO®, entered into MS Excel™ and summarised using Excel and SPSS™. Data collection was led by Ms Heather Molitambe, with some research assistant support from Ms Eriqu'ah Henry (The University of the South Pacific). Mark Love undertook several online process monitoring interviews.³

¹ The full project title is: 'PaCWaM+ Vanuatu – Strengthening Drinking Water Safety & Security Planning in Vanuatu with lessons from Fiji and Solomon Islands' (WIIG12)

² Created by UNICEF Vanuatu for DoWR.

³ Data collection details and timeline are as follows: Scoping/formative interviews (n= 17) and literature review - April to June, 2022. Rural villages (telephone, n = 10), implementors (face-to-face n = 5, email n = 2 [n=7]). Stakeholder workshop/consultations - 11-15th July, 2022. Pilot Implementation of DWSSP follow-up (x 5 villages) - 5-9th Sept., 2022. Process monitoring (structured implementation observation, n=5 [each village]) and some post-intervention implementor interviews (n=3). Community-level Interviews (n=10) and surveys (n=33) at each village (focused on CWM, WASH situation, DWSSP). Post intervention monitoring (n= 5 GIs/FGDs)- 27th Oct. to 9th of Nov., 2022.

All required ethics documentation was completed and approved prior to the commencement of data collection⁴. Informed consent was obtained from all respondents prior to participating in data collection activities.

Limitations

Due to the community transmission of COVID-19 in Vanuatu in March, 2022, and subsequent public health responses, the methodology and pilot action research activities had to be altered. The main impacts were a forced delayed to commencing data collection (partly addressed through a pivot to telephone interviews). The stakeholder workshop activity – which was critical to identifying our specific pilot activities – was delayed by over four months, meaning our monitoring activities were conducted far too soon after the pilot-intervention (within 6 weeks). The shorter than planned data-collection window meant that some targeted research activities had to be dropped, namely infrastructure mapping and risk assessments (although these activities were still undertaken as part of the pilot DWSSP follow-up activities).

The survey sampling was never intended to reach a robust proportion of the population (the target was 10-15 per village). The goal was simply to triangulate the key informant interviews and ground-truth the WASH and CWM situation. Nevertheless, the sampling numbers in Sunai, Taloa and (especially) Warearu were less than anticipated. The very low sample number (n=3) in Warearu was due to dropping Farealapa and replacing it with Pele (Warearu) at the last minute, due to weather induced transport difficulties, resulting in a contracted implementation process and limited time for data collection.

Case-study sites

Formative data was collected from six villages, located on five islands, in the Shefa Province (Figure 2). The DWSSP follow-up pilot was undertaken in five villages: Mangaliliu, Lelepa, Warearu, Sunai and Taloa.

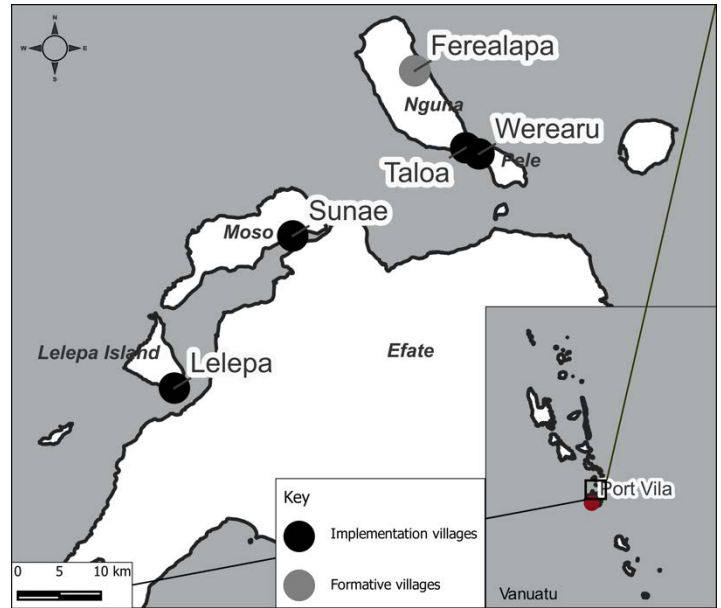


Figure 2: DWSSP case study sites

Select village attributes are included in Table 1 (below). Lelepa was the largest village, Warearu the smallest. All villages were formally divided into 'zones' except Warearu. Site selection was informed by budget and logistics constraints, implementor availability and capacity, and DoWR preference.



Image: CWM at different levels (Warearu, Pele Island)

⁴ Ethical approval details: Griffith University (HREC 2022/016), The University of the South Pacific (Krishna Kotra/2022).

Table 1. Case-study village attributes

Village	Population Households	Water supply	DWSSP Assessment summary	DWSSP implementation	Water Committee	DWSSP team
Lelepa	607 / 153 HHs	<ul style="list-style-type: none"> ○ Borehole Solar pump (15000L.) – 2 storage tank (10,000L each) – and 32 tap stands [1 tap : 4.8 HHs] ○ Community RWT (x 2) 10,000L ○ Household RWT (x 148) ○ 5 open well ○ River/stream (mainland) 	<p>WQ test: HIGH RISK</p> <ul style="list-style-type: none"> - Not enough available water for population - Low pressure - Need 4 x 10,000L tanks - Tap stand coverage sufficient 	25-29 Nov., 2019	8 members 8 M	17 7 M / 10 F
Mangaliliu	395 / 79	<ul style="list-style-type: none"> ○ Spring source – storage tanks (15000L) – 54 tap stands [1 tap : 1.5 HHs] ○ Community RWT (x 1) 10,000L ○ Household RWT (x 11) 	<p>WQ test: HIGH RISK</p> <ul style="list-style-type: none"> - Not enough available water for population - Need an extra 22,500L - Flow rate ok - Need 4 further tap stands 	8-13 Jun., 2020	11 7 M / 4 F	14 10 M / 4 F
Warearu (Pele)	64 / 16	<ul style="list-style-type: none"> ○ Main source: Open well/spring x 2 (hand pump and solar) – storage tank (6,000 L) – 6 tap stands [1 tap : 2.6 HHs] ○ Community RWT (x 3) 10,000L ○ Spring - direct 	<p>WQ test: HIGH RISK</p> <ul style="list-style-type: none"> - Not enough available water for population - Low pressure - Need at least 3 more 10,000L tanks, or reduce demand by 50/per day - Need 2 further tap stands 	18-21 Nov., 2019	8 3 M / 4 F	9 7 M / 2 F
Sunai (Moso)	119 / 33	<ul style="list-style-type: none"> ○ RWT (x 14) (total 52,000L) ○ Open well (x 7) ○ Well w/ handpump (x 3) ○ Spring/River 	<p>WQ test: HIGH RISK</p> <ul style="list-style-type: none"> - <i>Water flow and access sections not filled out</i> 	9-13 Dec., 2019	3/8* 2 M / 1 F	8 3 M / 5 F
Talao (Nguna)	315 / 95	<ul style="list-style-type: none"> ○ Main source: Bore-hole w/ hand pump & solar – storage tank (6000L) – 10 tap stands [1 tap : 6.5 HHs] ○ Community RWT (x 4) 10,000L ○ Household RWT (x 2) ○ Open well (x 7) ○ Well w/ handpump (x 3) 	<p>WQ test: HIGH RISK</p> <ul style="list-style-type: none"> - Not enough available water for population - Low pressure - Need extra 3 x 10,000L tanks, or reduce demand by 50/per day - Need 2 further tap stands 	6-10 Jan., 2020	6/9* 3 M / 3 F	9 7 M / 10 F
Farealapa (Nguna)†	202 / 24	<ul style="list-style-type: none"> ○ Main source: Open well/spring–storage. tank (622,500 L) – 6 tap stands [1 tap : 4 HHs] ○ Community RWT (x 2) 10,000L ○ Spring - direct 	<p>WQ test: HIGH RISK</p> <ul style="list-style-type: none"> - Low pressure - Require at least 2 more 10,000L tanks, or reduce demand by 100L/per day 	13-17 Jan., 2020	3 M	7 3 M / 4 F

* Composition changed after the DWSSP Follow-up intervention † Farealapa was only included in the formative CWM interviews, not pilot implementation

All villages drew on multiple improved and unimproved sources (cf. Foster, et al., 2018), with the main sources being boreholes (Lelepa, Talao), spring (Mangaliliu, Warearu), and rain water (Sunai). Sunai and Warearu – and when the solar pump does not work, Lelepa – experience the most water insecurity, being heavily dependent on rainwater.

Based on the initial DWSSP assessment, all villages had low flow rates (except Mangaliliu), insufficient water storage capacity, and all the main drinking water sources tested were considered "high risk".

Recent external support

In Lelepa, the villages main water system is a re-articulated borehole to tap stand system which had only recently returned to operational capacity after the solar pump was fixed with the support of a tourism company. The Department of Water Resources (DoWR), through the Shefa Provincial Water Officer and team, recently installed an extra tank at Mangaliliu for the Presbyterian Assembly (combined church meeting) in April, 2021.

DWSSP in Vanuatu

Water Safety Planning (WSP) is a multi-barrier risk-based approach which became an internationally accepted approach following inclusion in the 3rd edition of the World Health Organization (WHO) *Guidelines on Drinking-water Quality* (WHO, 2004). The Pacific islands, including Vanuatu, were triggered to adopt the approach in 2005 following the WHO Workshop on Drinking Water Quality Standards and Monitoring in Pacific Island Countries. The second “S” in DWSSP stands for security, and is a more recent addition that acknowledges the need to also plan for adequate supply of water (especially in anticipation of, and during, times of drought). Vanuatu adopted and contextualised WSP into the Vanuatu DWSSP in 2013. For the first three years only a small number of DWSSP were completed nationally, but since 2016 the number has increased to more than 40 per year (Rand et al., 2022:678). This is the same time that the DoWR started contracting the DWSSP training out to NGOs and the private sector. As a result of research by Rand et al. (2022) and recommendations from academics (e.g. Kohlitz 2018) and UNICEF (UNICEF 2020), DoWR has further adapted water safety planning to address climate change risks (2022:682).

As stated by one DoWR respondent, the core goals of the DWSSP training is to:

- Enable the community to assess their own water systems and draw up plans on how to operate, monitor and maintain their water systems
- Describe the water supply system and sanitation system in use in the community, based on a technical assessment of the existing infrastructure
- Provide guidance to the community to improve the availability and safety of drinking water in the community (Impl.#6-M).

The DWSSP training is conducted over five days, led by a community facilitator and a technical person with a plumbing background. Similar to, but different from, the WHO approach (WHO/IWA, 2019), the DWSSP training consists of six key sections.⁵ The DWSSP Guide states that the “heart of the [DWSSP team] team will likely be the community water committee (if it exists) but otherwise can be supported anyone who might be useful in developing and implementing DWSSP” (DoWR, n.d:9).

Developing **Improvement Plans** are undertaken during step 4 of the training:

“... the team develops a plan for improvements and it includes a section on no cost and low-cost options that the community needs to carry out within a certain timeframe. The department will follow this plan and timeframe to have the next visits for monitoring the progress (Impl.#6-M)

There is meant to be **follow-up** after the DWSSP training. However, as another DoWR staff member noted, in practice follow-up has been patchy but is reportedly improving over time:

“Normally, a DWSSP project spans over a period of one year and in between there is a schedule for monitoring of DWSSP in ten selected sites. However, the community or committee must take up ownership and work on their action plans, do regular meetings and then after that there can be follow-up monitoring and there is a fund for that. At first there were not much follow-up monitoring activities done (Impl.#5b-M)

Follow-up can be conducted by not only the original implementor or someone from DoWR but also local government area council members (DoWR, 2018a).

The National Implementation Plan (NIP) was developed to formalise DWSSPs nationwide (DoWR, 2018a) and uses the Capital Assistance Programme (CAP) to allocate financial assistance to improve communities water systems for those who have completed DWSSP process, registered a water committee, and completed no/low-cost improvements identified in the community DWSSP. The CAP outlines a prioritisation process (using risk scores), and this information is based on the community DWSSP reports (DoWR, 2018b).

The review by Rand et al. (2022) of all DWSSPs implemented in Vanuatu up to 2019 found that 22% of communities (43/199) had completed some no/low-cost improvements. A companion analysis of just 48 of those sites, where DWSSP implementation had been outsourced to NGOs and the private sector, found that 21% (10/48) had made no/low-cost improvements within nine months of DWSSP intervention (Rand et al., 2022:678-9). A detailed evaluation of 257 DWSSP reports by Keimel (2021) found that the current DWSSP report format was not being fully completed by facilitators, but had improved over time.

⁵ 1) Establish the DWSSP team; 2) Description of water supply and waste system; 3) Risk assessment; 4) Improvement plan; 5) Operation, monitoring and maintenance plans, and; 6) Committee actions

Stakeholder workshop

A stakeholder workshop was conducted in Port Vila on the 19th of July, 2022, and further consultations undertaken throughout the week.⁶ The study-design of this project followed a research-to-policy and practice collaborative approach, which recognises that research questions and approaches can't always be neatly pre-determined; direct interaction between researchers, practitioners and policy-makers is need to support meaningful outcomes.

The **key outcomes** of the workshop and consultations were:

- The PaCWaM+ key findings about the strengths and challenges of CWM from Solomon Islands and Fiji have much in common with Vanuatu⁷
- Water managers and communities need ongoing, follow-up support
- Water is, typically, a low community priority
- DWSSP and WC training is very educationally based
- Social marketing approaches may be a useful complement to the educational models currently being utilised
- The videos from Solomon Islands (in Pijin) are suitable for a pilot in Vanuatu.

Follow-activity

The activities included in the pilot follow-up activities were chosen based on the discussions [*storian*] held during the stakeholder workshops and fine-tuned via further consultation with key implementors (Vanuatu Red Cross, Hexagon), DoWR staff (including the Shefa Provincial Water Officer), UNICEF and IWC.

Ultimately, it was decided to include the following activities in a structured, one-day DWSSP follow-up visit (Table 4):

- Activities from the IWC PaCWaM+ 'Strong Water Committee Implementation Guide'
- Transect walk
- Capacity and Risk Assessment mapping
- Revisit Action Plan activity
- Use the DoWR *DWSSP Follow-up Form* and *WC functionality check-list*.

Table 4: Structured follow-up activity

Time	Activity & participants	Notes/Resources
Morning	Arrival – meet with community representatives	
	Gather WC/DWSSP participants, go to venue	
Mid-morning to lunch	Activity 1A - B: Video and <i>storian</i> with WC/DWSSP reps (1.5 hrs)	<i>Strong Water Committee Implementation Guide</i> , pp. 9-11.
	Transect walk & Risk Assessment (2 hr) (split up)	<i>DWSSP Village Report</i>
Lunch/refreshment break		
	Activity 2A- C-D:	<i>Strong Water Committee Implementation Guide</i> , pp. 13, 16-19
	Revisit Improvement Plan: WC/DWSSP reps	DoWR <i>DWSSP Follow-up form</i> <i>WC functionality check-list</i>
Late afternoon	Show 3 x short videos: General community (anyone interested)	<i>Water is Everyone's Business Implementation Guide</i>

Implementation of the follow-up activities was undertaken by two VRC facilitators, with assistance from a third, and a DoWR Shefa Provincial Water Officer. The DWSSP follow-up visits were conducted over five days in early September, 2022. Participant numbers varied from 9 in Taloa to 21 in Lelepa and Sunai.⁸

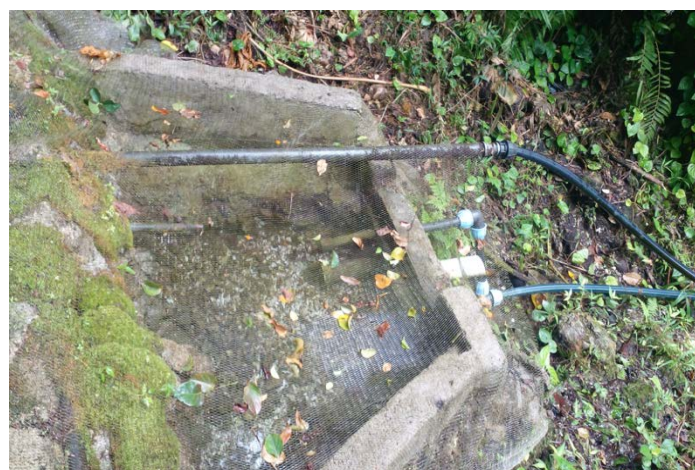


Image: Dam - Mangaliliu

⁶ Workshop – 14 attendees (DoWR, Vanuatu Red Cross, World Vision, Engineers without Borders, Ministry of Infrastructure and Public Works, Ministry of Health, Hexagon, Kramer Ausenco) and meetings (UNICEF, Red Cross, World Vision, Hexagon, DoWR, CQU).

⁷ For key findings and policy recommendations of the Solomon Islands and Fiji PaCWaM research, see: Love et al. 2020, 2021a, 2021b, 2021c, 2021d; Souter et al., 2022a, 2022b).

⁸ Taloa (9, 7 M / 2 F), Sunai (21, 14 F / 7 M), Lelepa (21, 3 F / 18 M), Warearu (10, 5 F / 5 M), Mangaliliu (9, 3 M / 6 F).

RESULTS

The results section is structured as follows:

- **Community water management**
- **DWSSP strengths and challenges**
- **DWSSP follow-up monitoring and reflections.**

A detailed technical report of results has been collated and shared with partners (Love et al., 2022a) and is available on request.⁹ This Research Brief is essentially a summary of the studies key findings.

Community water management

All villages had water committees (WCs), as required by the NIP and Water Resources Management Act. Some WCs had very low numbers, e.g. Farealapa, Taloa (see Table 1), and some were established only very recently, e.g. Lelepa, June, 2022. Mangaliliu had two simultaneous water committees during some of the research period.

When asked in the survey how many members were in a specific village WC, there was wide variance and only one person stated the number that was given during fieldwork by the WC (n=33). This reflects a pattern widely found in Solomon Islands and speaks to the weak character and low societal standing associated with WCs, as well as the low community priority of water and peoples high tolerance for coping with poor WASH situations.

WC inclusiveness

Youth (defined here as 30 years old or younger) were formal members on all the WCs. The Mangalaliu WC was made-up of all youths except the chairman. This is an interesting deviation from Fiji and (especially) Solomon Islands, where youth are frequently absent from formal membership in WCs (see Love et al., 2021c).

If these high levels of formal youth engagement in water management was replicated across a larger sample, it contrasts with our findings in Solomon Islands and Fiji and more properly reflects the demographic reality of the Pacific

In terms of gender, there were no female members on the WCs in Lelepa or Farealapa, and only one in Sunai (table 1) – which is contrary to the NIP and Water Resources Management (Amendment) Act. No. 32 of 2016 (which set a 40% participation mandate). This reflects an acknowledge trend that meeting gender quotas is a challenge in the Pacific, as it is elsewhere (cf. Mandara, et al., 2017). Regardless, some evidence suggests that women's increased participation in WCs improves water management (i.e., more meetings) and system functionality outcomes (Mommen et al., 2017). When asked if there should be more women on WCs, 90% of survey respondents said "yes" (n=33).

Several implementors reported that, in their experience, WCs with women members were more effective. One noted:

“ When a woman is chairperson, WCs are more effective. When women look after money there is proper recording and reports [...] women are very good (Impl.#9-M)

WC activeness

In the surveys, 56% of respondents felt that their respective WCs were "reasonably active" (Figure 3).

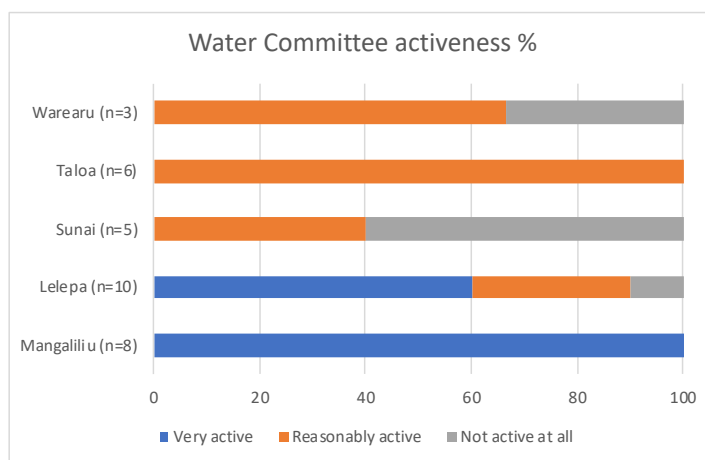


Figure 3: WC activeness

Mangaliliu and Lelepa attracted the most affirmative responses and Sunai the least. In Mangaliliu, some of the most active water managers were not formal members of the current WC (but were members of a previous committee). This is reportedly due to the fact that many members of the WC and DWSSP team have travelled overseas on the Seasonal Worker Programme (SWP). The

⁹ Taloa (9, 7 M / 2 F), Sunai (21, 14 F / 7 M), Lelepa (21, 3 F / 18 M), Warearu (10, 5 F / 5 M), Mangaliliu (9, 3 M / 6 F).

impact of people leaving for SWP was also mentioned by a respondent at Farealap, who noted that women are now left carrying-out most of the activities in the community. Two WC members (Mangalaliu) and one implementor suggested that "sitting fees" for meetings would enhance WC activeness. One of the most active members of the WC in Lelepa was Secretary of the Area Council of Chief's (Lelema).

Water management satisfaction

Across all five DWSSP follow-up implementation sites, 42% of surveyed respondents felt that the community water situation was managed "mostly well". Cross-tabulated by village, Taloa had the most dissatisfied respondents, followed by Mangalaliu (n=33).

Community engaging in water management

When asked if the community does enough to assist with water management, 61% of people stated that "we should do more". In Lelepa, nearly 80% of those asked reported that "they do enough" (Figure 4).

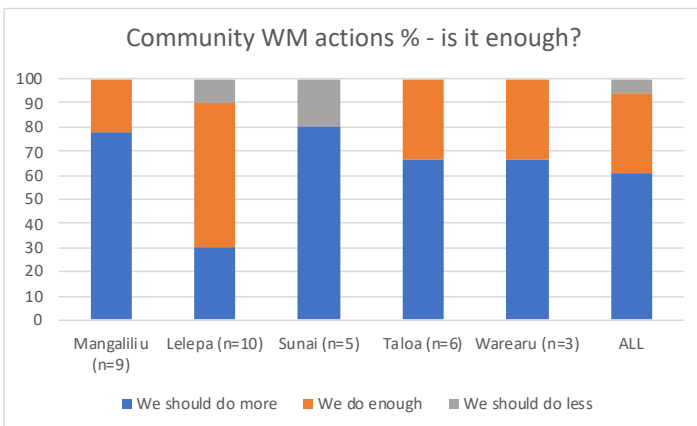


Figure 4: Community water management actions

The DoWR Provincial Water Officer (PWO), after the follow-up activities, identified low community contribution as a key issue, noting that it may be a "drawback" of WCs primarily engaging with the village councils (Taloa, Lelepa). A part solution, he suggested, was for the department to:

“... provide these committees or communities with a lot of information so that they can develop awareness. I mean for some communities, they have the same opportunity accessing water in the past but as time goes on they began to devalue the importance of water;

however, if we share some knowledge or understanding, they can help create more awareness for people to value water (Impl.#5a-M)

Water finance

Across all five implementation sites, 85% of survey respondents said that the community provide funding for the water system (n=33). There was a water fee in Mangaliliu (vt100 a week), Lelepa (vt150 a month), Taloa (vt20 a week) and Warearu (vt100 month), but no fee in Sunai. Everyone reported paying the fee except one household in Mangaliliu.

In Taloa, it is only during the dry season that the WC collected water fees, to pay for fuel to pump and collect water. Nevertheless, it was still said to be a challenge; even though the fee is low, many people still do not pay (KII-1, M; KII-2, M). In Farealapa, the community pay a one-off annual fee of vt500 (KII#3-F).

Fundraising on an ad hoc basis to support water system maintenance and improvement was reported (survey and qualitative data) in all villages except Sunai, and only very occasionally in Warearu. The most recent verifiable fundraisings occurred in Mangaliliu and Taloa in 2021.

With regards to community financial support to maintain water systems, a DWSSP private contractor noted:

“... the biggest problem is management of finance. Even-though they can work together in groups, the biggest challenge is choosing the wrong person to handle financial management. Mismanagement of finance can deteriorate the moral of a community to work together. Therefore, the two most important issues to address are governance and financial literacy (Impl. #9)

Interestingly, 94% of survey respondents stated that they raised funds at the zone level (n=31), but this was not used in regards to raising funds for water or for any other water management-related activities. A DOWR PWO from Penama Province noted that they are aware of villages in Malampa and Tafea Provinces that are using zones for "... raising funds for their water systems and also to delegated responsibilities for managing their systems" (Impl. #6-M).

Key findings: CWM

- Mangaliliu appeared to have the strongest water management group(s)
- WCs are struggling to meet the prescribed gender quota of 40%, but both community members and implementors recognise that they must be engaged in water management
- Water fees were hard to sustain in the two communities heavily reliant on rainwater (Sunai, Taloa)
- Zones were not used for water management purposes. However, they exist, were frequently used for fundraising for non-WASH objectives and were reportedly used in some other provinces
- The three most active WCs were all strongly connected with the village council and, in some cases, Area Council of Chiefs (Lelepa, Taloa, Mangaliliu)
 - o Nevertheless, engagement with village councils and Area Councils of Chiefs may also delimit water committee to community communication and potentially stymie wider community collective action
- Community engagement in water management was low and most people surveyed felt they "should do more"
- Water management was a low community priority
- WC membership was highly dynamic (e.g., frequently changing membership, some very recently established, two WCs for a time in Mangaliliu)
- Engagement in overseas seasonal work programmes, and ease of access to town, impacted water committee activities and strength in some sites
- There was a call for a "sitting allowance" to encourage WC attendance at monthly meetings in Mangaliliu
- Most of the water management findings reflect the experiences captured in our PaCWaM+ research in Solomon Islands and Fiji



Image: Storage tanks, Lelepa (w/ Denny Manvoi, VRC)

DWSSP strengths and challenges

This section is based on a combined review and analysis of five village DWSSP reports and interviews with implementors, water committee members and DWSSP participants, as well as the infrastructure surveys and risk assessments conducted as part of the DWSSP follow-up activity.

Strengths / impacts

The key strengths of DWSSP were learning about:

Water management and safety

“ Taught us how to manage our water, how we can use water that is safe (DJ-M, Taloa)
We assess [test] the water source (IF-F, Fearingalapa)
Through water testing you get a very clear picture that it is important to look after a water system (Impl.#3-M)

Water conservation

“ Teaches people how to use water wisely (RN-M, Lelepa)

Planning

“ Learnt how to make a plan (DJ-M, Taloa)

Sanitation and hygiene

“ ...emphasises the importance of proper sanitation and hygiene through awareness (Impl.#9)

Whole of system approach

“ [Teaches people] the importance of the whole water system (Impl.#3-M).

All the implementors interviewed displayed a clear understanding of the DWSSP process – its objectives, activity structure, and process. [This is a strength, demonstrating that the regular training and refreshers are working.](#)

In terms of a general evaluation of DWSSPs impact at the community level, one implementor suggested that "out of 100 communities, less than 10 will actually take up ownership and stick to their plans" (Impl.#9-M).

We undertook a detailed analysis of five DWSSP village reports and, drawing on the qualitative data and infrastructure surveys and assessments, evaluated how far communities

had progressed their Implementation Plans. The key verifiable changes identified in the case-study villages (at the time of the follow-up activity) were:

- **Mangaliliu:** extended their system, received a new reservoir tank, some new taps, and replaced some joints
- **Lelepa:** broken solar pump was repaired/replaced (donated by a tourism company)
- **Talao:** community built a fence around the water source, installed some new taps
- Household water treatment (HWT) – using a filter, boiling, or other technique – was included in all village implementation plans. In **Talao** [and **Fearingalapa**] it was noted that after the DWSSP training many households started treating their water, but over time this practice had slipped away
- There was strong qualitative evidence of an increase in households constructing improved sanitation in **Lelepa, Mangaliliu** and **Talao** following the DWSSP intervention.¹⁰

In Mangaliliu, the DoWR through the Shefa Provincial Water Officer and team installed the new reservoir tank in Mangaliliu for the Presbyterian Assembly (combined church meeting) in April, 2021, as an "urgent" response to cater for the large influx of people attending the event.

DWSSP Reports - a review

A close review of the DWSSP reports reveals both positive and challenging results. On the positive side, the [Climate Change and Disaster Risk Reduction plans were all completed and were amongst the most targeted, measured and practical of all the plans.](#) On a critical note, there was very little no cost/low-cost activities listed in the DWSSP plans.

No cost / low-cost activities

A review of all village improvement plans revealed that, in some cases, there [were very few no cost / low-cost options listed in the plans](#) - most were dependent on government, NGOs and/or donors. In example, in Talao and Warearu there was no local input recorded for the action of fencing the wells, and frequent mention of NGOs and government.

¹⁰ Unfortunately, we could not attempt to quantify changes in sanitation coverage as it was outside the studies scope. Engagement in SWP had reportedly assisted this development in some cases

In Lelepa, there were only two no cost tasks listed. Overall, however, the total costs in Lelepa were low: vt4200 for operational tasks, vt3200 for monitoring and vt13,400 for maintenance (total of vt20,800 / AUD\$262.00).

The fact that so few no cost/ low-cost activities are listed in the plans is disappointing, and does not reflect government aspirations or the spirit of DWSSP. This fuels dependency on the government and NGOs. Additionally, *the DoWR DWSSP Follow-up form only included externally supported Improvements – this is a missed opportunity*. Several implementors complained that "...villagers have high expectation. They are totally dependent on the government or other agencies" (Impl.#4-F). NGOs were singled out as a key driver of dependency (Impl.#9). In Sunai, a local leader flatly stated "*as a black person we expect somebody to donate or fund these things to us*" (CF-M).

Follow-up can help address this. When reviewing the Implementation Plans in Mangaliliu, the PWO was asked what the community can do to improve their system. In reply, he provided a detailed, practical and creative list of numerous no-cost/low cost activities they could do to improve and protect their water system.

The quality of the six reports reviewed was mixed – there were information gaps in several of the reports (e.g. Sunai flow rate) and curious data-replication in the Implementation Plans of several reports. However, some of the reports were of a high standard, containing useful in-depth information (e.g. village and water system history, comprehensive infrastructure mapping).

Some of the Implementation Plans are very ambitious, arguably containing unrealistic timelines and demanding a lot of input from both the DWSSP team and WC. In the Lelepa plan, for instance, it states that the DWSSP team are to: meet monthly; clean the roof of a community RWT every two weeks; monitor water flow & quantity (using stopwatch, bucket) every month; and, advise the community to boil water once monthly. None of these actions had reportedly occurred.

High expectations do not necessarily build confidence and promote collective action – they can delimit it

In each plan there is a "Who is responsible" column. A key takeaway from the review of the Implementation Plans was the prominence of the DWSSP team, who are assembled specifically for the DWSSP training. Some/many of the members of these DWSSP teams were WC members, but as clearly seen in table 1 most WCs are around half the size of the DWSSP teams.

Across the case-study villages, the DWSSP team were tasked with many of the Improvement Plan actions. This may make sense for animating substantial and novel actions over a short time period. However, is it the most impactful approach in the long run - especially given the ambitious nature of many of the plans?

There are numerous examples where tasks normally considered the remit of a WC – such as making awareness and undertaking maintenance activities – were listed as DWSSP team tasks. There were also cases of clear duplication in actions (e.g., Lelepa), extending all the way to resource requirements (e.g., both the DWSSP team and WC nominating a need for "knife, spade, stopwatch, bucket" to monitor different aspects of the system).¹¹ *This is arguably an unnecessary and wasteful duplication of resources*.

The duplication of responsibilities (and sometimes resources) between the DWSSP team and the WC raises the question: Are roles and responsibilities being clearly articulated and understood?

Community capacity

Community capacity was highlighted as a challenge, especially low-levels of literacy.

“ One thing about DWSSP is it is very technical and the literacy level in a community is somewhat low, hence, we train our employees to break information and instructions down so they can really grasp the concept (Impl. #2-F)

¹¹ In the Lelepa Improvement Plan, under the operation plan the DWSSP team re responsible for Water quality and quantity and list and cost a need for resources (knife, spade, stopwatch, bucket). In the monitoring plan, the WC is listed as responsible for monitoring the borehole, and list and cost the same resources (knife, spade, stopwatch, bucket).

Water quality testing helped to redress this - "it really is an awakening for them to know the water quality within a system" (Impl.#3-M).

The highly technical character of DWSSP was cited as a strength by some but also acknowledged as a challenge in regards to capacity (Impl.#1). Another implementor noted that

“... most of these communities have a different level of literacy, therefore those who can't read or write properly tend to skip the remaining days of the training, while the others really enjoyed the training (Impl.#6).

The PWO stressed that Vanuatu is an "oral culture", not socio-historically accustomed to using "pen and paper" [*blak n waet*]. Therefore, he suggested that it was perhaps:

“... better to include water committees in council meeting so that whatever issues they have they can raise in the meeting and discuss it, and maybe the council can help in solving issues of water in the community (Impl.#5a-M)

Being more closely integrated with the village council may also assist with [accountability and effectiveness](#). Certainly in regards to by-laws – which were raised as necessary by participants during some of the follow-up activities – closer cooperation with the village council may give more "weight" to the WC and its awareness activities.

More training – two weeks instead of one (one week theory, one week practice) – was suggested as necessary by some implementors (Impl.#7-M). Another implementor noted that the information is "given out all at once during that one-week period and it is too much for one person to process all at once and can cause one to forget the most important things about water" (Impl.#5b-M)

Participation in the training can be challenging

Weather, community events, individual obligations and low interest were all cited as factors that impact attendance during DWSSP training. One implementor stressed that it is important to include people of influence:

“It is important to choose the right people [in the training] so they can have influence. For example, if you elect chiefs and decision makers from the community, when they come together things happen. However,

when you select random people things will not work. The difference is who attends the training and who really wants to make the change (Impl.#2-F).

Seasonal Worker Programme

In some places, many people had travelled overseas for Seasonal Worker Programmes and this was raised as a key challenge to furthering DWSSP action plans in Mangalaliu (e.g., SK-M, EK-F) and Farealapa (IF-F). However, this had also provided an opportunity for households to improve their sanitation situation (Mangaliliu, Lelepa) and water situation (through purchasing train water tanks etc.) (DJ-M, Taloa; CF-M, Sunai).

Reporting is the back-bone of DWSSP

[Issues with lax reporting was a recurrent theme](#). Ensuring community actions are reported back to DoWR is critically important. Several NGOs/private contractors reported that they are often contacted by communities after implementing DWSSP, and tell the community that they now should contact DoWR (Impl.#2-F; Impl.#1-M). Instances of contractors not providing reports back to communities following DWSSP was also mentioned as in an issue in regards to some of the village case-study sites.

A DoWR representative expressly stated that "we are weak in getting back to them [the community] or providing reports", and especially given there was no follow-up over the last 2 years during the COVID-19 pandemic, it was even more important to ensure that good reporting and communication is undertaken (Impl.#5a-M).

As already noted, it was suggested that WC with women members tend to be better at reporting and staying connected to DoWR (Impl.#9-M).

Information sharing is also often an issue at the village-level.

The PaCWaM+ research from Solomon Islands showed low redundancy and institutional memory, due to the high mean age of WC members and the dynamic membership structure as a key issue (Love et al., 2021c). Across these five sites, there were clear examples of people who attended the original DWSSP training not sharing information with the current WC (e.g., CEA-M, Lelepa). Knowledge is not common property in Melanesia, and while mundane knowledge like CWM is not especially valued, sharing information with people outside your kinship group is not a norm.

The dynamic and weak character of WCs (e.g., they shrink and expand, come and go, members change) and a lack of information sharing is a significant challenge - especially when the DWSSP theory of change is built on an educational model targeted at a small number of individuals

Inadequate practical training

In some cases, the WCs were not trained properly. Speaking about Sunai (Moso), the PWO noted that "... we did not give them [enough] directions" and after the tank came the WC just "slept" because they did not know what else to do. He continued:

“ It comes back to us in the department [because we didn't do follow-up] ... both sides need to be strengthened (Impl.#5-M)

Water is a low community priority

Many communities do not value the importance of water, and this lack of priority was identified as impinging on WC and community motivation and action. A DoWR respondent believed that:

“ ... if we better share knowledge and understanding, they [WC] can create awareness for people to value water more. It is important for the water committee to

reach out to the department for support in order to carry out this kind of awareness" (Impl.#5-M)

This was especially evident in contexts where [land/chiefly disputes are prominent](#) – "they still regard land disputes or tribal disputes as more important than water" (Impl.#5b-M).

More regular follow-up, the use of social marketing techniques (not only educational approaches) and improved reporting and communication, can all help raise the importance of water in communities

Lack of follow-up

Lastly, a lack of follow-up was cited as key problem by both community members and implementors. As one community member put it:

“ Those trainings are helpful but because they no longer do follow-up some of the important things to help maintain our water system have already been forgotten (RV-F, Sunai)

A DoWR respondent noted that the information is "given out all at once during that one-week period" and was simply too much for most people to "process all at once" and if follow-up takes too long "the DWSSP teams and WCs become inactive and they no longer care about their roles and responsibilities" (Impl.#5b-M).



Image: Lelepa resident collecting water on the mainland village, west Efate, Vanuatu

Key findings: DWSSP

- All the implementors displayed a solid understanding of the content and process of DWSSP training
- In terms of progressing Improvement Plans and taking active ownership, the success of DWSSP was seen by many as low
- Various training challenges were raised (e.g., a lot of information, not enough time, capacity constraint) and some of these can be addressed through follow-up
- The low priority of water at the community level – relative to other issues and institutions (Church, village council, livelihoods, family, land and chiefly title disputes) – is recognised by many as a driver of low program success and sustainability
- Dependency on external support is high, whilst problem and solution ownership is low
- COVID-19 greatly disrupted community, government, and NGO operations and plans, including village Improvement Plans
- Engagement in the Seasonal Worker Programme has had both positive and negative consequences for CWM and rural WASH – it has delimited implementation progress in some sites but also enhanced the WASH situation for some individual households
- DWSSP reporting is not meeting required standards
- Information sharing at the community level – which is required for progressing Improvement Plans – is delimited by the weak and dynamic character of WCs
- Some of the Improvement Plans are arguably overly ambitious and unrealistic
- The roles, responsibilities and practical differentiation between the WC and DWSSP team following the DWSSP training is not clearly articulated and potentially eroding collective action
- Follow-up was viewed as critical by all stakeholders.



DWSSP follow-up monitoring and reflections

Given the short research project-cycle and delayed implementation timeline it was simply not possible to use an impact evaluation methodology. Instead, the action research goal was to monitor message relevance and penetration, content and delivery, evaluate the utility of the videos and Strong Water Committee activities as a DWSSP follow-up activity, and elicit open suggestions about refinements and improvements to the structured follow-up pilot approach.

The data used to monitor, assess and reflect on the DWSSP follow-up activities is drawn from:

- Direct observation during the workshop itself [notes and photos] of participant engagement and feedback on activities
- Process monitoring interviews with the DWSSP follow-up facilitators (n=3)
- Interviews (n=10) undertaken with WC representatives who were also attendees of the workshop
- Interviews with (mainly) attendees and WC members around 6 weeks after the DWSSP follow-up intervention.¹²

Below, the impacts and reflections on the DWSSP follow-up activities are appended, in summary form, under each village.

Talao

Process monitoring (during activity)

During activity 1B – the Water is Everyone's Business video and facilitated discussion – there was some animated and critical discussion around social inclusion in the WC membership structure as well as the need for more members.

One of the USP researchers noted in her reflections that there was a notable difference in the workshops with this younger group of attendees than in the other villages – "less complaints and grievances" but also less answers proffered. They were very engaged and activated by the follow-up activities.

End-of project (5 weeks after intervention)

Following the DWSSP follow-up intervention:

- A meeting was held and the committee presented their reports and made awareness to the community through the village council meeting
- The relatively new committee (which was full of youth) invited some members of the old WC – including another women and a person with a disability – to join the new committee
- In September, the school needed water so the WC and community contributed funds to buy fuel to pump water to the tank, also using some of the left-over funds from catering and generator hire from the DWSSP follow-up activity
- Intention: New plan is to meet with the village council to decide a time to bury the pipes (an outstanding no/low-cost Plan).

Mangaliliu

Process monitoring (during activity)

The comments during the 'Revisit Improvement Plan' session kept returning back to the video, with people relating the issues and stories back to their own community. One WC member said:

“ Maybe the important thing here is to strengthen the water committee again. Meet regularly with ourselves and then with the community to discuss any issues because water is everyone’s business, right? It is not a one-man job. The committee is the leader and the community follows (CM-M)

End-of project (5 weeks after intervention)

- Cleaned the source
- No regular meetings since the follow-up activity
- No maintenance activities completed
- No water fee collection done
- Intention: Mentioned a new water committee was being established that includes representatives from the Health, Chief, Youth and Women's committees, as well as church members and the Area Council of Chiefs.

Sunai

Process monitoring (during activity)

At the end of the workshop the participants had already decided a three people WC was not enough and declared

¹² Of the total 14 people interviewed as part of the end-of-project monitoring, 9 had attended the follow-up workshop. See further Technical Report.

they needed at least seven people on the WC. During the Revisit Improvement Plan session, they took the opportunity to change their water planning preferences.

End-of project (5 weeks after intervention)

- Established a new WC straight after the workshop (8 members, 5 M / 3 F) and the list of new members provided to the Local Government Area Secretary
 - o New membership very inclusive – disability rep, youth rep, women rep
 - o Held a meeting with the community not long after the workshop to pass on some of the information (e.g., HWT, being water wise)
 - o No other WC meeting since
- Tank donated by MP (just before follow-up visit) still not installed
- Unspecified number of tanks were cleaned
- Household water treatment continuing
- The council was supposed to provide nails and other materials to build fences around the tanks, but it has not received the funds yet
- Intention: Talking about a water fee in the future.

Lelepa

Process monitoring (during activity)

During Activity 1B, there was much discussion about water fees. Whilst the fee is paid by most households and the WC are generally active in collecting it, there was some debate around equity and the view that "it is not fair for some households" as they use less water than others. A few participants were especially concerned about the excess use of water associated with building houses, and suggested that they should have to pay more. One of the participants advocated the need for water metres in the future, another that if every house had their own tap stand there would be less issues.

End-of project (5 weeks after intervention)

- Two active members of the WC installed one of four planned tap stands
 - o Plan was to install 4 tap stands but "as no one came to the meeting" [to agree on where to place them] they only installed one tap stand
- No awareness made to community (reportedly due to no village council meetings)
- No WC meetings
- Intention: Elect some new WC members next year.

Warearu

Process monitoring (during activity)

During sum-up at the end of the workshop participants referred back to the videos on several occasions, stressing that "Water is everyone's business" and "we must meet more often" and carry out awareness actions at different levels (referring to Activity 2C).

End-of project (5 weeks after intervention)

- Awareness was made through the community (clean tanks during dry season) and also water conservation advice
- No other actions
- Intention: Plan to elect new water committee, and start a water fee next year during the next village council meeting.

Broader reflections

Follow-up importance & timing

Follow-up was unanimously considered important by participants and implementors alike. A participant from Lelepa stated:

“ Follow-up is important, especially because they get to meet with Government Officers or implementers or other important people who understand water systems [...]. This will strengthen and motivate people to become more active (FK-M).

A participant from Mangaliliu likened a water system to looking after children:

“ Follow-ups like this are very important. As a saying goes- If someone has adopted a child, the mother of the child still comes back to check up on him/her to ensure that the child is being well taken care of. If that does not happen, the foster parents would be deemed unfit to look after the child. That is an issue. Similar to a water project. We chase after our wants and personal needs so much that we overlook the importance of the water system in the community (SV-M).

With regards to the frequency of follow-up, three participants from three different villages all suggested that follow-up activities, e.g. "should not take more than 3 months. Once in 3 months is an ideal timeframe" (EPM - Taloa). The PWO also suggested three months:

“ There should be a follow-up after 2 to 3 months-time [...]. The follow-up activity is important because it will ensure that the DWSSP teams or water committee are still active, carrying out their action plans or coming up with low-cost and no-cost options (Impl.#5b-M).

GEDSI

In the post-intervention interviews there was some unprompted reflection of gender.

A female participant from Mangaliliu said:

“ A point in the video is about women and what we can do to help save our water. With us women, it is not an issue. We can teach our children to save water (EK-F).

One of the VRC facilitators stated:

“ What I noticed after the activities is that the committee have come to realize the importance of having women and young women in the water committee (VRC-M, 2).

Assessment – the utility of the videos

The videos translated well from Solomon Islands to Vanuatu; better than we imagined. Attribution is always difficult to confidently discern, but based on the monitoring they had the requisite impact in terms of animating discussion, contributing to some changes (as captured above, e.g. WC membership re-structures) and helped stimulate peoples intention to do things.

This echoed our experiences from Solomon Islands. The "water is everyone's business" maxim seemed to have traction. A WC member from Taloa stated:

“ The only difference between our community and the ones in the video is that our system is not the same. However, there are some really good ideas that we can use for our water system. As mentioned in the video "water is everyone's business" and not just the responsibility of the water committee. Women, children or youths, they all have a role to play. If it was entirely for the water committee to look after, it is too much of burden (WT-M).

Asked about the videos during the end-of-project monitoring visit in Taloa, a respondent stated that "The only way to get the message across is to keep re-emphasizing the

importance of looking after the water and water system" (EPM-Taloe).

The VRC facilitators and the PWO all emphasised that they thought the videos were a useful medium, and provided an important companion to the educational foci of the DWSSP activities (and the WC training manual). A VRC facilitator noted:

“ ...another observation too is that although they are not all part of the water committee, they came to realize after the video that they have failed in a lot of things and that kept them interested in learning more (VRC-M, 2)

Before the intervention, the PWO stated:

“ The videos show a lot of areas that the water committee might be weak in and that helps them strengthen their minds to work harder in that area. Overall, the videos are very useful because it values water, thus if we continue to use that in other communities it would help change their ways and become more active" (Impl.#5a-M).

After the DWSSP follow-up intervention, the PWO was even more positive:

“ The videos promoted interest in the participants and we should do more of these types of activities. It also gives awareness about the importance of water and from that it can help them sustain their water system and sustain activities regarding water because people understand the importance of water. These little things are overlooked; little actions can lead to great outcomes and I think with the videos that there can be some impacts and somethings might happen for some of the communities (Impl.#5b-M).



Image: DoWR PWO Gaston Theophile - Mangaliliu

Key Findings: Pilot DWSSP Follow-up activity

- Two WC's changed WC members not long after the DWSSP follow-up visit (Sunai and Taloa), and the three other villages all expressed an intention to change some of the WC membership in the near future (early next year)
- Three of the villages held meetings with the community to share information following the intervention (Sunai, Taloa, Warearu)
- There were material actions in two villages (Lelepa - installed one of four planned tap stands, Mangaliliu - cleaned source)
- Message penetration, resonance and recall was evident with regards to the key messages of the videos (Water is everyone's business)
- Activity 1B – the video and structured discussions on specific sub-topics – were deemed effective by both the pilot facilitators and participants
- The Revisiting Improvement Plans and use of the DWSSP Follow-up form was productive
- There was wide consensus that some sort of follow-up should occur, and three months was cited as the 'ideal' check-in and follow-up time period.



Image: Denny Monoi (Vanuatu Red Cross) doing small group work with some participants in Warearu, Pele Island, north Efate

Conclusion

The Vanuatu governments Department of Water Resources have adapted and localised the DWSSP to suit local conditions – e.g., the inclusion of climate change and disaster risk reduction – and appreciate that follow-up is required. The NIP aimed to better mainstream DWSSP through government policies and regulations, provincial government planning and by providing regular community support to scale-up DWSSP nationally through devolving responsibilities and actions from government to provincial governments and area councils, creating demand-driven requests for support, and supporting local community participation in planning and action (GoV, 2018:4). These are positive developments that assist in the governments stated ambition of achieving access to safe, reliable and resilient water services "for all".

Nevertheless, as identified in this research, numerous and substantial challenges remain, including:

- The NIP and CAP require timely and appropriate reporting to be able to support real and sustainable improvement
- The dynamic and weak nature of most WCs means that institutional memory is poor and there is no in-built redundancy, which impacts the momentum and sustainability of Improvement Plans
- Community ownership of Improvement Plans is generally low
- DWSSP is highly technical, delivered as a one-off intensive activity, and demands a certain degree of education capacity
- Water is a low community priority for many people
- Low cost / no-cost activities are (arguably) lost or not given ample priority in many Improvement Plans
- Governance and financial literacy are typically poor.

Follow-up can assist with all of the above challenges.

Recommendations

There is no singular, 'one-size fits all' DWSSP follow-up approach. The method piloted here – and adapted and revised in the [DWSSP Structured Follow-up Implementation Guide](#) – was specifically designed for communities where DWSSP Improvement Plans have stalled and where communities have not received any follow-up for two or three years. It is not intended to be the 'only' form of follow-up – Area Secretaries, PWOs and NGO/private implementors can and should do more regular, lower cost "check-in/follow-up" via phone, short visits, and other means (e.g., email, dedicated online resources or Facebook page).

Based on this research and pilot implementation, our key recommendations are:

- a. The NIP policy of decentralisation (which incorporates provincial government and Area Secretaries) is still relatively new – [targeted research is required to fully understand the capacity and support systems currently in place with regards to Local Government Area Secretaries role as DWSSP Follow-up and monitoring actors](#)
- b. The DoWR *Water Committee Functionality check-list* and *DWSSP Follow-up form* were useful – [however, the absence of age-disaggregated data and 'other' responsibilities of WC members, and the lack of attention paid to low cost / no cost improvements in the DWSSP Follow-up check-list form, is a missed opportunity and should be amended](#)
- c. The duplication of responsibilities between the DWSSP team and the WC raises the question - are roles and responsibilities being clearly articulated and understood? [We recommend that more attention be paid to "who is responsible" during the Improvement planning sessions](#)
- d. Water is a low priority - [More regular follow-up, the use of social marketing techniques \(not only educational models\) and improved reporting and communication, can all help raise the importance of water](#)

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ADDITIONAL RESOURCES

The PaCWaM+ research project has produced a range of documents describing the research findings to support Pacific Community Water Management Plus, which are available from the PaCWaM+ webpage: www.watercentre.org/research/pcwm

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