

# Climate Resilient WaSH in the Pacific

## Strengthening the enabling environment for climate resilient WaSH in the Solomon Islands

### POLICY BRIEF

#### Research statement

Research was conducted in the Solomon Islands to analyse how the enabling environment could be strengthened to improve climate resilience. This brief provides recommendations and summarises findings of this research.

#### Recommendations

1. In order for WaSH services to be sustainable, they must be resilient to climate variability and change. Rural WaSH policies and plans should clearly define functions and responsibilities for reducing and managing climate and disaster risks at the national government, provincial government and community levels. This should include coordination between the WaSH Stakeholder Group and the WaSH Cluster, to strengthen links between disaster and development WaSH, and align with existing institutional structures for disaster risk reduction and management.
2. To enable the implementation of risk management for the protection of water resources and provision of sustainable WaSH services, a framework and clear guidance on methods and tools for risk assessments and management is required. This framework should be endorsed by policymakers and guidelines prepared to promote consistent implementation for climate resilient WaSH in the Solomon Islands.
3. Strengthening institutional capacity for risk management would enhance adaptive capacity to climate variability and change. Targeted training to build capacity for risk management is necessary at all levels of government, down to the community. Joint capacity building exercises with climate change adaptation (CCA) and disaster risk management (DRM) actors could also improve cross-sectoral partnership and coordination.

#### Background

Climate change is a serious threat to Pacific Island Countries (PICs) and their fresh water resources. Sea level rise, saltwater intrusion, increasing evaporation rates, and changing rainfall patterns will all affect the water cycle and, potentially, the availability of water for human use. Poor sanitation, along with population growth, changing land use patterns, and other human activities in water catchments, pose a further threat to declining freshwater resources and public health in the region (Hadwen et al. 2015). In a region characterised by small economies, scattered and remote islands, and isolated rural communities, PICs struggle to address governance,

management, finance and human resource challenges for the provision of sustainable WaSH services.

As shown in Figure 1, daily challenges are exacerbated by exposure to climate variability and extreme weather events, including droughts, floods and cyclones, and the longer-term impacts of climate change. Integrating climate and disaster risk reduction and management (DRRM) in WaSH policy and programs, and enhancing coordination between these sectors, is critical for climate resilient and sustainable WaSH services.

#### Who is this brief intended for?

The recommendations in this brief are intended for policymakers working on WaSH, CCA and DRRM projects in the Solomon Islands, and may be relevant for other PICs.

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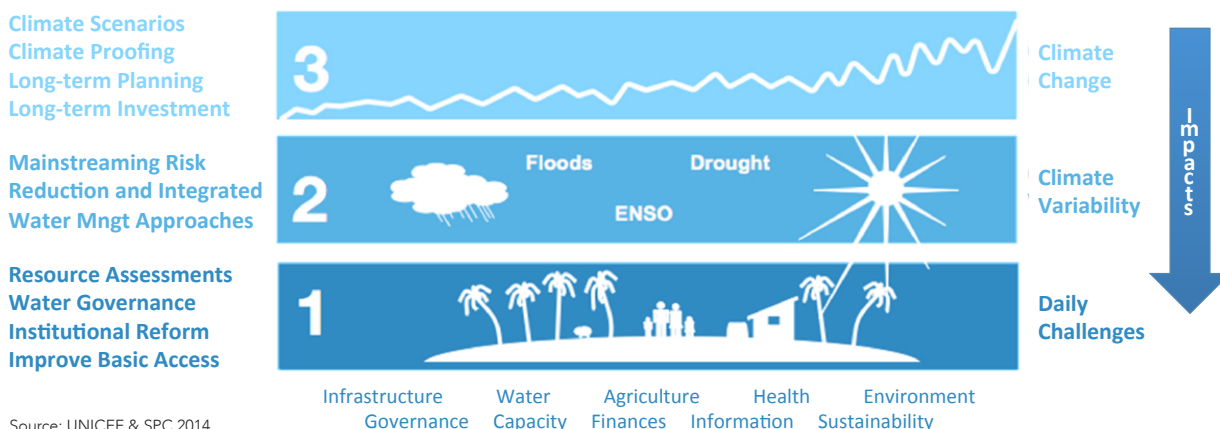


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**Figure 1: Framework to describe what actions are required at three different scales of water availability and variability: daily challenges, climate variability and climate change**

## What's required?



Source: UNICEF & SPC 2014

## Methods

Research described in this policy brief was conducted as part of the Pacific Adaptation to Climate Change for Water, Sanitation and Hygiene (PACCWASH) Project, investigating adaptation to climate change for WaSH in PICs. This research was funded by the Australian Government Department of Foreign Affairs and Trade, and managed by International WaterCentre. The research partners were the Water Institute at the University of North Carolina, Griffith University, Monash University, University of Alabama, and the University of the South Pacific.

Data used in this policy brief was collected from (i) a review of national policies and plans relating to rural WaSH, water resource management, and climate change and disaster risk management (ii) thirty-five key informant interviews conducted with government, non-governmental organisations (NGO), multilateral and climate project stakeholders from March 2013 to March 2016, and (iii) a multi-stakeholder workshop conducted in Honiara in March 2016.

### Finding 1: Functions and responsibilities for reduction and management of climate and disaster risks

In order to promote resilience to climate variability and change, rural WaSH policies and plans should clearly define the roles, responsibilities and functions of actors within the sector for reducing and managing climate and disaster risks. The term "function" is used in this brief to refer to an action or activity of an individual or an institution.

#### Defining functions and responsibilities for CCA and DRRM in rural WaSH policies and plans

The Solomon Islands Rural WaSH ("RWASH") Policy, endorsed in 2014, strengthened the focus on sustainability, emphasising sectoral reform and capacity building to enhance coordination at all levels of government, and to increase support for community WaSH management. The RWASH Policy, and related Strategic Plan (2015-2020), clearly outline the functions and responsibilities of government, non-government and community service delivery partners at national, provincial and local levels, for planning and ongoing operation and maintenance of WaSH services. The RWASH Policy addresses daily challenges for sustainable WaSH services, but also acknowledges the impacts of climate change on water availability, and the need for climate resilient technologies and risk management approaches to build adaptive capacity and resilience to current climate variability and future climate change.

Despite this recognition of the need for reduction and management of climate and disaster-related risks, the RWASH Policy and Strategic Plan do not define or address functions and responsibilities for risk reduction or disaster preparedness, response or recovery. Interviews with WaSH actors revealed that risk reduction and preparedness functions are currently not prioritised. One government stakeholder explained why progress towards adopting risk-based management approaches in the national WaSH sector has been slow: "[We] may not include disaster risk reduction yet because we have so much basics to do. It's essentially implementing." Another stakeholder further articulated this challenge, saying "it's competition between just maintaining service and investing in this risk reduction."

In a region prone to natural disasters such as floods, droughts and cyclones, if CCA and DRRM are not well integrated in sectoral policies and plans, stakeholders will continue to engage in reactive modes of disaster management that are ultimately unsustainable, with diminishing returns on investments. There is a recognised need, across all sectors in the Solomon Islands, for more proactive risk reduction and disaster preparedness. As one government stakeholder put it: "the DM [Disaster Management] part of it is all taken care of. The DRR [Disaster Risk Reduction] part of it is still a grey area for us."

#### Leveraging existing coordination mechanisms to improve linkages within the WaSH sector, and between WaSH, CCA and DRRM actors

Under the National Disaster Risk Management Plans (NDRMP), the WaSH Cluster is responsible for the coordination of risk reduction, preparedness, response and recovery for WaSH, including climate-related risks. There is no mention, however, of the role or functions of the WaSH Cluster in the RWASH Policy, and based on stakeholder interviews, there is a general lack of understanding about the Cluster system. WaSH actors were not aware of any plans or standard operating procedures outlining the functions and responsibilities of the WaSH Cluster, and noted that while disaster response is well coordinated, risk reduction and preparedness functions in the sector are weak. In relation to the WaSH Cluster, one non-government stakeholder noted that "It usually is active only in disaster emergency time. And after disaster dies down. Everything dies down", while a government stakeholder expressed similar concerns: "we tend to forget anything related to disasters once they're finished and I think that's a mistake...it's only when the WASH Cluster has been called up again that they start discussing these things and that's delayed."

The RWASH Policy establishes the WaSH Stakeholder Group as a sectoral coordinating mechanism, however, its functions and responsibilities in relation to reducing and managing both climate and disaster-related risks are not defined. The relationship between the Cluster and the Stakeholder Group, particularly in the transition from disaster relief to the recovery and rehabilitation phase, has not been outlined. In interviews, WaSH actors suggested that the Stakeholder Group could play a more active role in risk reduction and disaster preparedness, for example, through:

- a review of risk assessment tools;
- prepositioning of information, education and communication materials;
- training on how the Cluster System operates; and
- the development of technical standards and community engagement guidelines for emergency WaSH that draw on principles of participation and ownership.

Since the Stakeholder and Cluster groups have similar membership structures, there are significant opportunities for greater coordination between the two.

Figure 2 shows the diversity of stakeholders, functions and relationship in managing WaSH and the risks and impacts from climate change and disaster events in the Solomon Islands. This diversity, and the often overlapping functions and responsibilities of actors, can lead to inefficiencies and ineffective programming. Aligning and harmonising institutional structures at the provincial and community level with existing structures established through the NDRMP would promote cross-sectoral capacity building and coordination, and minimise the duplication of efforts. At the local level, for example, Community WaSH Committees are encouraged to establish a disaster team and a response plan, without clear linkages to existing Village, Ward or Provincial Disaster Risk and Response Committees established under the NDRMP.

If functions and responsibilities for CCA and DRRM are clearly defined in WaSH sector policy and plans, this will enable the prioritisation, coordination and resourcing of risk reduction, preparedness and management activities, for more sustainable WaSH services and resilience in response to climate variability and change.

## Finding 2: Risk reduction and management approaches for climate resilient WaSH

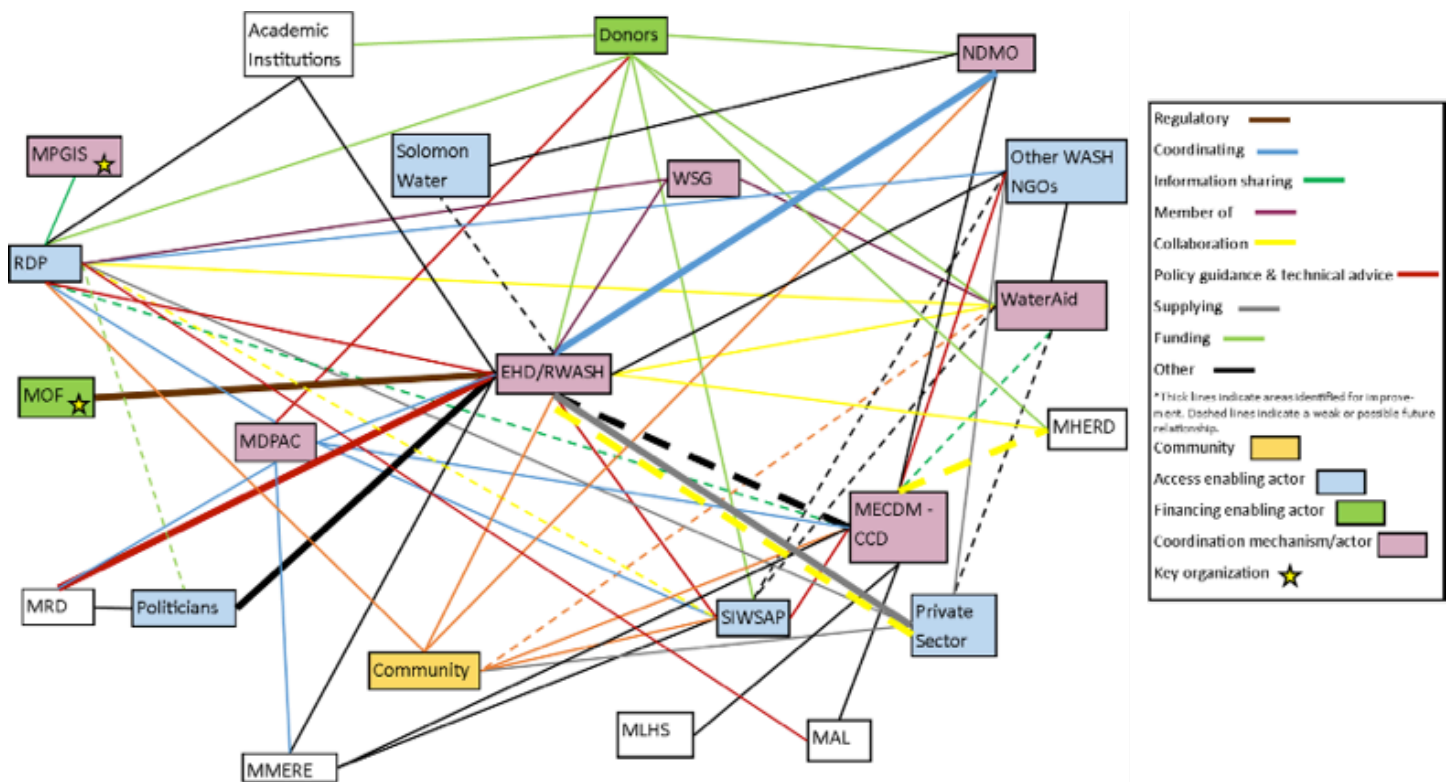
The RWASH Policy and Plan promotes risk-based management for the protection of water resources and WaSH systems from climate change and other threats; however, no framework or set of guidelines are provided to support the integration of CCA and DRRM in risk assessment and management processes. In interviews, WASH actors commented that efforts to implement risk-based management approaches are currently fragmented and ad-hoc.

### Standardising and coordinating approaches to risk assessment and management for CCA in the WaSH sector

The RWASH Policy and Plan require service delivery partners to carry out a detailed WaSH assessment in their area of responsibility. The revised RWASH Construction and Design standards further mandate that project design reports include consideration of vulnerability to climate change and options for CCA. A clear framework, and set of guidelines or tools, could further support the integration of climate vulnerability assessments in existing design processes.

Government, NGOs and CCA-DRR Programs operating in the Solomon Islands have their own risk assessment tools and approaches to inform planning and management of WaSH, CCA and DRRM. While this suggests a wealth of local knowledge and experience in risk-based management, there is also a lack of consistency. As one CCA-DRR Program stakeholder commented: *"everyone's doing everything"*

**Figure 2: Results of participatory stakeholder mapping for climate resilient WaSH demonstrating the complexity of current stakeholder interaction**



*segmented and it's different. And everyone thinks they're doing it better than the other, which is a general NGO trait...it's very frustrating, the lack of data and lack of coordination...everyone is reinventing the wheel and having to do it every time.*" Standard guidelines would improve the implementation and coordination of risk assessment and management processes for CCA and DRRM in the WaSH sector.

The RWASH Community Engagement Guidelines identify DRR as a key discussion topic during pre-construction workshops in communities, and during WaSH Committee training; however, no process or tools are provided to support the identification of climate-related risks and other threats to the sustainability of WaSH systems, or to assess management options.

There are a number of pilot programs currently underway in the Solomon Islands, and throughout the Pacific region, that are developing and testing frameworks and tools for risk assessment and management planning at the community level, such as modified Drinking Water Safety and Security Planning, and Climate Vulnerability and Capacity Assessments. Lessons from these programs can inform the development of a framework and tools to guide the implementation of risk assessment and management for CCA and DRRM in the WaSH sector.

### **Finding 3: Institutional capacity building for climate resilient WaSH**

Although the need for capacity building to support sectoral reform is identified in the RWASH Policy, capacity building for CCA and DRRM is not emphasised. Functions and responsibilities for CCA and DRRM in the WaSH sector need to be defined in order to more strategically identify capacity building needs.

#### **Linking human resources planning to sector functions and responsibilities**

It is widely acknowledged that capacity gaps from the national level down to the provincial and community level are major constraints to the implementation of sustainable WaSH services, along with other development objectives and plans in the Solomon Islands. As one government stakeholder noted, *"we are trying to frame up policies and standards and everything, but we don't have the right people to implement some of those..."* The reality of thin resources and capacity

is acknowledged in the RWASH Policy and is the rationale for a shift within the RWASH Program, from direct implementation to contracting, regulating and monitoring Service Delivery Partners.

Defining the functions and responsibilities of sector organisations (as discussed in Finding 1) allows for more strategic human resources planning and capacity building. For example, the functions of the RWASH program have shifted under the RWASH Policy and Strategic Plan, from a focus on implementation of WASH infrastructure and services to coordination, management and monitoring. While this transition presents challenges, having defined functions allows the RWASH program to systematically identify capacity gaps and strategically build capacity to address daily challenges. Because the RWASH Policy and Strategic Plan do not define functions and responsibilities for CCA and DRRM, it will be difficult to identify capacity gaps and to strategically build capacity to address WaSH challenges stemming from climate variability and change.

#### **Build capacity for the identification and management of risks**

A clear sectoral framework for risk assessment and management, that integrates CCA (as discussed in Finding 2), would enable more targeted capacity building for climate resilient WaSH at all levels of government. Joint capacity building exercises with national CCA and DRRM actors could also facilitate improved cross-sectoral collaboration and coordination.

Stakeholder descriptions of capacity building activities at the community level often centre around awareness creation and the delivery of training with pre-specified content to community members. This approach to capacity building may not be most effective for building the knowledge and skills required for risk assessment and management, to enhance adaptive capacity. One non-government stakeholder suggested *"let's also move away from training, training, training to facilitation of needs based training. So risk based training."* Guidelines and tools for participatory risk assessment and management planning at the community level should enhance capacity for CCA by strengthening the skills and knowledge required to identify risks, assess CCA options, and plan for and respond to the impacts of climate variability and change on WaSH systems (Civil Society WASH Fund 2015).

## **References**

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## **Want to know more?**

This brief describes findings from the Pacific Adaptation to Climate Change for Water, Sanitation and Hygiene (PACCWASH) Project. For more information, please contact Principal Investigator, Dr Wade Hadwen, at [w.hadwen@griffith.edu.au](mailto:w.hadwen@griffith.edu.au), or visit [www.watercentre.org/portfolio/wash-and-climate-change-adaptation-in-the-pacific](http://www.watercentre.org/portfolio/wash-and-climate-change-adaptation-in-the-pacific).

## **Acknowledgements**

The Australian Government is acknowledged for its support of this research through the Australian Development Research Awards Scheme (ADRAS) within the Department of Foreign Affairs and Trade. The research team would also like to thank all of the study participants without whom this research would not have been possible, as well as local research assistants, Dustin Langidrik, Hilda Tango, Trevor Palusi, Malynne Joseph, Patricia Kennedy and Adema Louis, for their exceptional work in the field and keen insights into community life.