

Pacific WASH Webinars



Building Water Resilience in a Changing Climate

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Speakers:

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Participant countries:

- Cook Islands
- Federated States of Micronesia
- Fiji
- Kiribati
- Marshall Islands
- Nauru
- Niue
- Papua New Guinea
- Samoa
- Solomon Islands
- Vanuatu

Event recording and resources available [here](#).

Climate change increases the incidence of extreme weather events and has severely affected the sustainability of freshwater sources across the Pacific. The Asian Development Bank's (ADB) Pacific WASH Technical Advisory Team is supporting Pacific Island nations to consider and adopt national policy and regulatory frameworks to integrate the management of fragile water sources and promote national water security as an urgent national priority.

Webinar Overview

The ADB continues to support the Asia Pacific region to build institutional and regulatory resilience to manage climate change impacts and to support COVID-19 pandemic economic recovery. In November 2021, the ADB Pacific WASH Technical Advisory Team hosted a virtual webinar focused on methods and case studies showcasing examples of national water resource management in response to climate change. The webinar was hosted in association with the Pacific Water and Wastewater Association (PWWA) and attended by approximately 40 participants from 11 countries across the Pacific region.

The webinar responded to these key questions:

- ❖ What are the opportunities to transform national water policy governance across government agencies and different sectors?
- ❖ What decision-making criteria and indicators support water sector adaptation to manage climate change scenarios?
- ❖ How are Pacific Island utilities meeting the challenge of extreme weather events and increasing scarcity of freshwater supplies?
- ❖ What are the practical examples of institutional and regulatory responses to the shocks and stresses of climate change?
- ❖ How can Pacific Islands improve access to freshwater sources and what are the common barriers which limit the development of new water sources?



Workshop Outputs

Presentation Topics

Integrated Water Management

- Manages seasonal imbalances in water reserves
- Risk-based scenario assessment
- Structured approach to collective decision-making
- Considers environmental, social and financial impacts across a range of indicators
- Interactive, adaptive platform

Utility Water Management (Tonga)

- Climate change increases water sector vulnerability
- Inequities in water security for rural and urban populations
- Lack of reliable water consumption and usage data
- Lack of infrastructure particularly in the sanitation sector
- Water legislation requires cross-agency support

Groundwater Resource Assessment (Cook Islands)

- New water sources to manage increasing periods of drought
- Stabilize seasonal peaks and troughs of water supply
- 'Ground-truth' desktop studies with field testing
- Bore location reveals competing land uses
- Management of hydrology data will improve long-term water source planning

Sources: Tonga Water Board, Tonkin & Taylor (2021).

Case Studies

Tonkin and Taylor shared an example of coordinated national water policy, strategy and planning in New Zealand and the policies affected by and impinging upon water management. The presentation illustrated the conceptual framework required to analyze and evaluate integrated water and sanitation sector management. Tonga Water Board presented water sector challenges including increasing frequency of natural disasters, fragile freshwater lens, lack of extraction standards, variable water pressure, quality and quantity. In addition, rural village populations lack reliable piped water enjoyed by urban populations. The challenges of fragmented regulatory frameworks are currently being addressed via the new Water Act (2020) and an integrated approach to WASH policy

incorporating environment, health, and infrastructure agencies. Tonkin and Taylor illustrated the challenges of developing new groundwater sources in Rarotonga with limited hydrological data and challenging geology, constraining the potential for water extraction. The groundwater assessment and new bores are intended to stabilize seasonal water supply issues in periods of drought and high demand during the tourist season. Common challenges include customary land ownership affecting the siting of new bores, requirements to 'ground truth' desktop studies with in-field investigations and long-term water supply strategies based on data captured from historical geological studies.

Learning Snapshots

- **Climate change will continue to significantly impact fragile water sources in Pacific Island nations.** National government responses will require cross-agency support, reliable data and a determination to tackle water sector management as shared and urgent government responsibility.
- **Water resilience is the language of climate action.** Resilience can be achieved through swift and immediate government action. A national water security plan is the first step towards water resilience. Increasingly, Pacific DMCs will need to clearly articulate water resilience strategies in their nationally determined contribution to climate change.
- **Technical studies pave the way for better data management.** National databases to capture and store hydrological studies support better long-term water sector planning and fill the gap in water supply and demand forecasts.
- **The enabling environment for water security management includes environmental, cultural, political, and social dimensions.** There are many stakeholders with different interests to consider in effectively managing the water sector.
- **Risk assessment decision-making includes a comprehensive review of the factors and scenarios affecting the water sector.** Methodologies and frameworks to make decisions incorporate complex data and indicators to model the likely impacts of climate change on water supply.

Upcoming Events

A list of 2022 webinar topics will be published early in the new year. To register your interest in attending, please contact: lfernando@adb.org.

ADB continues to support government and water service providers in the region to build resilience, capacity and knowledge to manage threats in our changing world.