



**EVENT SNAPSHOT** 

## EVENT DETAILS

On-Site Sanitary Behaviors 30 November 2022

#### **Speakers**

Mark Ellery Water, Sanitation & Local Governance Consultant Asian Development Bank, Australia

Sharon Lesa Wastewater Division Engineer Samoa Water Authority, Samoa

Raghava Neti Senior Water Supply and Sanitation Specialist The World Bank, Kiribati

**Bronwyn Powell - Facilitator** *Team Leader and WASH Advisor* Asian Development Bank, Australia

Event recording and resources available <u>here</u>.



Wastewater Treatment Plant, Sogi, Apia Source: Samoa Water Authority

Achieving SDG target 6.2 of universal access to adequate and equitable sanitation requires fecal waste to be safely contained, transported and treated along the sanitation service chain. While there are multiple technology options for achieving the target, decisions at the point of containment critically affect subsequent transport and treatment choices.

### Webinar Overview

Sanitary behavior change at the point of fecal containment is complicated because it lies within the remit of residential and commercial premises rather than public service providers. The Asian Development Bank (ADB) is actively supporting water utilities in the Pacific work towards safe sanitation for all and address on-site sanitary



behaviors. In November 2022, the ADB Pacific WASH Technical Advisory Team, in association with the Pacific Water and Wastewater Association (PWWA), hosted an online discussion on the challenges of on-site sanitary behavior change. The webinar highlighted sanitation challenges and technologies from Samoa and Kiribati, along with an exploration of the principles of sanitary decision-making under development by the ADB for the Good Enough Guide to On-site Sanitation in the Pacific. The event was attended by approximately 44 participants from 10 Pacific countries.

#### The webinar explored several key topics:

- The principles of wastewater treatment for 'good enough' sanitation options
- Exploring where household and utility responsibilities start and end
- Pressurized sewerage treatment systems and impact of user behaviors
- Approaches to influencing household behaviors

#### 'Good Enough' Sanitation

A 'Good Enough' approach to managing on-site sanitation must consider the multiple, complex and overlapping conditions influencing sanitation options, the implications of fecal exposure, the principles of aerobic and anaerobic digestion processes and the specific hydro-geological implications of fecal waste disposal in the Pacific. Both pour flush pit latrines (or cesspits) are and septic tanks are commonly used in the Pacific—with cesspits demonstrating some advantages over septic tanks in certain environments. The aerobic conditions in septic tanks/soakaways are not very effective in removing pathogens and the establishment of a biofilm is critical to pit/tank performance. Cesspits fill 10–20 times slower than septic tanks because they run at much higher densities and are designed to leach effluent. They also cost significantly less making them an attractive on-site sanitation choice in some Pacific contexts. Ultimately, treatment options should primarily be driven by choices based on an assessment of risks.

#### Case Study: Samoa

Serving 85% of the Samoa population with water, the Samoa Water Authority (SWA) is also responsible for 124 commercial sewerage connections to its wastewater treatment plant. The presentation offered a case study on SWA's wastewater treatment operations, how they regulate wastewater discharge into their network from commercial customers, the common issues they contend with and how they're working to optimize their system. SWA estimates that 60% of their monthly call outs are for overflowing sewer tanks caused by a pump blockage. Policy violations and a lack of awareness on what can be flushed contributes to the problem and SWA are working to increase awareness and create behavior change. With SWA's responsibilities encompassing the pump station-the sewerage tank to sewer main, and the customer responsible for internal plumbing connected to the tank, achieving an optimum offsite sanitation system requires safely managed on-site sanitation behaviors.



Installing telemetry units for remote monitoring Source: Samoa Water Authority

# The 'Good Enough Guide' to On-Site Sanitation in the Pacific

The Guide distils the principles underpinning different sanitation technology options to equip WASH practitioners with the knowledge necessary to make informed trade-offs when optimum sanitation technology standards cannot be achieved.

Training on the Guide will be delivered in February 2023 during the <u>WASH Futures Conference</u>. The training will primarily focus on the principles underpinning different dry (aerobic) and wet (anaerobic) on-site technology options for containment as well as treatment.

#### Case Study: Kiribati

In Kiribati, the World Bank is in the initial development phase of the South Tarawa Sanitation Project. Working with Kiribati's Ministry of Infrastructure and Sustainable Energy (MISE), the project will seek to connect households in three networked towns to the existing sanitation system, while supporting a further four villages with onsite, nonnetworked systems. The presentation outlined why on-site sanitation behavior change is important, the hurdles to effective sanitation behaviors and how the project is seeking to address these. A key component of the project will be strengthening operations and maintenance and the institutional capacity within Kiribati to manage sanitation. The presentation acknowledged the importance of working with partners and building on the knowledge and lessons learned in other projects, along with the two-way communication with community to achieve sustainable and community-owned/led solutions to sanitation.

## Learning Snapshots

- In the Pacific pour flush pits / cesspits offer a viable and more affordable sanitation solution in many contexts. Cesspit fill rates are 10–20 times slower than septic tanks and are significantly cheaper to install and maintain.
- Optimizing off-site sanitation systems is necessary before increasing the size of a network. Samoa Water Authority is working on energy optimization of their pressurized off-site sanitation system, including identifying the optimum run times for each pump station and annual training and system maintenance.
- Enforcing the rules of waste policies with customers and developing community education on on-site sanitation behaviors are also critical components to optimizing these systems.

## **Upcoming Events**

A list of 2023 webinar topics will be published early in the new year. To register your interest in attending, please contact:



Past ADB Pacific WASH webinars can be accessed here: Pacific WASH Webinars

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.