

Impact Assessment of Water Security in Pacific Outer Islands

To better assess the sustainability of development projects, an impact assessment was conducted of a water security project in an outer island in the North Pacific, three years after the project had been closed. The assessment was conducted by a national team, over a three-day period and cost approximately EUR 5,000. The results of the impact assessment were insightful and will help in making future development projects more sustainable.

Post-project situation (2016)

- One Key Result Area (KRA) of the Global Climate Change Alliance: Pacific Small Islands States (GCCA: PSIS) project, implemented between 2012 and 2016, was: Improved water infrastructure for catchment, storage and emergency services in place for one outlying island (Fais Island) in Yap State, FSM.
- This KRA was achieved by the end of 2015 as indicated by the Project Evaluation Report. 300 people had benefitted from the installation of 45 new community and household water storage systems, the enhancement of 23 existing systems, and the installation of one solar pump for a ground water. These measures resulted in increased water storage of 270 Kilolitres, and the availability of pumped well water. (Recognising that the well water is slightly brackish during drought).
- During extreme events, the residents of Fais Island had sufficient water: (i) Residents had access to well water following Typhoon Maysak in April 2015; and (ii) Residents were water-sufficient during the very severe El Niño drought of 2016.

Impact assessment three years later (2019)

How was the impact measured?

- An eight-person team of representatives of Yap State Government, NGOs and a Yap-based facilitator visited Fais Island for a 3-day period in March 2019. Consultations were held with the following: (i) Chief; (ii) entire community; (iii) separately with men, women and youth. (Key questions were posed during each consultation – see Annex 1). 86 people took part in the consultations (male = 52, females = 34).
- During the visit representatives from the Yap State Department of Public Works and Transportation carried out a survey of the water storage systems.

What were the impacts?

- As a result of the project, residents had more safe water available for household use; experienced improved health and hygiene; spent less time hauling water resulting in improved quality of life.
- Of the two different types of tanks installed by the project, the horizontal tanks showed defects resulting in leakages. (This was confirmed by the survey conducted by Public Works – 33% of the new tanks showed leakages).
- The community has organized and established the Taremal Fais Organization (TFO) to oversee regular maintenance and repair of the water storage systems. This is in addition to the more frequent inspection and maintenance by household members – the survey indicated a 13% increase in the number of people who regularly clean their water tanks.

What were the key recommendations?

- More financial and technical resources should be made available for maintenance

- Members of the community should be involved in the construction of such projects so as to acquire the skills needed for maintenance.

What can SPC do better with water security projects in outer islands?

- Conduct impact assessments of previous projects before embarking on new interventions.
- Ensure that suitable local community members acquire the necessary skills for maintenance and repair by including them in the installation of the water security measures.
- Place more emphasis on maintenance training and the provision of materials required for maintenance.

Annex 1: Key questions posed during the consultations

1. The project involved the installation of new water tanks and installing a pump for the well – have these measures improved the water supply for your household? If yes, in what way?
2. How did your household manage for water during the El Nino drought December 2015/mid 2016?
3. What would you have liked to see the project do differently?
4. Have you experienced any challenges with the water tanks or the well?
5. Who takes care for maintenance of the tanks and the well?
6. If the project was repeated in another island in Yap State, are there any changes you would recommend?
7. What was the most beneficial impact of this project to you?

Generic version of key questions:

1. What worked well? How and in what way?
2. How did your household cope during an extreme event (flood, typhoon, drought, heat wave)?
3. What should have been done differently?
4. What did not work well? What were the challenges?
5. Who takes care of upkeep and maintenance:
6. What would you change if we had the chance to do this work again?
7. What was the most beneficial impact for you

Selected Photos



Impact team member conducting a survey with an individual householder



Consultation with the women



Consultation with the men



One of the water storage systems