

ADDRESSING DISASTER AND CLIMATE RISK IN FSM



The European Union – North Pacific – Readiness for El Niño (RENI) project in Federated States of Micronesia

Securing water resources ahead of drought in FSM



Project amount



€ 4.5 million (for Palau, FSM and RMI)
funded by the European Union

Project timeframe



6 July 2017 - 31 October 2020

Implementing agencies



Department of Resources & Development,
Yap State
Environmental Protection Agency, Yap State
Kapingamarangi Municipality, Pohnpei State
Department of Environment, Climate
Change and Emergency Management, FSM

Beneficiaries



Direct benefit: **2,916 persons** (Yap)
450 persons (Kapingamarangi)
Indirect benefit: **7,371 persons** (Yap)
450 persons (Kapingamarangi)

Providing access to safe drinking water to the most vulnerable in the community, Kapingamarangi, Pohnpei State.

About the RENI project

The European Union (EU) – North Pacific – Readiness for El Niño (RENI) project is about communities working to secure food and water resources ahead of drought. The three-year (2017 - 2020) project is funded with € 4.5 million from the European Union and is implemented by the Pacific Community (SPC) in collaboration with the governments and peoples of Federated States of Micronesia (FSM), Marshall Islands and Palau.

The overall objective of the EU – North Pacific – Readiness for El Niño (RENI) project is to enhance the resilience of the people of the FSM, Marshall Islands and Palau to the shocks and insecurities resulting from extreme El Niño events.

Drought in FSM

Yap State is drier than the other states of FSM and is highly susceptible to drought. While Yap Proper possesses adequate groundwater sources, during prolonged droughts such as the 1997/1998 El Niño, these water sources have been known to dry up. Starting in October 2015, rainfall amounts in Yap Proper were well below normal and these conditions continued into the first half of 2016. Faced with this information, the Yap State Department of Resources and Development conducted a survey of available water resources across the State in December 2015. Following this survey, extensive efforts were expended in 2016 to ship potable water to the outer islands of Yap State, and water rationing was started in some areas of Yap Proper. An El Niño Mitigation Plan was prepared to guide the emergency response.

In Kapingamarangi the drought had the greatest impact later in the year - September to November 2016 - when emergency water supplies had to be delivered by ship from Pohnpei as the atoll's drinking water supply was depleted.

Between January and May 2020, FSM experienced another drought. The measures implemented by the RENI project assisted the communities in Yap Proper and in Kapingamarangi cope with the drought conditions.

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RENI project in FSM

The RENI project in FSM focuses on water security for the most vulnerable. Following community consultations, it was decided to focus on refurbishing abandoned water systems in Yap Proper, which can then provide “point water sources” for other households and communities. Following an impact assessment of a previous water security project, completed in 2015 in Fais Island, care was taken to involve the community in the design, construction and maintenance of the water measures.

Rainwater harvesting systems have been installed for community buildings in Kaday, Gachpar, Balabat and Tamil villages, and ecological purification systems in Amin and Dugor villages. Spare parts and maintenance training have also been provided.

A hydrogeological assessment of the main underground water resource, the Tomil Gagil aquifer, has been conducted and this together with regular monitoring is helping Yap water authorities meet water demand during normal rainfall conditions and during drought. Support has been provided to women’s groups for education and awareness activities centred around water conservation.

In Kapingamarangi, a very remote inaccessible atoll near the equator, the project has concentrated on providing safe drinking water for the most vulnerable: the sick, the elderly and the youth.

Key Highlights

Influencing community behaviours



- An assessment was conducted in 2019 of past water security activities installed in Fais Island, Yap State, in 2016. Men, women and youth were consulted separately. The findings showed the community's appreciation for the improved water supply, health and hygiene conditions, and that they need to be involved in future installations so they can acquire the skills required for maintenance.
- These and other findings have been applied to the delivery of RENI project. Letters of agreement have been signed with participating communities, and communities have participated in the design, installation and maintenance of the water security measures.
- A methodology for community-based impact assessments was developed and is being used in other projects.
- Support has been provided to the Tamil Women’s Association to provide water conservation training and outreach to youth and the community.

- Two videos have been prepared: “Addressing water security challenges in Kapingamarangi” and “Managing water demand during drought: Yap State”.

Enhancing water security



- Communities in Yap Proper and in Kapingamarangi have participated in the selection and design of the water security measures. As a result, the selected measures target the most vulnerable groups: the elderly, the sick and the youth.
- With the help of the benefitting communities, rainwater harvesting systems have been installed in schools and community buildings in four villages in Yap Proper and in three community buildings in Kapingamarangi.
- Ecological purification systems, which allow for low cost, environmentally friendly, water treatment have been installed in two communities in Yap Proper, Amin and Dugor.
- Maintenance training has been a key component for all the measures.

Research and planning for future droughts



- A hydro-geological assessment was conducted of the Tomil-Gagil aquifer and monitoring of the underground water reserve established. This will guide the extraction and use of this water source in the future.
- A report on the assessment has been published and distributed, “Groundwater resources assessment, Gagil-Tomil, Yap State, FSM”
- Several virtual meetings were held with Yap Proper water authorities and state government agencies in 2020 to share the findings as they related to the January to June 2020 drought. Continued support for data analysis after the RENI project ends are under discussion.
- A rain gauge has also been installed in the Tomil aquifer to complement the ongoing monitoring of the aquifer.

Activities meet the SDG’s

