

PROJECT BRIEF

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EU-GIZ ACSE ADAPTING TO CLIMATE CHANGE AND SUSTAINABLE ENERGY



PACIFIC ISLANDS
FORUM SECRETARIAT



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Republic of the Marshall Islands: Improving Water Supply Resilience for three Outer Islands High Schools

Background

In 2016, the North Pacific was affected by extreme drought conditions and the Republic of the Marshall Islands (RMI) declared a State of Disaster. The drought was primarily impacting the Water, Sanitation and Hygiene (WASH) sector.

The initial drought response mostly focused on temporary solutions. Nonetheless, larger high schools still do not have sufficient potable water available for their students and staff.

Further assessments determined the need to adopt a long-term solution to improve water supply resilience on the particularly affected atolls Kwajalein, Wotje and Jaluit.

Due to their larger scale of collection area, and clear land ownerships with the Government, one high school in each atoll was selected as project site. Apart from the schools, the water project will also benefit the surrounding communities.

Kwajalein Atoll has a population of approximately 11.410 with a majority residing on the island of Ebeye (second largest urban center in RMI). **Kwajalein Atoll High School (KAHS)** has around 340 students and is located on the island of Gugegwe which has a village community located adjacent to the school with a population of approximately 240.

Northern Island High School (NIHS) is located on Wotje Atoll which has a population of approximately 860. NIHS is boarding school with approximately 410 students, including those from nearby atolls.

Jaluit Atoll has a population of approximately 1.800. **Jaluit Atoll High School (JAHS)** is located in the village of Jabor with around 450 students being enrolled at the school.

Project Summary

Location: Kwajalein, Wotje and Jaluit Atolls, Republic of the Marshall Islands

Objective: Improving rainwater harvesting and storage capacity of three outer island high schools on Kwajalein Atoll, Wotje Atoll and Jaluit Atoll

Implementing Agency: National Disaster Management and Joint National Action Plan Office

Budget: € 113,000

Duration: 2017—2018

None of the three high schools have reticulated water supply system in place and the main source of drinking water is provided by rainwater harvesting tanks. During droughts, the rainwater tanks are supplemented by Reverse Osmosis units.

The toilet facilities are either supplied by seawater or well water, through a pressure pump adjacent to each of the buildings. At NIHS and JAHS, rainwater tanks provide water primarily for drinking and food preparation.

Project Objective

The project is focusing on **improving the rainwater harvesting and storage capacity.**

The project aligns with the country's Joint National Action Plan for Climate Change and Disaster Risk Management as well as the Drought Response Plan.

It will contribute to a long-term climate change adaptation strategy for the three schools and neighboring communities.

Current situation

Previous assessments at KAHS and NIHS have shown that the existing roof area is not used to its maximum as a rainwater catchment surface and not all rainwater storage tanks are connected to roof catchments. There is also insufficient storage capacity to provide water security in times of extended periods of low rainfall. Therefore, existing rainwater reserves only provide staff and students between 11 and 20 days of water supply at KAHS and NIHS respectively. This is insufficient to provide water security during times of prolonged drought.

Local groundwater is generally unsuitable for human consumption due to salinity and bacterial contamination. The lack of reliable potable water results in the prevalence of waterborne diseases which lead to absenteeism from school; other health impacts due to insufficient water availability for cooking, drinking and personal hygiene.

What Is EU-GIZ ACSE Doing?

The EU-GIZ ACSE programme helps the people of fifteen Pacific island countries address two common challenges: adapting to climate change and reducing their dependence on fossil fuels.

GIZ is supporting the Government of the Marshall Islands to improve the rainwater harvesting and storage capacity of three outer island high schools through

1. Increasing potable water supply for students, staff and neighboring communities during times of drought and low rainfall.

The project will install 18 new rainwater storage tanks and repair existing tanks where required at KAHS and NIHS. Staff will be trained in tanks maintenance and repair. The respective schools will be equipped with required tools and materials.

At JAHS, the project is funding the purchase of first flush diverters to support the installation of a new concrete water tank.

2. Improving water resource management

The project will develop a Water Asset Management Plan which outlines clear Standard Operating Procedures to manage and maintain water assets. It is anticipated to link the plan to the respective schools' Disaster Management Plan in order to identify actions to secure water supplies in case of drought



Organisational Context

The project is led by the Office of the Chief Secretary. It is implemented by the National Disaster Management and Joint National Action Plan Office in close partnership with the Public School System, Ministry of Education, Ministry of Public Works, and the Project Management Unit under the Ministry of Finance.

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