
NUKULAEAE WATER SURVEY REPORT 2022

Tuvalu Water Scarcity Project, Tuvalu Climate Change Department



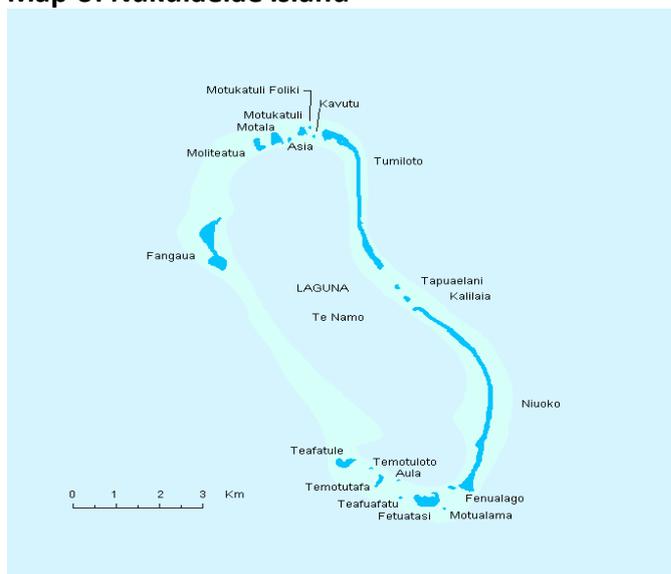
1. Background

Managing Water Scarcity through Strengthened Water Resource Management Project in Tuvalu is the second phase of the previous Strengthening Water Security in the Vulnerable Island States that aim to improve the water resource storage system to enhance resilience in communities. This regional project covers 5 Islands which are Cook Island, Kiribati, Marshall Islands, Tokelau, and Tuvalu. The project's long-term goal is for communities to be less susceptible to water scarcity. This project is funded by New Zealand's Ministry of Foreign Affairs and Trade and implemented by the Pacific Community (SPC).

2. Introduction

The Nukulaelae household water survey was carried out for 3 days from 2nd to 4th August 2021, and 4 surveyors carried out the survey. Four surveyors surveyed the island with the assistance provided by Nukulaelae Island Council staff. The sole purpose of the household water survey was to collect data and information about the conditions of water storage and catchment system at the household level in Nukulaelae. As the Tuvalu Water Investment Plan needs solid and up-to-date data and information on the current storage capacity on each island of Tuvalu. The survey is a preliminary step towards the achievement of the investment plan.

Map of Nukulaelae Island



Nukulaelae is the second southernmost atoll that has a lagoon with many islets encircling the lagoon. Nukulaelae is one of the islands of Tuvalu that was greatly affected by the 2011 drought, causing the island to have major impacts on its agriculture sector and especially water scarcity. Rainfall patterns on the island are very similar to other islands depending on Tuvalu's dry and wet seasons.

3. Results

3.1 Summary of the survey

The household covered in the survey were all private houses and government-owned houses. The population was categorized into adults which are 18 years and above and children, from 17 years to infant. The agreed usage rate per person per day is 14 liters of water according to Tuvalu Public Health's standards. According to data collected, the average number of water tanks per household is 1, and an average of 5 people per household.

Nukulaelae water survey analysis	
Population	333
Household	64
Tanks	171
Estimated capacity of 171 tanks	average of 10,000 liters
Total storage capacity	1,710,000 liters
Water available	5135 liters/person
With 10L/person/day	513 days

Table 3.1 The table above shows Nukulaelae's population in relation to water tanks.

3.2 Condition valuation of water tanks

It was found that Nukulaelae's water catchment and storage system is good compared to other islands, and this shows how mindful this community is about the impacts of water scarcity on their island and a lesson learned from the impacts of the 2010-2011 drought that affected Nukulaelae. The percentage shown below is equivalent to 16 tanks and 18 household gutters and pipes needed to be repaired.

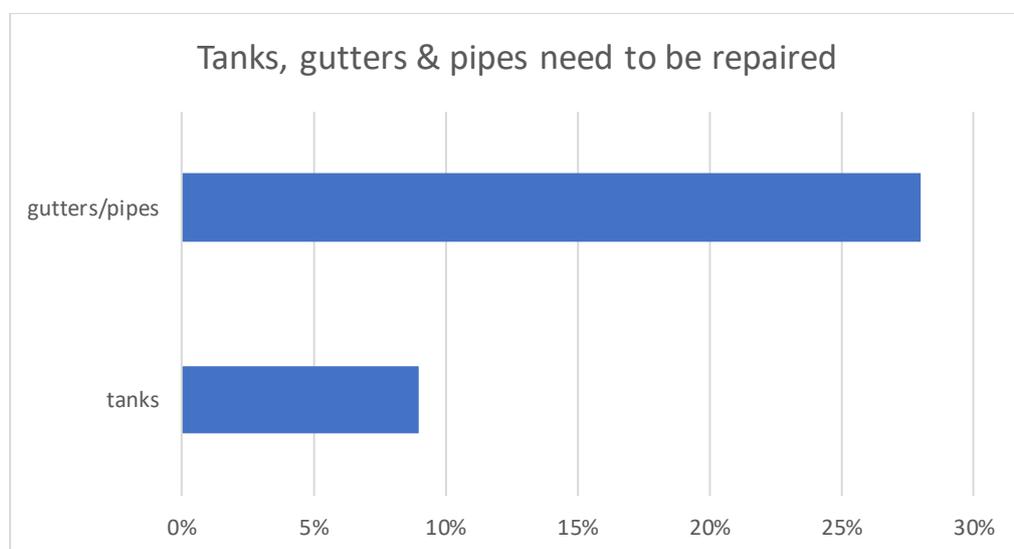


Figure 3.2 Conditions of water tanks, gutters & pipes on Nukulaelae Island that need to be repaired.

4. Conclusion

The community of Nukulaelae has taken a big step forward in improving its water storage and catchment over the years. As a lesson learned from the devastation caused by the 2011 drought, households of Nukulaelae have managed to expand their water sector to be resilient during a time of water shortages. The survey found that many of the households have no issues regarding their water catchment and storage systems. The result also stated that one person can use water for more than a year until water last. This shows that the people of the island can have enough water during droughts or any other disaster that can affect the supply of water.