

---

# NIULAKITA WATER SURVEY REPORT 2022

---

Tuvalu Water Scarcity Project, Tuvalu Climate Change Department



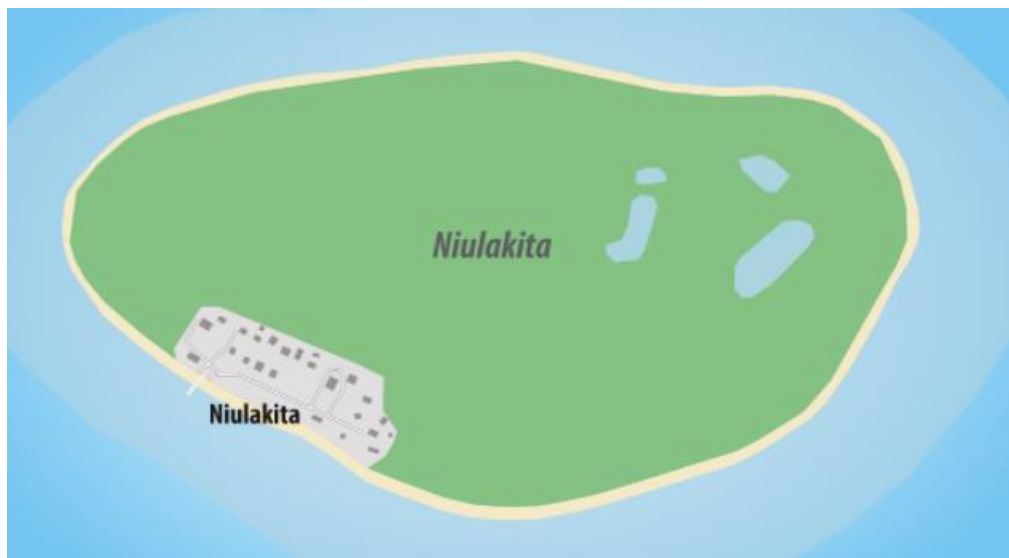
## 1. Background

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

Niulakita Island is the southernmost atoll island of Tuvalu which is very small in land area and few people settled on it. The Niulakita Household water survey was carried out in one day on the 24<sup>th</sup> of July 2021 due to the island having only a few households. The survey focused on collecting data and information related to water catchment and storage systems on Niulakita Island. The Meteorology officer stationed on the island assisted the project team in carrying out the survey which was completed in just a few hours. The project team did a round trip to Niulakita to work on completing the survey

### Map of Niulakita



Niulakita Island is very close to Fiji waters and sometimes it is cooler than expected. Often received more than the average amount of rainfall compared to other islands. This is because its location lies where the South Pacific Convergence Zone often moves and is active most of the time at the southern latitudes of Tuvalu. Niulakita is also very prone to strong winds and swells when a tropical depression developed between Tuvalu and Fiji, therefore always have higher rainfall than normal compared to other Tuvalu Islands.

### 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 who 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 4 people per household.

Niulakita water survey analysis	
Population	39
Household	14
Tanks	34
Estimated capacity of 34 tanks	average of 10,000 liters
Total storage capacity	340,000 liters
Water available	8717 liters/person
With 10L/person/day	871 days

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

#### 3.2 Condition valuation of water tanks

Most of the households on Niulakita have very poor conditions in their water catchment and storage systems. Old cement water tanks are no longer in use due to leakage problems however, these cement tanks need proper repair works so that the tanks can be used again. The percentage shown below is equivalent to 11 tanks that need to be repaired and 12 households needed to repair their catchment systems.

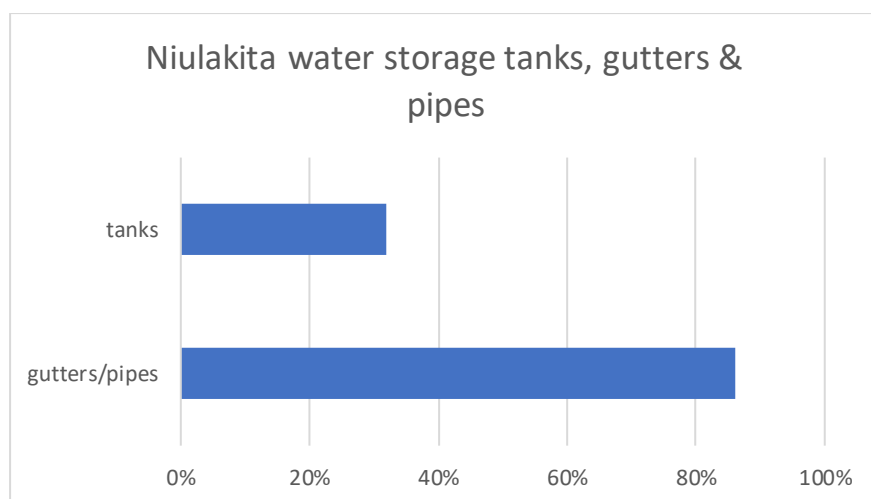


Figure 3.2 Conditions of water tanks, gutters & pipes on Niulakita Island that need to be repaired.

#### **4. Conclusion**

Even though the survey was a bit rush because it was a one-day survey, the project coordinator and the Met officer managed to complete the survey on time. Given the results gathered from the survey, it is important to note there is major repair work to be done on this island given the conditions of water tanks, gutters, and pipes found during the survey. Niulakita often receives higher than normal rainfall, and regarding its population, insufficient supply of rainwater is not an issue for this small island with few people living. However, all the cement tanks found on the island are either not in use or crack, which is a priority for this island to repair all these leaked cement tanks.