
NANUMAGA 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

Nanumaga community & household water survey was carried out for 4 days from 11th to 14th April 2022, and 4 surveyors carried out the survey. The survey was supervised by the secretary of the Nanumaga Island Council. 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 on Nanumaga Island. 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 Nanumaga Island



Nanumaga Island is the 3rd northern-most island and is the same as Niutao Island where it does not have islands but only a few spots of a small shallow lagoon. Its climate and weather conditions are only driven by the dry and wet season of Tuvalu. Rainfall patterns are often lower than normal most of the time for Niutao island. Groundwater is the only other source of water supply that the community and household depend on during the time of water shortages and droughts.

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 average population per household is 7 according to the survey that was carried out, and 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 2, and an average of 3 people per household.

Nanumaga water survey analysis	
Population	434
Household	181
Tanks	408
Estimated capacity of 408 tanks	average of 10,000 liters
Total storage capacity	4,080,000 liters
Water available	4080 liters/person
With 10L/person/day	408 days

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

3.2 Condition valuation of water tanks

The data obtained from this survey shows that not many of the water tanks in Nanumaga needed proper repair as all are in good use. Half of the households in Nanumaga requested for their gutters to be repaired as they are not in good condition at this time which shows that half of the population are not responsible for keeping their gutters and catchment well from being damaged. The percentage shown below is equivalent to 101 tanks that need to be repaired and 92 households needed to repair their catchment systems.

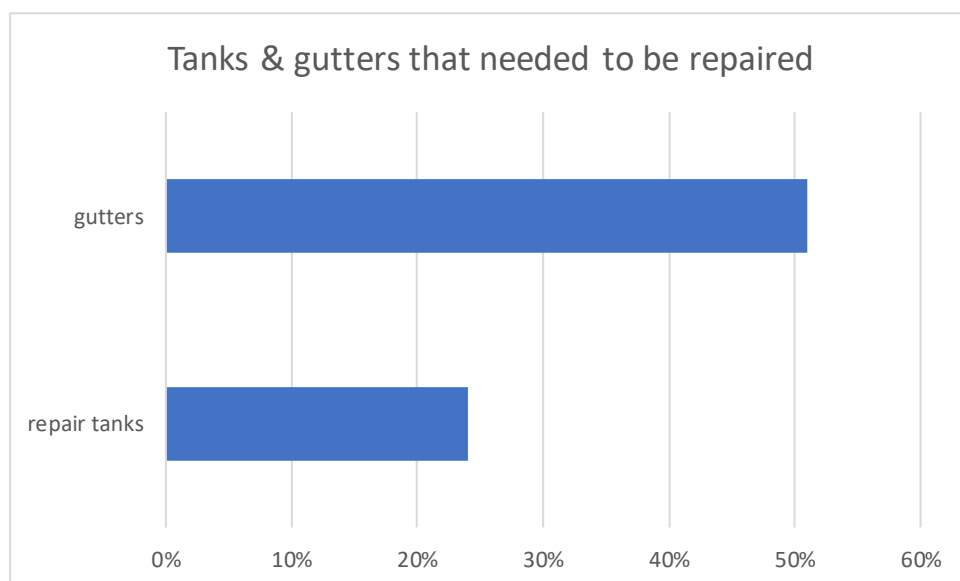


Figure 3.2 Conditions of water tanks & gutters on Nanumaga Island that need to be repaired.

4. Conclusion

Nanumaga Island has shown in this report the need to improve its storage and catchment systems at the community and household levels. The root problem of water shortage in communities deeply reflects on the people's behavior towards managing water properly. As seen in this report, many households need to repair their water catchment systems and also look after their water storage tanks appropriately. This report documented the importance of maintaining safe and good water storage systems in each household. As stated in the results, many households need their gutters and pipes repaired and tanks to be patched. These are unending issues that caused water shortages most of the time.