
NANUMEA WATER SURVEY REPORT 2022

Tuvalu Water Scarcity Project, Tuvalu Climate Change Department



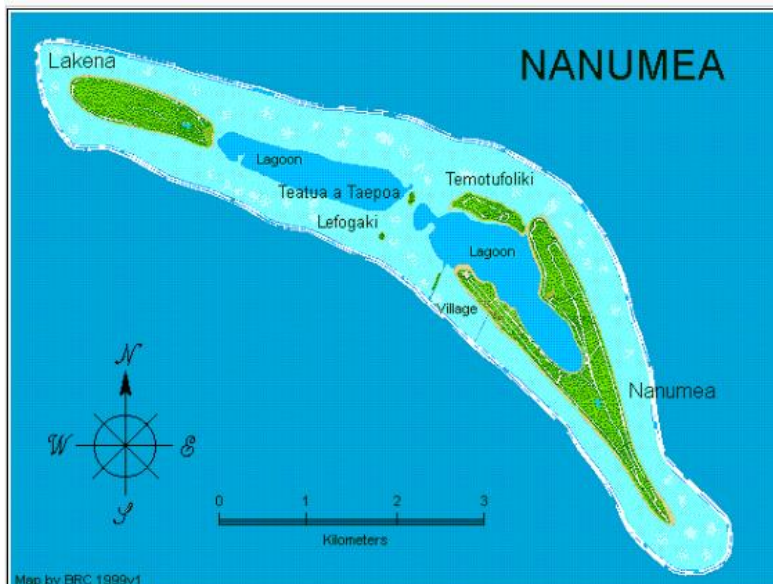
1. Background

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

Nanumea Island community & household water survey was carried out for 4 days from 11th to 14th April 2022. 4 surveyors were temporarily recruited for this survey and supervised by Nanumea Kaupule's assistant secretary. The survey also covered the settlements occupied on the islets of Nanumea. 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 Nanumea 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 Nanumea Island



Nanumea Island is the farthest northern island of Tuvalu which is very close to the islands of Kiribati. Its geographical formation is very similar to other atoll islands like Nukufetau, Funafuti, Nui & Nukulaelae. Northern islands often received lower than normal rainfall and Nanumea is of those islands. The island relies more on the groundwater supply to cater to its people as rainfall is always scarce to meet the needs of the people. Climate & weather conditions are distinctive during the dry and wet seasons of Tuvalu.

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 5 people per household.

Nanumea water survey analysis	
Population	552
Household	117
Tanks	281
Estimated capacity of 281 tanks	average of 10,000 liters
Total storage capacity	2,810,000 liters
Water available	5090 liters/person
With 10L/person/day	509 days

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

3.2 Condition valuation of water tanks

Most of the households on Nanumea have a very good condition of their water catchment in regards to the number of households. The number of leaked and damaged water tanks is not that high compared to other islands of Tuvalu. The percentage shown below is equivalent to 49 tanks that need to be repaired and 50 households needed to repair their catchment systems.

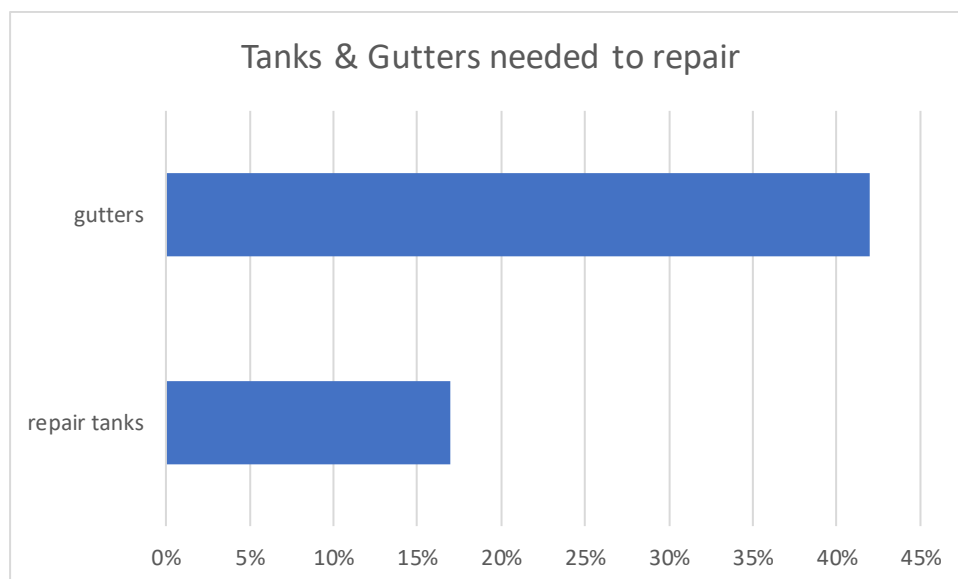


Figure 3.2 Conditions of water tanks & gutters on Nanumea Island that need to be repaired.

4. Conclusion

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. However, for Nanumea it is a little different compared to other islands. Factors that need to be considered here are that the people of Nanumea are now more responsible and more resilient to water shortages because they face this issue about water every day. Therefore, people are more subjected to the fact that they need to ensure that their water catchment and storage systems are in good condition.