VAITUPU WATER SURVEY REPORT 2022

Tuvalu Water Scarcity Project, Tuvalu Climate Change Department

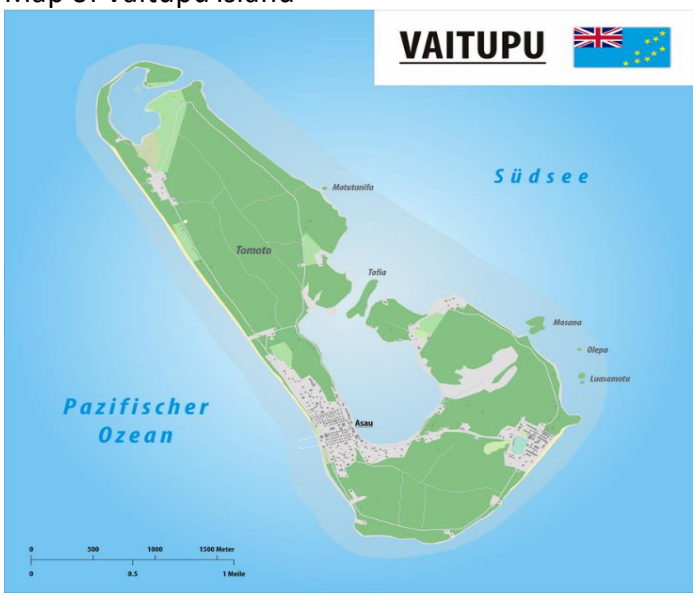
1. Background

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 Vaitupu Island community & household water survey was carried out for 4 days from 14th July till 17th July 2021. A total of 8 surveyors were temporarily recruited to carry out the survey, and supervised by the project coordinator. The survey also covered Motufoua Secondary School. 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 Vaitupu 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 Vaitupu Island



Vaitupu Island is one of the central islands of Tuvalu and is considered the biggest island in terms of the land area even though it has a small lagoon and a few near-distanced islets. Vaitupu has the highest population compared to other islands in Tuvalu. It bought Kioa Island, and Fiji back in 1947. Ever since that, many of its population have moved to Kioa island to live their lives there. Vaitupu's weather and climate are very similar to other islands in Tuvalu. Wet and dry seasons are the only distinctive seasons that affect rainfall patterns on Vaitupu, hence using groundwater is one of the water resources that people rely on during drought.

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 2, and an average of 4 people per household.

Vaitupu water survey analysis	
Population	1096
Household	292
Tanks	673
Estimated capacity of 366 tanks	average of 10,000 liters
Total storage capacity	6,730,000 liters
Water available	6,730 liters/person
With 10L/person/day	673 days

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

3.2 Condition valuation of water tanks

Most of the households on Vaitupu have a very poor condition of their water catchment in regards to the number of households. The number of leaked and damaged water tanks is also high in relation to the total number of tanks on the island. The percentage shown below is equivalent to 180 tanks that need to be repaired and 160 households needed to repair their catchment systems.

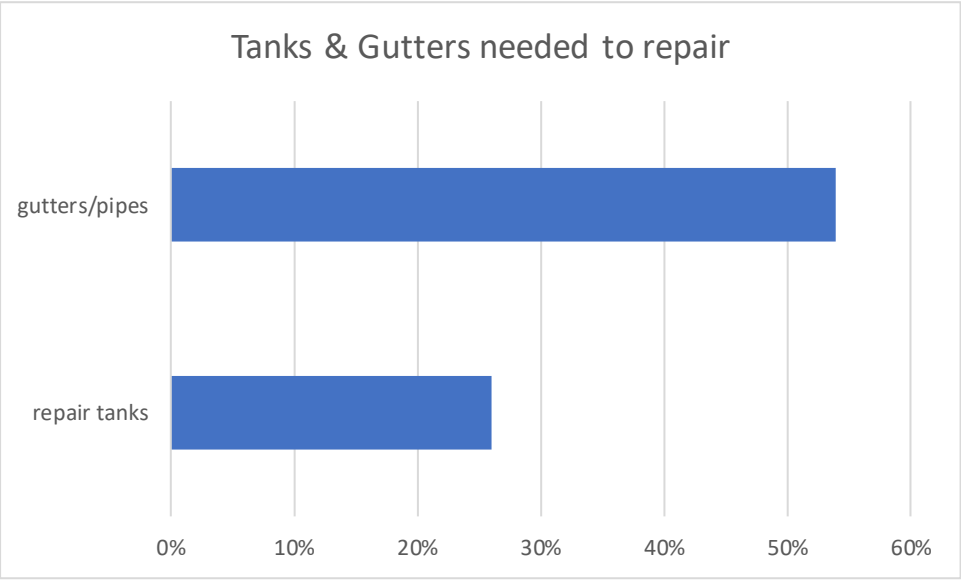


Figure 3.2 Conditions of water tanks & gutters on Vaitupu Island that need to be repaired.

4. Conclusion

Vaitupu Island as shown in the results gathered from the survey, households needed a lot of work to do to ensure water storage and catchment systems are in good condition. The same applied to Motufoua Secondary School where 4 huge concrete water cisterns are not in use. This caused the students to use groundwater for their daily needs in the school. 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.