

Fiji Project Sites Profile

(1) Druadrua Island

○ *Location*

The island of Druadrua is located on the north-eastern part of Vanua Levu, approximately 100km north east of Labasa town.

○ *Most prominent climate change issue - water scarcity/shortages*

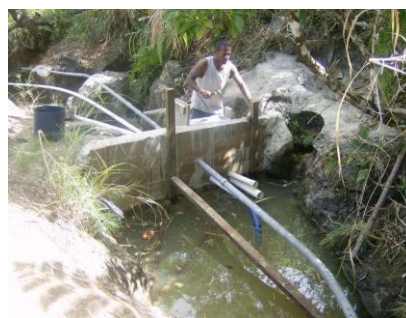
○ *Brief Site Description*

The main source of water for the community has been spring water. There are 5 main springs within the village. These springs have provided water to the community for cooking, washing and bathing over generations. The scarcity of water had prevented the community from venturing into beneficial socio-economic developments; those that rely on good water supply.

The community had once tried to obtain water by constructing a dam on the other side of the island however was not successful due to the technical failure in the dam and piping system design.

○ *Project Impact*

The project has constructed a proper dam and piping system. Storage tanks with a total capacity of approximate 50,000 litres have been installed to store both rain and stream water. A pressurized reticulation system has been installed and connecting the two villages on the island. The traditional water sources have been upgraded. The community now has piped water connected to their individual homes.



(2) Votua Village

- *Location:* Votua village is located along the coral coast, approximately 150 km west of Suva
- *Most prominent climate change issue* - water scarcity/shortages
- *Brief Site Description*

Prior to the project, the community were being supplied with water through the Public Works Department water system. The water system was being shared with a residential subdivision located upstream from the village. In the past, the equitable sharing of water had been a source of contention, especially during dry seasons.

The community had once tried to obtain their own source of water by constructing a dam upstream, however was not successful due to technical failure in the design of the system.

- *Project Impacts*

The project has constructed a proper dam and piping system. Storage tanks with a total capacity of approximately 50,000 litres have being installed to store the stream water. A pressurized reticulation system has being installed. The community now has piped water connected to their individual homes.



(3) Bavu Village

- *Location*

Bavu is located along the northern edge of the Nabou pine plantation, approximately 30km south of Nadi town.

- *Most prominent climate change issue - water scarcity/shortages*

- *Brief Site Description*

The construction of the Queens Highway across their water catchment, the establishment of pine plantation and the decrease in the rainfall in the area has affected the community's water resources. The stream upon which the community relies on usually dries up during dry season. Two years prior to the project, the community was relying almost entirely on borehole water. Borehole water was extracted by a diesel pump. The pump was problematic and had shut down completely with the borehole clogged up, at the start of the project.

The community tried to obtain water by constructing a dam from a stream approximately 5 km north-east of the village. This unfortunately was unsuccessful due to technical failure in the design of the system.

- *Project Impact*

The project firstly cleared an existing borehole and installed a submersible pump. Guttering for four clusters of houses and the village church were constructed to capture rain water. An old dam was re-habilitated to supplement the community's water supply. Storage tanks with a total capacity of approximately 50,000 litres have being installed to store borehole, rain and stream water.



(4) Navukailagi Village

- *Location*

Navukailagi village is located on the North-West end of Gau Island, within the Lomaiviti Island Group.

- *Most prominent climate change issue - coastal erosion and inundation.*

- *Brief Site Description*

Navukailagi village is located along the coast with an elevation of approximately 1.5metres above mean sea level. With this low elevation, the village gets inundated during king tides, particularly if this coincide with high overland flows from an adjacent stream.

Coastal erosion occurs due to long shore drifts on the northern part of the coast. On the southern part, coastal erosion is prominent in areas where incoming waves approaches the shore on a tangential angle.

- *Project Impact*

After assessment of the coastal processes, the project designed and constructed a series of perpendicular and parallel groynes to address the coastal erosion problem.

There is evidence of shore line accretion. For the long term impact, the project in collaboration with the community have also embarked on a mangrove planting activity along the foreshore to protect the shore and village from incoming high energy waves, particular during cyclones.



(5) Buretu Village

- *Location*

Buretu village is located within the Rewa River delta, approximately 20km east of Nausori town.

- *Most prominent climate change issue - river bank erosion*

- *Brief Site Description*

The village is adjacent to the Navuloa river, an exit tributary of the Rewa river. Riverbank erosion is a concern for the community as the only elevated strip of land upon which the village is located has been eroding away and relocation is not an option for the community, as most other areas are low lying swamplands.

- *Project Impact*

The project chose to apply “low technology” solution to the river bank erosion problem. It lined coconuts logs along the bank and secured them in place with mangrove and treated pine poles. The eroded portions were in-filled with soil and vetiver hedgerows were established along the river bank to further hold the soil and strengthen the bank.



