

Nadi Basin – Integrated Water Resource Management Demonstration Project



Client: Fiji Government, Department of Agriculture (Division of Land and Water Resource Management)

Location: Nadi, Fiji

Duration: 2011 – 2014

Services: Installation of flood early warning system, technical training & capacity building

The Nadi Basin Catchment, with its vulnerability to flooding, was identified as a 'hotspot', and the first priority for a GEF funded Integrated Water Resources Management (IWRM) demonstration project in Fiji. The basin has experienced regular flooding events with catastrophic floods happening in 1999, 2009 and 2012 where damages ran into millions of dollars, significantly affecting the tourism and agricultural sectors. Furthermore the Basin has experienced rapid urbanization and increasing population due largely to a thriving tourism industry that has seen the establishment of major resorts and hotels in the lower catchment.

The IWRM demonstration project aimed to improve catchment resilience to flood impacts and better flood preparedness and management within the Nadi Basin. Future planning and development in the Basin is being developed by Nadi Basin Catchment Committee, a multi-sectorial committee designed to improve the management of land and water resources within the Basin. A component of the project was designed to assist stakeholders within the Nadi Basin to

improve the monitoring of rainfall and hydrological events to improve flood forecasting. The project is also raising awareness to flooding issues throughout the Basin and is helping local communities and other stakeholders improve their resilience to flooding through an improved understanding of the river network and floodplain interactions.

NIWA provided the technical assistance to the project to:

- Design and install of a network of rainfall and river flow monitoring stations.
- Integrate the monitoring network into existing Fiji Meteorological Service's data collection software.
- Provide operational training in integrated water resource management to the associated project staff.
- Develop and installation a siren warning systems to enable public warning of impending flooding danger.

The installed system now provides the main flood warning information for Nadi Town and surrounding areas.