



GEF PACIFIC IWRM PROJECT RESULTS NOTE

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RSC-4 2012

Integrated Flood Risk Management in the Nadi River Basin



Top Project Results

1. The establishment of Nadi Basin Catchment Committee that demonstrates governance model for catchment management
2. Endorsement of Project Design and PM&E Plan by the Project Steering Committee
3. Development of Nadi Basin integrated Flood Management Plan
4. Increased sectoral engagement in formal multilateral communication on water issues
5. The establishment of sustainable forestry management activities and programs in the upper that involves every sect of the community in the catchment
6. Empowered communities to be more disaster resilient and independent

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1. PROJECT OBJECTIVE

The objective of the IWRM Nadi Demo Project is to improve flood preparedness and integrate land & water management planning within the Nadi Basin using an integrated flood risk management approach.

2. RESULTS: PROCESS

Prior to the project inception there was no existing mechanism that could embrace a holistic approach to address issues within the Nadi Basin. Though the current political climate of Fiji made some provision under it's 'people's charter', there was no basis to 'bring people to one table'. Hence, the IWRM project initiated the process of getting agencies together into a formal group. A catchment Management committee was established and endorsed by the cabinet. Through a periodic participatory consultation process the project activities were refined and a monitoring & evaluation plan was endorsed. Further the process of developing an Integrated Flood Management Plan saw a process of capacity building, development and strengthening of number of institutions in itself. Key achievements includes the establishment of Nadi Basin Catchment Committee with its four sub-committees, development of SOP for Nadi Flood Warning, the establishment of 14 Community based Disaster Management Committees, and development of community disaster response plans.

2(a) INDICATOR#1: Establishment of a Catchment Management Committee

During the inception of the project in year 2009 it was realized that under the principle of subsidiarity, there was an urgent need in Fiji to decentralize approaches to the lowest decision making bodies and establishment of a catchment committee would be an ideal solution. Prior to the formation of the Nadi Basin Catchment Committee, decisions within Nadi basin were made sectorally with little consultation or long-term strategic planning between the different sectors. Hence one of national targets was demonstrate a governance model for catchment management through the Nadi Basin Catchment Committee (NBCC) for future national upscaling and integration into Government policy. In year 2009 a Nadi Basin Catchment committee was formed within an independent chair appointed in year 2010. The committee was later endorsed by the cabinet in 2011. Mid 2012 involved an independent review of the Committee governance arrangements.



Figure 1 Nadi Basin Catchment Committee members during the review process

2(b) INDICATOR #2 Project Design and PM&E Plan endorsed by the Project Steering Committee

The design of this project dictated that proposed activities would be refined during the first six months of the project in close consultation with stakeholders. A participatory approach was to be utilized to ensure that the project includes communities and wider stakeholders as part of a participatory monitoring and evaluation plan. It was targeted that the PM&E will be implemented by August, 2011. The project activities were refined by early 2010 whilst by end of 2010 the PM&E was implemented and endorsed by the Nadi Basin Catchment Committee. This was further reflected in the mid-term review of the project as well.



Figure 2 After the devastating floods of 2012, key stakeholders realigning and prioritizing some of the project activities

2(c) INDICATOR#3: Nadi Basin Integrated Flood Management Plan

Inline with the objective of the project an Integrated Flood Risk Management Plan was to be developed. In order to have this plan in place a number of processes had to be initiated. Part of the process was the establishment of an early warning system and setting up of community based disaster management committee (CDMC) by 2011. By mid of 2012, an integrated flood warning system and 14 CMDC's were established.



Figure 3 Simulation exercise for CDMC members run by disaster response agencies

2(d) INDICATOR#4: Sectoral engagement in formal multilateral communication on water issues

The project was designed to use a key concept that is decentralization and a principle of IWRM whereby decisions were to be taken at the lowest appropriate level following full public consultation (the principle of *subsidiarity*). It was targeted to have an improved coordination and cross-sectoral working relationship amongst land and water management stakeholders and communities in the catchment. With the formation of the catchment committee and the initiation of number of cross sectoral activities by the project, there has been an increased interaction between institutions and agencies. Example the formation of the SOP for the flood siren has aligned a number of agencies to collaborate and work together.



Figure 4 Sectoral engagement discussing issues related to water resources, including the Commissioner West, Police Department, Military, and Project Management Unit

2(e) INDICATOR#5: Proportion of community engaged in water related issues to reduce vulnerability of water resources.

During inception it was established that water resources in the catchment were vulnerable to human activities and there was an urgent need to create awareness and empower communities. The target was to have at least 30% active engagement of the community in water related issues. In early 2011, *IWRM water literacy* program was launched in schools in the catchment which saw most of the schools actively involved in water related activities. Further there had been increase in number of communities and schools involved in the *save the tree* program.



Figure 5 Nadi residents from all walks of life participating in the launch of IWRM Nadi Demo/ Dept. Education Water Literacy Program

3. RESULTS: STRESS REDUCTION

The Nadi Basin has experienced rapid urbanization and increasing population in recent years. There has also been aggressive deforestation and agriculture in the upper catchment. This has led to increased stress on water resources in the catchment and in-turn increased vulnerability of the communities to natural disasters such as flooding. The aim of the IWRM Nadi Demo project is to reduce stress on the water resources and to build flood resilient communities. Key achievements of the project to date include establishment launch of 'save the tree' program , water literacy program in schools , the establishment of a landcare group, the establishment two demo plots and three nurseries. A total of 1800 coconuts plants and 554 fruits trees have been established across the catchment.

3(a) INDICATOR#1: Sustainable forest & land management practices established and trialed with landowners to reduce runoffs and sediment loads

A bio-physical survey of the Nadi Basin catchment was conducted mid 2010 and it established that majority areas of the upper catchment are of grasslands. It was further determined that landuse practices in the upper catchment, mid catchment and riparian zones contributed to heavy runoff and sediment pollution. It was targeted to establish demonstration plots and to train farmers in best agricultural practices. In 2011, two demonstration sites were established with the formation of a Landcare group in the upper catchment.



Figure 6 A housewife from Nausori Highlands Village receiving her certificate from a Forestry Dept. Official after successfully completing training on nursery establishment and plant care

3(b) INDICATOR#2: Rehabilitation of degraded areas, two ‘hotspots’ in the catchment

Inline to its objective of using an integrated flood risk management approach to improve flood preparedness and management within the Nadi Basin, the project has identified two ‘hot spots’ covering an area of approximately 80 hectares. These areas were once covered with native forests however over the years some areas have been commercially forested, removed for personal use by the communities and destroyed by uncontrolled burning. The target was to rehabilitate these areas. In early 2011 two incentive based tree planting initiatives were launched – “**growing money on trees**” and “**we got it from tree**” were conceptualized for schools and communities respectively. To date about 60 hectares of the area has been rehabilitated with fruit trees and staple food trees- coconut and breadfruit trees.



Figure 7 A hot spot area in the Nadi being revegetated with the support of Nadi IWRM