



# GEF PACIFIC IWRM PROJECT RESULTS NOTE

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RSC 4 2012

## Ridge to Reef: Protecting Water Quality from Source to Sea - FSM



### **Top 3 Project Results**

1. Joint Resolution of President and State Governors Endorsing First Framework National Water and Sanitation Policy for the Federated States of Micronesia
2. Establishment and Operation of a National Water Task Force including representation of all States
3. Protection and Rehabilitation of Riparian Zone of Main Supply in Nett Watershed

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## 1. PROJECT OBJECTIVE

Improvement of drinking water quality and significant reduction in pollutants entering the fresh and marine water around Pohnpei and Chuuk States

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## 2. RESULTS: PROCESS

*Significant progress has been made in strengthening national coordination in the water and sanitation sector and to develop a National Water and Sanitation Policy and IWRM Plan. This was in part enabled via the conduct of a FSM National Water Summit on 22nd March 2011 during which the FSM President, State Governors, and a representative of the Nation's traditional leaders signed a joint resolution establishing a National Water Task Force and endorsing a Framework National Water and Sanitation Policy. Further support of this work has been underway to develop a FSM National Water, Sanitation, and Climate Outlook aimed at informing national policy development and IWRM Planning. The First National Water Task Force Meeting was convened from 23-24 May 2012, and in addition to review and agreement on the Task Force Terms of Reference, a program for development of the National Water Policy and IWRM was discussed and agreed. This has been followed up by several State based working group meetings to consider and develop inputs to the broader National process.*

### **2(a) INDICATOR#1: NATIONAL STRATEGY IN PLACE**

At project inception FSM had no national strategy for water and sanitation. The national target was to have this national strategy in place by mid 2012. In March 2011 the FSM President and four State Governments endorsed a framework national policy and implementation strategy. This is currently being developed by the National Water Task Force for endorsement by Congress in March 2013.



**Figure 1.** President Emanuel Mori signing FSM's First National Framework Water and Sanitation Policy and Implementation Plan (March 22, 2011 – Kolonia Town, Pohnpei Island, FSM)

**2(b) INDICATOR#2: BEST IWRM AND WUE APPROACHES DEFINED**

At project inception FSM had no agreed approach for implementing IWRM or WUE. The FSM national target was to have an agreed approach for IWRM endorsed by a National APEX Water Body. An approach to strengthened national coordination and delivery of IWRM services was developed and endorsed by the FSM President, State Governors, and Traditional Leaders during a National Water Summit in 2011. This is currently being further elaborated by the National Water Task Force.



**Figure 2.** Traditional Leader Iso Nahnken of Nett, Pohnpei Island endorsing FSM’s IWRM Coordination Mechanisms and Framework IWRM Policy and Implementation Plan

**2(c) INDICATOR#3: MULTI-SECTOR APEX BODY ESTABLISHED**

At project inception FSM had no multi-sector National APEX Water Body. The national target was to have an APEX body established by national government by end 2010. In March 2011 the FSM President established a National Water Task Force as the lead body for coordination and planning of water and sanitation in the FSM. This Task Force is currently operational and addressing issues such as diagnostic reporting, policy development, and IWRM planning.



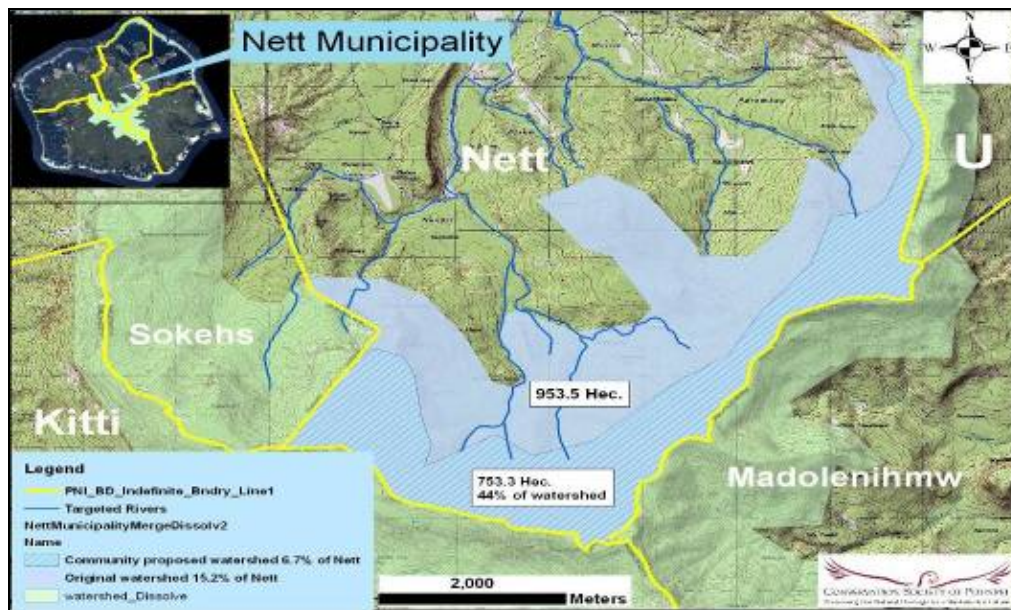
**Figure 3.** Inception meeting of the FSM National Water Task Force convened in Palikir, Pohnpei. Multi sector representatives from National to State level formed to conduct its task force business and to set action to the joint resolution signed by FSM high level leaders (May 22-23, 2012)

### 3. RESULTS: STRESS REDUCTION

*In progress the FSM IWRM Demonstration project pilot initiative being carried out in Pohnpei, Nett community and Chuuk State has significantly leveraged positive partnerships from National, State Governments, NGOs to community level collaborating effectively to improve water resource management. Implementing streams of community based projects and activities positively contributing to stress reduction benefits on fresh water source to sea. These projects are being carried out directly with resource owners and traditional leaders who are playing active part in their implementation to demonstrate community-based solutions to threats on community water resources. Case in point In Nett Pohnpei the traditional leaders, resource owners, and Nett local government has agreed to legal establishment of its Watershed Forest Reserve which constitute over 1,700 hectares of pristine upland forest critical to resiliency of the Nanpil water as main public water source for over 70% households connected to the public water utilities system. Sakau farmers in these forests are being proactively encouraged to stop farming activities contributing to wildlife habitat loss and deforestation through CSP's "Grow Low" sakau initiative as a sustainable alternative.*

#### **3(a) INDICATOR#1: INCREASE IN LAND PROTECTED AND/OR REHABILITATED OVER THE CATCHMENT**

The target of the project is to have surface water watershed declared as a reserve in Nett Watershed. At project start-up Nett district government leadership, its traditional leaders and communities were not in support of the State sanctioned 1987 Watershed Forest Reserve Act. Through the joint efforts of the IWRM process and partners, Nett Municipality has principally endorsed the establishment of its watershed boundaries to protect **1,700 hectares** of watershed after 23 years since the establishment of the State watershed law.



**Figure 4.** It took rigorous engagement by State Government, NGO partner (CSP) and Nett Government to arrive at agreeable intervention on establishment of the Nett Watershed Reserve. The Nett Government and State are working together on legislation to reflect this. The above map was produced by Nett Municipality and CSP with IWRM support to aid ongoing legal discussions.

### **3(b) INDICATOR#2: SUSTAINABLE FOREST & LAND MANAGEMENT PRACTICES ESTABLISHED AND TRIALLED WITH LANDOWNERS**

The target of the project was to promote and trial “low grow sakau” techniques in the Nanpil river catchment. Prior to the project “low grow sakau” faced some resistance from villagers who were concerned about reduced growth rate. Through FSM IWRM, the project partner CSP has worked with 40 active sakau farmers in the Nett upland forest via a targeted “Grow Low” campaign. This campaign focused on educating farmers about the importance of the forest while demonstrating an economically practical sustainable option to destructive upland sakau clearings. IWRM monitoring activities have identified a 70% reduction in prevalence of new upland sakau clearings.



**Figure 5.** It is estimated that 70 of the 1000+ sakau clearings (left) on Pohnpei Island are located in Nett Watershed. The project has employed community-based sustainable solutions to habitat and forest loss through CSP’s Grow Low sakau Initiative (right). Forty community farmers previously causing deforestation in Nett are currently utilizing the preferred “Grow Low” planting techniques.

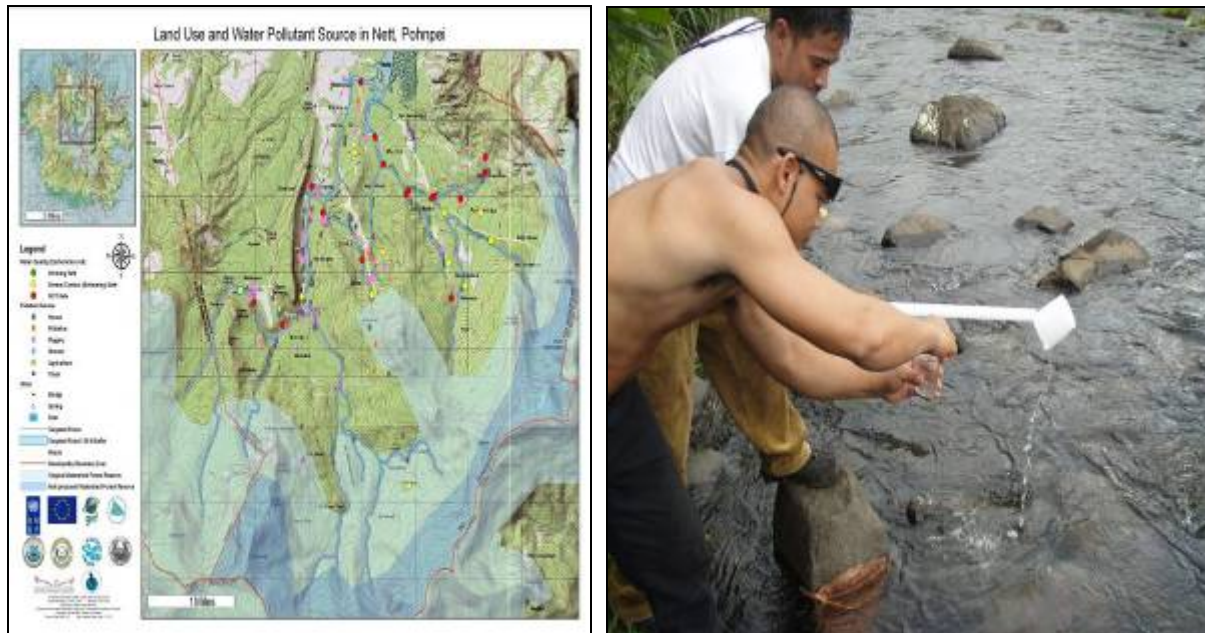
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## **4. RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS**

*At the inception of the project baseline assessments through source pollutant mapping and water quality testing protocols were carried out by project partners for situational analysis to inform project partners and communities the environmental conditions and health of water resources in Nett. Generally the assessment confirmed a health threat conditions resulting from human and animal waste impacts. Through progressive education and awareness on the outcome of these assessment efforts the results of the analysis of water conditions in Nett were shared back to high level state leadership, local governments and through series of community engagements to increase public awareness on conditions of water situation and challenges. A number of additional broad awareness mediums were employed through river watch billboard messaging and public radio awareness. With this understanding reversal action to improve water conditions are being implemented to reduce pollution impact on Nett waters. The Pohnpei Utility Corporation has also built a security fence around the Nanpil water intake to ensure water safety and quality at the source inclusive of educational hut to educate the public visitors to the Nanpil dam. Collaboration of partners is ongoing to directly remove pollutant sources systematically with IWRM resources and leveraged support of key partners with progressive results beginning to show. This is directly improving water quality for over 1,000 Nett residents directly using these rivers for daily water needs and ensuring reliability of access to safe water for 70% of households connected with the PUC water system.*

#### **4(a) INDICATOR#1: POPULATION WITH ACCESS TO SAFE WATER SUPPLY**

The target of the project was to ensure 90% of Kolonia had access to safe drinking water as determined by the setting (and meeting) of water quality and safety baselines for the Nett Watershed Forest Reserve/Nanpil River. At the time of project start-up there was much uncertainty about pollutant sources and water quality. IWRM has undertaken a baseline sanitation and pollutant survey in 3 major river systems in Nett, covering over 10 miles from ridge to the Dausokele estuary. All pollutant sources along these river banks were mapped, including at least 70 human and animal pollutant sources requiring remediation. Routine monitoring has been strengthened to ensure safety baselines are met and to inform efforts to remediate pollutant source sites. A security fence and educational hut has also been built by PUC to ensure safety of water at intake source and to educate the public visitors to Nanpil Dam.



**Figure 6.** GIS mapping analysis of source pollutants along Nanpil, Eirke and Meitik rivers covering at least 10 miles of river banks assessment done by CSP, EPA, Nett District Government and communities. EPA and CSP project staff conducting water quality monitoring in Nanpil river.



**Figure 7.** PUC Nanpil water intake source security fence project build with education hut to improve water security and quality at source and to increase visitors awareness on the forest and system.