



INTERNATIONAL WATERS RESULTS NOTES

<http://www.iwlearn.net/results>

12-09-2011

Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries

GEFID# 2586, GFL/2328-2731-4A51, Project Status: Active



1. Two Subregional Heads of State forums: The Micronesian Chief Executives Summit and the Melanesian Spearhead Group have established Water and Sanitation Committees
2. 13 Pacific Island Countries (Cook Islands, Fiji, Federated States of Micronesia (FSM), Kiribati, Niue, Palau, Republic of Marshall Islands (RMI), Tonga, Samoa, Solomons, Vanuatu and Tuvalu) have established National Inter-Ministerial Water Committees
3. Reforestation ongoing in upper Nadi Basin in Fiji, Ngerikiil Catchment in Palau and Apia Catchment in Samoa

Marc A Wilson

M.Wilson@Sopac.org

**Regional Project Manager Secretariat for the Pacific Community
Applied Geoscience and Technology Division (SPC/SOPAC)**

PROJECT OBJECTIVE

This regional project covers 14 Pacific Island Countries (PICs) and will *'contribute to sustainable development in the Pacific Island Region through improvements in natural resource and environmental management'*. The main objective is *'to improve water resource and wastewater management and water use efficiency in PICs in order to balance overuse and conflicting uses of scarce freshwater resources through policy and legislative reform and implementation of applicable and effective Integrated Water Resource Management (IWRM) and Water Use Efficiency (WUE) plans'*.

RESULTS: PROCESS

Two subregional Heads of State forums The Micronesian Chief Executives Summit and the Melanesian Spearhead Group have established Water and Sanitation Committees. 13 PICs (Cook Islands, Fiji, Federated States of Micronesia (FSM), Kiribati, Nauru, Niue, Palau, Republic of Marshall Islands (RMI), Tonga, Samoa, Solomons, Vanuatu and Tuvalu) have established National Inter-Ministerial Water Committees. IWRM principles have been incorporated into national strategic frameworks of 3 countries (Vanuatu, Kiribati and Solomon Islands), with continued development in 7 countries (Samoa, Fiji, Cook Islands, Nauru, Niue, Tonga and Tuvalu) and being followed through other paths in 3 countries (FSM, Palau and RMI); and 3 PICs (FSM, Palau and RMI) have, through the national committees, undertaken national water summits to launch water policy and legal reform processes directed by Presidential decrees. Forward looking National Outlooks for Water, Sanitation and Climate have been prepared for 8 PICs (Solomons, Vanuatu, Cook Islands, Tonga, Nauru, Palau, FSM and RMI).

INDICATOR#1 (Replication of technical and water use efficiency lessons from project applied in future national and project based activities – Technical, management, participatory and advocacy lessons from projects developed into national lessons learned presentation packages with best practices mainstreamed into national and regional approaches). *Clear links between demonstration projects and national IWRM policy and legislation reviews are supporting mainstreaming with all country demonstration projects having developed replication strategies to identify, replicate and upscale lessons learned and regional technical up-scaling through twinning projects introducing Tuvaluan composting toilet experience and expertise to Vava'u (Tonga) and RMI; FSM water use efficiency into Luganville (Vanuatu), Majuro (RMI) and Vava'u and bringing Samoan catchment and utility management expertise into Cook Islands*

INDICATOR#2 (Multi-sectoral approaches to national water and environmental management improved and increased through M&E feedback and action, leading to global environmental benefits by end of project – Indicator feedback facilitated through IWRM APEX Body provides information for multi-sectoral action and endorsement of national and indicators for IWRM, NAPA, NAP and sustainable development planning (NSDSs and NEAPs). *SOPAC Council instigated a review of the Regional Action Plan, including development of National Water Outlook reports of which 8 have been drafted.*

INDICATOR#3 (Nationally endorsed IWRM plans and WUE strategies in place and driving sustainable water governance reform in PICS by end of project. – 14 National IWRM and Water Use Efficiency Strategies in place, with institutional ownership secured; 20% increase in national budget allocations). *Two subregional Heads of State forums The Micronesian Chief Executives Summit and the Melanesian Spearhead Group have established Water and Sanitation Committees, 13 PICs (Cook Islands, Fiji, Federated States of Micronesia (FSM), Kiribati, Niue, Palau, Republic of Marshall Islands (RMI), Tonga, Samoa, Solomons, Vanuatu and Tuvalu) have established National Inter-Ministerial Water Committees and IWRM principles have been incorporated into national strategic frameworks of 3 countries (Vanuatu, Kiribati and Solomon Islands), with continued development in 7 countries (Samoa, Fiji, Cook Islands, Nauru, Niue, Tonga and Tuvalu) and being followed through other paths in 3 countries (FSM, Palau and RMI).*

INDICATOR#4 (Measurable sustained increase in training and awareness campaigns, including appropriate national level financial allocations for capacity development by end of project). *Post-graduate training underway with representatives from 11 countries, including 8 women and 13 PIC Project Management Staff.*

RESULTS: STRESS REDUCTION

Reforestation ongoing in upper Nadi Basin in Fiji, Ngerikiil Catchment in Palau and Apia Catchment in Samoa; FSM expanding Protected Area reserve; Palau riparian rehabilitation plus zoning protected areas ongoing. Zoning work being undertaken in Samoa to protect the upper catchment vegetation and water supply for Apia. Scoping work on establishing a protected area in the Sarakata watershed completed in Vanuatu. Installation of 20 composting toilets in Tuvalu and replication into Tonga and Nauru; 20 pilot systems are installed in Nauru, including baffled reactors and one composting toilet; Nauru currently working on installing composting toilets into schools; Pilot sand filter and irrigation sanitation systems installed in Tonga; sewerage system upgrade completed for Apia in Samoa (cofinanced); Rehabilitation of septic systems in Majuro and planned installation of pilot composting toilets. Installation of nine household, communal and community Ecotrench systems in Cook Islands. Leak reduction work completed in Niue; Tonga commencing leak reduction scoping, including utility staff training and water loss estimations; Water loss assessment underway in Solomon Islands; Leak reduction assessment in RMI with support from FSM project staff

INDICATOR#1 (Watershed Management: (•) 2 Basin Flood Risk Management Plans resulting in 10% reduction in infrastructure loss due to flooding (on approximately 18,000 ha of land) by end of project [SR]; (•) 30% increase in forest area at 2 Demonstration Sites covering ~8,000 ha of land). *On-ground works for flood early warning system completed in Fiji, including hydrometric stations, telemetry and warning systems. Reforestation ongoing in upper Nadi Basin in Fiji, Ngerikiil Catchment in Palau and Apia Catchment in Samoa.*

INDICATOR#2 (Wastewater & Sanitation Management: (•) 35% reduction in sewage pollution discharge at 8 Demonstration sites (covering eq. 40,000 ha of land) by month 48). *Installation of 20 composting toilets in Tuvalu and replication into Tonga and Nauru; 20 pilot systems are installed in Nauru, including baffled reactors and one composting toilet; Nauru currently working on installing composting toilets into schools; Pilot sand filter and irrigation sanitation systems installed in Tonga; sewerage system upgrade completed for Apia in Samoa (cofinanced); Rehabilitation of septic systems in Majuro and planned installation of pilot composting toilets. Installation of nine household, communal and community Ecotrench systems in Cook Islands*

INDICATOR#3 (Increase in population with access to safe water supply and sanitation for 6 sites). *Installation of 20 composting toilets in Tuvalu and replication into Tonga and Nauru; 20 pilot systems are installed in Nauru, including baffled reactors and one composting toilet; Nauru currently working on installing composting toilets into schools; Pilot sand filter and irrigation sanitation systems installed in Tonga; sewerage system upgrade completed for Apia in Samoa (cofinanced); Rehabilitation of septic systems in Majuro and planned installation of pilot composting toilets; Sarakata Catchment septic tanks rehabilitated in Vanuatu. Water safety plans developed and being implemented in FSM (Pohnpei), Niue (Alofi North and South), Palau (Nett Watershed), RMI (Majuro), Vanuatu (Luganville), and Solomon Islands.*

RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS

Reforestation ongoing in upper Nadi Basin in Fiji, Ngerikiil Catchment in Palau and Apia Catchment in Samoa. Water leakage being addressed through capacity development in leak detection and leak management in Sarakata and Vava'u. Sewage pollution being reduced through installation of locally appropriate sanitation facilities with 20 composting toilets in Tuvalu reducing nutrient pollution into Fongafale Lagoon and of nine household, communal and community Ecotrench systems in Cook Islands, reducing nutrient discharge via groundwater into Muri Lagoon

INDICATOR#1 (30% increase in protected forest area for ~8,000 ha of land (year-on-year changes). *Reforestation ongoing in upper Nadi Basin in Fiji, Ngerikiil Catchment in Palau and Apia Catchment in Samoa. FSM expanding Protected Area reserve; Palau riparian rehabilitation plus zoning protected areas*

ongoing. Zoning work being undertaken in Samoa to protect the upper catchment vegetation and water supply for Apia. Scoping work on establishing a protected area in the Sarakata watershed completed in Vanuatu

INDICATOR#2 (35% reduction in leakage in 3 national urban water supply systems (serving ~85,000 people) by month 54 (year-on-year changes). Leak reduction work completed in Niue – assessment of improvements underway; Tonga commencing leak reduction scoping, including utility staff training and water loss estimations; Water loss assessment underway in Solomon Islands; Leak reduction assessment in RMI with support from FSM project staff.

INDICATOR#3 (35% reduction in sewage pollution over eq.~40,000 ha area; reduction in eutrophication for 4 coastal receiving waters sites (year-on-year changes). Installation of 20 composting toilets in Tuvalu reducing nutrient pollution into Fongafale Lagoon; 20 pilot systems are installed in Nauru, including baffled reactors and one composting toilet reducing nutrients into coastal lagoon; Pilot sand filter and irrigation sanitation systems installed in Tonga; sewerage system upgrade completed for Apia in Samoa (cofinanced) now ensuring that wastewater is treated prior to coastal discharge; Rehabilitation of septic systems in Majuro reducing pollution into groundwater and ultimately the lagoon; Sarakata Catchment septic tanks rehabilitated in Vanuatu reducing ultimate nutrient discharge into coastal lagoon. Installation of nine household, communal and community Ecotrench systems in Cook Islands, reducing nutrient discharge via groundwater into Muri Lagoon