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Welcome to the Twenty first official mail-out of the Pacific Partnership Initiative on Sustainable Water Management. This Quarterly Newsletter provides Water and Sanitation information to Pacific member governments, professionals, NGOs, CBOs, researchers, private sector and counterparts in the donor community who are interested in water sector issues and initiatives.

We would appreciate your assistance in forwarding the newsletter to other colleagues who may be interested in this initiative so that it reaches the widest possible audience.

If you wish to print this newsletter, a PDF version is also available on the new SOPAC Water website:

www.pacificwater.org/pages.cfm/water-governance/pacific-partnership-initiative/e-newsletter-subscription/

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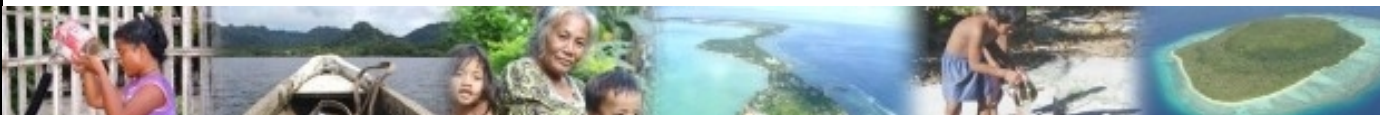
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Implementing Integrated Water Resource Management in the Nadi Basin

The Ministry of Primary Industries will be playing an important role in the Integrated Water Resource Management (IWRM) Demonstration Project that will soon be implemented in the Nadi River Basin.

IWRM is an approach that takes into account all the physical, social and economic linkages of water with nature and humans along its route from ridge to reef.

According to the Ministry's Director for Land and Water Resource Management Division, Mr Lakshman Mudaliar this approach will assist in working towards balancing water demands for environment, human health and economic development, to minimise conflict and ensuring it's optimal, equitable and sustainable use. The demonstration project will take an IWRM approach, which will enable it to consider the water-related issues and concerns of all the stakeholders in the Nadi Basin.

The Demonstration project activities include hydrological monitoring and modelling for flood prediction, improving land management to reduce flood hazards, catchment and channel mapping for

flood conveyance and baseline data collection as well as developing a flood warning system.

“It will also include monitoring water resource quality and biological status and capacity development of stakeholders that will be involved.” The Nadi Basin Catchment is of vital importance to Fiji and affects multiple stakeholders across



society. Mr Mudaliar added that the Nadi Basin hosts Fiji’s only international airport and is the second largest town in Fiji with a population of approximately 31,000 people. “During an extensive multi-stakeholder consultation process between 2006-2008, the Nadi Basin Catchment, with its vulnerability to flooding, was identified as the most urgent and the first priority for an IWRM demonstration project in Fiji,” said Mr Mudaliar.

The Project will be funded by the Global Environment Facility (GEF) as part of the regional GEF-Pacific IWRM project that supports the use of the IWRM approach for improved water resources management in 14 Pacific Island countries.

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Understanding Water Resources and Investment Needs in Samoa

“Water is vital for life” and “is a social, economic and environmental good” are sentiments which can be found in the foreword of Samoa’s National Water Resources Management Strategy (NWRMS), a framework which provides for the protection, conservation, development and management of Samoa’s water resources.

The NWRMS, developed through the Samoa Water Sector Support Programme (WaSSP) and funded by the European Union, is a sector wide approach being implemented from 2005 – 2012 through 4 agencies in Samoa, and is one of the few approaches that recognises the need to understand economic and financial contributions to the management of water resources and water services.



To complement the ongoing efforts of the WaSSP, Samoa are preparing a Water Sector Investment Plan (WSIP) for the period 2010-2030, which is not only a prerequisite of the European Commissions plans to move to water sector budget support for the 10th round of the European Development Fund (EDF) assistance, but also an effort to better understand the investment needs and priorities of the main water sector organisations in the years to come.

Through the EU Funded Pacific IWRM National Planning Programme, SOPAC are supporting the Government of Samoa through the provision of technical assistance to identify, evaluate and incorporate these investment needs and priorities into a coherent, consulted and agreed WSIP.

The WSIP along with other information related to this work will be completed by June 2009.

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SOPAC



A Focus on Sanitation for the Republic of Kiribati

"Building on the success of our National Water Policy approved by Cabinet at the end of last year, the next logical step for us is to focus on sanitation – and getting a clear policy and implementation plan prepared to help us" said Mourongo Katatia, Water Engineer for the Ministry of Public Works in Betio, Tarawa, and also the IWRM Focal Point for the Republic of Kiribati.

"We have a number of problems concerning sanitation...", continued Katatia, *"most notably around Tarawa where we face population densities up to 15,000 people per km². We also have to ensure that any sanitation interventions we make on less populated outer islands are safe and sustainable. We don't want to do something now that creates a bigger problem in five years time"*.

Wise words indeed – and they intend to tackle these issues with support from the EU funded IWRM National Planning Programme. Recently advertised, Expressions of Interest are requested from suitably qualified and experienced Sanitation Policy and Planning specialists able to support the Government of Kiribati in its plight to provide better and safer sanitation to its people in some of the most remote islands across the central and western Pacific. Most islands are less than 2 km wide, and, except for the raised island of Banaba, are not more than 6 m above sea level.

"It's not just about people as well, we have to consider the protection of our fragile groundwater from pig and other animal waste, and solid and other liquid waste" said Katatia.

The Call for Expressions of Interest can be found on:
http://www.sopac.org/tiki-view_articles.php?topic=4



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SOPAC



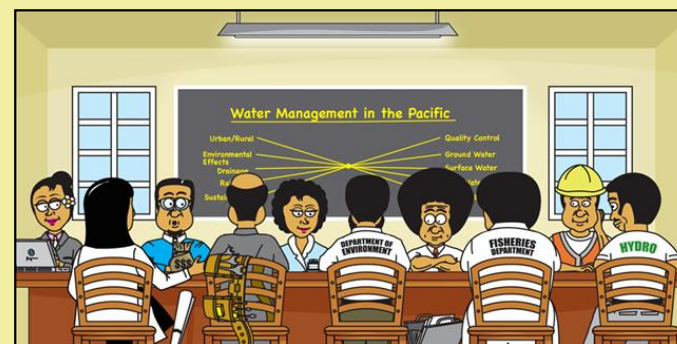
National Water Committees Get a Boost of Support in Niue, Marshall Islands, and Tonga

Three countries have recently recruited National Water Committee Support Officers under the EU IWRM National Planning Programme.

Officers will provide much needed support in helping National Water Committees (NWCs) formalise their governance arrangements, agreeing membership, drafting Terms of Reference for the Committee and improving information flows and reporting.

Across the region National Water Committees have contributed to:

- Highlighting water as a political priority;
- Improving transparency and coordination within the sector;
- Formulating government objectives and policies for the sector;
- Improving access to resources for improving water resources management; and
- Addressing related issues such as climate change adaptation



National Water Committee Officers will provide administrative support to their respective NWC's,

and maintain official records and communicate with stakeholders. They will also develop monitoring and reporting functions so that progress can be monitored in country. It is anticipated that GEF funded Demonstration Projects will report to National Water Committees on implementation progress and findings.

The IWRM Team are currently working with other countries to recruit National Water Committee Officers.

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BUILDING THE FOUNDATION: Professional Development for Pacific Island Resource Managers

Leadership Seminar on Improving Water Planning and Management sponsored by the East-West Center Seminars Program in partnership with the Pacific Integrated Water Resources Management Programme.

With a focus on the Micronesian countries of Palau, the Republic of the Marshall Islands, and the Federated State of Micronesia, the Leadership Seminar will be a two week training course to help participants understand more about integrated water resource management approaches and policy development.

Comprising two main themes, the workshop will focus on:

1. Supporting national water governance structures – supporting National Water Committee development and water coordination in their countries, and moving forward policy development and legislation for water managers, including looking at establishing integrated water resource management plans; and,
2. Implementing GEF funded Demonstration projects in their respective countries. This will include project cycle management and stakeholder engagement training. Gef wil support, under the Pacific IWRM programme the following projects:

In Palua: *Ngerikiil Watershed Restoration for the Improvement of Water Quality*



In RMI: *Integrated Water Management and Development Plan for Laura Groundwater Lens, Majuro Atoll*

In FSM: *Ridge to Reef: Protecting Water Quality from Source to Sea in the FSM*

The workshop is currently under development. More information will be available in the next newsletter. It is hoped that GEF funded staff from the Integrating Watershed and Coastal Areas Management project in the Caribbean will also attend to share their experience fo working on regional multi-country projects.

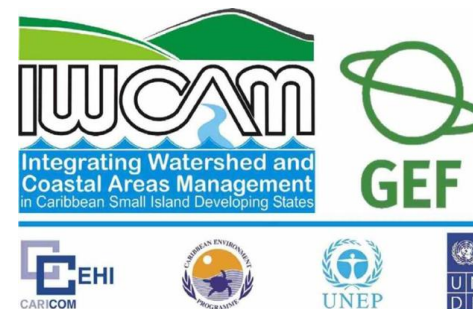
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Pacific IWRM Changes in SOPAC

Changes are happening within the Pacific IWRM Programme at SOPAC. Marc Wilson joins the programme as Regional Project Manager of the GEF Project Coordination Unit (PCU) and is supported by Ruth Urben. Marc has been working in the region for many years, most recently in the Solomon's and before that in Tonga.

Ruth joins the GEF PCU as the Community Participation Adviser and has most recently been working on a GEF funded Sustainable Land Management Project in Bhutan. Welcome to both of them.

Marc and Ruth will shortly be joined by a financial adviser and expertise from the GEF South China Sea project. Chris Patterson joins on a short term basis to support the PCU in rolling out full implementation of the regional Pacific IWRM programme. For the last four years Chris was working in the PCU of the UNEP/GEF South China Sea Project.

Ulrika Gunnartz left the IWRM Programme at the end of 2008 and is currently fixing up her boat to sail around the South Pacific. Good luck Ulrika.

Rhonda Robinson (nee Bower) continues in her role as IWRM Adviser under the EU IWRM National

Planning Programme, and will take over as Coordinator of this programme. James Dalton leaves the EU Programme in May after a busy two years working with Rhonda to prepare the Pacific IWRM programme and implement EU funded activities. He leaves to IUCN in Switzerland but hopes to have some continued involvement with the Nadi Basin project through IUCN's partnership arrangement with the Nadi Basin Catchment Committee.

Rhonda will be joined by Tiy Chung as Communication Adviser within the IWRM Programme. A new position in the Water Unit, Tiy will be supporting the implementation of both the EU funded IWRM National Planning Programme and Pacific HYCOS. Welcome Tiy.



Rhonda and Tiy will also be joined by another IWRM Adviser shortly – watch this space for further information next newsletter.

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SOPAC

GEF Pacific IWRM

We have concluded our selection process for two more staff within the PCU; the Senior Administration Officer and the Financial Adviser. Shortlisting of applicants for the Environmental Engineer have also been concluded and we will be undertaking interviews over the next few weeks to fill this position. Hopefully that will mean we will be able to introduce new PCU staff in the next Newsletter. Further good news is that we have concluded arrangements with UNEP and we expect to receive funds for the regional components of the Project over the next few weeks.

We are now well underway with progressing the inception phase of the Demonstration Projects. UNDP Funding has commenced and we are now able to start making available funds to countries that have signed the Memorandum of Agreement with SOPAC. MOA's have been sent out on request to, Niue, Nauru, Vanuatu, Solomon Islands, Fiji, Marshall Islands, Samoa, Cook Islands and Tonga. Tonga

has signed the MOA and appointed its Project Management Staff. Fiji has advertised its posts and is currently shortlisting applicants. It has also established its working group which has had its first meeting.

PCU staff have started to visit countries to facilitate putting in place the formal project arrangements and to brief the Lead Agencies on the inception requirements that each Demonstration Project will need to undertake to finalise their Project Designs for endorsement at the Regional Inception Meeting scheduled for 14-18 September 2009 in Nadi. Currently Marc Wilson is visiting Vanuatu and Ruth Urban has just returned from a visit to Nauru. Due to delays in recruitment and the need to support countries during the start-up stages of the Demonstration Projects the PCU has contracted Chris Paterson to provide additional assistance over the next several months. Chris will be visiting the Cook Islands in early May.

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Tracing Rock Water – Dye Tracer Tests in Niue to Determine Recharge and Pollution Sources

Niue is a raised karstic limestone island with a large fresh groundwater resource. However this resource is susceptible to contamination from surface activities. Land-use activities such as nearby disposal of liquid hospital waste, and disposal of other septic waste, coupled with increased urbanisation in the area of the well field has raised concerns over the security of the water supply for Alofi town, the capital of Niue.

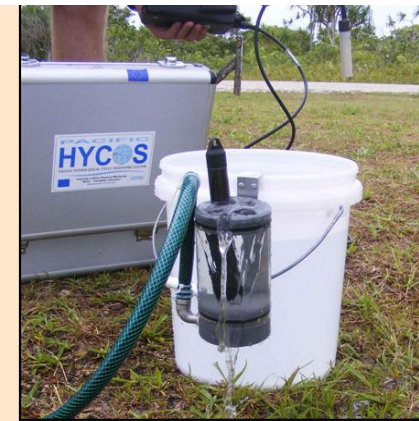
With funding from UNESCO, the Government of Niue engaged consultants GWP from the UK to perform tracer tests to investigate the likelihood of contamination from surface activities and to determine the time it takes for groundwater to travel within the well field supplying Alofi town. Pacific HYCOS was also requested by the Government of Niue's Department of Public Works to support this investigation providing additional technical assistance.

Tracer tests involve introducing a traceable solution, such as a dye into the



groundwater system and then measuring where the tracer is found, how long it took to get there, and in what concentration it is in. Using this technology it is possible to build a better understanding of where the groundwater for Alofi is sourced from, and how quickly it takes to travel between wells. This allows estimates of groundwater velocities and impact from potential contamination to be estimated, as well as developing a better understanding of source water capture zones – i.e.: where are the recharge zones for the groundwater, and where should we protect in the future?

A dye commonly used in groundwater studies, rhodamine, was planned to be used as the tracer, it is pink in colour and can be detected at low levels. But, there are risks associated with this technology. Because groundwater can move quickly, salt water is used as a first 'tracer' to avoid turning the 'Rock Water' of Niue pink!



An estimated 9,000L of seawater was injected into a disused borehole near the pumping wells. Monitoring of 5 pumping wells and 1 monitoring borehole utilising loggers and regular routine checks were carried out over the next week.

Although the monitoring and training in use of the equipment and approach was a great success, unfortunately the result was not. The saltwater was not picked up at all, which suggests that the saltwater "sank" due to density differences. This happened much quicker than expected and could not be picked up by nearby pumping or monitoring wells.

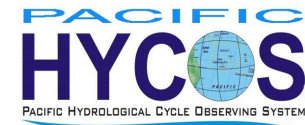
This suggests that the dye can be used in future studies with little risk of turning the public water supply pink!

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Searching for Freshwater on Nauru

A Pacific IWRM Mission has just returned from a one week visit to Nauru. Colleagues in CIE (Commerce, Industry and Environment) quickly set up a very productive programme of meetings with other water stakeholders. This created a good foundation for further consultation on the National Integrated Water Plan, and for progress with the start-up activities for the GEF-IWRM demonstration project.

Building on the success of the Diagnostic Review study of water resource management in Nauru, the week involved a variety of meetings and visits to understand better the situation facing Nauru regarding sanitation, waste disposal, and safeguarding fragile water supplies from rainwater.

Recent groundwater investigations suggest very limited amounts of potable groundwater, making safe and secure rainwater collection and storage of primary importance to the people of Nauru. Over the next few years the hope is to develop a more integrated approach to water management to avoid past mistakes, and really look at reliable water provision and sanitation for the current and future population.



Water remains central in the thinking of IWRM stakeholders in Nauru. As well as the lead agencies for water resources management, Health, Education, Women and Culture, private citizens, hoteliers, NIANGO (Nauru Island Association of NGOs), embassies all engage, through planning or practice, in improving water access, water quality and/or disposal of waste water. All agencies unanimously, (if separately!) identified the need for information sharing on water issues and activities.

And this need was also highlighted at the community level, using whatever resources are available in Nauru. In the schools, perhaps visiting water specialists can spare an hour with Grade 6 students in each of the two primary schools, to give the students the opportunity to broaden their understanding of water resources management issues: this would contribute to the students' school projects on water and water use efficiency. Or specialists might spend an hour with secondary students. In the communities, let there be a water representative. This might best be a woman as it is the women who are seen as the active custodians of household water. With capacity building support, these water representatives can be an avenue for community awareness raising and action or social marketing of water management for improved livelihoods. The ideas are there in plenty in Nauru. The next step is for the ideas to be grasped as opportunities for action.

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Pacific Input to 5th World Water Forum Istanbul, Turkey

The Asia-Pacific Regional Session of the 5th World Water Forum was organized by the Asia-Pacific Water Forum (APWF) in cooperation with the Asian Development Bank (ADB) and UNESCAP on March 20th and was attended by delegations from countries across the Asia-Pacific Region. The Pacific was represented by Mr. Faumuina Liuga, Minister for Natural Resources and Environment of Samoa, who provided a speech on behalf of the Pacific region.

The sub-regional document for the Pacific submitted to 5WF was developed through earlier consultations in 2008 at the Pacific Water Conference in Apia September 2008 and SOPAC's Water Working Group in Funafuti October 2008.

After the Asia-Pacific Regional Report was launched, the participants noted ongoing efforts by APWF to increase the region's access to safe drinking water and basic sanitation, improve water resources management and environmental integrity, and reduce communities' vulnerability to water-related disasters. APWF lead organizations have continued to boost investments, build capacity, increase public outreach and enhance cooperation in the water sector.

The meeting called for water security to be mainstreamed in national development agendas, and

recognized that more investments and regional cooperation are needed to address water security challenges. The participants expressed their support for APWF's Ministers for Water Security Initiative targeted at policy makers in charge of finance, planning, health, disaster management, infrastructure, agriculture, energy, environment, water, and other water-related portfolios to help increase water security. Many of the ministers participating in the meeting announced their support as a "Friend of the Ministers for Water Security Initiative", and called on the APWF to invite leaders from the private sector and civil society to join the dialogues with ministers on water security, starting in 2009. The 2nd Asia Pacific Water Summit will be held in Singapore June 2010 with the potential for a large delegation of Pacific Island Leaders to attend.

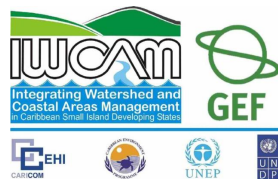
A specific session on Small Islands was organised by the Pacific Economic Cooperation Council presenting the final outcome of their project: "Guidelines on water management in islands, coastal and isolated areas". After an opening speech by the former Prime Minister of France, Mr Michel Rocard, SOPAC's Water Adviser provided an introduction to the Pacific region's water challenges. Mr Goston Tong Sang, Mayor of Bora Bora and former President of French Polynesia presented the water and wastewater supply on Bora Bora.

The 5WWF documents can be downloaded from: <http://www.pacificwater.org/pages.cfm/events-multimedia/news?newsid=5th-world-water-forum-16-22-march-2009>

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Who measures our water?

Measuring Water to Protect people and the environment

Pacific Island Countries suffer from the lack of hydrological information

Flooding in January in Fiji caused over FJD\$100 million dollars worth of damage to infrastructure and homes and sadly claimed eleven lives. Damage to business, including the transport and tourist trade due to the overnight closure of Nadi International Airport for 48 hours, post flood clean-up costs, and the longer term economic and health effects such as food and water availability caused widespread disruption across Fiji. These extreme events should help to focus the attention of Governments across the Pacific of the need for accurate and consistent climate and water related data collection and interpretation, and in financing and supporting people and the equipment needed to help them plan and prepare for climate variability. Improved measurement and management of our land and water resources is required if we are to reduce the impacts of our turbulent Pacific climate.

You may think that measuring water is a simple process. You have a tap on the end of a pipe, you turn the tap on and you measure what comes out of it, or what flows into the pipe at the other end. Fairly simple you would think. Indeed, this is the approach those of us who pay water bills are faced with and consumption is measured monthly and billed accordingly.

However, how do you know how big your pipe has to be when one pipe may serve half the residents of Honiara? How much rainwater falls in the area and ends up in the rivers so that you can plan your pipe network to supply clean water to everyone, including homes, hospitals and businesses? How big do bridges, dams, and other key infrastructure need to be to cope with swollen rivers and potentially damaging flood such as those recently experienced by Fiji?

These are questions which hydrologists and hydrogeologists attempt to help answer through collecting and interpreting hydrological data and other information. Hydrology is the study of the movement, distribution, and quality of water throughout the Earth, and therefore focuses on understanding the continuous movement of water on, above, and below the surface of the Earth, known as the hydrologic cycle, to improve the management of water resources. Water resources comprise the sources of water that are useful or potentially useful to humans, such as for agricultural, industrial, household, recreational, and environmental activities.



Funded by the European Union, the Pacific Hydrological Cycle Observing System project (HYCOS) aims to assist Pacific Island Countries in their ability to assess and monitor the status and trend of their water resources, and to provide water-related information through basic hydrological monitoring and data capture systems. This information is crucial for improving the management of land and water resources, and in understanding the risks associated with climate change and, in simple terms, the huge risks associated with living in and developing floodplains.

Hydrological data on rainfall, river flow, groundwater quality and recharge (the refill of rainwater from the land surface through the soil and rocks back into groundwater) are required to determine how much we can safely take from rivers or pump from groundwater. This information is also required so that we can understand climatic trends over time and the impacts of human activities on water resources. This is especially important with growing populations and people moving from rural to urban settings – larger towns and cities simply need more water.

As a science and an activity, hydrology goes on in the background, providing information for action by governments and our Pacific societies at large. But, hydrology requires investment and training as a priority. More often than not key equipment fails because it is not looked after or is vandalized, and this reduces our ability to understand rivers and the climate in general. Most infrastructure requires some form of water knowledge or information – you can not build a house without knowing where the water supply will come from, or the size your rainwater tank needs to be, same for sanitation, where does the waste go? Office buildings need water, and roads and most importantly bridges and other key infrastructure need reliable hydrological data to be able to build the right sized, shape, and resilient structures able to cope with the force of water. The size of floods and their frequency also helps you plan where to put businesses, hospitals, homes, hydropower dams etc. Without hydrological information and the ability to understand and act on it we are blind in facing an increasingly turbulent Pacific climate.

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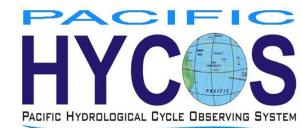
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Improving Catchment Management in Kongulai - Solomon Islands

Charlie Bepapa is making progress in the implementation of their Demo Project. During a recent visit by Marc Wilson they were able to sort out how funds would be made available. Funds will be transferred through a Central Bank Account into a Project Bank Account. A procurement system with financial controls was established. Dual signatories are required with a one signature from Class A and one from Class B. The former includes the Permanent secretaries of Finance and Mine and the Accountant General whilst the latter comprises the Director of the Water Division, Deputy Permanent Secretary Finance and Deputy Accountant General. The advertisements for the Project Manager and Project Assistant were prepared and will be advertised once quotes and approval have been received. Charlie has also started work on a Cabinet Submission seeking endorsement of the Demo Project and Government Co-funding. These are all important formal steps to pave the way for the annual budgeting process. The SOPAC Department of Mines and Energy MOA was also finalized.



The Current Demo Project Design was also discussed and it was agreed that the scope of the Demo needs to be changed to better reflect what can realistically be achieved.

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Integrated Water Resource Management Toolkit CD

The Integrated Water Resource management (IWRM) Toolkit is an effort to try and make available a complete toolkit to IWRM National Focal Points. The information is to help in the implementation of GEF funded Demonstration projects, but also provides information for moving forward policy dialogue, support to National Water Committees, and improve cross-sectoral understanding concerning water management.

The toolkit was designed with the aim to assist Pacific Island Countries in the planning and implementation of their GEF funded Demonstration Projects and was initially made available via the Pacific IWRM Resource Centre on <http://www.pacificwater.org/index.cfm>



To overcome issues such as limited internet usage in some island countries and slow networks, the interactive CD has been designed to aid effective dissemination of the toolkit.

We hope all Focal points and other members of National Water Committees and beyond will have access to this information. The toolkit is compiled based on the following themes: National Water Advisory Boards, IWRM Planning Process, Introduction to IWRM, Stakeholder engagement, High Level Engagement, Monitoring and Evaluation, Financing IWRM, Engaging media/youth, Institutional Reform, IWRM Policy and Legislation, Water Use Efficiency, IWRM and Gender and Information management Systems.

We look forward to receiving any feedback you may have.

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Buddy System Initiated for Water Quality Testing

The Environmental Protection Agencies (EPAs) of the Republic of Marshall Islands (RMI) and Guam recently embarked on using the "buddy system" for knowledge exchange on water quality testing. The initiative was facilitated and sponsored by the SOPAC and WHO implemented Water Quality Monitoring (WQM) Programme.

RMI EPA are exploring the possibility of setting up for the analysis of nutrients (nitrates and phosphates) in seawater. With Guam EPA being United States certified for good laboratory practices, it was decided amongst RMI, Guam and SOPAC/WHO to initiate the "buddy system" where RMI EPA laboratory technicians would be exposed to nutrient analysis performed by Guam EPA.



The "buddy system" exercise was done in March of this year. Mr Jesse Cruz of Guam EPA went over to Majuro, RMI for a week to demonstrate the processes involved with the collection of seawater samples for nutrient analysis. Following this he returned with Mr Abraham Hicking of RMI EPA to Guam for the analysis. The one-week attachment of Abraham at Guam EPA allowed him first-hand exposure to the full range of requirements (resources, time, funding, advice) needed for setting up for the analysis of nutrients

in seawater.

Both the RMI EPA and Guam EPA managements are pleased with this form of cooperation and knowledge sharing to assist improve the water testing laboratory capacity in the North Pacific region.

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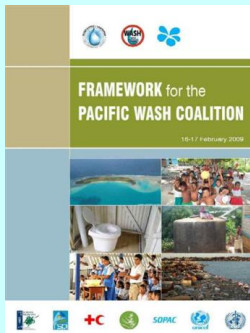
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SOPAC

Framework for the Pacific WASH Coalition



At a recent two-day Pacific WASH Coalition Planning meeting (16-17th February 2009) the Framework for the WASH Coalition was developed. The Framework is intended to be used by Coalition members as a basis or reference document during the delivery of their water supply, sanitation and hygiene activities in the Pacific region and for obtaining further funding for water supply, sanitation and hygiene related work in Pacific island countries.

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SOPAC



World Water Day 2009 – Transboundary Waters

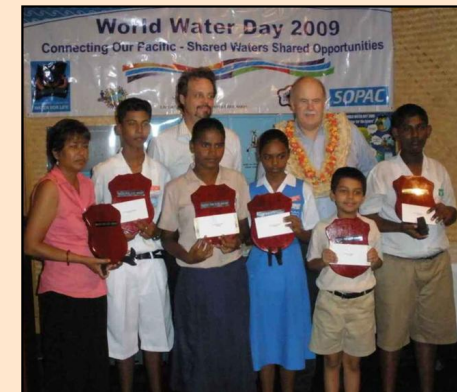
This year's world water day Pacific theme was **"Connecting Our Pacific – Shared Waters Shared Opportunities"** with a special focus on transboundary waters. As for the Pacific the focus was mainly on how we manage our water resources and the important role different water users and stakeholders play in conserving our watersheds and how one impact can affect the others as well.

As in the past SOPAC together with Live & Learn Environmental Education helped organise for the celebration here in Fiji. The celebration was held on March 30th 2009 at JJs on the Park Conference Room. Representatives from different organisations and government departments together with primary and secondary schools in the Suva area attended the celebration.

Every year an educational materials related to the theme are developed, a **"Water Opportunity Pack"** was developed and this include 10 water opportunities picture cards that goes together with an Activity booklet which contains activities that can be used using the picture cards, a book mark, a sticker and a water for life decade calendar. The "Water Opportunity Pack will be used in schools and communities not only in Fiji but in other Pacific island countries as well.

The celebration was launched by the Taiwan ROC Representative Mr. Victor J Chin and the Technical Deputy Secretary for Ministry of Agriculture Mr. Apisai Ucuboi. SOPAC was represented by Mr. Marc Wilson the SOPAC IWRM GEF Regional Project Manager. World Water Day is an annual event and the awareness campaign will be carried out throughout the year.

There were displays put up and oratory contest by students as part of the activities for the day. The oratory contest was won by Nabua Sanatan Primary School for the primary school category and MGM High School for the secondary category. Winners were awarded with a prize and a shield for their school.



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LIVE & LEARN ENVIRONMENTAL EDUCATION



SOPAC

Provision of the Low-cost Water Purification Unit to the Banaba, Kiribati

After identifying a water shortage issue on Banaba islands a proposal for “Low cost Membrane Filtration Treatment of Drinking Water” was put forward by the Kiribati Ministry of Public Works and Utilities to treat the stored water and relieve the water needs on the island. SOPAC then contracted the SkyJuice Foundation to provide 3 SkyHydrants and necessary training to nominated personnel from the Ministry of Public Works and Utilities in South Tarawa, to enable the unit to be installed, operated and maintained on Banaba Island.



Two SkyHydrants were shipped to South Tarawa on the week of the 9th December 2008 and the third SkyHydrant was hand carried to ensure it's safe arrival. An experienced representative from the SkyJuice Foundation, David Hughes flew to Bonriki, South Tarawa for training of representatives from the Ministry of Public Works and Utilities from the 9-11th December 2008.

The training involved:

- **Installation:** A simple schematic of a typical set up was distributed (Attachment 4). Set up is site specific however; ancillary equipment such as header and filtrate tanks, 1 metre head, tap stand or distribution points were discussed. It is always prudent to analyse the feedwater supply and make an 'informed' decision of the raw water analysis.

Operations: A simple Operations and Maintenance (Attachment 3) guide in English was used as the training tool; multiple copies were left for the operators. The instructions are provided to ensure that the SkyHydrant is correctly and safely operated. The guide sets out step by step instructions and includes a daily log sheet to record production (litres), backwash frequency, san clean frequency and the amount of chlorine used. The instructions also stress the need for post purification chlorination, as all stored water is subject to recontamination. The dose level will be determined by site specific conditions.

Maintenance: It was stressed that the frequency of cleaning will be dependent upon the source water on Banaba Island. The Do's and Don'ts of operating the SkyHydrant were discussed which are also included in the maintenance guide. Instructions and precautions regarding the use of chlorine was also discussed. The trainees were given the opportunity to operate the SkyHydrant.

SkyJuice training certificates were awarded to all trainees who attended and completed the training.

After a successful training a group of technician from the Ministry of Public Works and Utilities travelled to Banaba to deploy 2 skyhydrants. The purpose of the Mission to Banaba:

1. To conduct the SkyHydrant Training for Purifying the Dirty Water from Large Concrete Tanks
2. To train and perform the Water testing quality for dirty water and Purified water from the SkyHydrant Unit.
3. To assist the Water Technician on Desalination Plant.

This mission was successfully carried on 14th and 15 January 2009.

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Background on Water in Small Island Countries

The global water community acknowledged the special vulnerability and particular needs of small islands by the inclusion of "Water in Small Islands Countries" as a special theme at the 3rd World Water Forum that was held in Kyoto, Japan from 16-23 March 2003. SOPAC and the Asian Development Bank (ADB) jointly led this Water in Small Island Countries session as well as its preparation through a regional consultation in the Pacific (Sigatoka, Fiji Islands, 2002).

A major outcome of the Pacific regional consultation was the Pacific Regional Action Plan on Sustainable Water Management (Pacific RAP), which details priority actions of the water sector in the region. This action plan, endorsed by 18 island countries, 14 at ministerial level, (and 16 countries at Head of State level including Australia and New Zealand) has been incorporated into the Type II Water Partnership Initiative and was submitted by the Pacific Island Countries to the UN Commission for Sustainable Development (CSD) in Johannesburg during the World Summit for Sustainable Development (WSSD) in August 2002.

The objective of this Partnership Initiative is to implement the Pacific Regional Action Plan on Sustainable Water Management, inclusive of its sister strategies, the Pacific Wastewater Policy Statement and the Pacific Wastewater Framework for Action, as effectively as possible.

Over 200 participants were involved in the national and regional consultations and the Water in Small Islands Countries session and they form the core of the Partnership. Now, over 750 individuals have joined this network. Hardcopies of the Regional Action Plan have been distributed to all attendees of

Sigatoka and Kyoto and are available from the SOPAC Secretariat. In addition you can obtain more information through the following website:

<http://www.sopac.org/tiki/tiki-index.php?page=Water+in+Small+Islands+Consultations>

Arrangements of the Pacific Type II Partnership Initiative on Sustainable Water Management

The overall aim of the Partnership Initiatives is to ensure coordination and increased partnerships in meeting the WSSD goals through its Plan of Implementation.

The Pacific Partnership Initiative on Sustainable Water Management is coordinated and facilitated by the intergovernmental organisation SOPAC (South Pacific Applied Geoscience Commission), which has the regional mandate to support the Pacific Island Countries in water & sanitation. SOPAC is assisted in this task by a deputy facilitator, the University of the South Pacific (USP).

The Partnership has a Facilitator (based at SOPAC) who is responsible for implementing the core functions of the partnership: liaising between the regional stakeholder groups and their sub-networks; researching and receiving stakeholder information on on-going and planned water activities; tracking donor and development agency programmes; identifying areas requiring implementation; and coordinating proposal submissions and project implementation. The Facilitator is also responsible for high-level advocacy of the strategic approach.

Monitoring and evaluation are carried out using a matrix inventory of previous, existing, planned and proposed activities, including details of the stakeholders involved, the intervention objectives, implementation duration and status, and anticipated impact.

The Facilitator enables countries and development agencies to: identify successful previous activities and therefore improve the sustainability of subsequent interventions; reduce and prevent duplication of activities; link country requirements to development programmes (and vice versa); and augment existing and proposed activities nationally and regionally.

A working group of CROP agencies (Council of Regional Organizations of the Pacific) and NGO representatives has been set up to act as the overall coordinating body of the Pacific Type II Initiatives. Facilitators are asked to report to this Sustainable Development Working Group on a regular basis.

If you have comments on this Initiative or would like to make contributions and be further involved please do not hesitate to contact Marc Overmars marc@sopac.org

Publications



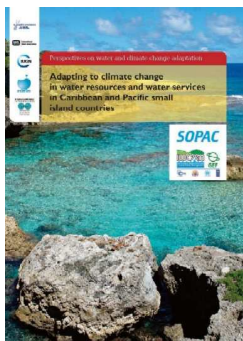
[Converting commitment into action – Sanitation, hygiene and drinking water in the Pacific island countries](#)

"Converting commitment into action – Sanitation, hygiene and drinking water in the Pacific island countries" provides a concise overview of a sector in need. Statistics from the WHO and UNICEF Joint Monitoring Programme used in the report reveal persistent and direct impacts on the populations of 14 developing Pacific island countries from water, sanitation and hygiene related diseases. As of 2006 only 48% of these populations had access to improved sanitation. Water supplies fare no better, with only 46% having access to improved sources of drinking-water, and just 13% having the 'luxury' of piped water. According to the report, at least 2,800 deaths each year - the equivalent of nine jumbo jets crashing

- are ninety percent attributable to the diarrhoeal diseases which result from poor sanitation, hygiene and drinking water.

This Guide can be downloaded from the PacificWater website:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/



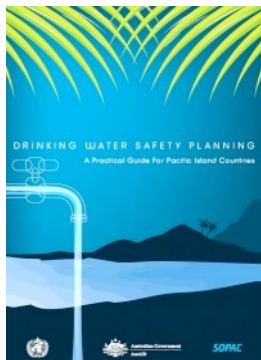
[Adapting to Climate Change in water resources and water services in Caribbean and Pacific island countries](#)

SOPAC provided a joint contribution with CEHI to the preparation of a session at the 5th World Water Forum on water and climate change adaptation through a Perspective Document on Adaptation to Climate Change in water resources and water services in Caribbean and Pacific island countries.

The outcomes of the Perspective Documents were summarised by WWC, IUCN and CPWC and included the recognition for SIDS as being one of the hotspots deserving attention. The Perspectives on water and climate change adaptation led furthermore to the consortium's publication towards a framework for climate-proofing "don't stick your head in the sand!".

The above documents are providing guidance to climate adaptation in the water sector in the Caribbean and Pacific island countries and can be downloaded from:

www.waterandclimate.org/ and <http://www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/>



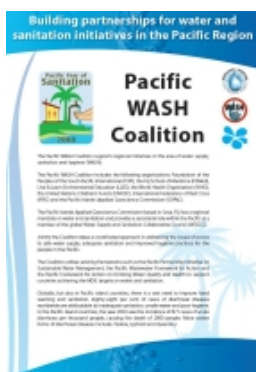
[Drinking Water Safety Planning – A Practical Guide for Pacific Island Countries](#)

The 'Drinking Water Safety Planning – A Practical Guide for Pacific Island Countries' has been developed to assist drinking water supply operators and managers improve the day-to-day management of the water supply with the objective of producing safe drinking water for consumers.

Drinking Water Safety Planning – A Practical Guide for Pacific Island Countries' has been developed based on lessons learned and practical experience gained through an AusAID-funded joint SOPAC/WHO programme on drinking water safety planning in Pacific Island Countries. This project involved four pilot countries (Tonga, Cook Islands, Palau and Vanuatu). The lessons learned and approaches used by these countries provide the framework for drinking water safety planning explained in this Guide. The steps and processes described in this Guide are reinforced through case studies from the pilot countries.

This Guide can be downloaded from the PacificWater website:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/



[Pacific Water and Sanitation Flyer](#)

The Pacific WASH Coalition supports regional initiatives in the area of water supply, sanitation and hygiene (WASH).

The Pacific WASH Coalition includes the following organisations: Foundation of the Peoples of the South Pacific International (FSPI), the Fiji School of Medicine (FSMed), Live & Learn Environmental Education (LLEE), the World Health Organisation (WHO), the United Nations Children's Funds (UNICEF), International Federation of Red Cross (IFRC) and the Pacific Islands Applied Geoscience Commission (SOPAC).

The Pacific Islands Applied Geoscience Commission based in Suva, Fiji has a regional mandate on water and sanitation and provides a secretarial role within the Pacific as a member of the global Water Supply and Sanitation Collaborative

Council (WSSCC).

Jointly the Coalition takes a coordinated approach in addressing the issues of access to safe water supply, adequate sanitation and improved hygiene practices for the people in the Pacific.

The Coalition utilises existing frameworks such as the Pacific Partnership Initiative on Sustainable Water Management, the Pacific Wastewater Framework for Action and the Pacific Framework for Action on Drinking Water Quality and Health to support countries achieving the MDG targets on water and sanitation.

Globally, but also in Pacific island countries, there is a vast need to improve hand washing and sanitation. Eighty-eight per cent of cases of diarrhoeal diseases worldwide are attributable to inadequate sanitation, unsafe water and poor hygiene. In the Pacific island countries, the year 2002 saw the incidence of 871 cases of acute diarrhoea per thousand people, causing the death of 2800 people.

More severe forms of diarrhoeal diseases include cholera, typhoid and dysentery.

The Pacific Water and Sanitation Flyer can be downloaded from the PacificWater website:

www.pacificwater.org/pages.cfm/news?newsid=pacific-wash-coalition



National Water Apex Bodies – a guide for Pacific Island Countries

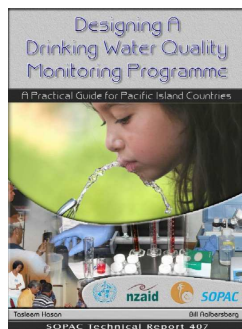
This is a brief introduction to some of the key issues and steps to be considered in the establishment and strengthening of National Water Apex Bodies (NWABs) in Pacific Island Countries. It endeavours to give the reader some initial advice on questions such as:

- ✿ What is the point of establishing an NWAB in the first place?
- ✿ Who should be involved in the NWAB and how do you involve them?
- ✿ How do you run the day-to-day work of the NWAB in order to achieve national goals and to ensure impact on the ground?

More specifically, the guide aims to help national civil servants involved in strengthening NWABs to draft or revise Terms of Reference for their National Water Apex Bodies in order to support reform towards integrated water resources management. For this purpose, the guide includes a checklist for Terms of Reference as Annex 1.

The guide has been put together by SOPAC with funding from the European Union as part of the Pacific IWRM Programme, and is based on issues emerging from the process of developing national diagnostic analyses on IWRM and from the IWRM Planning Meeting held in Niue in July 2008.

This is a first edition and should not be seen as a complete review but rather a brief introduction to the basics. Feedback on the content and the usefulness of this guide, and suggestions for how to improve it, are gratefully received by iwrm@sopac.org



Designing A Drinking Water Quality Monitoring Programme A Practical Guide for the Pacific Island Countries

Contamination of drinking water is a significant concern for public health throughout the world. It is important for Pacific island countries (PICs) to identify, prioritize and analyse water quality parameters that are of greatest risk to human health. This will ensure that viable and useful information on the status of drinking water quality is achieved within the existing resources (budget, staff and laboratory capacity).

This guide provides the opportunity and direction for Pacific Island Countries (PICs) to design a feasible and useful drinking water quality monitoring programme that is conscious of their existing, and in some instances limited, resources. It is aimed at assisting agencies involved with water quality monitoring roles design a practical and workable monitoring programme for their country and purpose.

The Guide has been produced and published under the NZAID-funded Pacific Water Quality Monitoring Capacity Building (WQM) Programme which is being implemented by the Pacific Islands Applied Geoscience Commission (SOPAC), the World Health Organization (WHO) and the Institute of Applied Sciences of the University of the South Pacific (IAS-USP).

For copies of the guide please contact SOPAC Water Quality Programme Officer (tasleem@sopac.org)

[Sanitation matters: what you should know, and what you can do](#)

[Advocacy kit](#)

2008 is the International year of Sanitation. This kit is designed to further specific goals of the year, namely to increase awareness about the sanitation crisis as well as to secure commitments and mobilize action from the government and other stakeholders to address this global emergency.

The kit contains a **booklet** that summarizes briefly why sanitation matters, detailed **fact sheet** on the links between sanitation and health, economic development, social development and dignity, and environment, a **matrix** that demonstrates clearly that the sanitation crisis affects everyone and that everyone can contribute to solving it, a **list of useful websites, talking points** on sanitation, and a **poster**. Journalists and others in the media will also receive in their kit **recorded interviews** (as well as **transcripts**) with leading experts that can be used in radio or print stories as well as **photographs** and various **figures** that can be reproduced. Professional; campaigners will find an **advocacy guide** in their kit.

For more information on the kit and its content, contact the Water Supply and Sanitation Collaborative Council (WSSCC), Geneva, Switzerland, wsscc@who.int.



[The Pacific Integrated Water Resource Management Programme Brochure](#)

A brief colourful overview of Integrated Water Resources Management (IWRM) and the aims and activities of the Pacific IWRM programme.

Hard copies of the IWRM brochure are available on request via iwrm@sopac.org or can be downloaded from the IWRM website:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/

[Integrated Water Resource Management in Pacific Island Countries](#)

[A Synopsis](#)

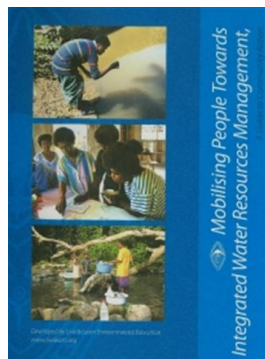


Under the Global Environment Facility funded Integrated Water Resources and Wastewater Management Project 14 countries of the Pacific Region prepared detailed Diagnostic Reports summarising the status of their water resources and assessing the barriers to implementing Integrated Water Resource Management (IWRM) approaches in their respective countries. This Synopsis report represents a summary of the 14 Diagnostic Reports, providing a baseline status of IWRM approaches in country. It will provide a useful monitoring report over the coming years as countries start to implement IWRM approaches. The report provides some simple solutions to achieving IWRM in small island environments.

Copies of the **Synopsis Report** are available directly from SOPAC, or can be downloaded from the IWRM website:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/

[IWRM Community Mobilisation Guidelines](#)



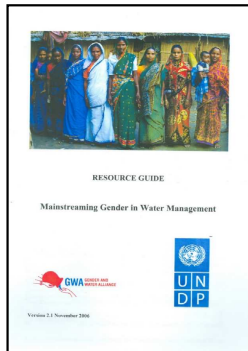
The final Community Mobilisation Guidelines to help assist communities and facilitators working with them to look at IWRM approaches at a village and community level are now available.

Developed by Live and Learn Environment Education, supported by SOPAC and UNDP and UNEP, the guidelines are a key output from the Project Design phase of the Sustainable Integrated Water and Wastewater Management project supported by the Global Environment Facility. This project will work with 14 countries in the Pacific starting in 2008. Through a network of national Demonstration Projects supported by regional capacity building components the project aims to raise awareness on IWRM approaches and strengthen national and regional approaches to integrate improved water management in the water sector and into wider national and community interventions.

The **IWRM Community Mobilisation Guidelines** is available on SOPAC website for download:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/

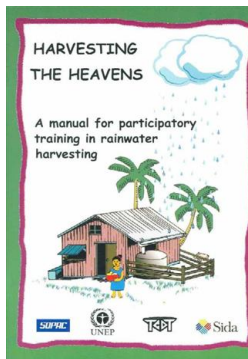
[Resource Guide - Mainstreaming Gender in Water Management](#)



This is the second edition of the Resource Guide on Mainstreaming Gender in Water Management of August 2006, which was first published by the United Nations Development Programme (UNDP) in 2003. The Guide is a reference document to assist water and gender practitioners and professionals as well as persons responsible for gender mainstreaming, and anybody else who is interested in the water sector. It is a compilation of newer resources – documents, papers, books, case studies, tools and toolkits - on gender mainstreaming in Integrated Water Resource Management (IWRM). It is meant to support action and further reading and research.

For the regular updating of the website version of the **Resource Guide** please visit the following website: www.genderandwater.org/

[Participatory Training in rainwater Harvesting](#)



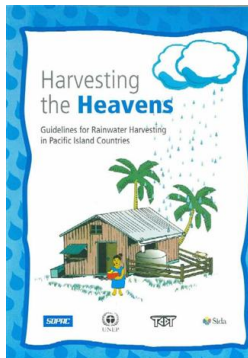
This manual of **Participatory Training in rainwater Harvesting** was developed as part of the United Nations Environment Programme (UNEP) project titled "Pilot Project on Empowering Women in Rainwater Harvesting in the Pacific Atoll Islands" with funding from the Government of Sweden.

The manual is targeted for use by Non-Government Organisations (NGOs), Community-Based Organisations (CBOs) or people involved in rainwater harvesting, and contains a number of participatory techniques, tools and activities based on best practices from a variety of sources.

Copies of this Manual can be obtained from the **SOPAC Secretariat** (arieta@sopac.org) or you can download the document via the following website:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/

[Harvesting the Heavens: Guidelines for the Rainwater Harvesting in the Pacific Island Countries](#)



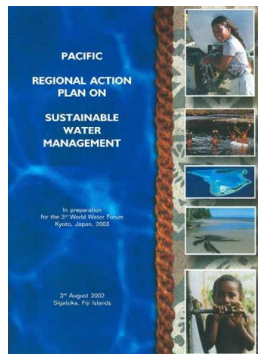
The "**Harvesting the Heavens: Guidelines for the Rainwater Harvesting in the Pacific Island Countries**" were developed as part of the United Nations Environment Programme (UNEP) demonstration projects on "Empowering Women in Rainwater Harvesting" funded by the Government of Sweden through their development agency SIDA and carried out in Africa (Kenya) and the Pacific (Tonga).

The guidelines capture the lessons learned during the preparation and the implementation of the demonstration project executed by the South Pacific Applied Geoscience Commission (SOPAC) and carried out in the Island group of Vava'u of the Kingdom of Tonga through the Village Women's Development Programme (VWDP) of the Tonga community Development Trust (TCDT).

Copies of this Guideline can be obtained from the **SOPAC Secretariat** (arieta@sopac.org) or you can download the document via the following website:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/

Pacific Regional Action Plan



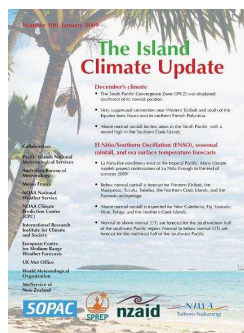
National consultations as well as a regional meeting held in Sigatoka, Fiji from 29 July – 3 August 2002 provided a platform through which participants translated ideas into decisions and policy changes on water and sanitation resulting in the Pacific Regional Action Plan on Sustainable Water Management (Pacific RAP).

The outcomes of the consultation were carried forward and presented during the 3rd World Water Forum in Kyoto as part of the theme "Water in Small Island Countries".

Copies of the **Pacific Regional Action Plan** can be obtained from the **SOPAC Secretariat** (arieta@sopac.org) or you can download the document via the following website:

www.pacificwater.org/pages.cfm/resource-center/sopac-water-publications/

ICU bulletin

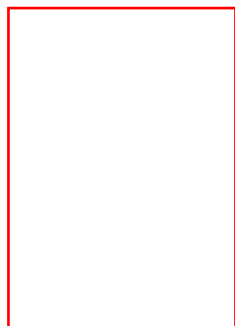


The ICU is a multi-disciplinary, multi-national project providing Pacific island countries with 3-month climate forecasts. It is published monthly both in print and online by the National Institute of Water and Atmospheric Research (NIWA) in New Zealand and is funded by NZAID. Every month, 1200 printed copies of the ICU are distributed free-of-charge by NIWA, the publisher, directly to subscribers.

Online versions of the **ICU bulletin** can be downloaded from the following **NIWA** ICU website:

<http://www.niwascience.co.nz/ncc/icu/archive>

World Water Day Campaign

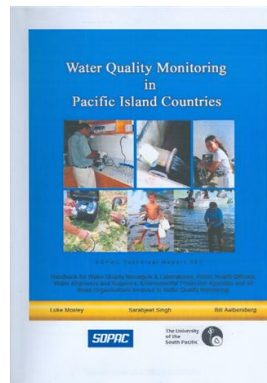


The World Water Day "Water for Life 2005-2015" Activity Booklet has been produced for schools and communities to further consider water issues through participative activities. The Activity Booklet should be used with the Water for Life Cartoon Scenes on the posters or calendars as the activities are linked to each cartoon scene. Alternatively, it can be used on its own to address different components of the theme "Water for Life".

Copies of the **World Water Day Campaign** are available from the **SOPAC Secretariat** (iva@sopac.org) or **Live & Learn Environment Education** (doris@livelearn.org.fj). You can also download the document via the following website:

<http://www.sopac.org/WWD+2007>

Guidelines for Drinking - Water Quality

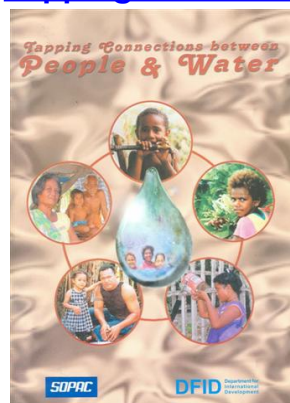


Since the second edition of WHO's Guidelines for Drinking water Quality, there have been a number of events that have highlighted the importance and furthered understanding of various aspects of drinking-water quality and health. These are reflected in this 3rd edition of the Guidelines.

The Guidelines are addressed primarily to water and health regulators, policy-makers and their advisors, to assist in the development of national standards. The Guidelines and associated document are also used by many others as a source of information on water quality and health and on effective management approaches.

Copies of the **Guidelines for Drinking - Water Quality** are available from **WHO's website**: http://www.who.int/water_sanitation_health/dwq/gdwq3/en/ or from the **WHO's Pacific Regional Office** (IddingsS@sp.wpro.who.int).

Tapping Water Connections



Everyone uses water and everyone needs some kind of sanitation. The way water is used depends on the island where you live: the climate, the landforms, and the source of water. It also depends on the tradition and customs of the family and community, their income and the size of the population.

The handbook "**Tapping Water Connections**" can be used by field workers when working with communities to install and maintain water and sanitation systems. It can also be used to support health and hygiene programmes. The handbook raises seven Questions to think about. The Questions can be a checklist to identify important connections between people and their water and their land.

Copies of the Manual can be obtained from the **SOPAC Secretariat** (arieta@sopac.org) or you can download the document via the following website:

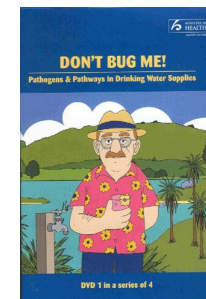
<http://www.sopac.org/data/virilib/MR/MR0577.pdf>

Multimedia

Don't Bug Me? – Pathogens and Pathways in Drinking Water Supplies

This is the DVD 1 of the four series produced by New Zealand Ministry of Health and can be used in the Water Safety Plans programme as public awareness material. This video informs on the access and presence of pathogens in the drinking water supplies. It is intended for the small drinking water supplies and can be used in the Pacific Island Countries.

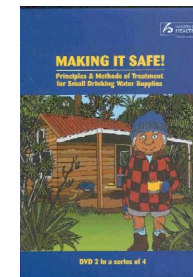
Copies of this documentary are available from New Zealand , Ministry of Health.



[Making It Safe? - Principles and Methods of Treatment for Small Drinking Water Supplies](#)

This is the DVD 2 of the four series produced by New Zealand Ministry of Health and can be used in the Water Safety Plans Programme as public awareness material. This video informs on the principles and methods of treatment for small drinking water supplies. It can be used for educating the pacific island communities as well.

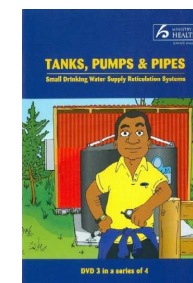
Copies of this documentary are available from New Zealand Ministry of Health.



[Tanks, Pumps & Pipes - Small Drinking Water Supply Reticulation Systems](#)

This is the DVD 3 of the four series produced by New Zealand Ministry of Health and can be used in the Water Safety Plans Programme as public awareness material. This video informs on reticulation system for small drinking water supplies. It can be used for educating the pacific island communities as well.

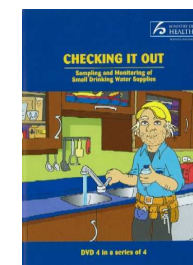
Copies of this documentary are available from New Zealand Ministry of Health.



[Checking it Out - Sampling and Monitoring of Small Drinking Water Supplies](#)

This is the DVD 4 of the four series produced by New Zealand Ministry of Health and can be used in the Water Safety Plans Programme as public awareness material. This video provides information on the sampling and monitoring of small drinking water supplies. It can be used for educating the pacific island communities as well.

Copies of this documentary are available from New Zealand Ministry of Health.



[Cap-Net - IWRM Tutorial](#)

This DVD contains a brief introductory tutorial aimed at policy makers, water managers, trainers and educators who want a basic understanding of IWRM principle. It provides the case for IWRM and the argument against those who may oppose it on institutional or sectoral grounds.

Copies of the **Cap-Net - IWRM Tutorial DVD** can be obtained from the **United Nations Development Programme**.



Toolbox

This DVD contains a brief introductory tutorial aimed at policy makers, water managers, trainers and educators who want a basic understanding of IWRM principle. It provides the case for IWRM and the argument against those who may oppose it on institutional or sectoral grounds.

Copies of the **Toolbox DVD** can be obtained from the **Global Water Partnership Secretariat**.

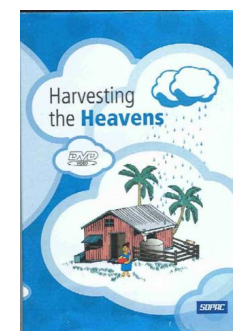


Harvesting the Heavens

A DVD documentary which follows the pilot project in Vava'u. The video highlights the important aspects of the project including community participation and ownership, encouraging women as well as men to participate in water management and promoting sustainable approaches. Harvesting the Heavens follows a rainwater harvesting demonstration project carried out in the villages of 'Utungake and Matamaka in the island group of Vava'u in Tonga. The project focused on the importance of community participation and ownership, encouraging women as well as men to participate in water management and promoting sustainable approaches.

Copies of the **Harvesting the Heavens documentary** can be obtained from the **SOPAC Secretariat** (arieta@sopac.org) or you can download the document via the following website:

<http://www.sopac.org/CLP+Rainwater+Harvesting>



Water Voices Documentary Series

Water is essential to all life. And yet one in three Asians lacks access to safe drinking water, and half the people living in Asia and the Pacific do not have access to adequate sanitation. Conflicts over sharing of scarce water resources are increasing at an alarming rate.

A documentary series that recognizes the power of good examples and lessons learned to inspire 'home grown' solutions to water problems. The series recognizes the power of good examples and lessons learned to inspire 'home grown' solutions to water problems and looks specifically at communities in Fiji, Kiribati and Tonga.

Copies of this documentary can be obtained from the **SOPAC Secretariat** (arieta@sopac.org) or the

Asian Development Bank

(http://www.adb.org/Water/CFWS/Water_Voices_Videos.asp).



Islands and Climate Change

Islands and Climate Change examines and reports on a unique initiative on Fiji's Coral Coast where coastal communities and the tourist industry try to protect water resources. The Water Awareness Program aims to increase public understanding about vital water issues in the Asia and Pacific region; promote water sector reform; improve delivery of water services, especially to the poor; and foster conservation and integrated management of water resources.

Copies of this documentary can be obtained from the **SOPAC Secretariat** (arieta@sopac.org) or the **Asian Development Bank**.

(http://www.adb.org/Water/CFWS/Water_Voices_Videos.asp).



Pacific Water Agenda 2009

DATE	EVENT	LOCATION	DETAILS
11-15 May	WSSCC Annual Planning Meeting	Geneva	http://www.wsscc.org/
13-15 May	Water Industry Operations Group of New Zealand Conference	Dunedin, New Zealand	http://www.wiog.org.nz/
19-20 June	2nd Meeting of the International Network of Drinking Water Regulator	Singapore	Attendance by invitation
22-26 June 2009	26th Pacific Islands Environment Conference (PIEC)	Saipan, United States Minor Outlying Islands	Lee-Ann Choy Jon Ordenstein prc@hawaiiibiz.rr.com 808-864-9812
13-14 July	North Pacific IWRM Workshop	East-West Centre, Hawaii	www.pacificwater.org
29-31 July 2009	Pacific Water Association 2009 Water Conference & EXPO	Va'vau, Tonga	Details will be on the PWA Website soon. www.pacificwaterassociation.org
16-22 August	World Water Week	Stockholm	www.worldwaterweek.org .
14-18 September (TBC)	GEF IWRM Inception Meeting	Nadi, Fiji (TBC)	
21-24 September	International Riversymposium	Brisbane, Australia	http://www.riversymposium.com/
26-30 October	International Network for Small Community Water Supply Management	St. Lucias	
15 October	Global Handwashing Day	Global	http://www.globalhandwashingday.org/
21-29 October	SOPAC STAR & Annual Session	Vanuatu	www.sopac.org

For more global water events please check the Water Conferences Worldwide website : <http://www.conferencealerts.com/water.htm>

Selected Water Websites

ADB Water in Small Island Countries www.adb.org/Water/theme3.asp	Pacific ENSO Update http://lumahai.soest.hawaii.edu/Enso/subdir/update.dir/update.html
AOSIS Alliance of Small Island States www.sidsnet.org/aosis	Pacific Water Association www.pacificwaterassociation.org/
AUSAID www.ausaid.gov.au	SIDSNET www.sidsnet.org
Australian Water Portal www.developmentgateway.com.au/water/index.html	UNEP http://freshwater.unep.net/
Barbados +10 www.sidsnet.org/Mauritius2004/	UNESCAP www.unescap.org
CSD12 www.un.org/esa/sustdev/csd/csd12/csd12.htm	UNESCO www.unesco.org/water
CSD13 http://www.un.org/esa/sustdev/partnerships/csd13_partnership_fair.htm	UNU www.inweh.unu.edu/inweh
Co-operative Programme on Water and Climate www.waterandclimate.org	WHO www.who.int/water_sanitation_health/en/
East-West Centre www.EastWestCenter.org/climate	WMO www.wmo.ch/web/homs/index.html
ESCAP www.unescap.org/esd/water/activities	World Bank www.worldbank.org/html/fpd/water
European Union www.europa.eu.int/comm/development/publicat/water/en/frontpage_en.htm www.euwi.net	SOPAC Water www.pacificwater.org
Gender and Water Alliance www.genderandwateralliance.org	World Water Council www.worldwatercouncil.org
Global Water Partnership www.gwpforum.org	USP www.usp.ac.fj
GWP Australia www.gwpaustralia.org	WSSCC http://www.wsscc.org/

Island Climate Update www.niwa.cri.nz/NCC/ICU	NIWA www.niwa.co.nz
NZAID www.nzaid.govt.nz	SPC www.spc.int
USGS http://hi.water.usgs.gov	Japan Water Forum http://www.waterforum.jp/eng/index.html
Water Virtual Learning Centre (WVLC), University of the South Pacific www.earth.fst.usp.ac.fj/index.php?id=4043	UN-Water http://www.un.org/waterforlifedecade/
World Summit on Sustainable Development www.johannesburgsummit.org	World Wide Fund for Nature www.wwfpacific.org.fj
International Commission on Irrigation and Drainage http://www.icid.org	Cap - Net www.cap-net.org/
Climate Front Lines www.climatefrontlines.org	PI-GOOS www.pi-goos.org

--- Please let us know if you think other websites are worth mentioning here! ---

We have changed the frequency of issuing this newsletter from semi-annually to quarterly so you can be kept updated on the latest developments. As mentioned in earlier mail outs we would appreciate it if you could forward this to colleagues who may be interested in this initiative so that it reaches the widest possible audience.

To subscribe please send an email to arieta@sopac.org to add your contact to our mailing list.

and

Send a blank email message with the words

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The Pacific Water Partnership Initiative News is produced by the Pacific Partnership Initiative on Sustainable Water Management for Water Awareness Program to provide water information to Pacific member governments, professionals, researchers, private sector and their counterparts in the donor community who are interested in water sector issues and initiatives.

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