Welcome to the eighth 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. This issue has a special focus on Integrated Water Resources Management (IWRM) in light of the Pacific GEF PDF-B IWRM project that kicked off this month. You will find specific information and background materials on this topic.

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 SOPAC website: http://www.sopac.org/Community+Lifelines+Programme+Water+and+Sanitation

### Highlights

- **Vacancies IWRM GEF Project**
- **ACP-EU Water Facility Funds Pacific HYCOS Project**
- **Survey of National IWRM Policies, Strategies and Plans in the Pacific Island Counties**
- **Mainstreaming Gender in Water Management:-- A Resource Guide**
- **Pacific HELP Symposium held in New Zealand**
- **EU Water Facility 2nd Call Expected in March**
- **Review of Island Climate Update (ICU) Bulletin**
- **The E-Network on Strategic Planning and Management of Water Resources**
- **Water Safety Plans Programme Begins**
- **3rd Hydrology Training Course**
- **Pacific Framework for Action on Drinking Water Quality and Health**
- **Fiji Red Cross Society school survey on water and sanitation (June-July 2005)**
- **RiverCare Teacher Training**

### Publications

- **Water Agenda 2006**
- **Water Websites**

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**Water Vacancies**

- [UNDP](#)
- [UNEP](#)
- [GEF](#)
- [SOPAC](#)
Applications are invited for the position of Regional Project Development Coordinator and Regional Project Development Officer in the PDF-B phase of the Global Environment Facility (GEF).

Both positions, based at the Secretariat of the South Pacific Applied Geoscience Commission (SOPAC) in Suva, Fiji Islands, will develop in partnership with the United Nations Development Program (UNDP), and United Nations Environment Program (UNEP), a regional project that aims to assist Pacific Island Countries with the implementation of Integrated Water Resources Management (IWRM) and Water Use Efficiency (WUE) Plans. The project will support the implementation of national plans and will focus on “on-the-ground” demonstrations including capacity building and training.

UNDP/GEF and SOPAC will facilitate a two-year process to develop and prepare the full-size project. Targeted actions to be carried out in this PDF-B phase include development of National Inter-sectoral Committees, development of demonstration projects and production of a full brief through a broad consultative process, involving various sectors of the community. The resulting full-size project document will identify prioritized national capacity needs, Pacific water hotspot areas of action, Integrated Water Resources Management plans and networking strategies for GEF SIDS groups for the strengthening of national water resources and wastewater management.

The Project Coordinator will manage the day-to-day implementation of the PDF-B phase of the project based on documents deposited with the GEF. The Project Officer will assist the Coordinator with implementation of the various project components.

Applications for either position should include relevant qualifications, experience and the contact information of three referees. The salary and benefit package offered is commensurate with terms and conditions of the Council of Regional Organisations in the Pacific.

For further information on these positions please contact Karen Datta, SOPAC Administration Officer: karen@sopac.org or the SOPAC website: www.sopac.org.fi

Applications close Tuesday 28th February 2006 and should be submitted to the SOPAC Director by post: The SOPAC Secretariat, Private Mail Bag, Suva, Fiji; or Facsimile (679) 3370 040; or electronically to the attention of the Administration Officer. All applicants should note that only those for whom there is further interest will be contacted.

SOPAC is an equal opportunities employer and encourages applications from suitably qualified women and men.
ACP-EU Water Facility Funds Pacific HYCOS Project

Based on the recommendation of the Evaluation Committee of the ACP-EU WATER FACILITY, the European Commission has decided that the Pacific Hydrological Cycle Observing System (Pacific HYCOS) may be awarded a grant by the 9th European Development Fund.

SOPAC with associate partners WMO, UNESCO and the Fiji Meteorological Service submitted the proposal to the ACP-EU Water Facility in response to its 1st Call for Proposals.

The Pacific HYCOS is a regional water resources management initiative to improve management and protection of Pacific small island states freshwater resources, through the provision of appropriate water resources management systems to demonstrate sustainable catchment and aquifer management.

In 2004 the EU Council and the ACP-EC Council of Ministers allocated €500 million for the Water Facility. Through its 2 tranches each of €250 million, the Water Facility is more than doubling the funding already available through the 9th European Development Fund (EDF) for water and sanitation (€475 million).

The interest in the Water Facility’s first Call for Proposals has been overwhelming. Nearly 800 preliminary proposals (for a total of €5 Billion, requesting €2.7 Billion from the Facility) were received following the call in Nov 2004.

With the €250 M available, a total number of 97 projects can be co-financed. Total costs of these projects amounts to €410 M. Among the selected initiatives, 23 fall into the category of improved water governance (€33.2 M), 12 are in the category of water supply and sanitation infrastructure programmes (€105 M) and 62 are in the category of Civil Society Initiatives (€91.4 M). A reserve list of 39 projects has been established.

The 2nd Call for Proposals, for an amount of €178 M, will be launched by Mid March 2006.

Ideas and information on the Pacific HYCOS project will be exchanged with ongoing HYCOS projects in other regions at the World Meteorological Organisation (WMO) Technical Conference organized in conjunction with the Seventh Session of the World Hydrological Cycle Observing System (WHYCOS) International Advisory Group (WIAG).

The technical conference and the seventh session of the (WIAG) will be held in the WMO Secretariat, Geneva, from 30 January to 2 February 2006 and will officially launch the WHYCOS Guidelines and
Survey of National IWRM Policies, Strategies and Plans in the Pacific Island Counties

The World Summit on Sustainable Development (WSSD) in Johannesburg in 2002 called for all countries to produce integrated water resources management (IWRM) and water efficiency plans by 2005. As a consequence of this, the Global Water Partnership (GWP) conducted an “informal stakeholder baseline survey” on the status of water sector reform at the end of 2003. It was intended to be an operational assessment of countries’ progress to meet the 2005 WSSD action target.

A regional overview has been submitted by SOPAC to GWP in 2003 on the status of IWRM in the Pacific. This has been published in 2004 as SOPAC Miscellaneous Report (MR 554).

At the end of 2005 a further update on progress was sought by the GWP. To this end, SOPAC distributed a questionnaire to the government agency taking the lead role in water resources management in 16 Pacific Island Countries: American Samoa, Cook Islands, the Federated States of Micronesia, Fiji, Guam, Kiribati, Marshall Islands, Nauru, Niue, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

Based on the responses received, a summary report for the Pacific was prepared for GWP. The result of this survey will be presented at the 4th World Water Forum (4WWF) in Mexico City, Mexico from 16th - 22nd March, 2006.
Mainstreaming Gender in Water Management – A Resource Guide

A lot of effort has been invested in developing gender mainstreaming materials, however a major challenge facing programme officers and water and gender specialists is that such information and materials are located in different institutions, resource centres, websites and organisations. For this reason UNDP has developed a Resource Guide summarizing the concept of gender in IWRM and guiding the user to existing materials, information and concepts. The guide has been developed in consultation with stakeholders in various regions and supported by Gender Water Alliance (GWA), gender specialists and practitioners; the guide consists of five parts:

1. An introduction and overview notes on gender mainstreaming in IWRM,
2. A guide to existing tools and materials,
3. Briefing notes on:
   • Bringing a gender perspective to water sector capacity building
   • Equality between men and women
   • Institutional capacity to promote gender in IWRM Projects
4. Case studies and good practices
5. A guide to gender mainstreaming within the project cycle

The Gender and Water Alliance are in process of collecting information so that it can be updated, to make it more useful, practical, informative and accessible to all.


The questionnaire can be requested from secretariat@gwalliance.org or it can be downloaded from the GWA website, www.genderandwater.org/page/2135
Pacific HELP Symposium held in New Zealand

The Pacific Hydrology for the Environment, Life and Policy (HELP) Symposium (7-11 November 2005, Nelson) marked the first formal HELP event to take place in the Pacific region. The Symposium was hosted jointly by the New Zealand crown research institute Landcare Research, Ltd. and UNESCO Apia Office. It focused on devising ways in which HELP can contribute to strengthening catchment area management practices in the Pacific considering the limited data collection and processing capacity in the region.

The Symposium was attended by a total of 10 representatives of 6 Pacific high volcanic island countries (Papua New Guinea, Solomon Islands, Vanuatu, Cook Islands, Samoa, and Fiji) and Japan, as well as by a broad range of stakeholders and scientists working in and around the Motueka Basin area. Also present were representatives of the South Pacific Applied Geoscience Commission (SOPAC), the Australasian HELP Regional Coordination Unit, NIWA (New Zealand’s National Institute for Water and Atmospheric Research), and the UNESCO Regional Bureau for Science in Jakarta.

Part of the Symposium programme was a very comprehensive field trip to the Motueka Demonstration HELP Basin. The field trip involved discussions with a very broad range of stakeholders in Motueka, including forestry and farming communities, as well as several representatives of the local Iwi (Maori indigenous groups). Iwi representatives also attended sessions throughout the week, providing additional perspective to the discussions.

The Pacific participants provided case studies of particular catchment management issues in their respective countries, and as part of the concluding session developed a series of draft frameworks for action under the heading “HELP in the Context of the Pacific Regional Action Plan on Sustainable Water Management – A Framework for Action”.

A proceedings document containing all presentations and discussions at the Symposium will be published by UNESCO Apia Office and Landcare Research, Ltd. in early 2006.
EU Water Facility 2nd Call Expected in March 2006

The 2nd Call for Proposals of the ACP-EU Water Facility (EUWF) is expected to be launched by the end of March 2006. This is part of the EUWF's second funding tranche of EUR 250 million. Out of the first tranche - also EUR 250 million - EUR 180 million was allocated for the first call for proposals.

Contrary to the first call, the second call for proposals will only include one phase. This is primarily due to the 'sunset clause' of the 9th EDF (European Development Fund) programme which obliges the European Commission (EC) to commit all funds before the end of 2007. During the one-phase evaluation of the 2nd call, the Administrative Compliance and Eligibility (ACE) and all the other selection criteria will be evaluated at once. This implies that applicants will be asked to submit only a detailed proposal.

EU Helpdesk Water Facility will be available for the 2nd call in order to help out with the preparation of proposals.

If you would like assistance in submitting a proposal or experience trouble downloading documents please contact the Partnership Coordination Unit (SOPAC).

For further information on the ACE-EU Water Facility please visit:

http://europa.eu.int/waterfacility

or contact:
ACP-EU Water Facility Help Desk
europeaid-water-facility@cec.eu.int

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Review of Island Climate Update (ICU) Bulletin

The concept of a regional climate bulletin was a recommendation from the third annual meeting of Regional Meteorological Services Directors held in Samoa in 1995. It was recognized at the time that most Pacific Island Countries do not have the resources to locally develop their own global climate models and undertake analyses of climate information and products to be able to produce local climate forecasts.

The New Zealand Agency for International Development (NZAID) supports a programme to improve the effectiveness of planning processes in climate sensitive sectors in the Pacific through increasing access to accurate climate information working in collaboration with South Pacific Regional Environment Programme (SPREP) and SOPAC and National Institute of Water and Atmospheric Research (NIWA).

The Island Climate Update (ICU) was launched in October 2000. Every month, 1200 printed copies are distributed free-of-charge by NIWA, directly to subscribers. Online versions are also available and can be downloaded from the NIWA ICU webpage:

( http://www.niwascience.co.nz/ncc/icu/archive)

SOPAC and SPREP are currently in the process of reviewing the level of success of the ICU in achieving its objective. A survey questionnaire has been prepared for readers of the ICU. The questionnaire will evaluate the performance of the ICU over its five years of existence and can be downloaded from the Pacific Resource Centre for Water and Climate:

( http://www.sopac.org/Pacific+Resource+Centre+on+Water+and+Climate)

If you would like to contribute to the review please fill out the questionnaire and forward this to Ms Linda Yuen at SOPAC by e-mail, fax or by post before 7 February 2006. Your input and comments which will be kept confidential are much appreciated and will assist all partners concerned to improve the access to climate information.
The E-Network on Strategic Planning and Management of Water Resources

The E-Network on Strategic Planning and Management of Water Resources in Asia and the Pacific is a joint initiative of the Food and Agriculture Organisation (FAO) Regional Office for Asia and the Pacific and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). This new initiative represents an effort to bring the world water vision to the regional and national levels through the partnership of UNESCAP and FAO born from their very complementary mandates, programmes and fields of expertise.

In the process leading to the establishment of this E-Network on Strategic Planning Management (SPM), the South Pacific Applied Geoscience Commission (SOPAC) was an active partner of UNESCAP throughout the three phases of the latter's regional project on SPM from 2000 to 2004.

FAO RAP and UNESCAP welcome and encourage water stakeholders and professionals in the region to join and participate in the E-Network.
Water Safety Plans Programme Begins

The Water Safety Plans programme is a joint initiative between the South Pacific Applied Geoscience Commission (SOPAC) and the World Health Organization (WHO). Funded by AUSAID, this initiative plans to improve the health of people in the Pacific by improving access to safe drinking water. This will be achieved by strengthening national capacity to improve and maintain safe drinking water supplies.

Water Safety Plans (WSP) are tools that allow for proactive approaches to ensuring safety of a drinking water supply. WSPs utilize risk assessment and risk management approaches to identify risks of contamination of water supply and allows for the development of practical mechanisms to manage these risks.

The primary objectives of WSP are to minimize contamination of water supply by protection of water sources, removal of contamination during treatment and prevention of contamination during storage or distribution. These objectives are equally applicable to large reticulated water supplies, smaller community-managed systems as well as individual household systems.

The Water Safety Plan Programme will run a number of pilot projects in 4 Pacific Island Countries over the next 2 years. The lessons learnt from WSP pilot projects will be shared among all Pacific Island countries. A replication strategy will also be developed to allow for other countries to implement WSPs, with guidance and support from SOPAC and WHO.

For further information on the 3rd Hydrology Training Course please contact:

Ms. Alena Lawedrau-Moroca  
Water Resources Officer  
SOPAC  
alena@sopac.org  
Fax: (679) 337 0040

3rd Hydrology Training Course, 12th-30th June 2006, Suva, Fiji Islands

SOPAC’s Community Lifelines Programme, in collaboration with UNESCO and WMO will be organising the third course of the Hydrological Training Programme for hydrological technicians from the Pacific region with funding provided by NZAID.

The 3rd Course of the Hydrology Training Programme, similar to the 2nd course, will be split into two groups: 1) for participants from high volcanic island countries, which are dominated by surface water resources, and 2) for participants from atoll and high limestone island countries, which are dominated by groundwater resources.

The Surface Water course will consist of 3 weeks of training from 12 June to 30 June 2006 at the SOPAC Secretariat’s training room in Suva, Fiji with participants in attendance from the countries Cook Islands, Fiji, Palau, Papua New Guinea, Samoa, Solomon Islands and Vanuatu.

The Groundwater course will consist of 2 weeks of training from 19 June to 30 June 2006 with participants in attendance from the above countries as well as Kiribati, Maldives, Niue, Tonga and Tuvalu.

Following participant’s recommendations there will be several joint sessions for both the Surface water and Groundwater groups in the 2nd and 3rd week of the course and joint field trips are foreseen to complete a water resources assessment on one of Fiji’s outer islands located near Suva.

The final course outline and other logistical information will be disbursed to trainees once these are finalised and should you wish further information regarding the programme please feel free to contact Ms. Alena Lawedrau-Moroca at the following email address: alena@sopac.org.
For further information on the Framework for Action please contact:

Steve Iddings  
Environmental Engineer  
World Health Organisation  
IddingsS@sp.wpro.who.int

Tasleem Hasan  
Water Quality Officer  
SOPAC  
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Pacific Framework for Action on Drinking Water Quality and Health

This Framework for Action was developed at the WHO Regional Workshop on Drinking Water Standards and Monitoring in Pacific Island Countries held 7-10 February 2005. The framework was prepared in response to the recommendations by the Pacific Island Countries’ participants and supports the implementation of drinking water quality actions envisioned in the overarching Pacific Regional Action Plan (RAP) on Sustainable Water Management. The participants in the workshop developed a series of recommendations, consolidating results from other recent WHO-sponsored workshops, and identified key actions needed to implement those recommendations.

The recommendations and actions are structured under six thematic areas, corresponding to the six themes of the RAP for Sustainable Water Management. Hence, the Framework for Action builds on and supports the implementation of drinking water quality activities envisioned in the RAP.

The six themes are:

1. Water Resources Management
2. Island Vulnerability
3. Awareness and Community Participation
4. Technology
5. Institutional Arrangements
6. Financing

The Ministers of Health for the Pacific Island Countries through the Samoa Commitment have recommended this framework for implementation at their meeting held in Apia in March 2005.
Fiji Red Cross Society carries out survey in schools on water and sanitation (June-July 2005)

A survey carried out in 23 schools in the Ra, Tavua and Ba districts by the Fiji Rural Education Study revealed that there were issues of water quality and quantity in many schools leading to recurring outbreaks of diarrhoea during periods of droughts and heavy rains.

Following the findings of the survey, 11 schools were finally selected for projects to be carried out. The disadvantage index supplied by the Ministry of Education was used to reduce the list of schools to work on. The report emphasizes that proper water supply and sanitation in schools alone will not reduce the incidence of diarrhoea or gastro enteritis outbreaks unless behavioural change on safe hygiene practices is also adopted. Continuous awareness from staff to pupils and pupils to communities on issues such as washing both hands with soap and water after visiting the toilet is essential. All the schools were found to be at risk due to poor water supplies, poor sanitation facilities, and lack of knowledge/awareness on water and sanitation issues and unsafe drinking water. Some excellent recommendations have been provided and a Watsan health promotion for schools has been suggested.

RiverCare Teacher Training

RiverCare, a programme implemented by Live and Learn (LLEE) is about community involvement in improving the health of waterways by increasing awareness of water issues and mobilizing community actions. The participants increase their capacity to take action by engaging in dialogue with other users including water experts and with people who are responsible for creating pollution.

Two RiverCare teacher training sessions have been held in Fiji to date (Labasa and Suva). Informative presentations were made by the Wildlife Conservation Society, the Fiji Department of Environment and FSPI.

The teacher training courses also introduced the use of simple water quality monitoring toolkits. These toolkits, which test for the presence of harmful bacteria, are provided by the WHO and in the future it is hoped that more communities will be educated to successfully monitor their water supply to
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://list.sopac.org.fj/Secretariat/Programmes/H2O/3rd_world_water_forum/index.html

Arrangements of the Pacific 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

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The 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 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 RAP can be obtained from the SOPAC Secretariat (sarah@sopac.org) or you can download the document via the following website:

http://www.sopac.org/CLP+Publications

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### Hydrology and Water Resources of Small Islands: A practical guide

In most small islands water development projects have not achieved any goal. This is often because the technologies, design and materials were not suitable for either the environment or the cultural habits of the population, or because the operation and maintenance cost were excessive. Combined with geological and other physical complexities and the exposure to natural disasters, the hydrological and water resources problems, must be carefully considered. The situation is aggravated by lack of qualified personnel.

This guide has been prepared to assist technicians, hydrologists, engineers and managers in the identification, assessment, development, management and protection of water resources of islands. It is intended to be a guide to the selection of methods and

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### Hydrology and Water Resources of Small Islands: A Practical Guide
practices appropriate to the special conditions of small islands.

Copies of the Hydrology and Water Resources of Small Islands: Practical Guide can be obtained from the SOPAC Secretariat (sarah@sopac.org) or UNESCO Apia Office (hans@unesco.org.ws).

Guidelines for water resources development co-operation towards sustainable water resources management

Water Resources development and management in an integrated and sustainable way for the benefit of all is based on a set of guiding principles.

These Guidelines set out a strategic approach to the management and sustainability of water resources and the delivery of water-related services, providing a broad perspective of all aspects of water resources activities. They are designed to respond to the needs of EC staff and those of partner country governments and other professionals working for the Commission and its Delegations. Water issues are cross-cutting and the Guidelines should enable experts and non-experts to cross disciplinary and sectoral boundaries.

Copies of the Guidelines for water resources development co-operation towards sustainable water resources management can be obtained from the European Commission. For further information contact development@ced.eu.int.
This manual is an introduction to the principles underlying the integrated water resources management concept: the focus will be on the approaches and management tools that facilitate its application, taking into account the size of the territory, whether it be national and international basins or sub-basin of local interest.

The manual is first destined to trainers who, through a national or a regional seminar, would bring the participants to produce a diagnosis of their basin and an action plan. A simple and field-tested framework will guide them throughout this learning process. On the other hand, those who would like to perfect their knowledge and improve their capacity to manage water uses in a more sustainable fashion can also use the manual.

Copies of the Integrated Water Resource Management on a Basic Level - A Training Manual can be obtained from UNESCO or can be downloaded from the following website: http://www.unesco.org/water/ihp/iwrm_basins.shtml

Policy Guidance and Operational Tools

The purpose of Global Water Partnership's (GWP) ToolBox on Integrated Water Resources Management is to provide water management professionals clear examples of good and bad practices and lessons learned from real life experiences of implementing IWRM.

The GWP ToolBox contains a description of 50 tools for developing IWRM, each of which is supported with case studies, reference and organisations. Version 1: contains discussions on way IWRM and how the ToolBox can help - 'Policy Guidance' and the descriptions of the tools for IWRM themselves.

Copies of the Policy Guidance and Operational Tools document is available from GWP. More information on ToolBox is available on the GWP website:

http://www.gwpforum.org/
The primary users of the IWRM ToolBox are water resource management professionals such as water resource planners, policy makers, river basin managers and political advisors. Other users will include local government staff, non-government organisations and the general public with water interests.

Version 2 - 'Sharing knowledge for equitable, efficient and sustainable water resources management' is aimed to assist with the development of practices inspired by the principles of IWRM.

Copies of the Sharing knowledge for equitable, efficient and sustainable water resources management is available from GWP. More information on ToolBox is available on GWP website:

http://www.gwpforum.org/

Integrated Water Resource Management-Technical Advisory Committee Background Papers

After 3 years of operation beginning on 1996, the Technical Advisory Committee (TAC) of Global Water Partnership (GWP) felt there was a need for a clarification and formulation of certain principles and recommendations within integrated water resources management - serving a general purpose of contributing to the implementation of IWRM, but also an internal purpose of establishing a common understanding within GWP and TAC.

The present paper represents the "corporate view" of TAC on integrated water resources management and has been authored by all members of TAC in the period 1996 through 1999.

Copies of the Integrated Water Resource Management-Technical Advisory Committee Background Papers is available from GWP.

More information on Integrated Water Resource Management-Technical Advisory Committee Background Papers is available on GWP website:

http://www.gwpforum.org/
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

Safe Water Guide for the Australian Aid Program 2005

The Safe water guide provides an overview of the approach that AusAID has adopted for managing water quality in activities implemented under the Australian aid program. That approach is based on managing risks.

The guide outlines the steps that may need to be taken when designing, implementing, monitoring and evaluation water-related activities, particularly the provision of safe drinking water suppliers. It provides guidance on the procedures for identifying and managing existing and potential water quality problems.

Copies of the Safe Water guide for the Australian aid program 2005 can be obtained from AusAID. For further information visit their website:

www.ausaid.gov.au
The report concentrates on regional and national progress and activities in the Pacific region on IWRM, and where relevant refers to national and sub-national level examples of “roll-out” of these developments.

Copies of the An Overview of Integrated Water Resources Management in Pacific Island Countries: A National and Regional Assessment is available on SOPAC website:


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Sanitation Park Project Flyer

A flyer on the Sanitation Park Project was developed to provide background information to community members, students and to interested individuals/institutions visiting the Park or for those who would like to make a visit. The flyer gives a brief description of the available Sanitation Park systems and their features. Existing demonstration systems include; a sanitary well, a water seal latrine, a septic tank and soakage trench, a ventilated improved pit latrine and a waterless or composting toilet. Wherever possible pictures and illustrations have been used to present these systems for better understanding. Lastly, some useful references have been listed for those keen on further investigation on one of the wastewater treatment option. Contact details on personnel of the project team are provided should you require specific data on a topic.

Copies of the Sanitation Park Project Flyer can be obtained from the SOPAC Secretariat (kamal@sopac.org) or you can download the document via the following website:

http://www.sopac.org/Sanitation+and+Hygiene
The Water Quality Monitoring Guidelines are the first of its kind that have been developed by the Institute of Applied (IAS) of the University of the South Pacific (USP) and the South Pacific Applied Geoscience Commission (SOPAC). The publication is divided into sections on how to design a water quality monitoring programme; selection of drinking and recreational water sampling; solid and liquid waste management and general notes on sampling and laboratory procedures.

This handbook is aimed for those people working in the water and wastewater sectors in the Pacific region, with local examples to allow more understanding and adaptation.

Copies of the Water Quality Monitoring in Pacific Island Countries can be obtained from the SOPAC Secretariat (tasleem@sopac.org) or you can download the document via the following website:


Directory of Environmentally Sound Technologies for the Integrated Management of Solid, Liquid and Hazardous Waste for Small Island Developing States (SIDS) in the Pacific Region

The Directory of Environmentally Sound Technologies for the Integrated Management of Solid, Liquid and Hazardous Waste for Small Island Developing States (SIDS) in the Pacific Region represents the combined efforts and achievement of numerous people from UNEP, SOPAC and SPREP.

The directory provides an overview of solid, hazardous and wastewater technologies.

- Solid waste technologies - discuss information on different municipal solid waste management (MSWM) technologies that are currently used in different regions of the world.
- Hazardous Waste Technologies - addresses the proper management of various types of hazardous wastes, as they require special handling, treatment and disposal due to their hazardous potential.
- Liquid waste or wastewater technologies - in SIDS wastewater disposal systems are just as important for public health as a water supply distribution system.

Copies of the Directory of Environmentally Sound Technologies for the Integrated Management of Solid, Liquid and Hazardous Waste for Small Island Developing States (SIDS) in the Pacific Region are available from the SOPAC Secretariat (kamal@sopac.org) or you can download the document via the following website:

The integration of Social and Technical Science in Groundwater Monitoring and Management describes a groundwater pollution study on the island of Lifuka in the Kingdom of Tonga, in a village where private wells are an important source of water, in addition to dependence on household rainwater tanks and a public reticulated system. Comparison is also made with the findings of a groundwater recharge project, which was undertaken on the island of Tarawa in the Republic of Kiribati, Central Pacific, where a reticulated groundwater system, sourced from a government controlled water reserve, was the primary focus of the study.

Copies of the Integration of Social and Technical Science in Groundwater Monitoring and Management can be downloaded from the following website:

http://www.sopac.org/CLP+Publications

Groundwater Pollution by Sanitation on tropical Islands

The objective of the Groundwater Pollution by Sanitation on tropical Islands is to review the scientific foundations for managing this issue with particular reference to small tropical islands. This includes a brief assessment of the extent of groundwater pollution by sanitation systems, the nature of contaminants, their fate in the subsurface environment including factors affecting their attenuation, and the methods which have been used to study the movement of sewage contaminants in groundwater. The report concludes with a summary of the options for managing this problem, including sitting, design, and maintenance of sanitation systems, and techniques to undertake site specific studies.

Copies of the Groundwater Pollution by Sanitation on tropical Islands can be downloaded from the following website:

http://www.sopac.org/CLP+Publications
The Pacific Wastewater Policy Statement sets out a framework of guiding principles and policies to guide future development and co-operation by the Pacific Island Countries (PICs).

The Pacific Wastewater Framework for Action comprises a list of proposed actions to be undertaken at national and regional levels to achieve the goals that are laid out in the Pacific Wastewater Policy Statement and which refers to the GPA Strategic Action Plan and Guidance Document on Wastewater (UNEP/GPA, WHO, UNCHS-Habitat & WSSCC).

Copies of the Pacific Wastewater Framework for Action can be obtained from the SOPAC Secretariat (kamal@sopac.org) or you can download the document via the following website:

http://www.sopac.org/CLP+Publications

The Pacific Wastewater Policy Statement

The Global Programme of Action for the Protection of the Marine Environment from Land based Activities (GPA) identifies the priority for action on sewage. In the Pacific region, a consultation process was facilitated by SOPAC, SPREP, PWA and the UNEP/GPA Coordination Office on wastewater management. A Regional Wastewater Management Meeting was held 10-15 October 2001 in Majuro, Republic of Marshall Islands and was the latest in the consultation process, which included preliminary sessions in February and March 2001 in Auckland and Apia. The Majuro meeting was sponsored by the Governments of Belgium, New Zealand and Taiwan/ROC.

The meeting brought together representatives from 15 Pacific Island countries (American Samoa, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, New Zealand, Niue, Papua New Guinea, Palau, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu), technical experts from in and outside the region, regional and international organisations (SOPAC, SPREP, SPC, PWA, WHO, UNESCO, UNEP/GPA), potential donors and NGO’s, to complete the Pacific Wastewater Policy Statement and the Pacific Wastewater Framework for Action.

Copies of the Pacific Wastewater Policy Statement can be obtained from the SOPAC Secretariat (kamal@sopac.org) or you can download the document via the following website:

http://www.sopac.org/CLP+Publications
Third Edition WHO 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:

or WHO's Pacific Regional Office
(IddingsS@sp.wpro.who.int).

World Water Day Material 2005 available: Water for Life

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 (kamal@sopac.org) or Live & learn Environmental Education (marie@livelearn.org.fj). You can download the document via the following website:
http://www.sopac.org/WORLD+WATER+DAY+22+March+2005+-+WATER+FOR+LIFE
Harvesting the Heavens, A Manual for 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 (sarah@sopac.org) or you can download the document via the following website:

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

Harvesting the Heavens, Guidelines for Rainwater Harvesting in 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 (UNDP) demonstrating 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 (sarah@sopac.org) or you can download the document via the following website:

http://www.sopac.org/CLP+Rainwater+Harvesting
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 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 (sarah@sopac.org) or you can download the document via the following website:


**Multimedia**

**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 this DVD can be obtained from the United Nations Development Programme.
Water E-Course Modules

The content of this DVD includes an overview of the major concern related to water use and management. The workshop consisted of a series of lectures which included the status of global water crisis, measures being taken by the global community, issues related to water resource assessment, water sharing, floods and concerns related to dam construction.

Copies of this DVD can be obtained from the United Nations University.

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 this DVD can be obtained from the Global Water Partnership Secretariat.

Cook Islands & Samoa Fresh Water Management

A DVD documentary which follows the pilot projects in the Cook Islands and Samoa fresh water management. The International Water Project ensures that by establishing a good fresh water management plans our water quality would be safe for consumption.

Copies of this documentary can be obtained from the SPREP Secretariat (SteveM@sprep.org.ws).
**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 this documentary can be obtained from the SOPAC Secretariat (sarah@sopac.org).

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**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 (sarah@sopac.org) or the Asian Development Bank (http://www.adb.org/Water/CFWS/Water_Voices_Videos.asp).
Islands and Climate Change

the DVD "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 (sarah@sopac.org) or the Asian Development Bank. (http://www.adb.org/Water/CFWS/Water_Voices_Videos.asp)

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| October 2006 9th-11th | ALL ABOUT KARST & WATER                                                                   | Vienna, AUSTRIA          | The conference provides:  
  - presentations of scientific papers  
  - presentations of applied projects and user experiences  
  - company and product presentations  
  - interdisciplinary discussions  
  - excursions  
For more information please contact office@kater2006.at or visit the website [http://www.kater2006.at/](http://www.kater2006.at/). |
| October 2006 21st-25th | Small Island Nations: Water, Wastewater and Environmental Issues                          | Dallas, Texas            | Subtopics include: Impact of Natural Hazards (floods, tsunami, hurricanes, typhoons) on vulnerable water and wastewater infrastructure; Case studies and lessons learned from the 2004 Boxing Day Tsunami; Appropriate water and wastewater technology for areas with high energy costs and no/low operational base; * Responding to climate change (sea level rise, freak climatological events) in the water resources segment; Applying an integrated water and wastes management approach in small communities and small countries [http://www.weftec.org/program](http://www.weftec.org/program) |
| November 2006 14th-16th | Water in Mining 2006 "Multiple Values of Water"                                          | Brisbane, Australia      | An international conference organised by the Australasian Institute of Mining and Metallurgy in conjunction with the Sustainable Minerals Institute of the University of Queensland. Further information, call for papers and conference registration can be obtained at the conference website - [http://www.ausimm.com/waterinmining2006](http://www.ausimm.com/waterinmining2006) |

### Selected Water Websites

- **ADB Water in Small Island Countries**
- **Pacific ENSO Update**
- **AOSIS Alliance of Small Island States**
  - [www.sidsnet.org/aosis](http://www.sidsnet.org/aosis)
- **Pacific Water Association**
  - [www.pwa.org.fj](http://www.pwa.org.fj)
- **AUSAID**
- **SIDSNET**
  - [www.sidsnet.org](http://www.sidsnet.org)
- **Australian Water Portal**
- **UNEP**
  - [http://freshwater.unep.net/](http://freshwater.unep.net/)
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 sanjeshni@sopac.org to add your contact to our mailing list.

--- Please let us know if you think other websites are worth mentioning here! ---
Send a blank email message with the words "unsubscribe" in the subject field to: sanjeshni@sopac.org to unsubscribe from this list if you wish not to receive any further issues in the future.

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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