



5th WORLD WATER FORUM
I S T A N B U L 2 0 0 9



Pacific sub-regional document of the Asia-Pacific Regional Perspective Document



**Pacific Partnership Initiative
on Sustainable Water Management**

Introduction

The Pacific region is in a period of unprecedented growth in support for the water and sanitation sector, guided largely by three regional strategies developed in the last 7 years through a series of coordinated consultations:

1. The *Pacific Wastewater Policy Statement* and associated *Pacific Wastewater Framework for Action* (2001);
2. The more holistic *Pacific Regional Action Plan on Sustainable Water Management* (2002); and
3. The *Drinking Water Quality and Health Framework for Action* (2005).

The region's geographic, demographic and developmental diversity is as great as the area it covers. But with few exceptions, the people are located in the coastal areas and their lives are influenced by their immediate coastal environment. The ability of this environment at the land and marine interface to sustain the lives of people is extremely fragile and highly vulnerable to both natural hazards and human activities. Urbanisation and tourism, and activities contributing to climate change threaten to overwhelm the supportive capacity of the natural environment and the health of the people.

A recent WHO/SOPAC report on sanitation, hygiene and drinking water in Pacific Island countries¹ revealed that the annual incidence of diarrhoeal diseases in the Pacific nearly matches the numbers of its inhabitants, with 6.7 million cases of acute diarrhoea each year, causing the death of 2,800 people.

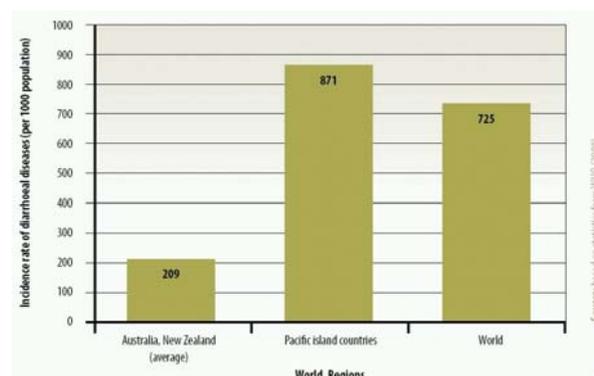
The number of deaths due to diarrhoeal diseases in the Pacific Island countries in 2002, most of them children under five, is equivalent to the crash and death of the passengers of nine jumbo jets a year.

Country statistics on access to improved sanitation and improved drinking-water indicate that on average, approximately only half of the total population of the Pacific Island countries are served with any form of

¹ The Pacific island countries addressed in this report include 14 independent and self-governing countries: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

improved sanitation or drinking-water. Furthermore, drinking-water and sanitation coverage in rural areas of the Pacific Island countries is only about half that of urban coverage².

Figure 1: Incidence rate of diarrhoeal diseases per 1000 population in the developed Pacific countries, the developing Pacific Island countries, and World, 2002



It is clear then that increased efforts are required to achieve the MDG targets of halving the proportion of people without access to safe drinking water and basic sanitation by 2015. The WHO/SOPAC stated that in the remaining years of the Water for Life Decade, efforts will need to quintuple in the Pacific region as compared with the period since 1990, if these MDG targets are to be met.

Main Challenges and Actions

Various regional forums have identified the main challenges and constraints that have hampered drinking-water and sanitation development in the Pacific islands:

1. Pacific Island countries have uniquely fragile water resources due to their small size, lack of natural storage, competing land use, and vulnerability to natural hazards (including climate change) and human activities. This requires detailed water resources monitoring and management and improving collaboration with meteorological forecasting services;
2. Water service providers face challenging constraints to sustaining water and wastewater provision due to the lack of

² Extracted from a WHO/SOPAC report *Sanitation, hygiene and drinking water in Pacific island countries, Converting commitment into action* (WHO, 2008).

both human and financial resource bases, which restrict the availability of experienced staff and investment, and effectiveness of cost-recovery. Future action is required in human resources development and retention, water demand management and improving cost-recovery; and

3. Water governance is highly complex due to the specific socio-political and cultural structures relating to traditional community, tribal and inter-island practices, rights and interests. These are all interwoven with past colonial and 'modern' practices and instruments. These require programmes to develop awareness, advocacy, and political will at all levels to create a framework for sustainable integrated water resources and wastewater management (IWRM).

The above key regional strategies, along with the Pacific Partnership Initiative on Sustainable Water Management, ensure a more coordinated and strategic approach to water and sanitation activities in the region. The Partnership 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 regionally³.

Water Resources: Sustainable Integrated Water Resources and Wastewater Management

Responding to the need to better understand the capacity and vulnerability of relatively small and finite water resources, there is an on-going process across Pacific island countries to improve national capacity in monitoring and assessment of water resources to enable sound decisions for management and planning of water resources.

Whilst many countries have made great progress to realising sustainable development and achieving the MDGs and targets, such endeavours have been generally made through

sectoral approaches. In doing so the competitive demands of different sectors have become difficult to manage, with increasing stress placed upon water resources as pollution increases and populations continue to grow increasing demand on already fragile water resources.

Niue Leads the Way in Mobilising and Adopting Integrated Water Resources Management

As one of the smallest nations in the world sat on top of a large reserve of pure freshwater you may question why integrating water resource management is so important? Niue's unique hydrogeology means that, although they have a large reserve of fresh water and use very little of it, the porous nature of the 'Rock of Polynesia' poses a threat to the groundwater from pollution, such as human and animal waste and fuel spills. Pollution of the fragile groundwater resource would have serious consequences on the health and well-being of this island nation, with no surface water resources to rely on.

Niue Water Works Department and other government agencies have progressed in a wide range of water interventions including hydrology, IWRM, WQM, WDM and WSP, as well as the development of water resources legislation.

Niue will implement two programmes under the Pacific Alliance for Sustainability, the IWRM Demonstration project and the Pacific Adaptation to Climate Change project, as well as the current Sustainable Land Management Project. The IWRM project will focus on integrating land use, water supply and wastewater management around Alofi town to protect the groundwater from pollution sources, and look to minimise polluting surface run-off entering coastal waters.

The temporary National Water Working Committee established for drinking water safety planning will be supported by the EU Water Facility IWRM Planning Programme to formalise the Committee into a broader National Water and Climate Committee, avoiding overlap and duplication between sectors and raising awareness about the cross-cutting issue of climate change.

The Pacific Integrated Water Resources Management (IWRM) Programme is making strides to achieving the MDG's through an intelligent cross-sectoral, multi level approach by focussing on water resources management which also provides an entry point to addressing other inter-related sectors as well such as health, land and coastal management. There are 13 country demonstration projects

³ See <http://www.pacificwater.org>

which will focus on the capture and presentation of on-the-ground IWRM interventions in the areas of Watershed Management, Wastewater Management & Sanitation, Water Resources Assessment & Protection, and Water Use Efficiency & Water Safety. A regional component focuses on national policy reform and improved institutional capacity and change.

The IWRM framework is considered as best approach to adapt to climate change in the water sector and strong linkages between water and climate adaptation is being demonstrated by several Pacific island countries.

Water Services: Drinking-water Quality Management and Sanitation

In 2006, over a half of the Pacific Islands population did not have access to any type of improved sanitation facility (Figure 2). For every eight people in the Pacific island countries only one had access to piped water into their dwelling, plot or yard in 2006 and only 46% had access to any type of improved drinking-water facility (Figure 3)⁴.

Figure 2: Proportion of people using different types of sanitation practices in the Pacific islands, 2006

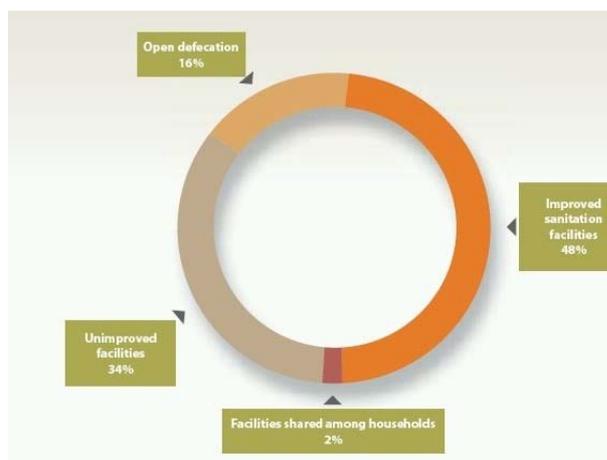
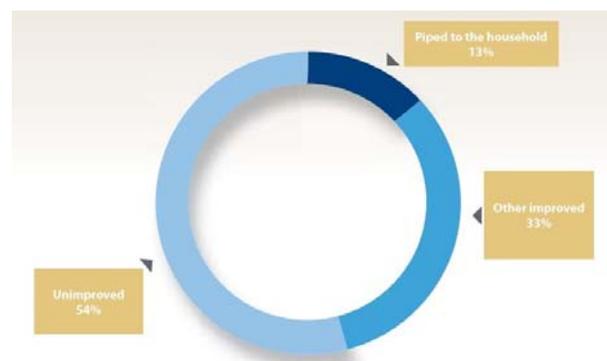


Figure 3: Proportion of people using different types of drinking-water sources in the Pacific island countries, 2006



However, progress is being made. The Pacific Integrated Drinking Water Programme responds to this need to improve with water quality monitoring (WQM) capacity building, drinking-water safety planning (WSP), rain water harvesting and water demand management (WDM) projects throughout the region.

Implementation of the WQM Capacity Building Programme: The Republic of the Marshall Islands

The US Freely Associated States Voluntary Water Quality Laboratory Certification Program recently granted certification to RMI's Majuro EPA water quality testing laboratory for bacterial contamination in both drinking and marine waters. Certification provides assurance that the laboratory provides scientifically valid and legally defensible data, an important aspect of making decisions that affect the health of people and that commit considerable public money. The WQM Capacity Building programme provided assistance with preparations.

Quite a number of Pacific island countries have made, or are making, significant drinking-water, sanitation or stormwater infrastructure investment. **Samoa's** sanitation and drainage projects target improvements in Apia's drainage, sewerage, sanitation and wastewater treatment, and also sanitation facilities for 200 schools and 15 district hospitals. In **Tonga**, improvements include rehabilitating existing drains in the central business areas in Nuku'alofa, constructing of flood relief drains, and developing a stormwater drainage maintenance program. Improvements are also underway for the Nuku'alofa drinking-water supply bore field. The **Cook Islands** is upgrading power, water, and sanitation services and infrastructure on the two main islands. Climate proofing is a key

⁴ Extracted from a WHO/SOPAC report *Sanitation, hygiene and drinking water in Pacific island countries, Converting commitment into action* (WHO, 2008).

feature and aims to reduce climate-related risks in a cost-effective manner. **Tuvalu**, the **Marshall Islands** and **Nauru** are making efforts to maximise their rainwater harvesting potential in order to be more resilient to droughts. The **Federated States of Micronesia** are addressing both water and sanitation under an infrastructure omnibus programme in response to the need to increase the provision of basic services in the four States of Yap, Chuuk, Kosrae and Pohnpei. **Papua New Guinea** is working on increasing the access to water and sanitation for especially the rural population. **Fiji** is currently upgrading their urban water supply and wastewater infrastructure in combination with a reform of the water sector whereas both **Palau** and **Vanuatu** are focusing on securing the safety of their main water supplies in Koror-Airai and Luganville, respectively. Last but not least, **Kiribati** is addressing water and sanitation issues through a climate adaptation programme whilst taking measures to protect their vulnerable water reserve on the main atoll island of Tarawa.

Many urban areas in the Pacific have problems with drinking-water supply because more water is lost through leakage and wastage than they actually deliver. With more pressure on limited resources, many Pacific islands have realised that the key towards sustainability lies not in costly infrastructure extension but in sound management of existing water supplies.

Water Governance, Awareness and Education

Sustainable water and sanitation management necessarily spans a range of institutions. Without clearly defined responsibilities and accountabilities for all stakeholder organisations involved, fragmented and uncoordinated plans and actions stifle progress. Good water governance includes the design of public policies and institutional frameworks that are socially acceptable and have strong societal support. Good governance fosters linkages between institutions, sectors and society through raising awareness, sharing data and expertise and leveraging finances.

A number of countries are developing water policies - **Kiribati** has prepared a draft National Freshwater Resources Policy; **Solomon Islands** have prepared a draft

National Water Policy and reviewed Water Resources Legislation; **Fiji** has drafted a national Water Resources Policy, the Environmental Management Act was recently enacted, and a National Liquid Waste Management Strategy and Action Plan has been prepared. The **Cook Islands** is implementing a Sewage Treatment System Upgrade Program Strategic Plan and have developed Public Health (Sewage) Regulations to improve sewage treatment standards; **Tonga** has drafted a Water Resources Bill and Solid Waste Strategy and started to prepare a National Programme of Action for the Protection of marine Environment from Land-based Activities; a National Water Resources Policy for **Samoa** has been endorsed by Cabinet and is being reviewed, a complementary National Water Services Policy for water services is underway, and a National Water Resources Management Strategy is under-going consultation.

Community involvement is essential in addressing water and sanitation issues, especially where communities are not connected to reticulated systems. There is a huge disparity in sanitation and drinking-water coverage for urban and rural areas in the Pacific island countries, coverage in rural areas hardly reaching a half of the urban coverage⁵. Since less than 10 % of the total population in the Pacific region is connected to a centralised sewerage system, the focus of many wastewater interventions are on introducing appropriate on-site sanitation technologies.

Practical training in eco-sanitation has taken place in **Tonga, Vanuatu, Fiji, Tuvalu** and **Kiribati**, providing community members with sufficient information and practical skills to choose, construct and maintain the most appropriate treatment systems for their needs.

The “Keeping Your Drinking Water Safe Community” toolkit for effective management of drinking-water supplies in Pacific island countries, has been used by Community Trainers, Health Officers, Community Workers, and Facilitators, to raise awareness about the need to keep water clean and promote responsible attitudes, behaviour and actions to ensure safe and lasting drinking

⁵ Extracted from a WHO/SOPAC report *Sanitation, hygiene and drinking water in Pacific island countries, Converting commitment into action* (WHO, 2008).

water supplies. The toolkit contains an Introductory Guide containing background information and annexes, and tools on Conducting a Water Audit, Conducting Sanitary Surveys, Snapshots to Monitoring Water Sources, Water Quality Monitoring Using The Hydrogen-Sulphide (H₂S) Paper-Strip Test, Water Awareness and Education, Water Management Actions, and a Comic and Paper-strip test Instruction Flipchart.

Co-ordinating and refocusing of donor programmes

With the regional support and capacity building programmes being relatively well established and funded, there is now an increased need to focus on implementation at the national and local levels. Harmonisation of donor agency programmes, as well as prioritization of water and sanitation in the national political agendas, is in this respect key to maximize the impact of actions to date.

To assist Pacific island countries address (among other things) water and sanitation, infrastructure requirements, NZAID, AusAID, the World Bank Group and the Asia Development Bank have partnered to develop the Pacific Region Infrastructure Facility (PRIF). The PRIF will respond to requests for support based on Pacific island country plans and priorities, considering both new investments and maintenance needs. The facility aims to strengthen the local private sector to undertake new works and ongoing maintenance of infrastructure to help grow the domestic private sector and create long term employment opportunities.

Under the **Water Sector Support Programme the Government of Samoa** has been working to improve the quality of public health through improved water services and sustainable water resource management. Implemented through four agencies in Samoa, and running from 2005 to 2012 the €20m programme has already made significant progress.

At the 1st Annual Joint Sector Review meeting stakeholders from Government, community organisations, donors and regional agencies were invited to review progress against the six objectives of the Water Sector Support Programme facilitated by a Water Sector Management Unit. The joint review meeting provided an opportunity to evaluate current and future projects including the ADB funded Samoa Sanitation and Drainage Project, and

the Pacific HYCOS and IWRM projects, designed to improve the collection, storage and analysis of hydro(geo)logical data to improve water management as small islands face increasing climate variability.

Participants were able to provide recommendations on the water sector performance indicators in order to keep monitoring to a realistic, achievable, and cost-effective level. Significant progress has been made in Samoa regarding development of water management, with the launch earlier this year of the Water for Life document to guide the medium term development of the water sector in Samoa. The challenge now is to put the plan into action and reap the benefits of improved water management for all Samoans.

Way Forward

The Pacific region has made good progress since the 4WWF in 2006, and has numerous regional and country-specific examples of actions to share and learn from. The sustainable IWRM approach adopted by many countries recognizes the challenges and constraints of the Pacific region with the objective of improving water resources management and water use efficiency through improved collaboration and is seen as best approach to adapt to climate change in the water sector.

Significant progress has been made in forming intergovernmental department committees to oversee and coordinate the development of national policies and frameworks. There is now an increased need to focus even more on implementation at the national and local levels, and in urban and rural settings.

Implementation requires agencies to work together, adequate national technical and managerial capacity, financial assistance, and buy-in by all peoples to the importance and practices of sustainable integrated water management.

Implementation needs to be supported by a framework for monitoring and evaluation of investments and outcomes. This information is invaluable for national sustainable development planning and sectoral strategic planning and to determine best practices which need to be replicated.

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The establishment of national sanitation, hygiene and drinking-water assessments should be promoted taking into account the need to conduct such assessments within the perspective of sustainable integrated water resources management.

A sound sanitation and drinking-water monitoring and evaluation system should be developed for the Pacific island countries, capable of collecting, analyzing and disseminating population based information on access to sanitation and drinking-water in close collaboration and consultation with the WHO and UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP).

If the MDG targets on water and sanitation are to be achieved additional resources have to be made available to the water sector in the Pacific even requiring a five-fold increase over the remaining years of the Water for Life Decade.

The challenges at the regional and international level include:

1. Co-ordination and refocusing of donor programmes and project design to assist Pacific Island countries to develop water resources management capacity and to implement projects to improve the environmental sustainability of water supply and wastewater services, consistent with both regional priorities and individual country challenges;
2. Co-operation between existing regional agencies in the development of water sector related programmes and technologies; and
3. Regional level support for national capacity building, advocacy and awareness.

In 2006 Pacific Leaders agreed that the water, sanitation and hygiene challenges facing the region should be critical priorities of the Pacific Plan and addressed through implementation of the Pacific Regional Action Plan on Sustainable Water Management (RAP). In December 2007, Pacific Leaders attending the Asia Pacific Water Summit in Japan reiterated their commitment to the provision of adequate sanitation and safe drinking-water for their people.