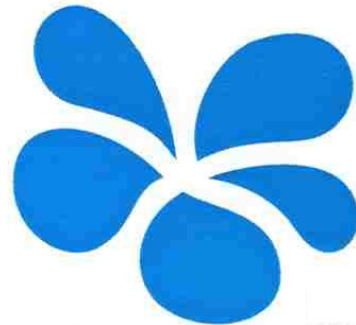


SOPAC



Pacific Islands Applied Geoscience Commission

From Vision to Action



Pacific Partnership Initiative on Sustainable Water Management

Bora Bora, French Polynesia, 13 November 2007

SOPAC

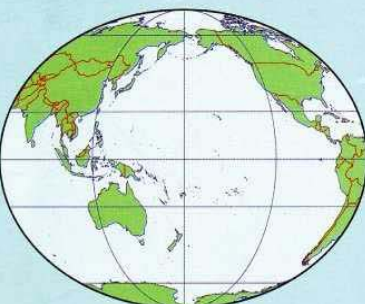
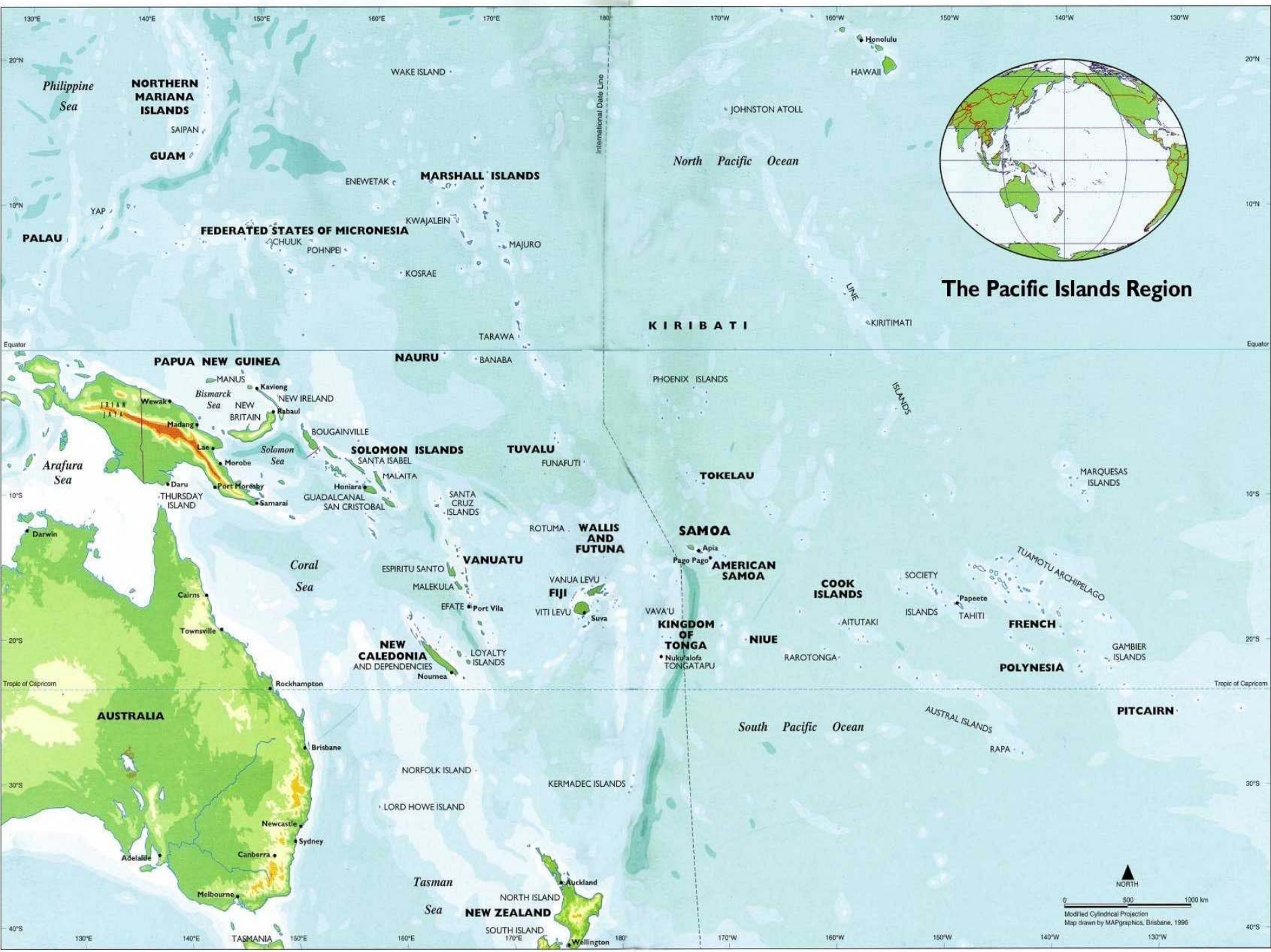
Marc Overmars, Water Adviser



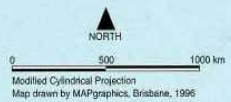


Pacific Island Water Issues





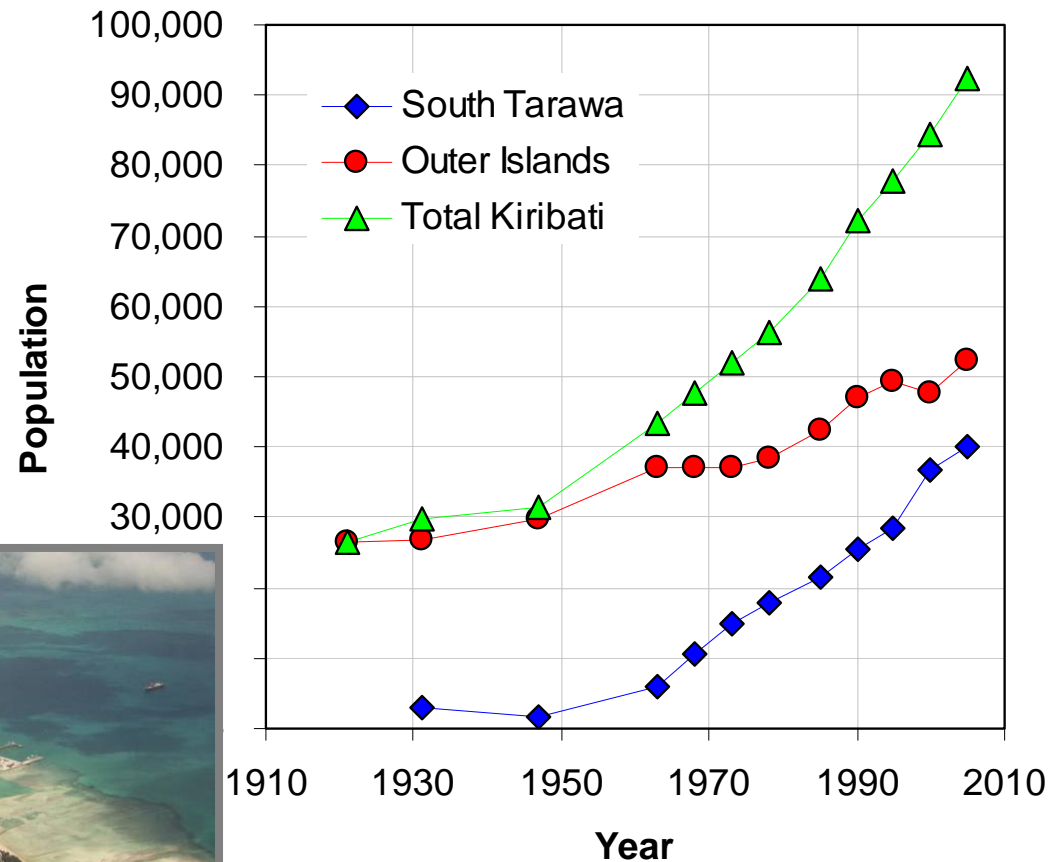
The Pacific Islands Region



Limited Resources



Urbanization and Inward Migration



Vulnerability to Climatic Extremes



FLOOD

REMEMBER the risk

RESPECT the river

BE ALERT

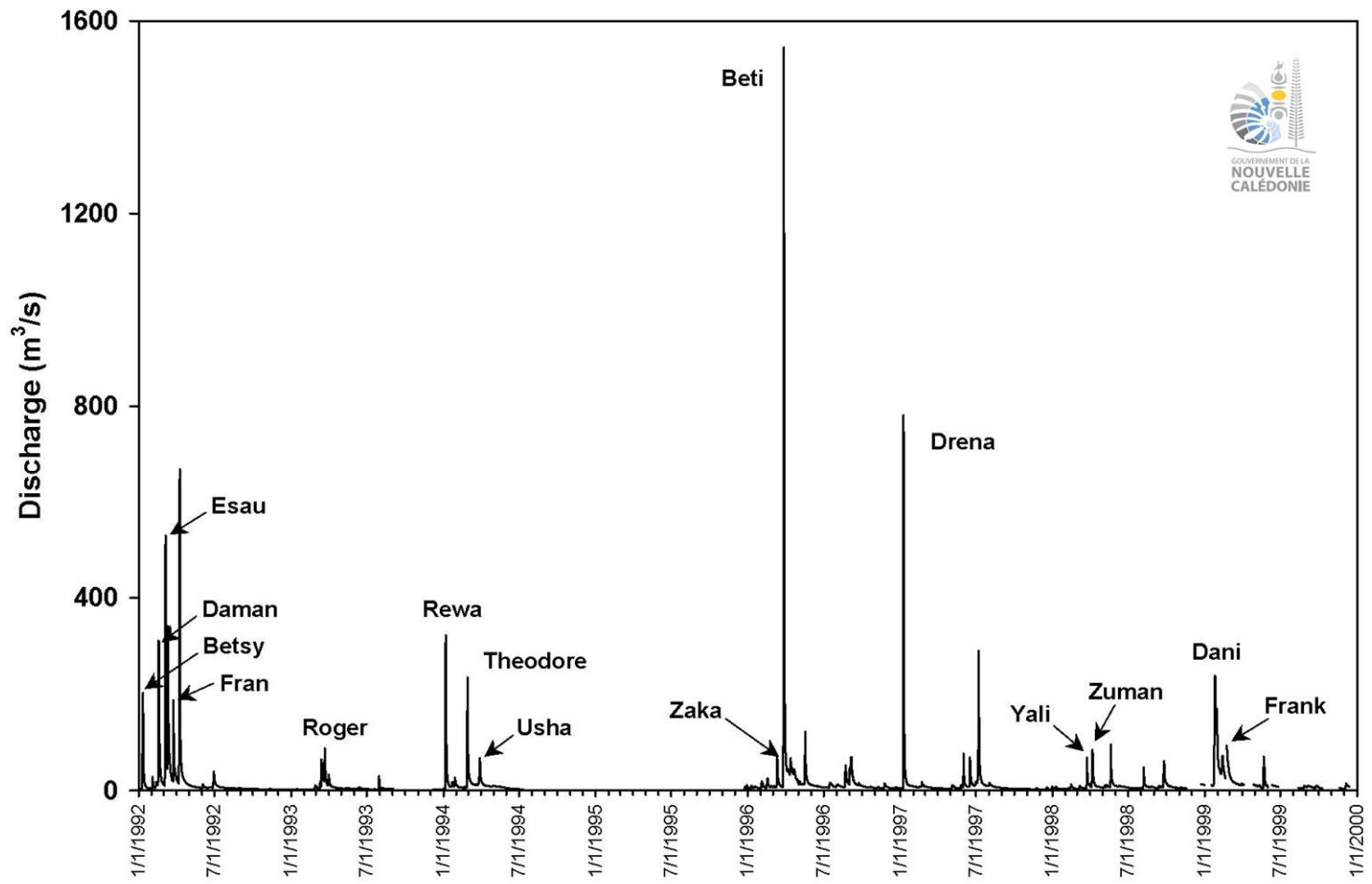
BE PREPARED



Vulnerability to Flash Floods

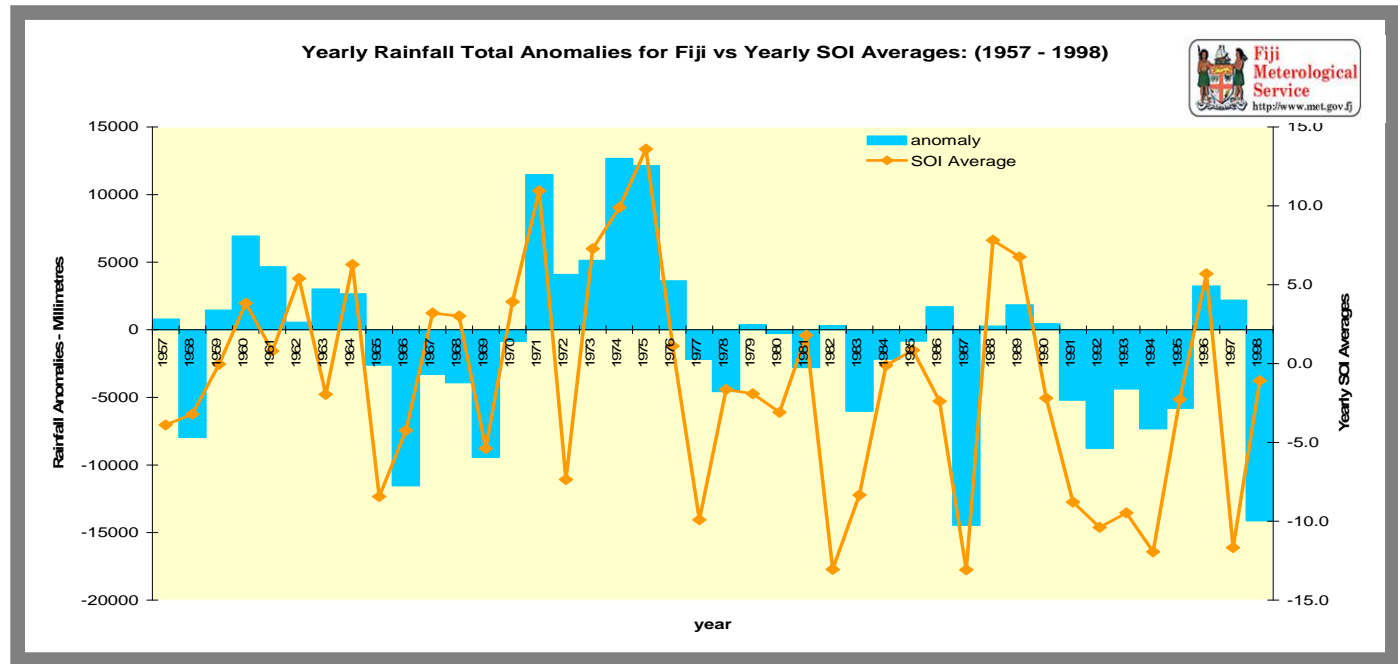


Vulnerability to Cyclones



Source: Observatoire de la Ressource en Eau, Nouvelle-Calédonie

Vulnerability to El Niño Droughts



Source: Fiji Meteorological Service

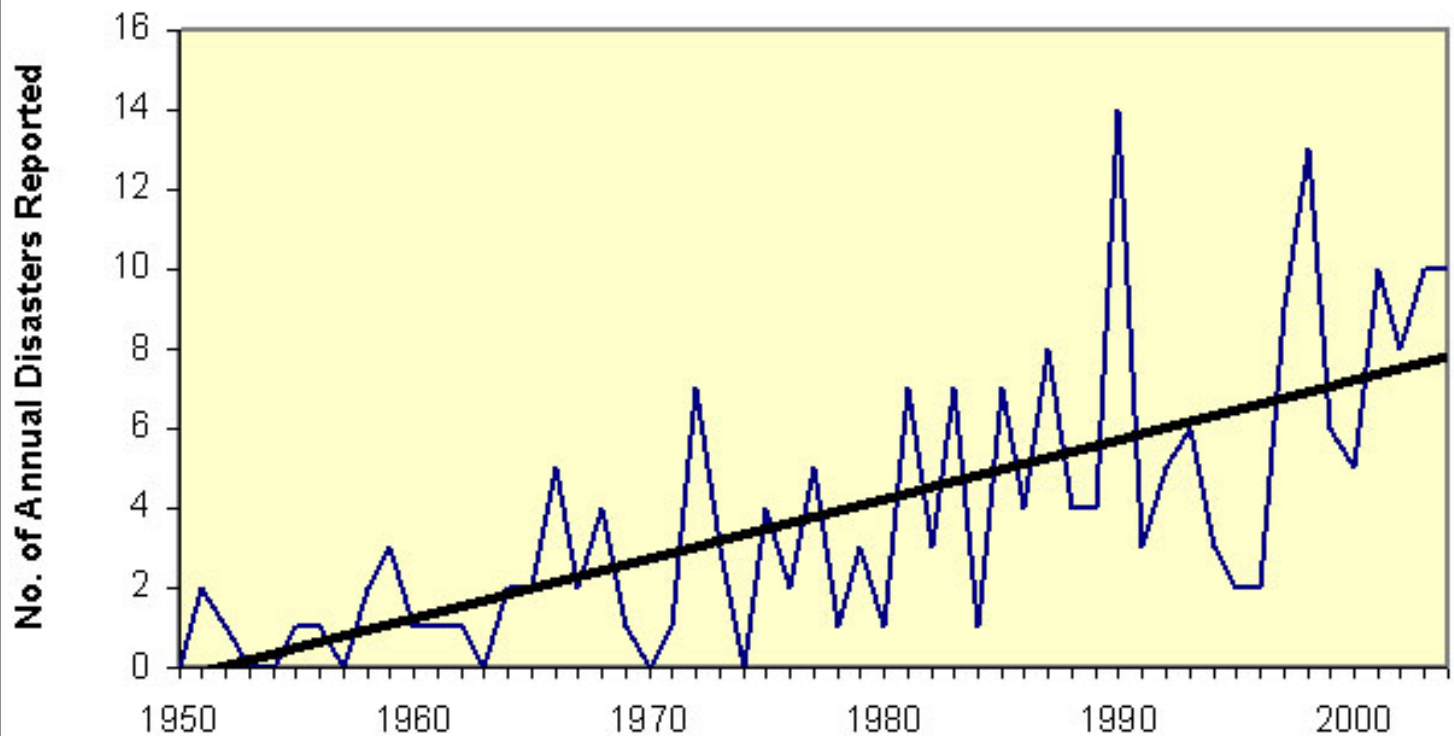
Vulnerability to Climate Change



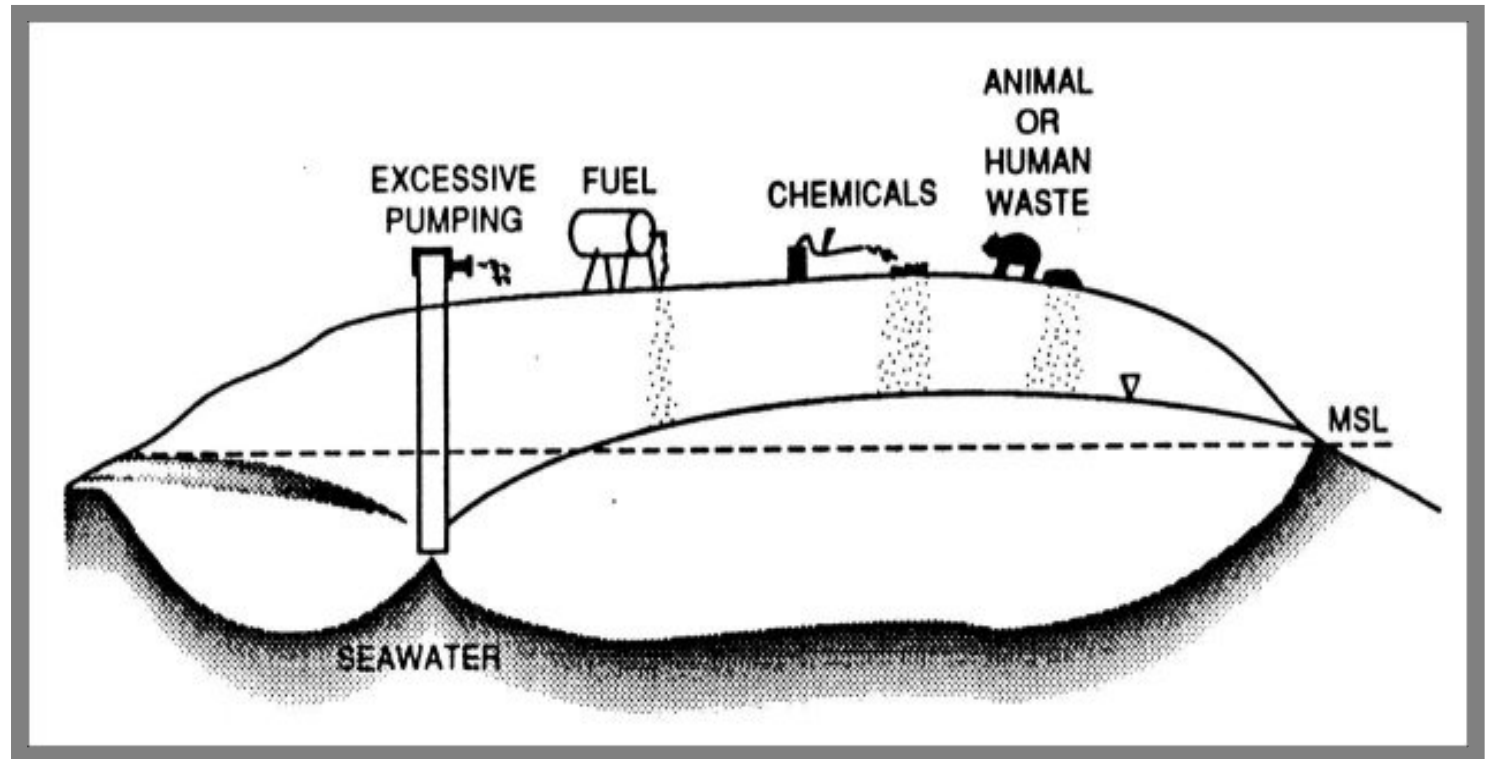
Frequency of Natural Disasters



Trends in No. of Disasters Reported in the Pacific Island Region, 1950-2004



Vulnerability to Pollution

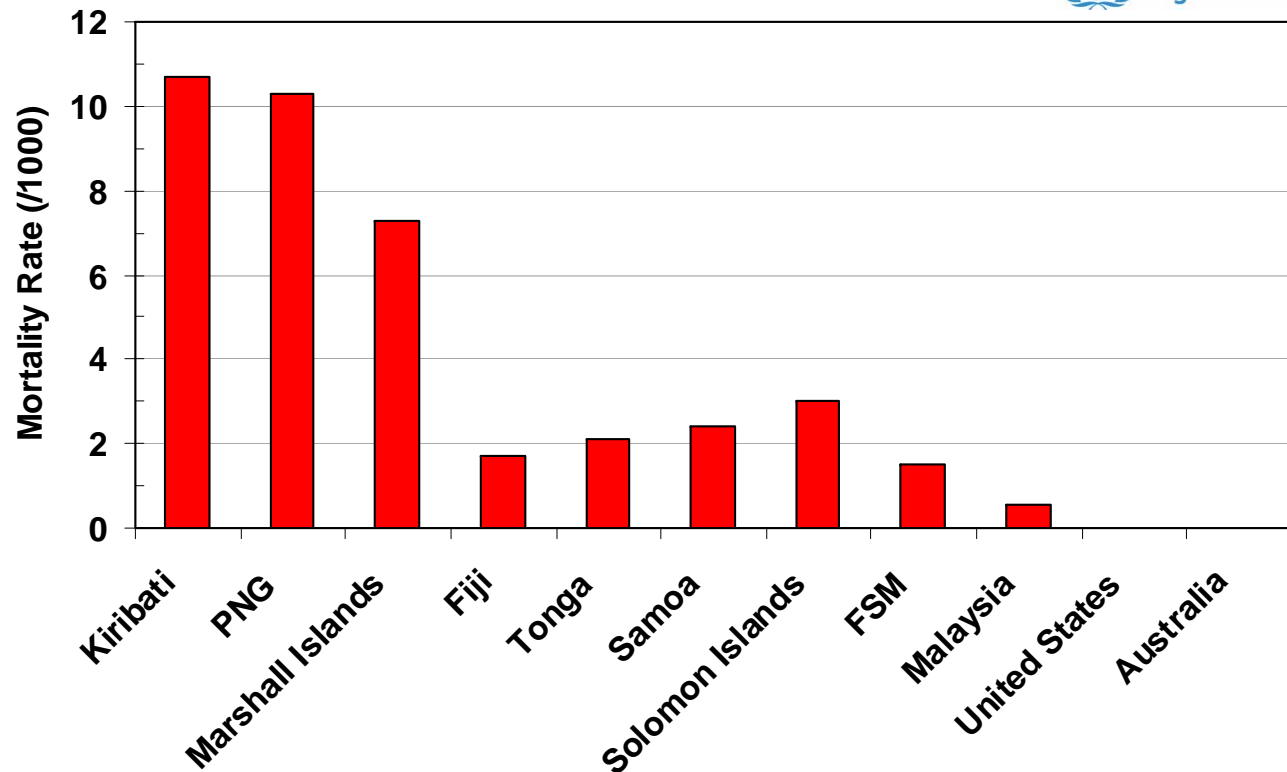


Water Safety

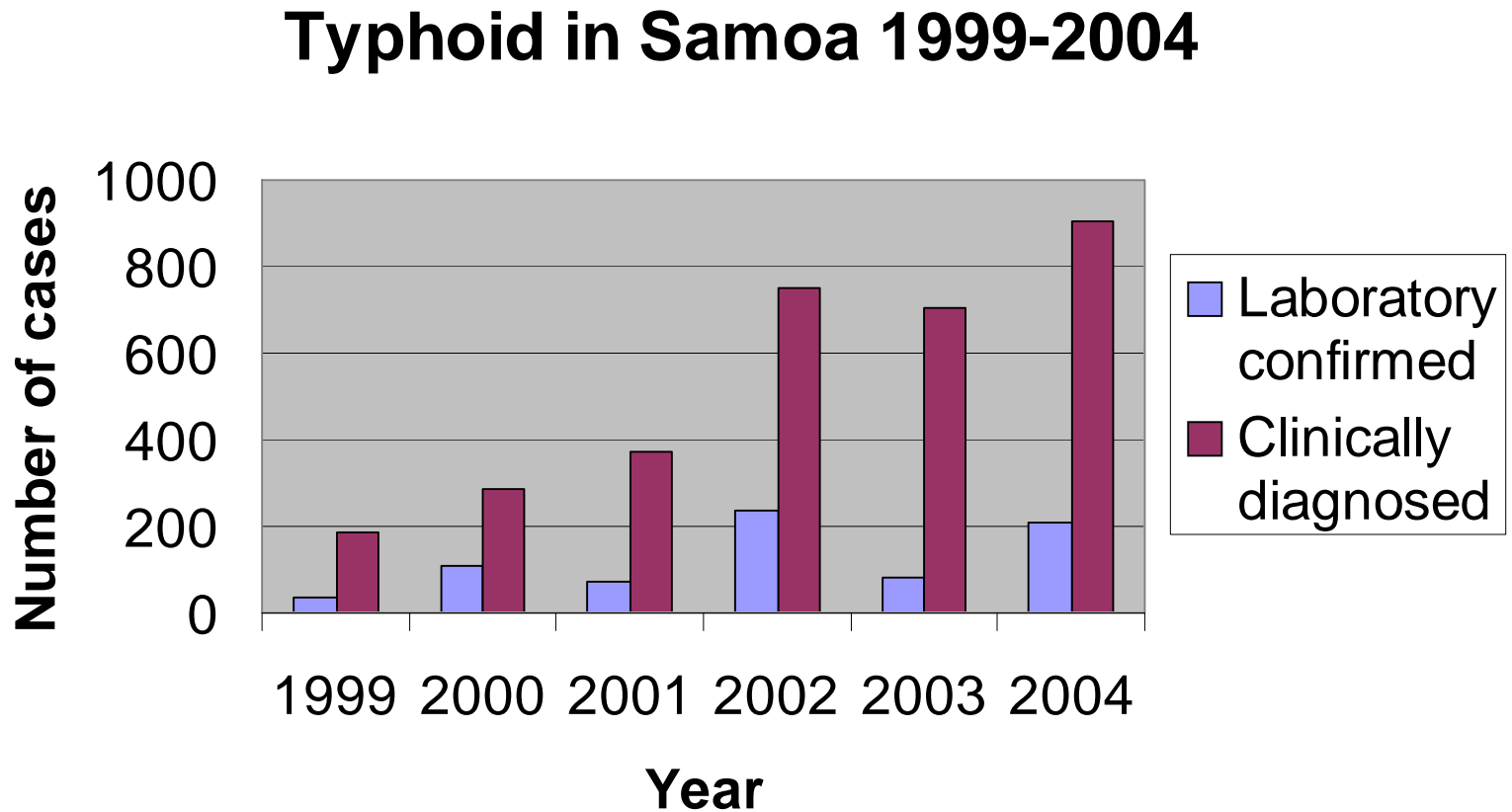


Diarrhoea

Infant mortality rate caused by Diarrhoeal diseases
(/1000)



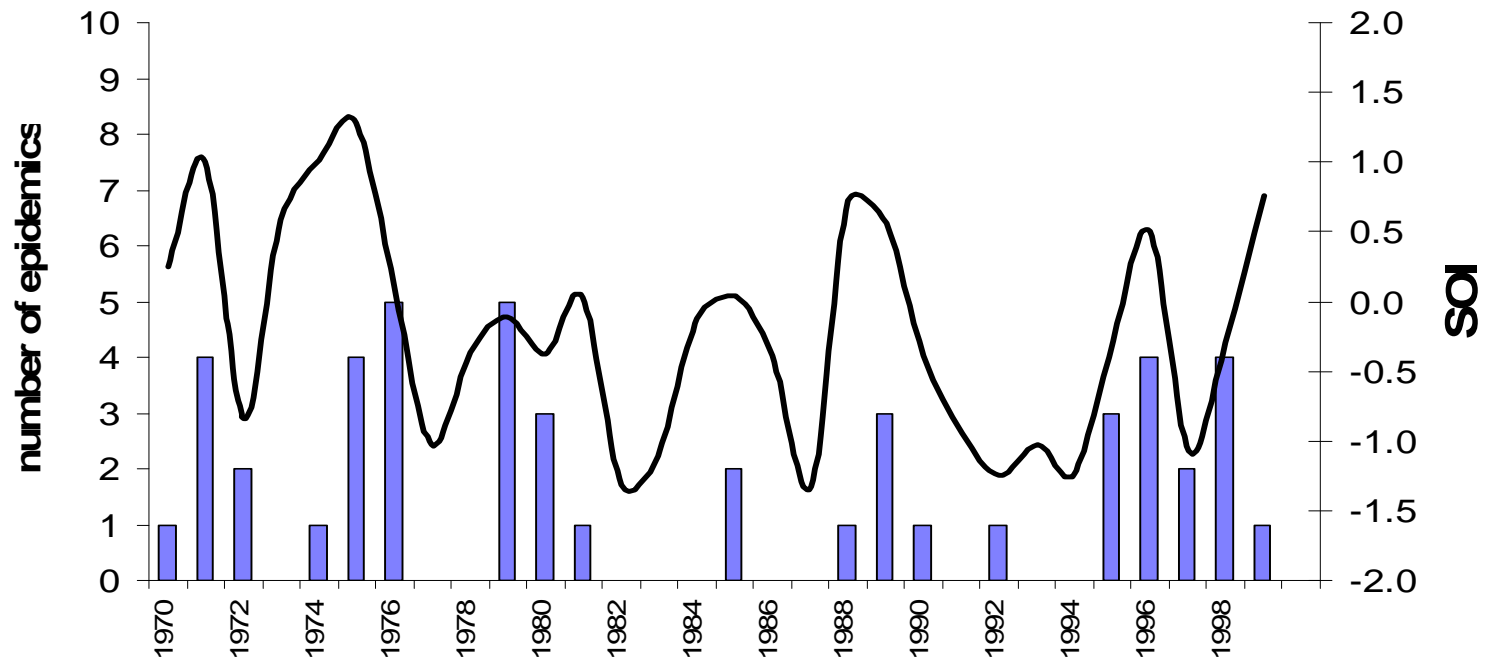
Typhoid



Dengue



Dengue epidemics in the South Pacific 1970-1998 vs El Niño



Source: Fiji School of Medicine

Limited Awareness

When do we need to test our drinking water?



Whenever we get our water from streams, wells, water tanks or any other source other than a government monitored water treatment plant, the water



needs to be boiled.....



or tested.....

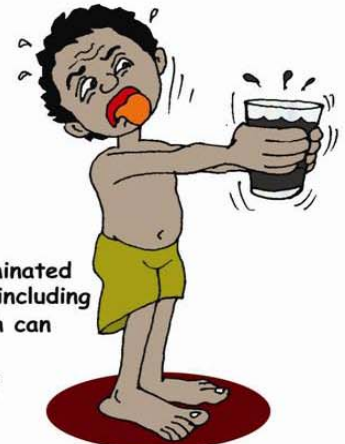


Otherwise it would be the same as taking our water out of our toilet.....



The water may look clean.....

but it is in fact contaminated by dangerous bacteria including the coliform type which can cause the spread of water-related diseases like diarrhoea, typhoid and many more.



Limited Water Delivery



AND YOU THOUGHT I WAS GONE
FOREVER !!!



Economic Development = Sustainable?



Overarching Constraints

- ❖ Uniquely **fragile water resources** due to small size, lack of natural storage, competing land use, vulnerability to natural & anthropogenic hazards, including drought, cyclones and urban pollution
- ❖ Water & wastewater service providers constrained by lack of **human and financial resource bases**, restricting the availability of experienced staff and investment, and effectiveness of cost-recovery
- ❖ Highly complex water governance due to the **disconnect between traditional community and national administration** practices and instruments



Strategic Regional Milestones

Event	Venue, Year	Organisers	Major Outcomes
Pacific Wastewater Consultation	Majuro, 2001	SOPAC/SPREP/PW A/GPA	Policy and Framework
Sustainable Water Management in the Pacific	Sigatoka, 2002	SOPAC/ADB	Pacific RAP
World Summit on Sustainable Development	Johannesburg, 2002	United Nations	Pacific Partnership
3 rd World Water Forum	Kyoto, 2003	ADB/DWC/SOPAC/CEHI	SIDS Portfolio of Water Actions
Drinking Water Quality & Health	Nadi, 2005	WHO	Framework for Action
BPOA+10	Mauritius, 2005	United Nations	Mauritius POI
3WWF Review	Apia, 2005	SOPAC/JWF/PWA	4WWF Position Paper
4 th World Water Forum	Mexico, 2006	SOPAC/JWF	Asia Pacific Water Forum



Pacific Regional Action Plan on Sustainable Water Management

Thematic Areas

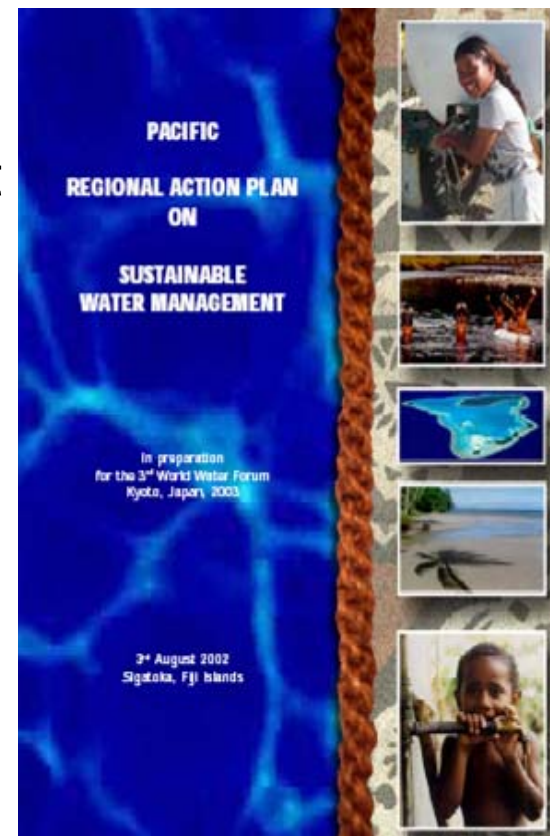
1. Water Resources Management
2. Island Vulnerability
3. Awareness
4. Technology
5. Institutional Arrangements
6. Financing

Key Messages

Priority Actions

Endorsed by 16 Heads of State, August 2003

Pacific Partnership Initiative





1 Water Resources Management

- Pacific HYCOS
- Water Quality Monitoring
- Hydrological Training
- Rainwater Harvesting
- Catchment Management
- Rural Water Supply
- Virtual Water Learning Centre

2 Island Vulnerability

- Water and Climate Dialogue
- Flood & Drought Forecasting
- Island Climate Update
- Climate Predictions
- Disaster Preparedness
- Climate Adaptation

3 Water, Sanitation & Hygiene (WASH)

- Awareness
- Behaviour Change
- World Water Day
- Community-based Monitoring
- Community Participation
- Gender
- Advocacy

4 Technology

- Water Demand Management
- Water Quality Monitoring
- Wastewater Management
- Water Safety Plans
- Leak Detection
- Appropriate Technologies
- Conservation

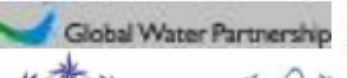
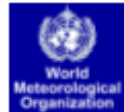
6 Finance

- Water Demand Management
- Benchmarking
- Economic Analysis
- Costs and Tariffs
- Donor Harmonisation
- Financing Institutes

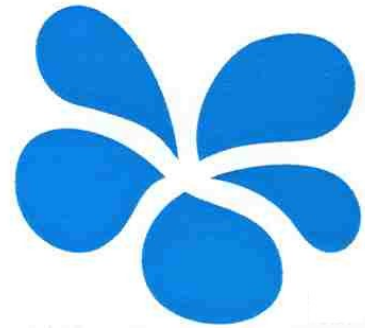
5 Institutional Arrangements

- Water Governance
- Integrated Water Resource Management
- National Planning
- Policy
- Legislation





Partnership Members

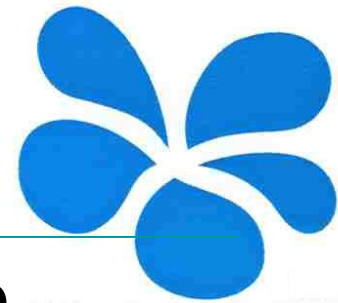


- ❖ Governments
- ❖ Communities
- ❖ Intergovernmental Organisations
- ❖ Universities
- ❖ Capacity Building Institutes
- ❖ Non-Governmental Organisations
- ❖ Community Based Organisations
- ❖ Research Institutes
- ❖ Donor Agencies
- ❖ Global Partners



TUVALU





Monitoring of Actions

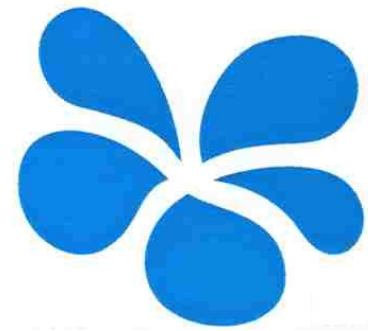
- ❖ Pacific Partnership Initiative on Sustainable Water Management
- ❖ Strengthening and building of partnerships on Water and Wastewater in the Pacific region: Regional Network
- ❖ Coordination Unit supported by

SOPAC

and **ADB**



Governance Arrangements



Establishment of Type II Partnerships

- Council of Regional Organisations in the Pacific
- Facilitators CROP Appointed (SOPAC and USP)

Steering Committees

- 1st SC, January 2004
- Action Review, 3WWF Oceania, March 2004
- Action Review, 4WWF Oceania, September 2005
- 2nd SC, September 2006
- Action Review IWRM Diagnostic Reports, 2007
- 3rd SC, September 2008 (tbc)

Coordination Unit

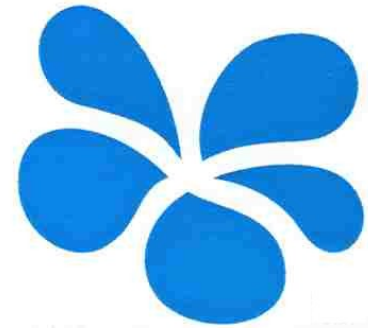
- Partnership Facilitator and Communication Officer



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Coordination Unit Main Roles



❖ Regional Clearing House

- Newsletter
- **Action Matrix** in Database Format
- Dedicated Website
- CD Roms
- Tele-conferencing, E-groups

Funding: ADB (2005-2006)
SOPAC (2007)
EU WF & GEF (2008-2012)

❖ Advocate for Implementation of RAP

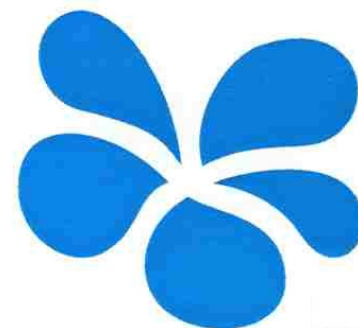
- Input to International and Regional Forums
- Assist in National Level Implementation of RAP
- Promotion of National Water Partnerships
- Promotion of Technology Transfer by Buddy System

❖ Link to Donor Community ~ Donor Harmonization

❖ Coordinating Capacity Development



Pacific Priority Water Actions



NZAID

Island Climate Update ([NIWA/SOPAC](#))

Water Demand Management Programme ([PWA/SOPAC](#))

Water Quality Monitoring Programme ([WHO/SOPAC/USP](#))

AusAID

Water Safety Plan Programme ([WHO/SOPAC](#))

GPA/UNEP

Wastewater Management ([SOPAC/USP/SPREP](#))

EU Water Facility

Pacific HYCOS ([WMO/UNESCO/SOPAC](#))

Pacific IWRM Planning Programme (SOPAC and partners)

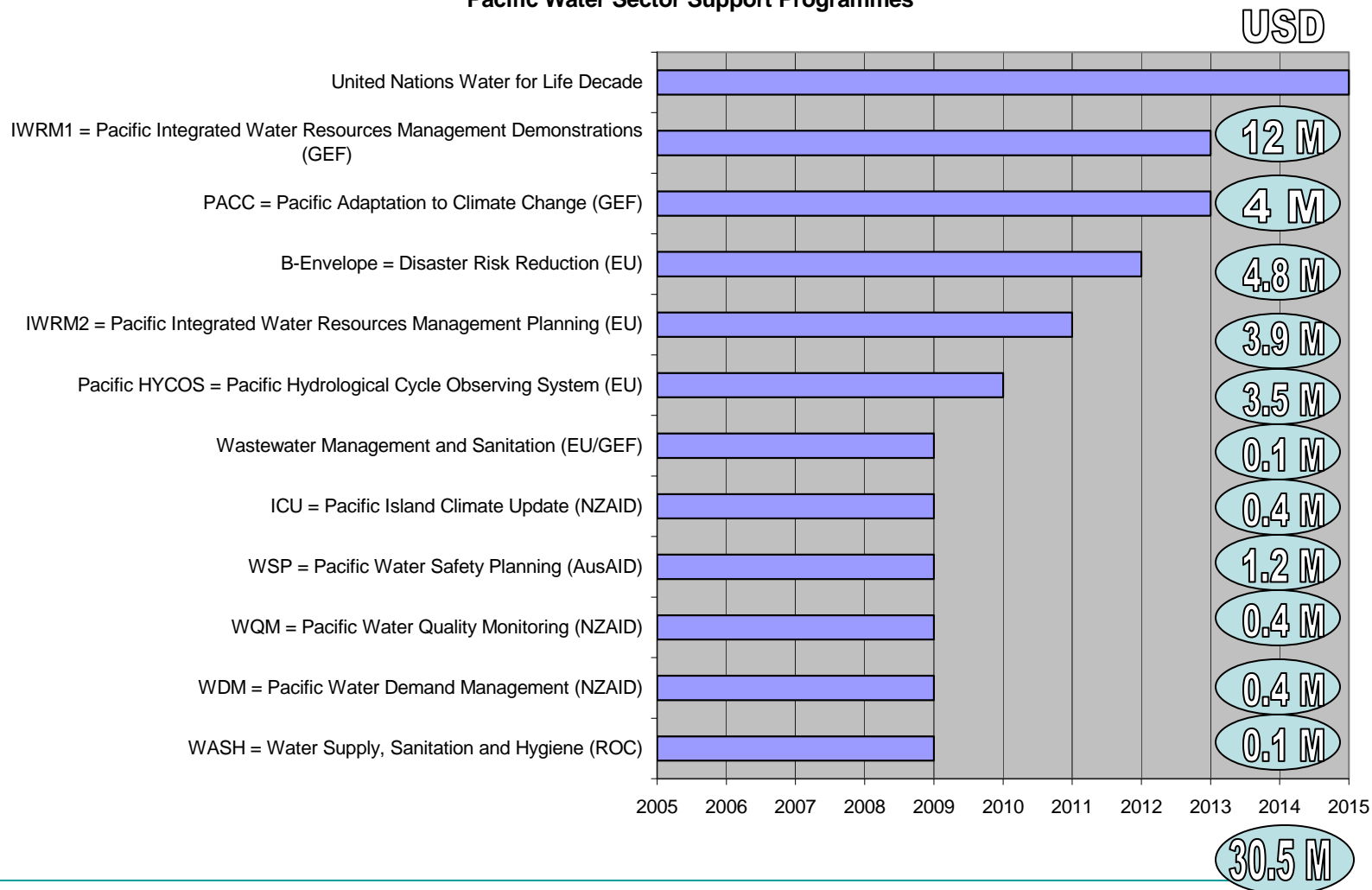
Global Environment Facility

Pacific IWRM Programme ([UNDP/UNEP/SOPAC](#))

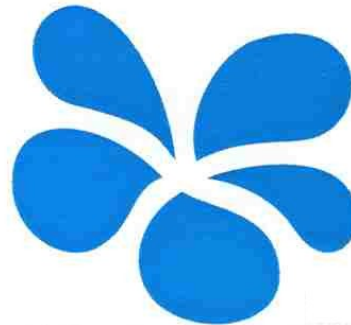


Regional Actions in the Water for Life Decade

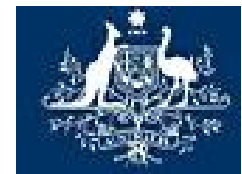
Pacific Water Sector Support Programmes



Pacific Regional Action Plan on Sustainable Water Management



National and Regional Partnership Actions



TUVALU



IWRM an intelligent strategy for adaptation (GWP, 2007)

GEF-funded IWRM **Demonstration** Projects EU Water Facility-funded IWRM **Planning** Programme

Based on the Pacific Regional Action Plan the two programmes will promote IWRM in 14 Pacific Island Countries (2008-2012)

Adaptation to Climate

Drought proofing
Flood and Ecosystem Management
Reducing Environmental Stress
Managing and Monitoring Resources

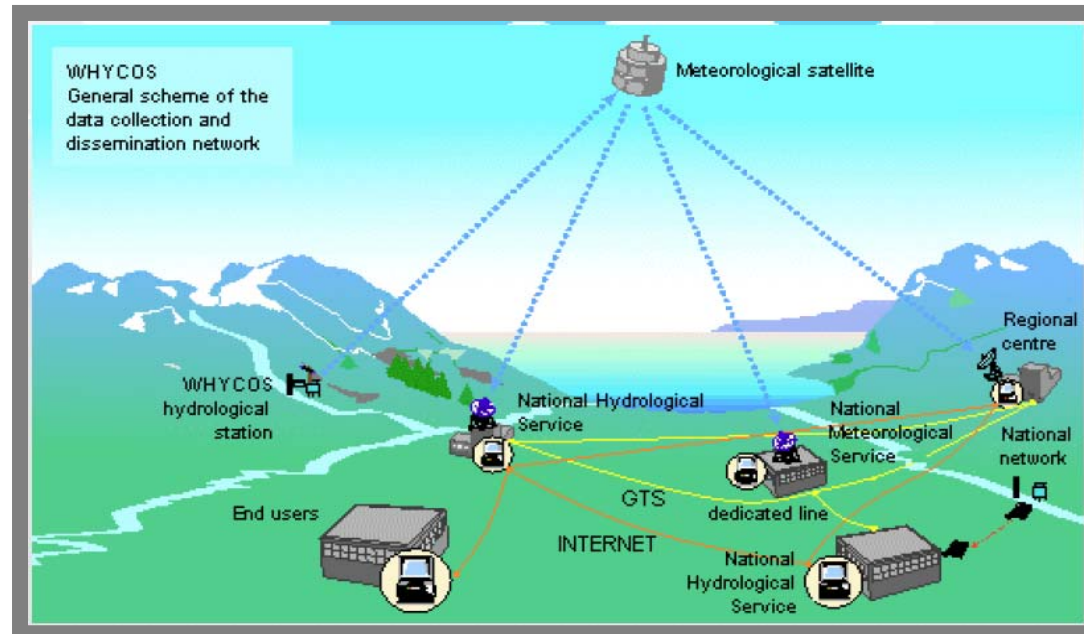
Total amount = 55 M USD
EU 2.8 M Euros
GEF 12 M USD
Co-fin > 40 M USD

Future Targets

2007 Submission Full Sized Project to GEF Council (April)
2008 Start IWRM Project implementation
2009 Complete National IWRM Plans



Pacific HYCOS (2007-2009)



WHYCOS

WORLD HYDROLOGICAL CYCLE OBSERVING SYSTEM

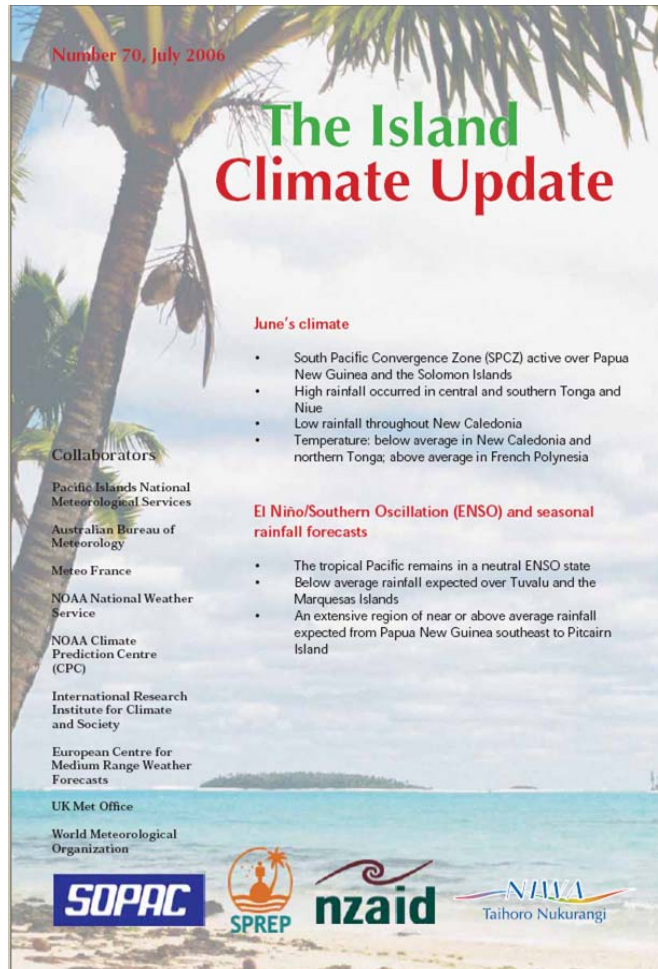


Pacific HYCOS Components

1. Flood forecasting capability
2. Water resources assessment in major rivers
3. Water resources databases
4. Drought forecasting
5. Groundwater monitoring and assessment
6. Water quality monitoring and assessment



Island Climate Update and Prediction

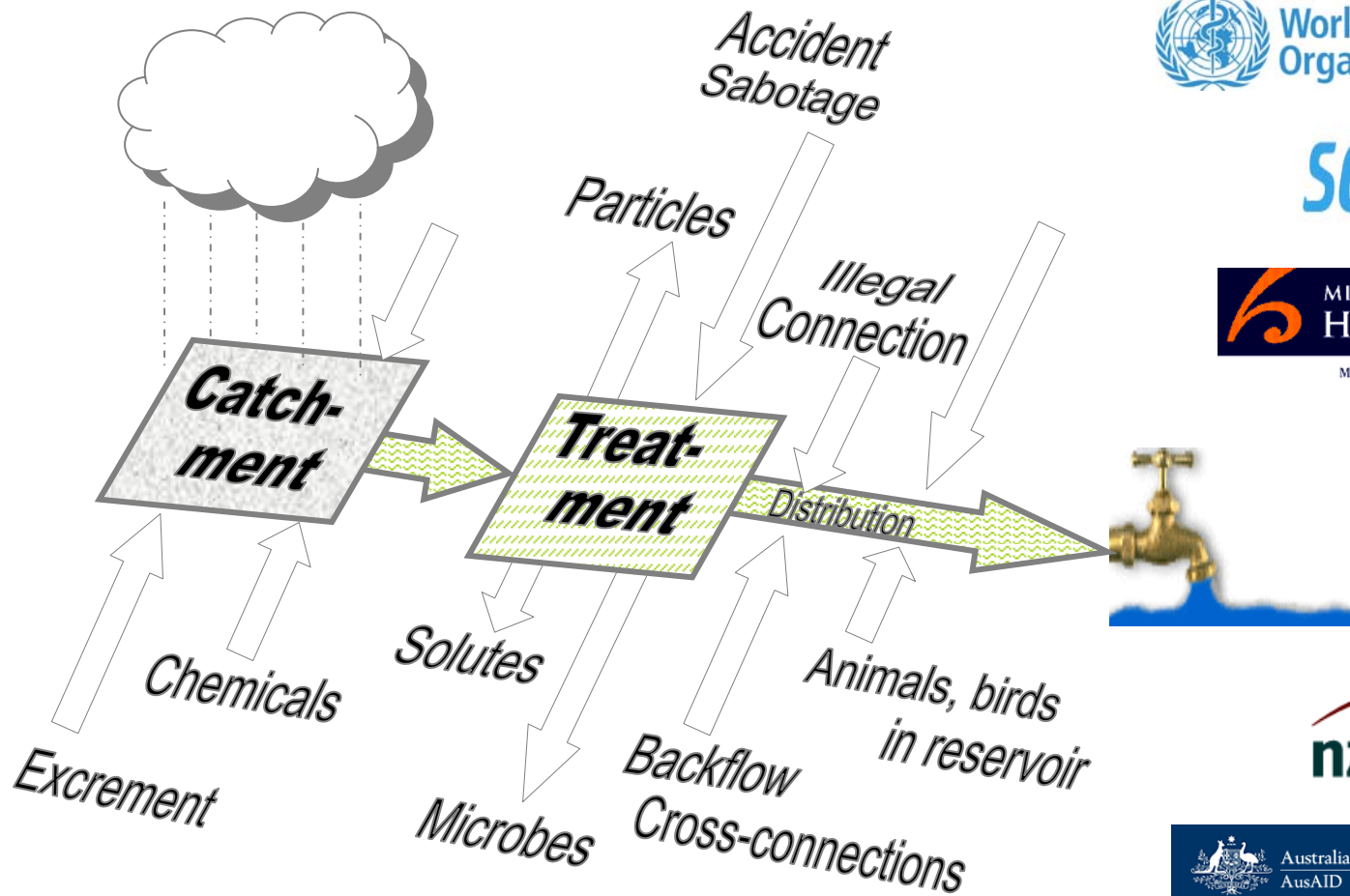


ICU - To enhance planning processes in climate sensitive sectors through increased access to accurate climate forecasting information

PI-CPP - Pacific Island Climate Prediction Project (PI-CPP) is facilitating the linkage between NMSs and end users (including the water sector) for making climate-sensitive decisions through a Seasonal Climate Outlook prediction model for Pacific Island Countries



Water Safety Planning



Regional Water Quality Database





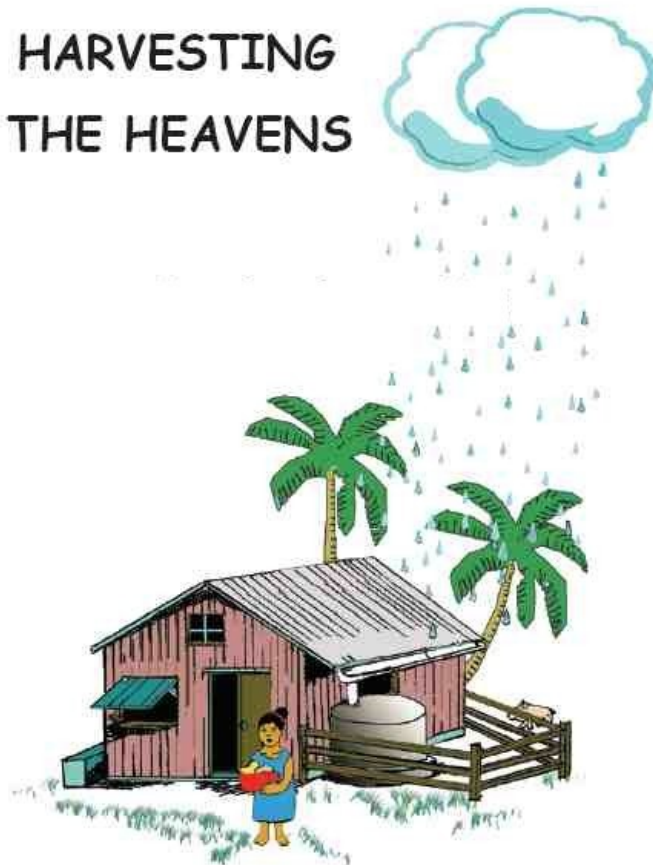
WATER DEMAND MANAGEMENT PROGRAMME FOR PACIFIC ISLAND COUNTRIES

2006-2009



Rainwater Harvesting

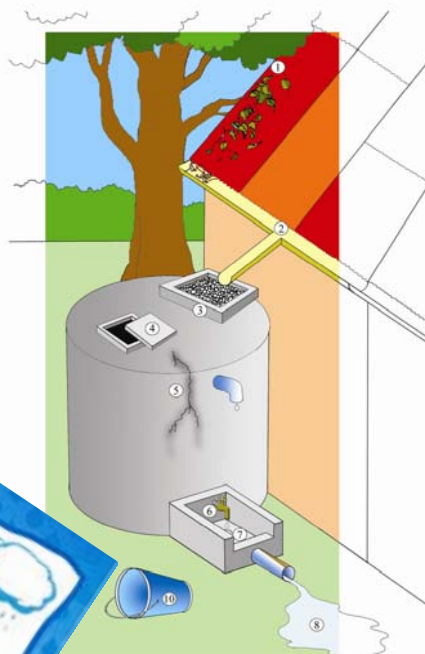
HARVESTING THE HEAVENS



Community-Based Water Quality Monitoring

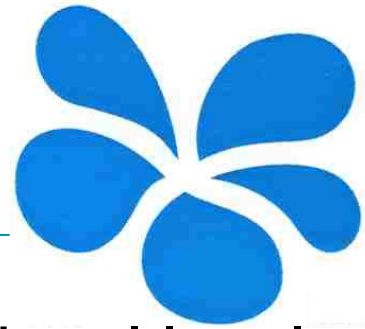


Sanitary Surveys for Rainwater Harvesting



II	Specific diagnostic information for assessment	Risk
1.	Is there any visible contamination of the roof catchment area (plants, dirt, or excreta)?	Y/N
2.	Are the guttering channels that collect water dirty?	Y/N
3.	Is there any deficiency in the filter box at the tank inlet (e.g. lacks fine gravel)?	Y/N
4.	Is there any other point of entry to the tank that is not properly covered?	Y/N
5.	Is there any defect in the walls or top of the tank (e.g. cracks) that could let water in?	Y/N
6.	Is the tap leaking or otherwise defective?	Y/N
7.	Is the concrete floor under the tap defective or dirty?	Y/N
8.	Is the water collection area inadequately drained?	Y/N
9.	Is there any source of pollution around the tank or water collection area (e.g. excreta)?	Y/N
10.	Is a bucket in use and left in a place where it may become contaminated?	Y/N
Total score of risks		/10
Contamination risk score:		9-10 = very high; 6-8 = high; 3-5 = intermediate; 0-2 = low

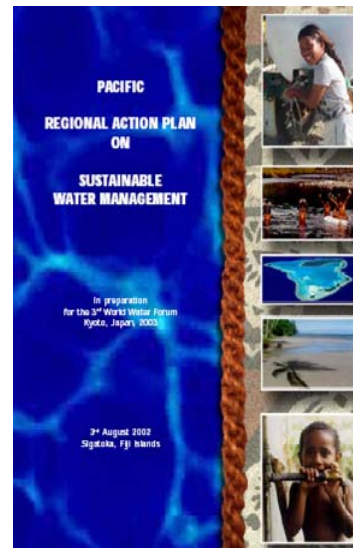
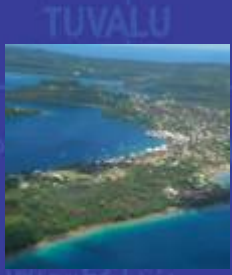
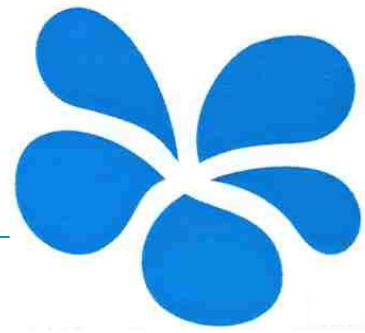
Future Challenges



- ❖ Promote investment on local and national level
- ❖ Inclusion of Water and Sanitation in National Sustainable Development plans and strategies
- ❖ Develop National IWRM Plans and demonstrate IWRM Island Style in catchments and aquifers
- ❖ Monitor progress in achieving the MDG targets
- ❖ Setting up of a regional IWRM Indicator and M&E framework
- ❖ Integrate IWRM/WSP with National Disaster Preparedness and Climate Adaptation efforts
- ❖ Advocate for Political Will



Political Will



Asia-Pacific
Water Forum

