



**SOPAC**

**Consultation Meeting of  
Stakeholders in Sewage Management**

**2 February 2001  
Auckland, New Zealand**

*SOPAC Miscellaneous Report MR425*

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**Suva, February 2001**

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## **INTRODUCTION**

In the framework of the Global Programme of Action for the protection of the marine environment from land-based activities (GPA), SPREP and SOPAC are collaborating in developing an action plan on sewage management for the Pacific.

An overview on land-based pollutant sources and activities affecting the marine, coastal and freshwater environment in the Pacific Islands Region has been produced and can be found in the UNEP Regional Seas Reports and Studies No.174. In this study sewage was indicated as one of the major source of pollution in almost every country in the Pacific and was consequently indicated as a priority for action.

Together with the GPA/UNEP Coordination Office, SPREP and SOPAC will join forces in organising a Regional Meeting for Stakeholders in Wastewater Management in the Pacific. The objective of the meeting will be the preparation and endorsement of a regional framework for action.

A consultation meeting was held in Auckland on 2 February 2001 to discuss the need and objectives of such a regional meeting and determine which strategy will be followed to develop a Strategic Action Plan.

The meeting was financially supported by NZODA through their office in Suva, Fiji. The New Zealand Water and Wastewater Association (NZWWA) generously offered to host the meeting in Auckland. The assistance of both institutes in facilitating this meeting is gratefully acknowledged.

## AGENDA

### *Thursday 1 February 2001*

18:30 – 19:30 Welcome reception (hosted by Ecowater and the New Zealand Water and Wastewater Association (NZWWA))

### *Friday 2 February 2001*

	08:00 - 08:45	Registration
Session 1	08:45 - 09:15	Opening presentations
Session 2	09:15 - 10:15	Need and Objectives of a Regional Meeting
	10:15 - 10:30	Tea/coffee break
Session 3	10:30 - 12:00	Discuss Programme Regional Meeting
	12:00 - 14:00	Lunch
Session 4	14:00 - 15:30	Work plan for the Regional Meeting
	15:30 - 15:45	Tea/coffee break
Session 4 contd.	15:45 - 16:30	Work plan for the Regional Meeting
Session 5	16:30 - 18:30	Endorsement and Closure

## **OPENING**

The meeting was opened by Russell Howorth and all participants introduced themselves to the group. It was unanimously agreed that the meeting was to be co-chaired by Mr Howorth (SOPAC) and Garry MacDonald (NZWWA). The representatives of SPREP, SOPAC and PWA agreed to share responsibility for the minutes of the meeting.

### **Session 1: Opening Presentations**

*SOPAC: Russell Howorth*

Mr Howorth presented the context of this meeting and provided background information on the work of SOPAC. He indicated that the consultation process should lead to a regional meeting on Sewage Management in the Pacific scheduled for October 2001 in the Marshall Islands, and feeding into SOPAC's Annual Session 2001 which will be held a week after.

He emphasized that the intention of this meeting in Auckland is to produce the outline for a draft text that should be completed by mid June. After circulation for comments and amendments a near-final version should be ready before the regional meeting in the Marshall Islands where a final text can be endorsed. The document will then be considered for endorsement by SOPAC and SPREP National Representatives during their respective annual sessions.

*NZWWA: Len Clapham*

Mr Clapham provided a presentation of the structure of the New Zealand Water and Wastewater Association as well as an overview of its activities including the establishment of a code of practices for liquid waste, training activities and publications.

*SPREP: Bruce Graham*

Mr Graham presented the position of SPREP within the framework of the Global Programme of Action. He stressed the importance of the Pacific Island Countries (PIC's) to indicate their needs in the water and sanitation area. The document that will eventually emerge from the consultation process should reflect these wishes. He further indicated that funding will be required to implement the actions that are recommended in the final document.

## **Session 2: Needs and Objectives**

### *History of GPA (Presentation by Bruce Graham (SPREP))*

Mr Graham outlined the work of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) adopted during an Intergovernmental Conference in Washington in 1995 (see INF 3).

Since 80 % of all marine pollution comes from land-based activities the GPA focuses on several land-based polluting sources including sewage.

The aims of the GPA can be described as prevention of the degradation of the marine environment from land-based activities and assisting states to take action individually or jointly to control and/or eliminate degradation of the marine environment as well as recovery from the impacts of land-based activities.

So far, action has been undertaken towards Action Plans on Municipal Wastewater in several regions, and a Clearing-house for knowledge and information. An Intergovernmental review for evaluation and further development of the GPA is to be held in Montreal, Canada, November 2001.

Mr Graham noted that the focus of GPA on municipal wastewater may not be entirely relevant for the Pacific and that other approaches would also be needed in our region.

### *SOPAC's regional role in Water and Sanitation (Presentation by Marc Overmars (SOPAC))*

Mr Overmars presented the activities of SOPAC's Water Resources Unit with particular attention towards sanitation projects carried out in the Pacific. Regional and International cooperation were mentioned including the development of the Vision 21 on "Water and People" headed by the Water Supply and Sanitation Collaborative Council (WSSCC) and the establishment of the Small Island Water Information Network (SIWIN).

**Q: How does the GPA fit into the Vision Process (Garry McDonald)?**

**Ans: A vision on Water has yet to be developed for the Pacific region as is a Strategic Action Plan on Wastewater. Through regional collaboration and further involvement of Pacific Island Countries these issues will be addressed by regional organisations like SOPAC. The Strategic Action Plan can be incorporated in the Vision process.**

*SPREP's regional role in Waste Management and Regional Plan of Action (Presentation by Bruce Graham (SPREP))*

Bruce Graham mentioned that an overview has been prepared on Land-based Pollutant Sources and Activities affecting the Marine, Coastal and Freshwater Environment in the Pacific Islands Region (see INF 2).

Following a workshop in Apia in 1999, a Regional Plan of Action on Land Based Activities (RPA) was established which sets out the actions of the whole GPA in the Pacific for all 9 source categories including sewage (see INF 5).

A Strategic Action Plan has been prepared by the GPA/UNEP Coordination Office focussed on municipal wastewater (see INF 1). Involvement of UNEP Regional Offices and Regional Seas, Habitat, WHO, WSSCC, regional organizations and the private sector is suggested as well as building upon the knowledge base, which is available through the GPA clearing-house.

The aim of the GPA Strategic Action Plan is to support states to address human and coastal ecosystem health problems resulting from inadequately disposed or treated municipal wastewater through the development of Recommendations for Decision-Making and organising regional meetings, including partnerships meetings, and global consultations.

The Strategic Action Plan has four components, as follows:

a. Global Knowledge Base

A clearing-house for knowledge and information ([www.gpa.unep.org](http://www.gpa.unep.org) and [www.sanicon.net](http://www.sanicon.net)).

b. Recommendations for Decision-Making (see INF 4)

A guide for decision-makers, based on the Knowledge Base, on appropriate and environmentally sound municipal wastewater management systems (Key principles and checklists of recommended practices and procedures). Including:

- Approaches and policies
- Technical options
  
- Institutional arrangements
- Financing options review

- c. Regional Cooperation for Innovative Actions
  - Review Recommendations and develop regional annexes
  - Exchange of experience
  - Innovative demonstration projects
  - Forum for partnerships creation
  - Identify regional resource centres
  - Identify priority measures
  
- d. Global Consultation Process
  - High level segment at GPA Intergovernmental review (November 2001)
  - Professional section in collaboration with professional associations
  - Partnership section at regional level

Information available through SOPAC indicates that only about 700,000 people in the Pacific region (less than 10 % of the population) are served by a reticulated sewer system. This indicates the need for an approach based on much more than just municipal treatment systems.

*PWA's role in Water Utilities in the Pacific (Presentation by Michael Dworsky (PWA))*

The Pacific Water Association (PWA) was set up under the guidance of SOPAC to provide assistance to the water utilities in the Pacific. During PWA's Annual General Meeting their activities are reviewed, with the next meeting scheduled for March 2001 in Apia, Samoa. The concept of the Strategic Action Plan could be presented to participants at that meeting and stakeholders in wastewater can be involved in the consultation process.

In conjunction with this meeting the PWA will organise a workshop related to a benchmarking survey among utilities in the Pacific supported by the Asian Development Bank (ADB).

In concluding the session it was noted that countries would be encouraged to produce their own national plans of action in addition to the regional plan.

**Session 3: Discussion of Programme**

The following inputs were proposed as part of the development of the Action Plan: recommendations for decision-makers in the Pacific; exchange of experiences and expertise



with regard to innovative financial, technical or institutional arrangements; and consideration of public-private sector partnerships.

In this session several topics were presented and discussed which can become components of the Strategic Action Plan including the Regional Knowledge Base, Public Private Partnerships and Technologies for Wastewater Management in the Pacific.

Mr Howorth stated that a Regional Strategic Action Plan must be developed, considered and endorsed for the region as a whole.

*Comment: The perspective of a donor agency of how those action plans can be used (Mr. Keneti Faulalo):*

NZODA's partners in the Pacific are especially Small Island Developing States (SIDS). Often Global Agenda's are focused on developing countries with the objective to assist the poor, and multilateral donors often concentrate their efforts on Africa etc. It is a challenge for NZODA to give global and regional attention to Pacific SIDS.

In the context of the Pacific, with its vast geographical isolation, there are also issues of economies of scale. NZODA by taking a regional approach can be of critical value. A coordinated approach is better than concentrating efforts in individual countries.

The direction of donors including NZODA, is becoming more innovative in the use of ODA funds, also in how the private sector can be used.

*Regional Knowledge Base (Presentation by Bruce Graham (SPREP))*

A global knowledge base has been established as part of the GPA/UNEP information and data clearing-house. The knowledge base is a web-site where information on sewage and sanitation can be exchanged including recommended practices and procedures illustrated by case-studies.

A proposal has been prepared through SPREP to create a regional node of the knowledge base for the Pacific, although no major funding has been secured as of yet to support this initiative. Several issues were brought up in the meeting with relation to a knowledge base being housed in the Pacific:

- Internet speeds and access
- Monopolisation of IT services

It was made clear that the Web-site should be only one aspect of the clearing-house. Other suggestions for means of information dissemination included CD-ROM and fax.

The knowledge base would be a mechanism for knowledge transfer and a repository. At present regional organisations are seen as repositories of information.

*Mr. MacDonald posed the question of “How do you ensure the right knowledge is passed around to the right people?”. “Has the GPA developed a concept of what data they want in the knowledge base or is it a database that collects all information.”*

*Examples were provided of other Web-based initiatives including:*

Chris Davis (AWA) mentioned the Norwegian based International Water Academy (IWA) intends to develop a web-based portal called “Portal of Best Management Practices” in collaboration with other organisations. Funding has been provided from the corporate sector. A committee reviews practices and upon agreement by the committee information becomes available on the web for developing countries to use which was not thought to be an appropriate method for selecting information to be published on the web.

Mr. Davis mentioned that feedback is required from Pacific island countries on what web-based information would be useful. He raised the question if a needs analysis has been done and how many mechanisms would be appropriate for the region.

Sanitation Connection: [www.sanicon.net](http://www.sanicon.net), An environmental sanitation network which is part of the Global Knowledge Base.

SIWIN: Small Island Water Information Network: [www.siwin.org](http://www.siwin.org). A suggestion was made to develop the regional knowledge base in the Pacific via this established site (Marc Overmars, SOPAC).

Other issues that have to be addressed if a Pacific knowledge base will be established include:

- Networking within local area governments. GIS based networks are beginning to be developed.
- Access - to overcome the access problem, arrangement could be made to host the site somewhere else making use of other networks to overcome the problem.
- Information - “What we want is a clearing-house, what we get is a warehouse”. At times the amount of information available degenerates it’s usefulness.

Mr Howorth mentioned that internet facilities are rapidly evolving in the Pacific and suggested that a review team should be established to evaluate the knowledge base proposal. SOPAC and SPREP agreed to look into this matter.

*Public Private Partnerships (Presentation by Martin O’Neill (SPM))*

Studies on developing projects in the past showed that focusing on implementation did not provide solutions required to address problems in the public sector which has ownership of utilities in most countries. A change is needed in the role of governments and donors in projects. The private sector can be included since they have more (financing) options than the public sector.

Sustainable Project Management, a Swiss-based NGO, builds public-private partnerships to solve waste, water and energy problems in the developing world. Two projects are currently assisted by SPM in the Pacific including Samoa and the Cook Islands.

In bringing two parties together with a shared vested interest it does not necessarily imply that there should be a 50/50 financial partnership. User involvement is needed as well as some form of commercial momentum.

*Issue: If PPP is going to be taken on board in the Pacific, it needs to be done differently from other regions as there are different challenges. Private sector would also need to share some of the experiences and insight that make it work.*

It should be noted that there are economy-of-scale issues when replicating this type of venture in the region.

*Input: There is often an “aid-mentality” when dealing with PIC’s. There needs to be more lateral thinking in this sector for e.g. pre-paid type innovations (Keneti Faulalo).*

*Issue: The value of the private sector in this area needs to be acknowledged. What are the benefits and costs of “no action” and the users who exploit these services.*

What interest does the private sector have in this area of wastewater management, what role do they have e.g. tourism and consumers.

The general issue is addressing “sustainability” in island communities. There is a need for a holistic approach and a need to look outside the sewage sector.

*Technologies (Presentation by Ed Burke (OPUS))*

A Directory and Sourcebook has been produced by OPUS as part of a project established through the International Environment Technology Centre (IETC) of UNEP on Environmentally Sound Technologies for Integrated Waste Management in the Pacific.

It was noted that there is a need for a broader base for Public-Private partnerships in this sector for these technologies to work.

Mr Graham stated that while the technical information was extremely useful, there was also a need for planning advice on the use of these technologies. For example, how many septic tanks could be installed in a particular area before significant environmental degradation could be expected?

*Issue: Combined utilities are more attractive in terms of user pays. For example, you may be able to use charges on power to subsidise the costs incurred for wastewater management. Affordability should be addressed.*

**Q: How much conflict is there between regulations of health versus environment (Jan Gregor).**

**Ans: The problem is that there are little or no regulations for each country as it stands. At present only WHO guidelines are being used for guidance.**

*Issue: Health and Environment need to be coordinated from a regulators perspective, there is a need for a sustainable, holistic approach.*

A suggestion was put forward to develop a sustainable methodology for guidelines which would plug into technologies, cost, culture etc and incorporate some bottom-line standards.

There are standards where several pollutants have regulatory levels, but in some instances a particular methodology has to assess case by case matters. Some numbers and assessment approaches are fixed while others are changing.

#### **Session 4: Workplan towards a Strategic Action Plan for the Pacific**

##### **Definition:**

The need was expressed to define wastewater and what boundaries are to be set for the scope of the Strategic Action Plan?

It was decided that the term “Wastewater” would be applied and this would include liquid, human and industrial waste and stormwater (runoff caused by rainfall). The inclusion of leachates was raised but it was decided that this should be addressed by noting linkages to other programmes addressing solid waste.

Other linkages that should be made in the document include:

- GPA/UNEP Document
- Climate change issues
- Disaster Management
- Pacific Ocean Pollution Prevention Programme (PACPOL - Ship-sourced pollution)
- Vision 21
- Drinking water

A discussion on the content and structure of the “Strategic Action Plan on Wastewater in the Pacific” resulted in the following outline of the document:

- 1) Context (Pacific situation, definitions, linkages)
- 2) Goal  
sustainable development socio-economical/cultural and environmental  
improve health, address / mitigate environmental degradation
- 3) Constraints  
political will, regulations and compliance/enforcement, transparency  
data, institutional, physical infrastructure, external influences  
planning, human, natural and financial resources, climate change  
public awareness, cultural, indigenous issues, gender aspects

- 4) Responses (following the constraints)  
data, information, demonstration projects  
regulatory regimes, institutional arrangements  
resources human, financial, infrastructure, conservation  
public and political awareness issues, regional voice
- 5) Pacific Strategic Action Plan

Four types of constraints and corresponding responses were identified by the group which should be addressed in the Action Plan. It was decided that four Working Groups were to be established to address these issues and develop the final text of the document.

The following timeframe was suggested to work towards a document that can be endorsed at the end of the regional meeting in the Marshall Islands in October 2001.

**Timetable:**

- Deadline-28 February 2001: SPREP, SOPAC distribute minutes of the consultation meeting to all participants and put together a draft text on the context and goal of the Strategic Action Plan (Chapters 1 and 2).
- Deadline-20 March 2001: 1<sup>st</sup> feedback to be received, draft to be “presented” during the Annual General Meeting of PWA on 21<sup>st</sup> March 2001, Apia, Samoa. Chapters 1 and 2 near-final. Further involvement of stakeholders in PIC’s.
- Deadline-30 June 2001: Working groups to work on chapter 3 and 4, including action plans. Send out to National Representatives and other stakeholders for comment.
- Deadline-31 July 2001: Consultation in-country to be undertaken during the month of July with document being sent back by the end of July. Consultation to occur with all stakeholders including women’s groups, NGO’s etc.
- Deadline-1 September 2001: When document received at the end of July, editing etc. to be undertaken. 2<sup>nd</sup> Draft to be sent out for comment again, allowing around 6 weeks until the regional meeting in October.

- 3<sup>rd</sup> draft subject to discussion during Regional Meeting on Wastewater Management, Majuro, Marshall Islands, October 2001. Produce final text of the Strategic Action Plan.
- Final text endorsed during SOPAC's Annual Session, Majuro, Marshall Islands, October 2001.

### Working Groups:

It was agreed that four working groups will be established to address the issues raised in this session and that one working group will take care of describing the context and goal of the Strategic Action Plan. SOPAC, SPREP and PWA will share responsibilities to edit the draft texts and produce the final version for consideration during the regional meeting.

The responsibilities were divided as follows:

Group	Issue	Pacific Island country	Regional organisation	Resource persons
A	Regulatory Regime and Institutional Arrangements	Ata Herman Cook Islands	SPREP	Ed Burke AWA
B	Data Information/ Demonstrations/ Technologies	Tabioia Metutera Kiribati Island	SOPAC	Rob Fullerton AWA
C	Resources/ Human, Natural, Infrastructure, Conservation.	Abraham Hicking Marshall Islands	SPREP	Jan Gregor AWA
D	Public and Political/ Awareness/ Regional Voice	Latu Kupa Samoa	SOPAC	Garry MacDonald AWA
E	Chapters 1 & 2		SOPAC/SPREP	Mike Dworsky Jim Bradley Keneti Faulalo

### Agenda Regional Meeting on Wastewater Management:

It was expected that around three days would be necessary to review the 3<sup>rd</sup> draft (around 20 pages of text) and produce a final version of the Strategic Action Plan during the regional meeting.

Issues raised:

- Where does the strategic action plan go from here?
- What needs to be done with the Strategic Action Plan by country nationals?
- What is normally done with National/Regional Plans or regulatory guidelines?

It was suggested that on the last day of the regional meeting, during which the text will be edited and finalized by the Secretariat, discussion could continue on how the implementation will take place of the Regional Action Plan and how National Action Plans can be established.

### **Session 5: Endorsement and Closure**

It was agreed that, at this stage, no additional day was needed to further develop the workplan and that sufficient information was exchanged among the participants to guarantee smooth follow-up in producing the text of the Strategic Action Plan.

On behalf of SPREP and SOPAC, Mr Howorth expressed gratitude towards NZWWA who enabled the organisation of this meeting in Auckland including the welcome reception held on 1<sup>st</sup> February. Gratitude was also expressed towards NZODA for their financial support and all participants were thanked for their constructive support.

The meeting was closed at 18:30.



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## APPENDIX B - BACKGROUND DOCUMENTS

**(INF 1)**

- Strategic Action Plan to address municipal wastewater as a major land-based pollutant affecting coastal zones and marine ecosystems (UNEP/GPA)

**(INF 2)**

- Overview on Land-based Pollutant Sources and Activities Affecting the Marine, Coastal and Freshwater Environment in the Pacific Islands Region (UNEP Regional SEAS No.174)

**(INF 3)**

- Global Programme of Action for the Protection of the Marine Environment from Land Based Activities (UNEP, Washington, 1995)

**(INF 4)**

- Recommendations for Decision-making on Municipal Wastewater (UNEP/GPA)

**(INF 5)**

- Regional Programme of Action on Land Based Activities (Nancy Convard, SPREP, Apia 1999)