

## Prevention and Management of Pollution

### Section 1

#### The Basis for Action

##### Background

Pollution and development often go hand-in-hand. Industrialisation, modern agricultural production and lifestyles all generate pollution problems many of which are beyond the individual capacities of SPREP member governments to handle on their own. SPREP aims to address these and other sources of pollution and contamination on land, in the air and in the water.

2. A general flow of people moving into the more developed centres is leading to much agricultural land being taken up for residential purposes. A major consequence is the use of coastal areas to discharge wastes generated from ever-increasing populations. In some countries, dumping rubbish into the sea is becoming accepted as a normal method of waste management along with indiscriminate dumping in caves, water holes and other cavities with serious effects on underground water supplies and coastal waters and habitats.
3. All SPREP member countries share the problems of how to minimise the production, and ensure the safe disposal, of all types of waste, particularly those generated through rapidly increasing urbanisation. Pollution from industrial wastes, sewage, inappropriately sited and poorly managed dumps and unsafe disposal of toxic chemicals contribute significantly to habitat degradation and threaten the health of Pacific islanders. Increased population growth, urbanisation and industrialisation exacerbate these problems.
4. Rapid urbanisation, an equally rapid rise in 'standard of living' expectations and a growing demand for imported packaged goods generate increasing volumes of solid waste. These include toxic chemicals found in municipal rubbish tips and the abandoned vehicles common on Pacific islands. With limited land areas around urban centres, Pacific countries and territories have major difficulties disposing of solid wastes. Disposal sites that are acceptable on social, economic and health grounds are limited, as are finances to deal with the problem. Limited recycling programmes have started in some countries, but there are generally few programmes to minimise, prevent or recycle wastes which would reduce the mountains of thrown-away matter in the region. Prevention opportunities need to be identified and implemented.
5. Aquatic pollution in particular is a major problem affecting the quality of freshwater resources and marine and coastal areas of the region. Inadequate collection, treatment and disposal systems for sewage cause contamination of surface and groundwaters near urban areas. The transboundary nature of marine pollution requires a co-ordinated and comprehensive approach to assessment and effective control. Marine pollution monitoring and research projects have been successfully implemented through SPREP and are now consolidated into a co-ordinated monitoring, research and control programme (SPREP POL).

6. SPREP is developing a coordinated regional programme to prevent, monitor and control pollution and to manage wastes. The Pollution Prevention Programme aims for all sectors of the community to:

- be committed to preventing pollution;
- have sufficient information to help prevent pollution; and
- have support to develop, implement and evaluate prevention programmes.

7. The Programme will support voluntary national and community initiatives, encourage economic incentives for pollution prevention and assist in developing suitable legislation to encourage prevention. Specific objectives are to develop:

- plans to manage wastes on land, freshwater, sea and air, including transboundary movement of hazardous wastes;
- monitoring to prevent and control pollution on land, fresh and coastal waters and high seas (incorporating current SPREP-POL activities);
- a regional data base on sources, levels, amounts, trends and effects of contaminants and pollution; and
- a regional programme on pollution awareness, training, education and information.

## Prevention and Management of Pollution

### Section 2 :

#### Activities in Support of the Action Plan Goal and Objectives

##### Goal

1. The Goal of Programme 5 of the Action Plan is to prevent, control and manage pollution and wastes so that adverse impacts on the environment and human health are avoided, minimised and mitigated.

##### Objectives and Activities

2. Following are the Action Plan Objectives in support of the above Goal and a description of the Activities undertaken by SPREP in 1993 towards achieving those objectives.

---

##### *Objective 1*

*To develop technical, legal and administrative measures for prevention of pollution and management of waste, and assist SPREP members to implement and evaluate the effectiveness of these measures.*

##### Activities

Case Studies on waste management and current practices and legislation were carried out for Western Samoa and Kiribati in July and November respectively. Country reports are now being finalised for publication.. These studies were financed through the UNEP-funded SPREP-POL Project.

##### Output

Shortcomings in technical, legal and administrative measures for the prevention of pollution and management of wastes were highlighted. Assistance is now being sought to provide the expertise required for implementation of the various preventive measures recommended in the studies. Mechanisms are proposed for monitoring and evaluating the effectiveness of such measures.

---

##### *Objective 2.*

*To strengthen the capabilities of national and regional institutions to carry out pollution monitoring and research, and to formulate and apply pollution control and abatement measures.*

##### Activities

Consultancies were let to:

- University of Papua New Guinea
- UNITECH PNG
- University of the South Pacific
- Fiji School of Medicine

to carry out pollution monitoring and research.

### **Output**

It is expected that these consultancies to regional and national institutions will lead to the strengthening of their capabilities to undertake similar tasks in future.

---

### **Objective 3**

*To ensure the environmentally sound and sanitary disposal of wastes.*

### **Activities**

To ensure that environmentally sound and sanitary waste disposal is practiced, pollution awareness workshops were conducted in Kiribati and Tuvalu as a preliminary to technical training on appropriate waste disposal technologies and methods of evaluating their effectiveness.

### **Output**

Government official and members of the public were made aware of the state of their environment and what pollution could do to it.

---

### **Objective 4**

*To minimise the amount of waste and maximise the recycling of waste products in the Pacific countries and territories.*

### **Activities**

Through the studies and recommendations carried out in 1. above, projects on the composting of decomposable wastes and recovery of re-usable materials for recycling were implemented in Western Samoa and Kiribati. These involved exporting used aluminium cans, bottles and used oil to other parts of the Pacific like New Zealand (cans) and Western Samoa (used oil). New technologies such as waste minimisation through separation at source and through economic legal incentives are also being developed.

### **Output**

Minimisation of waste throughout the region and more chances of disposing the balance in a sanitary manner.

---

**Objective 5**

*To organise and carry out a regionally co-ordinated marine pollution monitoring and research programme (SPREP POL) as part of the scientific basis for the formulation of pollution control measures suitable for the region.*

**Activities**

A co-ordinated marine pollution monitoring and research programme (SPREP POL), which provides data base information and forms the basis for formulation of pollution control measures suitable for the region, is being implemented through the UNEP Regional Seas Programme.

**Output**

Strengthening national institutions' and individuals' capabilities in pollution monitoring and encouraging countries include provision for pollution monitoring and research programmes in national policies and budgets.

---

**Objective 6.**

*To develop, implement and assist programmes to maintain and improve the quality of freshwater resources.*

**Activities**

While carrying out waste management studies, and pollution awareness workshops in Tuvalu and Kiribati, the area of freshwater resources was looked at with advice given to the governments concerned on how to keep these resources free from contamination and pollution. Suggestions were put forward as to how existing resources could be maintained through monitoring the quality and surroundings of water used.

---

**Objective 7**

*To generate and disseminate information on the sources, levels, amounts, kinds, trends and effects of pollution within the South Pacific region.*

**Activities**

Through SPREP-POL (Pollution Monitoring, Study and Research Programme) SPREP carried out research on land-based pollution source levels, amounts, types, trends and effects within the region. A report has been completed and disseminated to all member countries. This report is titled " An Inventory of Land Based Pollutant for the South Pacific Region "

In addition a study on sediments via Rivers to the Pacific Ocean was conducted and a report written and publicized.

---

### **Objective 8**

*To generate and disseminate information on the kinds and amounts of wastes, waste generating activities and disposal methods in the region.*

#### **Activities**

Case Studies have been conducted on waste management in Western Samoa and Kiribati (and soon Fiji) to identify types and amounts of waste generating activities and final disposal methods. The information generated can be made available to other countries facing the same kinds of problems.

---

### **Objective 9**

*To provide a clearinghouse for, and encourage use of, production processes and technologies which minimise waste generation.*

#### **Activities**

SPREP provides query/response and clearinghouse services for useful information regarding production processes and technologies which minimise waste generation.

---

### **Objective 10**

*To assist SPREP members to take all appropriate measures to prevent, reduce and control pollution of the area covered by the SPREP Convention, whether caused by discharge from vessels, land-based sources, sea-bed activity, discharge into the atmosphere, or dumping.*

#### **Activities**

Advice and assistance is being provided to SPREP member countries for taking the necessary measures to prevent, reduce and control pollution in the area covered by the SPREP Convention, whether caused by discharges from vessels, land based sources, sea-bed activities, discharge into the atmosphere or dumping in the ocean or on land. A Regional Pollution Prevention Programme is now being developed and attention is being directed at member countries needing assistance in developing their own National Pollution Prevention and Waste Management Strategy.

SPREP attended two meetings as technical advisor to the Forum on a proposal by the Government of Papua New Guinea for a regional convention on banning the import and controlling the transboundary movement of hazardous wastes.

#### **Constraints**

The main constraints experienced in running this programme are

- the lack of a well co-ordinated Regional Pollution Prevention and Waste Management Programme from the beginning;

- hence a lack of funding to support it.

A well co-ordinated Pollution Control and Prevention Programme - now nearing completion - should attract funding for its implementation.

### **Funding and Staff**

Funding for the Environmental Contaminants Officer's salary and travel costs is provided by UNDP. Funding for SPREP-POL activities including waste management case studies is provided by UNEP. Under this arrangement, ORSTROM, NZDSIR and AIMS also contribute towards scientific studies in their respective jurisdictions.

Finalisation of the Regional Pollution Prevention and Waste Management Programme is funded by Australia.

---

24 June 1994

Original : English

## **Planning and Response to Pollution Emergencies**

### **Section 1**

#### **The Basis for Action**

##### **Background**

1. According to the SPREP Action Plan, pollution emergencies are unpredictable or accidental pollution incidents which require urgent action to minimise environmental impacts and threats to human health and safety. Such incidents are usually caused by the spill or accidental discharge of toxic and hazardous or noxious substances such as oil, fuel or chemicals. These discharges can severely affect marine and freshwater resources and habitats, groundwater systems and other natural resources and can have significant economic and public health effects. Pollution emergencies can result from human factors, natural events or a combination of both, so there is a need to develop planned response systems and capabilities.

## Planning and Response to Pollution Emergencies

### Section 2 :

#### Activities in Support of the Action Plan Goal and Objectives

##### Goal

1. The Goal of Programme 6 of the Action Plan is to develop and maintain national and regional pollution emergency response and planning capabilities.

##### Objectives and Activities

2. Following are the Action Plan Objectives in support of the above Goal and a description of the Activities undertaken by SPREP in 1993 towards achieving those Objectives.

---

##### *Objective 1*

*To generate and disseminate information on substances, activities and installations which may result in pollution emergencies.*

##### Activities

SPREP is liaising with the Forum Secretariat on a UNDP-funded study to determine substances, activities and installations which may result in pollution emergencies in the South Pacific Region. The study report is nearing completion .

---

##### *Objective 2*

*To assist governments in developing plans and capabilities to respond to pollution emergencies.*

##### Activities

SPREP participated in a meeting for the development of Western Samoa's plans and capabilities for responding to pollution emergencies. Similarly it is making arrangements for the Australian Maritime Safety Authority to assist member countries in developing their own national strategies

---

**Objective 3**

*To liaise with international, regional and national natural disaster response organisations on the pollution emergency aspects of disasters.*

**Activities**

Although no specific activities were undertaken, SPREP is now ready to liaise with international, regional and national natural disaster response organisations on pollution emergency aspects of disasters.

---

**Objective 4**

*To ensure that all governments have complete, updated and tested marine pollution emergency contingency plans and that the SPREP Regional Marine Pollution Emergency Contingency Plan for the South Pacific Region is finalised and adopted.*

**Activities**

Through a Regional Workshop (see Activity 7.1) further assistance was provided to governments to complete and test marine pollution emergency contingency plans. Further development of the Regional Marine Pollution Emergency Contingency Plan occurred in the context of a draft strategy for the Protection of the Marine Environment of the South Pacific Region with assistance from IMO.

---

**Objective 5**

*To conduct seminars, exercises and training to ensure that national/territorial and regional plans are reviewed and practiced and personnel are trained.*

**Activities**

A Regional Scientific Support Coordinators Workshop was conducted in October 1993 in Adelaide, South Australia, to assist in ensuring that national and regional plans are reviewed and implemented and that personnel are trained.

---

**Objective 6**

*To advise SPREP members on appropriate international marine pollution conventions.*

**Activities**

An on-going process - SPREP member countries are being advised continually on appropriate international marine pollution conventions through pollution awareness workshops.

## **Constraints and Opportunities**

Lack of funds to implement the programme was the main hurdle. The proposed Strategy for the Protection of the Marine Environment of the South Pacific Region, of which this area of work is a component, if it attracts funding, would be a major step forward.

Much of the direction for these activities has been determined by recommendations from the two-yearly Regional Workshops on Oil Spill Response and Contingency Planning. These have been held since 1984 to train participants in contingency planning and response to marine pollution incidents, to refine and test a regional oil spill contingency plan for the South Pacific and review progress with the adoption and implementation of national contingency plans.

A draft regional emergency contingency plan will be necessary to effect the SPREP Convention Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific. In the event of a major oil spill or other pollution emergency, larger SPREP member governments would be likely to provide the bulk of the response required. It will be necessary to develop means to provide this assistance to the region in the context of national and regional contingency plans.

## **Funding**

Funding to address needs for emergency pollution response and planning in the region, in particular Oil Spill Emergency Response, has been provided by the International Maritime Organisation, with technical assistance from the Australian Maritime Safety Authority

## **Staffing**

SPREP's Environmental Contaminants Officer co-ordinates these activities.

---

24 June 1994  
Original : English