

# environment

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NEWSLETTER

Two years since 1997, the Pacific Year for the Coral Reefs .... 1

Pacific Mangrove Conservation ..... 2

SPREP Centre Construction Underway ..... 4

Regular Features From the Director's Desk ..... 3

### Did You Know

#### Seagrasses are ...

- Marine, grass like plants which produce flowers and seeds.
- Live totally submerged in seawater for their entire life and reproduction cycle.
- Have 58 species known globally with tropical regions having the most variety.
- Not true grasses
- Not algae(seaweed)

#### Seagrasses ...

- Have roots (rhizomes), flowers and leaves
- Live together in communities that look like submerged grass meadows or beds.
- Live in shallow coastal marine waters, salt-water marshes and estuaries
- Are associated with mangroves in the Pacific

#### Seagrasses are important...

- In providing shelter for larval and juvenile fish and a habitat for a variety of crustaceans adult fish population feed on.
- Because 400 square metres of seagrass can support 2000 tonnes of fish a year.
- As food for dugongs, green turtles, sea urchins, fish and swans plus other animals grazing them.

#### Seagrasses are threatened by...

- Sandmining, pollution, sedimentation, siltation, land reclamation, and uprooting from boat propellers.

## Two years since 1997, the Pacific Year for the Coral Reefs

*As interest accelerates in what is happening in the reefs and how countries can best profit from these beautiful and prolific resources, it becomes increasingly likely that as you loll on a beach somewhere in the Pacific, you may spot more of the region's dedicated reef monitors, face-down in the water, identifiable mainly by their waterproof pads and pencils as they continue to chart the health of the reefs.*

This coral reef monitoring has been one of the successful outcomes of the coral reef campaign. Over the past year reef monitoring workshops organised by SPREP with funding assistance from the governments of Australia, Canada and New Zealand have marked a sure step towards supplying the essential details that researchers need to assess coral reefs which will help to guide policy makers and development planners.

The workshops were designed on three levels. At the specialist level, two people, from Fiji and Federated States of Micronesia, received highly specialised training in Australia, giving them the capacity to train others; and a very detailed knowledge of coral species. At the Government and private sector level, trainees learned how to monitor using the Manta boards, and other established

monitoring techniques. And a third level, the Reef Check level, showed tourists and visitors how to make a quick status check of reefs – something that is useful to pick up coral bleaching or numbers of the coral's nemesis—the crown of thorns starfish.

Coral reefs are among the most diverse and productive communities on Earth. They are found in the warm, clear, shallow waters of tropical oceans worldwide. Reefs have functions ranging from providing food and shelter to fish and invertebrates to protecting the shore from erosion.

A large number of coral reef organisms can tolerate only a narrow range of environmental conditions, therefore the reef ecosystem is very sensitive to

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# Pacific Mangrove Conservation

*Ecologically and economically, the traditional value of mangroves have been taken for granted for too long. In creating a Task Force to assess and report on the status of mangroves, the Pacific is taking a step forward to save this important ecosystem.*

**M**angroves act as a buffer to sediment and nutrient rich runoff from the land. This “mother” role nurtures the growth of coral reefs and seagrass beds. Mangroves also act as a buffer for the land from storm damage and sea-level rise inundation. Mangroves provide habitats for fish and crabs, habitats for rare fauna, such as birds and crocodiles and they have ecotourism potential; and an important role to Pacific island cultures through their many traditional uses.

According to Ms Lucille Apis-Overhoff, SPREP’s Wetlands Management Officer, despite the many valuable benefits of mangroves, they are disappearing more quickly than tropical rainforests and the public is hardly noticing or giving it a second glance. This is probably due to the view most people have that mangroves are gloomy, smelly mosquito-infested wasteland good only for dumping rubbish or landfills, or reclaiming for residential or commercial developments.

Each Pacific island nation contributes to a record mangrove loss in the Pacific islands. Losses are attributed to purposes such as the construction of naval facilities in Guam; urban expansion of capital cities in New Caledonia, Vanuatu, and Tonga; and aquaculture projects in Fiji, Samoa, and Palau.

Degradation of the mangrove ecosystem continues due to increased occurrences of oil spills and dumping of hazardous wastes. Excessive sedimentation from upstream disturbance such as in New Caledonia and the Federated States of Micronesia, and rubbish dumping in Samoa, Tonga and Tuvalu are other unfortunate examples.

Ms Apis-Overhoff says, “What should be a major concern to the Pacific as a result of the destruction of mangroves is that, it may lead to salinisation of coastal soils, contamination of water supplies, erosion, decline in fisheries and release of carbon dioxide into the atmosphere”.

In an effort to slow down this catastrophic situation, SPREP has established a



Mangrove Task Force (Figure 1). This body comprises mangrove experts from around the region, their task will be to assess and report on the status of mangroves in the Pacific.

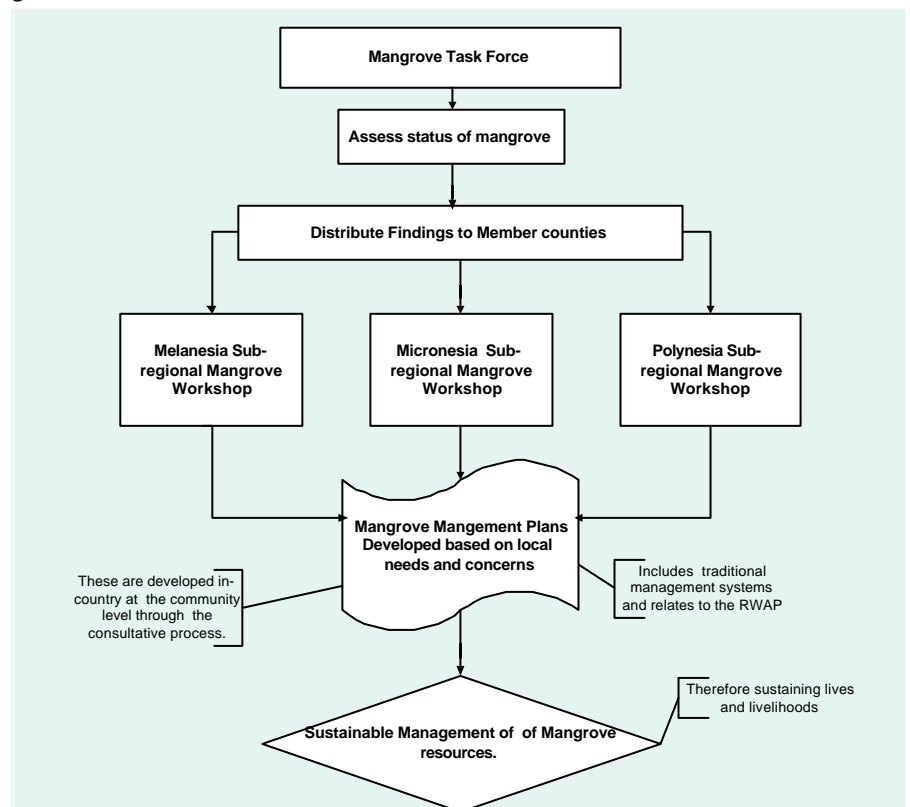
In a concerted effort to conserve mangroves and to increase peoples awareness of their values, the Task Force and SPREP member countries will work together through workshops in the different sub-regions (Melanesia, Micronesia and Polynesia). The hope is to identify benefits from mangroves and increase the knowledge of their uses as well as determining the threats they face. The workshops will serve to assist countries in developing mangrove management plans based on local needs and concerns.

More importantly, it is necessary to integrate all this information to establish a

strategy to manage the mangroves in a sustainable way.

Involvement of the community in looking after their mangrove resources is one of the important factors in this initiative. This will be done in meetings where the community will be invited to have their say. It is important for the management plans to integrate the voice of the community, and use traditional methods of management for each country in which the Task Force will be able to assist.

Ms Apis-Overhoff reaffirmed that the main goal is to have community participation. This will ensure the sustainable development and management of mangrove resources for the long-term; and will go a long way in sustaining both the community and mangrove ecosystems for the future.



**Figure 1. Mangrove Task Force**

# From the Director's Desk



Mr Tutangata,  
Director of  
SPREP

Where there's land, there are boundaries, and where there are boundaries, there are disputes. But a pioneering programme set up to conserve the Pacific's biodiversity has seen boundary disputes dissolve as previously warring communities discovered they shared a common desire to protect their natural heritage for future generations.

In Vanuatu, on the island of Espiritu Santo, the villages of Sara and Matantas had for decades disputed ownership of parts of the Big Bay forest. The dispute periodically erupted into raids, one of which resulted in Vanuatu's Supreme Court being asked to rule on which village had legal rights to the forest's resources. But then, with the support of SPREP's South Pacific Biodiversity Conservation Programme (SPBCP), working through the Government of Vanuatu, both villages decided they wanted to protect the resources in the forest, which by then was the only remaining extensive lowland alluvial and limestone forest in Vanuatu that had not been logged. Their decades-old differences became irrelevant: instead of arguing boundaries and ownership of resources, both villages found they were in full agreement on the importance of conserving a mutually-valued resource.

To symbolise this new accord, Chief Lus of Sara and Chief Moses of Matantas planted a cycad tree in Matantas village. That tree still stands, and today, members of those communities can sleep in each others' villages – something they were never before able to do. They work together in what is now the Vatthe Conservation Area, establishing an ecotourism venture which includes six

bungalows and a small restaurant for tourists. Young men and women from both villages have been trained to guide tourists through the forest, and other community members are building up a market for vegetables, forest and craft products, and transport services.

Vatthe is only one of many examples where concern for protecting a precious environment eventually overrode age-old community rivalries. To date, funding from the Global Environment Facility, the United Nations Development Programme and AusAID has made it possible for the SPBCP to help Pacific island communities establish 17 conservation areas in 12 Pacific island countries. Other organisations have established a further 17. In all cases, the first principle has been that the communities own the resources and must always be the ones who make the decisions about using those resources.

The emphasis on a community-based approach arose out of earlier failed efforts to conserve the Pacific's natural resources. Five years ago, SPREP, the World-Wide Fund for Nature and The Nature Conservancy designed the programme, basing that design on the recognition that in the Pacific, attempts to lock away valuable areas of biodiversity by declaring them national parks or nature reserves were unlikely to work.

In the Pacific, the communities which own 80 – 90 percent of land and coastal resources will not accept that they should be forbidden access to natural resources that have nurtured their families for generations. They do, however, have a strong interest in protecting these resources, and this is borne out in the on-

going demand from communities for SPBCP assistance in setting up conservation areas.

The SPBCP approach is a softly-softly one which takes the time to establish trust between communities and outside partners and experts. SPBCP programme officers help establish a coordinating committee, made up of representatives from the community, Government agencies, non-governmental organisations, and regional and international agencies working in the conservation field. The communities themselves decide on the appointment of a Conservation Area Support Officer, who acts as the liaison point between the coordinating committee and the community.

The coordinating committee supplies the expertise which the community needs to make its decisions about how best to use its resources, but all decisions are the responsibility of the community itself. After the area's biodiversity has been researched, feasibility studies are made of potential income generation options. Some of those options now in operation around the Pacific include ecotourism, butterfly farming, beekeeping, sports fishing and handicraft production.

It all takes time. The SPBCP experience has been that it takes at least two years to build trust in the community and establish solid linkages between key decision-makers, key stakeholders and potential partners. In those two years, donors don't see a lot of money being spent. But after the groundwork has been done, things tend to move rather more rapidly, as the painstaking work involved in full consultation and community decision-making begins to bear fruit.

Time and again, consultation has been shown to be critical to the success of any project. Take the case of the Arnavon Islands, for example. The Solomon Islands Government decided to set up a conservation area there, but didn't



*The Vatthe Conservation Area. Uniting two communities together to protect the biodiversity for their children and future generations.*

Photo: Francois Martel

*continued on page 4*

# SPREP Centre Construction Underway



Turning the soil is Prime Minister of Samoa, Hon. Tuilaepa S. Malielegaoi.

The Turning of the Soil Ceremony on 29 June 1999 marked the start of the construction of the new Centre for SPREP at Vailima, Samoa. Diplomatic representatives, and members of the government and business communities attended the ceremony along with senior SPREP staff members.

The C.A.R.E Construction Company Ltd, a newly formed Samoan company was awarded the contract for the building of the new SPREP Centre. Construction is likely to be just over 4.7 million Samoan tala. It is expected that construction will begin immediately and is due to be completed by June in the year 2000.

SPREP moved to Samoa in 1992 following an invitation from the Government of Samoa. Formerly it operated within the South Pacific Commission - now called the Secretariat of the Pacific Community - in Noumea, New Caledonia. The number of SPREP's programme staff has swelled since then, when there were five programme officers. Today, there are 37, and formerly adequate premises have become increasingly cramped.

Mr Tamari'i Tutangata, SPREP's director thanked the governments of Australia and New Zealand, for stepping in to meet the shortfall after discovering that the tenders for the new Centre were above

the estimates and available funds. Australia and New Zealand together contributed more than three quarters of the funding for the new Centre with the balance of contributions coming from other SPREP member Governments, including in particular France, Papua New Guinea, and the United States and the People's Republic of China (who is not a member of SPREP).

Speaking at the Turning of the Soil Ceremony, Australia's High Commissioner to Samoa, His Excellency Mr Paul O'Callaghan thanked the Government of Samoa for donating the 10 acre site and for providing important services to make sure the project could proceed. The Government of Samoa made available in its 1999/2000 budget, SAT300,000 to upgrade the road, provide electricity, water and telecommunications to the site.

The six buildings to be constructed by the building contractor, C.A.R.E. Construction Co Ltd, will provide the bulk of SPREP's office requirements. "We are continuing negotiations with two potential donors for the proposed construction of two special-purpose buildings as part of the SPREP Centre," Mr Tutangata said. "One would house SPREP's Education and Training Centre and the other would accommodate SPREP's Information Centre. We are very hopeful that the outcome of these negotiations will be positive."

from page 3

## From the Director's Desk

consult the Arnavon Islanders. Government officials started building a project headquarters on one island. The communities burned it down and barred any government officials from landing on the islands again.

But then, some time later, they decided to ask the Government what it had planned to do with those buildings. When they found out, they asked why they hadn't been consulted - they'd been talking for a long time about establishing a conservation area there.

The Government stepped back, insisted that the community take the lead role with Government support, and now the Arnavon Islands Conservation Area is a reality - providing yet one more example of how concern for protecting the Pacific's fragile ecosystems can overcome seemingly insoluble differences.

from page 1

## Pacific Year of the Coral Reef

environmental changes. Coral are susceptible to diseases and bleaching, as well as to dramatic natural events such as hurricanes. In addition, many problems now faced by reef ecosystems are caused by us, humans. Although it is our good fortune that many of these human-induced hazards to coral reefs can be remedied. It is paramount that we increase our efforts to research and understand the stresses and dangers to the reefs because of the important ecological, cultural and economic roles they play in our lives.

In April 1998, the Regional Evaluation Meeting (REM) for the Pacific Year of the Coral Reef (PYOCR) deemed the 1997 campaign a success. Positive in-country action has resulted from the increased awareness of corals as living communities; awareness they are slow growing and fragile, yet provide bountiful

goods and services that sustain people's lives.

The REM identified and prioritised coral reef issues that were relevant to country needs and concerns as experienced through the campaign. As a result, an Activity Plan to address these issues at the national and regional levels was developed and will be actioned over the next five years.

The activity plan aims to address five key issues: education and awareness, monitoring and assessment and research, capacity building, legislation, and networking/linkages. Implementation of these activities is already taking place with assistance from the Canadian Government through its C-SPOD programme. SPREP also acknowledges the assistance provided by AusAID and NZODA for making the REM possible.