

South Pacific Regional Environment Programme

**Sustaining the Pacific environment:
meeting the challenges of sustainable development through
effective environmental management**

SPREP's vision

All of SPREP's activities are guided by the vision of SPREP: *" people of the Pacific islands are better able to plan, protect, manage and use their environment for sustainable development."*

SPREP's members

American Samoa
Australia
Cook Islands
Federated States of Micronesia
Fiji
France
French Polynesia
Guam
Kiribati
Marshall Islands
Nauru
New Caledonia
New Zealand
Niue
Northern Marianas
Palau
Papua New Guinea
Samoa
Solomon Islands
Tokelau
Tonga
Tuvalu
United States of America
Vanuatu
Wallis and Futuna

1. Introduction

SPREP is the regional organisation established by the governments and administrations of the region to look after our environment while in the pursuit of sustainable development.

The welfare of the people of the Pacific underpins the work of the South Pacific Regional Environment Programme (SPREP). Bringing benefit to Pacific communities through increasing incomes, preventing pollution and maintaining a healthy environment is paramount.

1.1 Sustainable development

SPREP's activities are guided by the principles of sustainable development and seeks to create an enabling environment that will: alleviate poverty; change unsustainable patterns of production and consumption; protect and manage the natural resource base of economic and social development; promote the long-term sustainable use and development of resources for intergenerational equity.

This takes into consideration the three pillars of sustainable development, biodiversity and the natural environment; economic activity; and people (cultures, traditions and welfare).

1.2 World Summit on Sustainable Development Plan of Implementation, 2002:

In the lead up to WSSD Pacific island countries and territories as well as other regional stakeholders had the opportunity to reflect on issues and priorities for sustainable development.

The outcomes of the WSSD were a great success for the region as it saw that the sustainable development of small island developing States (SIDS) was effectively addressed. The Johannesburg Plan of Implementation

specifically identifies the special circumstances of SIDS in relation to environment and development. It recognized oceans, coasts and islands as a special area and agreed on an action plan with specific targets and timetables for action. Important targets that relate to SIDS were also established. This sees a global consensus reached at the highest political level on the urgency of action needed for the sustainable development of oceans, coasts and of SIDS.

As part of this, Pacific island leaders launched 14 Type II Umbrella Initiatives at the WSSD as a platform for implementation in a number of critical areas for the region.

SPREP is specifically facilitating the development of these initiatives in the areas of waste management, nature conservation, capacity building and sustainable community lifestyles.

1.3 Barbados Programme of Action

As part of the preparations for the BPOA ten year review, Pacific SIDS have prepared a regional assessment which will be submitted as the Pacific position for BPOA + 10. It will be similar to the position presented at WSSD, which was "achieving measurable sustainable development in the Pacific region towards improving the quality of life for all" to ensure a people, ocean and islands focus for sustainable development in the Pacific region. SPREP is working with countries in providing policy advice and technical assistance particularly in support to coordinate national and regional outcomes for BPOA+10 as well as taking a role as co-Chair of the CROP working group on sustainable development.

2. Challenges to sustainable development in the Pacific Islands

Vulnerability of small island states - Small physical size; relative isolation; highly prone to natural disasters; social, cultural and economic dependence on limited natural resources; small economies highly sensitive to external shocks; limited funds, human resources, and capacity.

Freshwater Supply - freshwater availability is a major issue especially for the atoll states. Shortage of freshwater has a significant health and economic implication, increased costs for alternative water supplies and reduced agriculture productivity

Land degradation - With limited arable land and low agricultural plant diversity, land has been degraded through inappropriate rural development projects, overuse of marginal lands, clear fell forestry, mining and extractive industry, and intensive farming and fertilisers. Coastal lands are under particular pressure because of the concentration and intensity of activities in this area.

Invasive species - Invasive species are the primary cause of species extinction and biodiversity loss in the Pacific, competing with native species and damaging ecosystem structure and functions. Invasive species can also have significant economic impact as well as impacting on food security, human health and traditional practices.

Over harvesting of natural resources - Over-harvesting (including illegal trade) is a major issue. Uncontrolled logging is threatening forest resources while coastal fisheries are under extreme pressure from commercialisation, destructive fishing practices, pollution and coastal degradation.

Population growth - Population densities are high (South Tarawa in Kiribati, with 1,596 persons per km² is one the highest in the world) and are particularly exacerbated by urbanisation and internal migration. Moreover, the population growth rates are relatively high, averaging 2.2% per annum.

Poverty - There are direct linkages between the state of the environment and poverty. Increasing population leading to the rapid depletion of natural resources directly affects livelihoods and quality of life.

Climate change, variability and sea level rise - The Pacific islands are already witnessing the negative impacts resulting from climate change, variability and sea level rise. These developments have a big impact on efforts to develop sustainably.

Waste - Characterised by increasing quantities of solid waste, lack of controls on chemical imports, lack of financial support and lack of and inadequate capacity and systems to manage the range of pollutants. Pollution from solid, hazardous/toxic or nuclear wastes is seen as one of the major threats to sustainable development in the region and directly influences the quality of life of Pacific island people.

Governance - Sustainable development requires good governance. Integrated environmental assessment and planning are cornerstones for sustainable development. Changing political aspirations see people demanding greater levels of empowerment and participation. There is a growing recognition at various levels of the benefits of decentralisation, localisation and empowerment of the community from central government.

Knowledge management- sustainable development requires countries to have adequate institutional, systemic and human capacities and a population that is well-informed and aware through effective communication and access and use of appropriate technologies and information dissemination systems.

3. Working together for sustainable development

Mandate

SPREP is mandated to promote cooperation in the South Pacific region, to provide assistance in protecting and improving its environment and to ensure sustainable development for present and future generations.

SPREP operates by collaborating with other regional and international organisations, member countries, civil society and the private sector, to strengthen efforts, and develop effective partnerships. Key players include the environment, planning and development agencies in each country and territory, natural resource management agencies, donors, intergovernmental organizations, community groups, local communities and resource owners, regional and international organisations, bilateral and multilateral agencies, and local non-governmental organisations (NGOs).

4. What we are doing to address the challenges to Sustainable Development in the Coastal and Ocean Sectors

4.1 Natural Resource Management

4.1.1 Challenge

SPREP's priority responses to ecosystems and species management have been dictated by issues raised by countries in international and regional fora, namely fragmentation of ecosystems, over harvesting and poor management of resources and the threat of invasive species. The key activities target the human influences on the sensitivities of ecological resources, taking into account the need for better research, science and information and planning for wise management and sustainable use.

4.1.2 Community Based Marine Resource Management - International Waters Project (IWP) and International Coral Reef Action Network (ICRAN)

A range of community based projects focusing on coastal fisheries management, use of Marine Protected Areas (MPAs) as a fisheries and biodiversity management tool, coastal

watershed management and waste management implemented in 14 Pacific states under International Waters Project and 10 Pacific states and territories under the International Coral Reef Action Network including regional networking of community based projects through the *Locally Managed Marine Areas Network (LMMA)*

ICRAN is supporting community-based initiatives in American Samoa, Samoa, Marshall Islands, Palau, Tokelau, French Polynesia, Solomon Islands, PNG and Fiji.

The IWP is implementing the Strategic Action Programme (SAP) for the International Waters of the Pacific Small Island Developing States. The project supports 14 Pacific island countries in their efforts to address some of the current threats to marine and coastal resources and has two components. While the component supporting the development of new institutional arrangements for the conservation and management of western and central Pacific migratory fish stocks is not based on community based management, the second component is focused on this area. This coastal component targets the root cause of problems associated with integrated coastal watershed management and has a heavy emphasis on community and other stakeholder participation in pilot projects and behavioral change. Issues related to behavioral change include consideration of social and cultural factors impacting on resource management through social assessment activities, use of various communication tools such as social marketing and incentives for resource use (natural resource economics). The programme also emphasizes the financial and economic feasibility and sustainability of activities.

4.1.3 Action Strategy for Nature Conservation and Pacific Islands Roundtable for Nature Conservation.

The Action Strategy for Nature Conservation 2003 - 2007 represents priorities for the region generated by the 7th Pacific Islands Conference for Nature Conservation in the Cook Islands. As a regional document its focus is on mainstreaming conservation and it presents a set of specific long and short-term goals and targets focusing on environment, economics and society. SPREP acts in the role of coordinating the Strategy but implementation is undertaken by all stakeholders in the region including local communities, private enterprise, donors, NGOs, governments and international and regional organisations.

This strategy is monitored by the Pacific Islands Roundtable for Nature Conservation which is a coalition of conservation organisations and donor agencies that come together to discuss and develop new ways to address the main issues of nature conservation facing the Pacific islands. The Roundtable have developed a number of tools - an online inventory of nature conservation activities in the Pacific, working groups (these include: invasive species, threatened species and ecosystems, Pacific Islands biodiversity planning, National Biodiversity Strategic Action Plans/national, sustainable conservation action, conservation leadership and training and communications) and an Action Strategy Monitoring Matrix to assist in monitoring and implementation.

4.1.4 Regional Marine Species Program -

Over half the world's known species of cetaceans are found in the region. The area also supports the world's largest remaining populations of dugongs, green, hawksbill, and loggerhead turtles. Dugongs and turtles are recognized as playing a fundamental ecological role in the functioning of coastal marine habitats, particularly seagrass systems. Whales and dolphins are widely regarded as flagship species for Pacific marine ecosystems and feature prominently in promotional tourist material for many Pacific Island states. Many Pacific cultures have legends, stories and traditional uses of marine

mammals and turtles, indicating an importance of these creatures in the identities of people, their way of life and their heritage. They are now considered endangered throughout their range and many small and/or isolated populations are vulnerable to extinction.

▪ ***South Pacific Whale Sanctuary***

Many Pacific Island states have or are likely to declare their Exclusive Economic Zones as sanctuaries. SPREP continues to play an important role in providing information and support to such initiatives. As the number and size of sanctuaries increase, management planning and research needs will also increase. It is also important to foster sharing of information and build these national initiatives to support promotion of the wider South Pacific Whale Sanctuary. So far, PNG, New Caledonia, Fiji, Niue, Samoa, Cook Islands, French Polynesia, and American Samoa have declared national sanctuaries.

▪ ***Action Plans for Dugongs, Turtles, Whales and Dolphins 2003-2007***

Three new marine species action plans have been developed - the Regional Whales and Dolphin Action Plan 2003 - 2007, the Regional Marine Turtle Conservation Programme Action Plan 2003 - 2007 and the Dugong Action Plan 2003 - 2007. The whales and dolphin action plan provides a comprehensive framework for future work that also address the issues on "interaction of whales and fisheries".

▪ ***Review of turtle by-catch in the Western Central Pacific***

SPREP commissioned a review on the turtle by-catch issue that was carried out by SPC in 2002. The review provided: an overview of tuna fisheries, a brief review of biology and ecology of marine turtles, an overview of tuna fisheries monitoring undertaken and a summary of information available on incidental capture, survival and factors affecting marine turtle encounters. The review also suggested measures that might mitigate turtle by-catch and mortality, identified gaps in the present knowledge base and recommended where future work may be directed.

▪ ***Community based marine turtle conservation projects***

Local communities living adjacent to significant nesting beaches throughout the Pacific are being mobilized by the SPREP Turtle programme to implement marine turtle tagging and monitoring and awareness activities on their beaches. A network of community based projects have been established in PNG, Solomon Islands and Vanuatu fully backed up by partner NGOs and supported by the Environment departments in each of these countries. PNG, Solomon Islands and Vanuatu are regional strongholds of nesting leatherback turtles. SPREP is working with communities to secure marine turtle stocks and avoid the dramatic declines that have been observed in Central America, Central Africa and closer, Peninsula Malaysia.

▪ ***Assessment of Interaction of Whales and Fisheries in the Pacific***

Two issues have emerged in relation to whale interaction with commercial fish species: "do large whales eat fish?" and "toothed whales interactions with longline fisheries". A technical expert workshop on Interactions between Toothed Whales and Longline Fisheries reviewed available information on cetacean interactions with longlines and considered potential approaches to mitigation. A Plan of Action and priorities for research to reduce depredation on longlines by cetaceans has also been formulated.

▪ ***Whale watching eco-tourism***

Whale watching tourism has grown significantly over the last few years. SPREP has worked collaboratively with the government and private operators in Tonga to establish

whale-watching tourism. Other countries wishing to set up such industry will be able to learn from the experience gained.

4.1.5 Integrated Coastal Management

Despite numerous regional and national initiatives targeting coastal resource management, the situation with regard to integrated coastal management (ICM) in much of the Pacific is not encouraging. The management responses from the Pacific islands have been hampered by an overall lack of appropriate legislation for ICM or where they exist knowledge is minimal. In many cases there is insufficient capacity to implement existing sectoral management strategies.

Lack of cooperation between agencies traditionally responsible for management of coastal activities, due to competition between financial resources and management roles can be complicated further by conflicting legislation. Conflicting roles can further complicate the lack of cooperation between agencies traditionally responsible for the management of coastal activities.

The increase in population and the shift from subsistence to a cash economy have led to the breakdown in traditional management systems making the management of marine and coastal resources difficult to maintain at sustainable levels both by government and communities.

To help countries address this, SPREP's approach is to work simultaneously at the local-level with site based management programs, with full involvement of, and ownership by, local communities and establishing frameworks and a policy environment at higher levels that forge links between local and national government and bring about integration at national and regional levels between sectors and disciplines.

An example of this type of work can be seen in the International Waters Project (IWP) which is in the process of supporting a number of legislative reviews for environment related legislation. The purpose of these reviews is to identify institutional gaps and inconsistencies at the national level. The work complements the community-based nature of the IWP, which also attempts to support local level management of problems. At the same time, the IWP is currently attempting to identify options for strengthening regional management mechanisms for ICM. This supports local and national level developments.

4.1.6 CROP Marine Sector Working Group

SPREP is actively engaged with other CROP agencies in implementing its work program. This is facilitated by involvement with the CROP Marine Sector Working Group. With representatives from all regional agencies working on different aspects related to marine sector issues this group developed the *Pacific Island Regional Ocean Policy* and this meeting, the *Pacific Islands Regional Ocean Forum*, which seeks to develop a Regional Integrated Framework for Strategic Action in ocean and ocean related initiatives. The framework will provide the basis for action for the next five to ten years for CROP work in the marine sector.

4.1.7 A Regional Invasive Species Programme

Invasive species have been recognized as the leading cause of loss of biodiversity on small islands. A Regional Invasive Species Programme was established in 1998 and has led to the development of a regional invasive species strategy, which called for, as a priority, action to strengthen national capacity to prevent new introductions. Efforts are underway to identify major projects that will assist the Pacific to access the resources required to address urgent regional needs. Increasing cross-sectoral

collaboration at the regional, national and international levels is leading to increasingly integrated efforts. An invasives training project has been developed and is being delivered to the countries of the region as a broad framework for the ongoing support of national efforts to address invasive species of biodiversity concern. So far Niue, Palau and Vanuatu have benefited from this training with others to follow.

4.1.8 A Way Forward

- The development and regional endorsement of the Pacific Islands Regional Integrated Framework for Strategic Action in Ocean and related initiatives.
- Development of national integrated ocean/coastal management policy/legislation /Plans or an integration mechanism (e.g. National Planning Committee, Coastal Advisory Committees, Sustainable Development Committee etc) to coordinate across responsible institutions and multiple legislation.
- Promote interagency cooperation as one agency's actions can have significant adverse impact on the resources of other agencies.
- Proper information management, continuous communication and awareness raising and capacity building for decision makers and civil society in the region to fully appreciate the significance of the environment including coastal resource management.
- Adoption of an ecosystem-based approach to fisheries management, particularly coastal fisheries - a more holistic approach to designing fisheries promoting integrated and sustainable resource management rather than overemphasizing increases in production - including training programs for fisheries managers.
- National and regional networks of Marine Protected Areas and Locally Managed Marine Areas for ecosystems and coastal fisheries management.
- High Seas MPA for protection of submerged seamounts.
- Introduction of social science instruments and frameworks to support sustained behavioral change for natural resource management - such as social assessment and stakeholder participation, participatory planning processes, communications tools such as social marketing and natural resource economics.
- Support for and increased use of community based approaches to conservation and management of inshore resources and strengthening and revitalizing traditional management regimes, supported by science and precautionary approaches.
- Development of appropriate aquaculture initiatives with care that the use of non-native species can pose significant risks - village fishponds and supporting infrastructure (local hatcheries, etc.) in appropriate environments directly improving the food self-sufficiency and quality of the diet for poor households.
- Enhanced intra-regional cooperation and actions on conservation and management of threatened migratory marine species (whales, turtles and dolphins) including regional conservation areas/sanctuaries.
- Completion and implementation of National Biodiversity Strategies and Action Plans is an increasingly important mechanism at the national level for strengthening country capacity to manage key threats and to reach biodiversity goals such as protection of significant species and ecosystems and ensuring sustainability of customary and emerging natural resource uses.

4.2 Pollution Prevention

4.2.1 Challenge

Increasing quantities of solid waste, a lack of controls on chemicals imported into the region and the lack of capacity to manage the range of pollutants are of immediate concern for Pacific islands. In addition to land-based activities, the region's coastal and marine resources are threatened by introduced marine species, shipwrecks, marine accidents and spills and ships' waste and antifouling paints on vessels. The

transboundary nature of most marine pollution requires a coordinated and comprehensive approach to both assessment and control.

Land-based pollutants have been identified as significant threats to the marine environment by several studies in the region. While each of these studies have focused on different issues such as by sources of pollutant, threatened resources, and environmental impact, each of them have linked the land-based sources to human activities. These major activities can be summarized into four major categories:

- Domestic Sources (including urbanization)
- Agricultural activities
- Industrial activities
- Mining and quarrying activities

Domestic sources are by far the major contributor of pollutants to marine pollution. The contaminants of concern that are associated with this category include nutrients, biochemical oxygen demand (BOD), suspended solids and microbial pollution while small amounts of pollutants can be derived from oil, grease, organic chemicals and heavy metals.

As part of its integrated coastal watershed management component, the IWP supports several waste management projects across the Pacific - at both regional and community levels. This is to support behavioural change in the creation of waste together with institutional strengthening to better manage waste. There is an emphasis on the feasibility of waste management options.

4.2.1 PACPOL - Pacific Ocean Pollution Prevention Programme

PACPOL provides the tools, technical advice and assistance needed by SPREP member countries to address shipping related marine pollution with member states responsible for implementation.

One of the first activities for PACPOL was the drafting of a Regional Model Marine Pollution Prevention Act that provided for all International Maritime Organisation Conventions, regional instruments as well as specific issues that had not been covered through international legal instruments. This project has started drafting subsidiary model regulations including "establishment of a marine pollution levy" and "Port Reception Facilities".

As well as drafting the legislation, PACPOL assists members in four focal areas including:

Marine spills - assisting members meet obligations under the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) and Intervention Conventions and the Hazardous and Noxious Substances (HNS) and SPREP Pollution Emergencies Protocol.

Ships waste management - review undertaken which examined obligations under MARPOL (International Convention for the Prevention of Pollution from Ships) and the status of country compliance with these provisions.

Port operations - includes formulating and implementing Environmental Management Guidelines for PI Ports and model Port Marine Spill Contingency Plans.

Invasive marine species - Relates specifically to ballast water and hull fouling - PACPOL is raising awareness of this issue throughout the region and will formulate a regional strategy to address it in 2004-05.

4.2.2 World War II Wrecks

Following significant marine spill incidents in FSM from the sunken WWII US Navy tanker USS Missessinewa, the 2001 SPREP meeting asked SPREP (in collaboration with SOPAC) to develop a regional strategy addressing WWII wrecks. The 2002 SPREP meeting endorsed a Regional Strategy which focused on two phases: a generic preliminary investigation to set up a database of wrecks, carry out a preliminary risk assessment and agree on the intervention of each level of risk and in the second phase to undertake site-specific assessments based on risk priorities identified in the earlier phase of work and implementing the agreed intervention. From this first phase a GIS database on WWII wrecks has been developed.

However the 2003 SPREP meeting decided that regional implementation of the strategy by SPREP would stop and that the second phase of work would be carried out bi-laterally by the state that owned the wreck and the state on whose EEZ it had sunk. SPREP continues to give technical advice and assistance to members as requested in this area.

4.2.3 POPs

The Persistent Organic Pollutants in Pacific Island Countries (POPs in PICs) project was developed to improve the region's capacity to effectively manage its chemical wastes, in order to eliminate or reduce the threat posed by POPs and related chemicals towards the environment and human health.

The POPs in PICs project was designed as two phases:

Phase 1: Assessing stockpiles of wastes and obsolete chemicals and identifying contaminated sites in 13 Pacific island countries. Other activities include education and awareness programmes and a review of relevant legislation.

Phase II: Preparing a more detailed inventory in each of the 13 countries, and then collecting, repackaging and transporting the wastes to a suitable Australian facility for eventual disposal/destruction. Other activities include fulfilling requirements by the individual countries under international, regional, national and local regulatory regimes that control the movement, tracking and disposal of hazardous waste.

The project is currently in the planning stage of Phase II. The actual collection, repackaging and shipping of chemicals should take place around the middle to end of this year. At the end of this project it is envisaged that the Pacific region should be free of the POPs chemicals, possibly a first in any region in the world.

On a related study, UNEP in collaboration with SPREP undertook a survey of the state of management of persistent toxic substances in the Pacific islands region. This prepared a report to provide a regional review of the production, use, environmental impact and environmental transport of the group of chemicals known as persistent toxic substances. These studies together with the lessons learned will give countries a good idea of the need for further improvement in chemicals management. The current POPs in PICs project also has a small component of training for local officers in the countries for handling hazardous material.

4.2.4 Solid Waste - Landfills

The problem of solid waste management in the region is a crucial one due to the lack of land available to deal with this issue. Inadequate measures to combat the growing sources and extent of pollution from this form of waste, coupled with the lack of adequate mechanisms and appropriate technologies for safe disposal, the Pacific

islands' efforts to maintain buoyant and healthy societies, to stimulate development and new investment and a sustainable future for its people may be permanently undermined.

Much work has been undertaken to address the most pressing issues particularly in assisting countries to properly manage their waste and upgrading the overall management of landfills. In Samoa, the successful upgrading of its landfill shows an economical and effective way to improve a waste disposal facility and its management. This is a model that can be applied in other similar islands in the region and the method has been disseminated to several countries. SPREP is also educating and building the capacities of countries to manage their waste more effectively. More work is needed to enable them to overcome the problems associated with waste at the national and regional levels.

A number of regional programmes are also being formally developed. One of the outcomes of PALM (Japan - South Pacific Forum Summit Meeting) suggests development of a regional waste management strategy aimed at understanding waste problems at the regional level. Once the regional strategy is formulated, it can serve as the umbrella document for pursuing waste management policies and actions at national and regional level. Due to the complexities involved in the development of such a document, an integrated approach is being followed with inputs from all countries highlighting their priority needs and requirements in waste management

4.2.5 The Way Forward

- Development of national waste management plans or strategies is urgent and needs to be backed up by appropriately structured legislation with enforcement components.
- Another area of urgent attention is in the regulated control in the movement of hazardous material into and out of the region. Most countries do not have a regulatory mechanism to address this.
- Emphasis on community participation and responsibility in waste management to increase personal accountability (IWP). There is a need for feasibility assessments of alternative management options.
- Countries that are signatory to global conventions and initiatives such as the Stockholm Convention are addressing this but more work is still required in areas of legislation and policy development for an integrated waste stream system and waste minimization.
- Ships' waste management should be integrated within a country's overall waste management. This is how SPREP has formulated the regional ships waste management arrangements and any change in this will rely on any development in overall waste management practices, i.e. the national waste management plans and strategies.
- There are two new areas emerging: the first is shipping related invasive marine species and this is being addressed at the international level through the convention on Ballast Water due for ratification in February. The second is on WWII wrecks where the issue needs to be addressed at the global level.
- The options for recycling in the region need to be maximised, and the use of alternative biodegradable packaging and products developed further.
- Support for the removal of existing stockpiles and the consolidation of investments to improve landfill design and management are important building blocks for the overall reduction of the waste stream. Investing directly in systems for deliberate and permanent reduction in the waste stream, including the identification of environmentally sound and affordable alternatives that will provide significant

benefits in reducing recurrent expenditure in waste management and increase other benefits such as those involved with tourism and public health.

4.3 Climate Change, Variability and Sea Level Rise

4.3.1 Challenge

A major challenge to sustainable development in the 21st century is reversing the negative impacts of climate change. While the international community has initiated steps under the United Nations Framework Convention on Climate Change (UNFCCC) to stabilize greenhouse gases in the atmosphere and promoted carbon trading to assist with this overall objective under its Kyoto Protocol, progress has been slow. The international scientific consensus, represented by the Intergovernmental Panel on Climate Change (2000), projects that unless drastic action is taken, global temperatures will continue to rise and extreme events will become more frequent and intense. This has serious implications for the resources and livelihoods of people in the fragile and vulnerable islands of the Pacific, already witnessing the negative impacts of climate change and sea level rise.

4.3.2 Predicting and Planning for Extreme Weather Events and Sea Level Rise

SPREP is involved in a number of projects to strengthen the meteorological and climatological capacities of countries to plan and predict for climate change. For example, the Atmospheric Radiation Measurement (ARM) Project aims to assess greenhouse gas content in the atmosphere. The Pacific Islands Global Climate Observation System Project (PI-GCOS) is strengthening observation systems in the Pacific by providing useful and practical tools for end users.

SPREP is also a clearinghouse mechanism on the science of climate change, variability and sea level rise and on the inter-relationship between science and policy. This information is provided through public awareness and education activities, the SPREP website, publications, CDs and videos. In addition, there are links and collaborative efforts with partner organizations.

4.3.3 Adapting to Extreme Weather Events and Sea Level Rise

SPREP currently pioneers two main approaches in the Pacific to improving the resilience of Pacific institutions and communities to climate related risks through the Capacity Building for the Development of Adaptation Measures in Pacific Island Countries project (CBDAMPIC). At the institutional level, the project has worked to strengthen capacity and national expertise in order to enable them to identify, consider, and evaluate adaptation options and measures with regards to climate variability and change. This has been made possible through the improvement and coordination of institutional arrangements, the strengthening of national capacities to enable the identification of adaptation options, the evaluation of those options, including technology assessments, and the development of climate change adaptation policies and strategies.

It also ensures wider capacity development amongst civil society and the community through specific training to carry out their own vulnerability and adaptation assessments. This improves local capacity to integrate what is beneficial from the project into ongoing community and organizational strategies and processes. Through its participatory approach to vulnerability and adaptation assessment, communities participate fully in the decision-making process and implementation of programmes. Previous efforts of predominantly 'top-down' approaches are now being complimented by efforts to introduce 'bottom-up' approaches to understanding community vulnerabilities, current capacities and needs to be addressed.

4.3.4 Mitigation

The ultimate objective of the UN Climate Change Convention is stabilizing greenhouse gas concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference with the climate system. Pacific island emissions are insignificant by global standards but their dependence on fossil fuel is high. Sustainable renewable energy technologies provide innovative solutions and SPREP is currently executing the Pacific Islands Renewable Energy Project (PIREP), which aims to identify barriers to the use of renewable energy technologies and provide solutions for its use.

The ozone layer is also affected by the presence of greenhouse gases. The SPREP Ozone Depleting Substances project is designed to implement the Montreal Protocol on Substances that deplete the ozone layer.

SPREP works very closely with UNEP DTIE (Division of Technology, Industry of Economics) to meet the goal of phasing out CFCs by 2005 and introduce appropriate controls on other listed substances (in the Protocol). The project includes training of refrigeration technicians and customs officials and the development of regulations needed to support the controls.

4.3.5 Negotiations and Funding Support

Assistance is needed to enable countries to implement feasible options and access funds for the implementation of activities. SPREP has assisted countries to design and implement project proposals. This has included the establishment of national climate change country teams and the production of National Communications.

Technical/legal advisory services are provided to build the capacity of Pacific island countries and territories to negotiate the climate change related instruments and to assist with the implementation of the obligations of Pacific island Parties under the Framework. Such support has sought to ensure consistency with other international processes such as the WSSD Type II initiatives, Barbados +10 and developments under the Convention on Biological Diversity.

4.3.6 A way forward

Climate change is a serious global issue that marginalizes sustainable development efforts.

- SPREP will continue to promote and support the Regional Framework for Action on Climate Change, Climate Variability and Sea Level Rise. The 2000-2004 Framework will be updated in 2004 to provide a revised strategic tool to generate understanding and support for climate related activities in the region. The framework will outline broad climate related priorities for the region and the linkages between these priorities and international developments. The development of the framework will be a collaborative effort with relevant governments, organisations and institutions.
- Supporting events such as the Annual Regional Meteorological Directors and the Pacific Island Global Observing System (PI-GCOS) meetings.
- Assisting with the development of regional and national strategies and plans to address the meteorological and climatological needs of countries and assist with mobilizing resources to implement these plans.
- Carrying out work with local communities to identify and implement adaptation options and promoting mainstreaming of adaptation into developmental imperatives through an environmental assessment or ecosystem approach.
- Identifying barriers to the use of renewable energy, exploring their utilization by replicating best practice and coordinating the phase out of ozone depleting substances by the year 2005.

- Developing a pool of national expertise to address UNFCCC implementation issues at the international and national level and developing linkages within national planning processes.
- Supporting countries in the negotiations process through briefs and regional workshops so that interventions are factual and effective.
- Raising education and public awareness through the production of materials and publications related to the science of climate change.

4.4. Sustainable Economic Development

All communities in the Pacific want to improve their quality of life in a way that does not affect their cultural, environmental and social values. Development should increase not decrease the quality of life. Sustainable economic development aims to strengthen the planning capacity of Pacific Island countries to achieve sustainable development through integrating balanced decision making at all levels of governance, considering the environment while formulating economic policy or 'mainstreaming' and engaging industry in environmental management.

The key focus for SPREP's work in this area is on integrating environmental and development planning to target the policy and technical enabling environments needed for integrated decision making at the regional and national level for sustainable development.

Work has focussed on improving means to monitor and report on environmental performance and socio-economic pressures on the environment as well as coming up with better ways to identify and deal with existing and emerging threats and opportunities through integrated assessments and planning responses. Efforts are also made in the development of sustainable development policy for improved environmental governance has been undertaken.

4.5. Communication, Human and Policy Development

This programme aims globally at building Pacific islands institutional and human capacity to allow them to manage their environment and develop their respective countries in a more sustainable manner. The delivery is through capacity building, exchange and transfer of skills, knowledge and information and advice across three focus areas: Policy Planning and Institutional Strengthening, Human Resources Development, Information and Communication.

The HRD for Pacific Island Countries' Environment Departments Project is aimed at assisting Environment Departments in six selected countries develop institutional and individual capacities. An Australia volunteer Human Resource Development Strategy Officer is spending up to 4 months in each country to assist in the development of a HRD Strategy for the departments, identify priority needs, develop individual training plans and identify attachment opportunities. Where needed provision is made for Australian Volunteers to be attached with countries to assist to develop capacity in an area identified and prioritized by the Environment Department of each country. Following the development of a HRD Strategy, support for individual capacity building through attachments/interns is available through the project and through other alternative funding sources and arrangements. Since 2002 the project has visited the Marshall Islands, Cook Islands, Kiribati, Niue and is currently in the Solomon Islands with plans to continue to Vanuatu.

SPREP is also working with countries and organisations in the development of a number of training initiatives such as the Pacific Islands Community Based Conservation Course and the Train:Sea:Coast Course which are run by USP with technical and process input from SPREP as well as particular support for training as requested by members.

4.6 Legal agreements

Legal agreements provide the framework for SPREP to collaborate in common action to manage the environment of the Pacific islands region. Most work in this area involves promoting coordination at the national level, providing technical and legal advice to countries and identifying synergies between multilateral environmental agreements as well as with related international processes such as the Convention on Sustainable Development and the Barbados Plan of Action Ten Year Review (BPOA+10).

Regional agreements

SPREP Convention

SPREP is the Secretariat of the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, (the SPREP or Noumea Convention) which came into force in 1990. Its articles cover environmental management and development of natural resources, pollution, wastes, mining and coastal erosion, protection of flora and fauna, environmental impact assessment, scientific and technical co-operation, technical and other assistance and transmission of information.

The SPREP Convention carries two Protocols, the Protocol Concerning Cooperation in Combating Pollution Emergencies in the South Pacific Region and the Protocol for the Prevention of Pollution of the South Pacific Region by Dumping.

Apia Convention

SPREP is also the Secretariat for the Convention on the Conservation of Nature in the South Pacific, (Apia Convention) which came into force in 1990. It relates to the creation of protected areas and national reserves to “safeguard” representative samples of natural ecosystems, geological formations, regions and objects of aesthetic interest or historic, cultural or scientific value. This convention has 6 parties and has been requested by its 2000 Meeting of the Parties to undertake substantial amendment so that it better captures developments in international environmental law and policy as well as the aspirations of the region.

Waigani Convention

SPREP is the Secretariat for the Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region (Waigani Convention). SPREP is also the base for the Pacific Regional Centre for Training and Technology Transfer for the Joint Implementation of the Basel (Control of Transboundary Movements of Hazardous Wastes and their Disposal) and Waigani Conventions in the South Pacific Region that was established in December 2003. This Center aims to strengthen the capacity of Pacific parties to the two conventions in complying with the technical requirements of environmentally sound management of hazardous wastes including minimizing their generation as well as with legal and institutional aspects of the implementation of both conventions.

Global conventions and initiatives

Many SPREP members are also Parties to a range of global conventions and initiatives. Both the conventions and global initiatives (eg BPOA+10, WSSD) often call for appropriate action to be taken at the regional level. By their nature, these agreements are an integral part of the region’s efforts towards sustainable development. They provide further definition to the regional legal framework particularly in relation to conserving biological resources, climate change, hazardous wastes, marine and land-based sources of pollution.

5 SPREP - the way forward

In the environmental sector one of the more difficult challenges of the coming era will be related to mainstreaming environment and the principle of sustainability in development. At the national level this relates to a need to increase mainstreaming of environment into central decision-making and improving capacity, awareness and information to enable cross-sectoral decision-making.

Increasing recognition of the importance of sustainable community led resource management is a factor in this and a particularly important aspect of our work in this region.

More emphasis is being placed on assisting countries in identifying funding mechanisms for capacity building and awareness at government and community level to strengthen countries ability to achieve sustainable development through balanced decision making at all levels of governance. This allows countries to develop appropriate legal and policy frameworks for the implementation of various strategies such as the NBSAPS, Waste Management Strategy, Regional Framework for Action on Climate Change, Climate Variability and Sea Level Rise that identify the priorities of counties and other global and regional agreement and initiatives such as the BPOA+10.

SPREP is applying a new programmatic strategy to the way it addresses it's work in the region which is based on broad long term goals central to our mandate and improved responsiveness to the changing priorities of the region. The issue of sustainable development is a key feature of this. It identifies two operational programmes:

Island ecosystems which specifies that the Pacific islands are able to manage island resources and ocean ecosystems in a sustainable manner that supports life and livelihoods.

This will see a focus on sustainably managing and conserving the terrestrial, coastal and marine ecosystems of the Pacific islands and will work to conserve priority threatened species and to reduce the impact of invasive species and living modified organisms. Capacity building at all levels to meet the challenges of sustaining ecosystems will also be a focus including the integration of poverty eradication needs of communities with ecosystem and species conservation.

The other programme area, Pacific futures has the goal of enabling countries and territories to be able to plan and respond to threats and pressures on island and ocean systems. To do this SPREP will support countries and territories with sustainable development policies for improved environmental governance, paving the way for implementation mechanisms and resources at the national and community level. It will also seek to address threats and pressures such as climate change, climate variability, sea-level rise, pollution, waste and other land-based sources of pollution.