



The cooperative framework for ocean and coastal management in the Pacific Islands: Effectiveness, constraints and future direction [☆]

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Abstract

The framework for management of the ocean and coasts of the Pacific Islands region has been evolving since the early 1970s when Pacific Island countries played a significant role in the negotiations leading to the 1982 United Nations Convention on the Law of the Sea. Commencing with a summary of the provisions of relevant international instruments, this paper presents a broad overview of regional arrangements for ocean and coastal management in the Pacific Islands region. It considers the work of the various regional intergovernmental organizations with active programmes in ocean research and governance and the consultative arrangements that support coordination and collaboration. Consultative arrangements involving other stakeholders, such as local, regional and international nongovernmental organizations are summarised. To improve environmental governance and address increasing environmental threats, particularly in relation to coastal area management, consultative arrangements need strengthening. This applies equally to national and regional level consultation. The institutional and policy framework for the management and conservation of oceanic fish stocks that Pacific Island countries have been refining over a period of 25 years is suggested as providing useful lessons for strengthening coastal management processes and strategies in the region.

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1. Introduction

The Pacific Islands region (Fig. 1) supports less than 0.6 million km² of land. This is distributed between approximately 200 high islands and approximately 2500 low islands and atolls. The majority are tropical with surrounding sea surface temperatures that rarely fall below 20 °C. The islands generally increase in size from east to west with over 75% of all land situated in Papua New Guinea.

In contrast to the small land area, the maritime area under national jurisdiction within declared exclusive economic zones (EEZs) cover an estimated 30.6 million km², equivalent to about 30% of the world EEZ area (Table 1). The Pacific Islands region includes 8 million km² of high seas — some of which is fully enclosed by the EEZs of several island countries. The limited land of the islands, and the relative absence of terrestrial resources to support growing populations, mean that the lives and livelihoods of Pacific Island peoples has, for generations, been dominated by the sea.

Many Pacific Island communities continue to support traditional practices relating to the sea and its resources. This includes traditional inter-island navigation across vast expanses of ocean, sea tenure and management practices for coastal and near-shore resources. At the community level, customary processes continue to be important elements of resource use and management arrangements.

At the national and regional levels, contemporary arrangements for ocean and coastal resource management are drawn from the provisions of a large number of international environment and resource management and conservation instruments. While having mixed success in relation to coastal resource management, the collaborative framework for the management of oceanic fisheries resources in the Pacific Islands region sets global precedents.

The cooperative regional framework for management of ocean and coastal ecosystems in the Pacific supports three distinct components — the first relating to non-living resources, the second concerned with coastal ecosystems, and the third supporting the conservation and management of oceanic migratory fish stocks.

Since the establishment of the Secretariat of the Pacific Community in 1947 (then called the South Pacific Commission), the 14 island States¹ that have achieved independence during the last 25 years and the metropolitan countries with long-term interests in the region (and their affiliated territories) have developed a collaborative framework that is globally unique.

The framework is based on political cooperation, support for environmental initiatives of common interest, harmonised approaches to resource management, economic development, policy matters, technical back-stopping, security, capacity building, education and social issues of shared concern.

Seven regional organisations share responsibilities across these areas: the Pacific Islands Forum Secretariat; Secretariat of the Pacific Community (SPC); Forum Fisheries Agency (FFA); South Pacific Regional Environment Programme (SPREP); South Pacific Applied Geoscience Commission (SOPAC); South Pacific Tourism Organisation (SBTO) and University of the South Pacific (USP) (Table 1). The collaborative framework and

¹Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

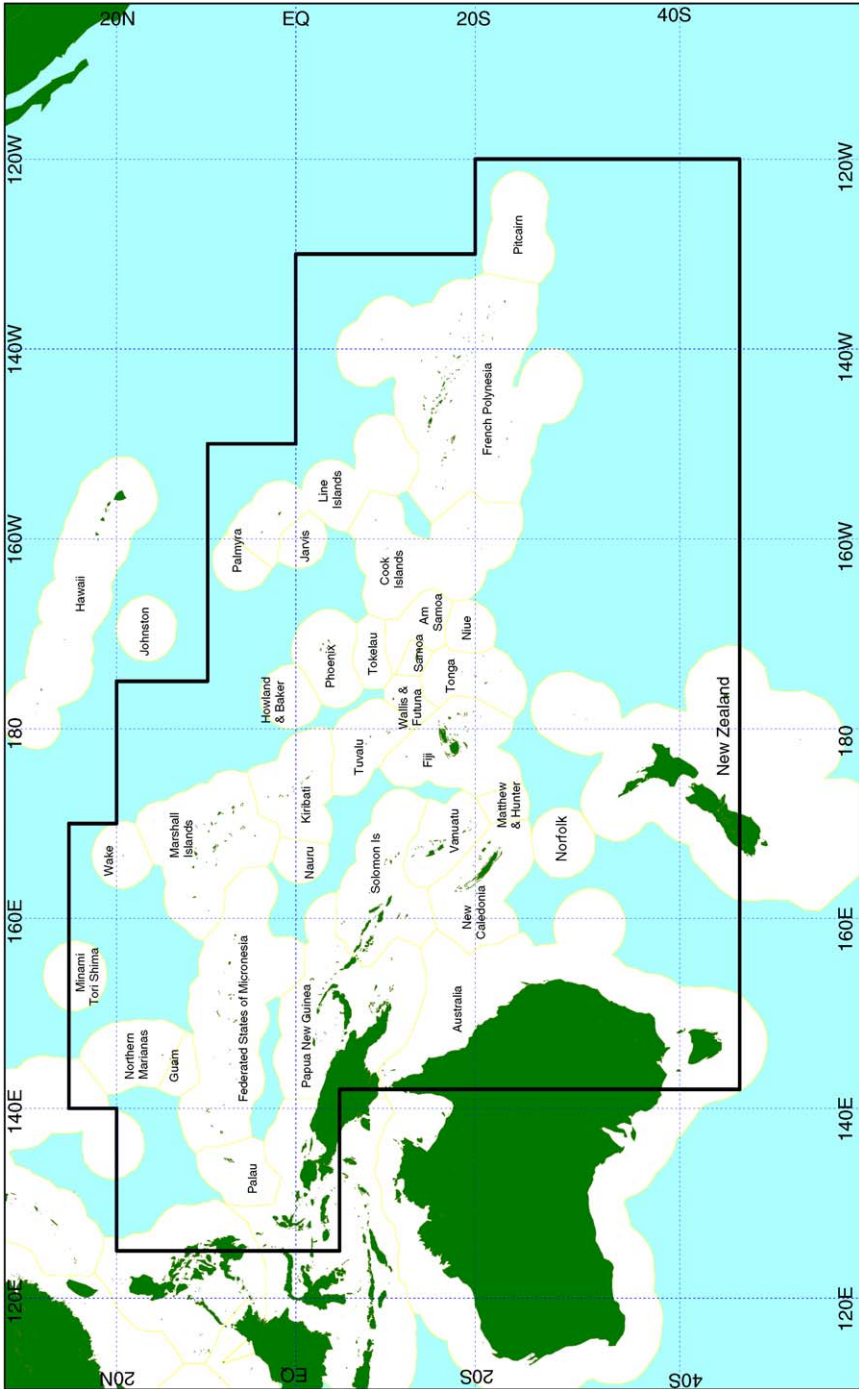


Fig. 1. The Pacific Islands region.

Table 1
Summary statistics for Pacific Island countries and territories including affiliations with regional organisations

County	Status	Mid-2003 population estimate (estimated annual growth %)	Land (km ²)	EEZ (km ²)	Membership
American Samoa	Unincorporated United States (US) territory	61,400 (2.39)	200	390,000	2,3,5,7
Cook Islands	Self-governing free association with New Zealand	17,800 (−0.63)	237	1,830,000	1, 2, 3, 4, 5, 7
Federated States of Micronesia	Self-governing free association with the US	112,600 (1.74)	701	2,980,000	1, 2, 3, 4, 5, 7
Fiji	Independent republic	831,600 (1.04)	18,333	1,260,000	1, 2, 3, 4, 5, 6
French Polynesia	Overseas territory of France	250,000 (1.87)	3,521	5,030,000	2, 3, 5
Guam	Unincorporated US territory	162,500 (1.66)	541	218,000	2, 3, 5
Kiribati	Independent republic	88,100 (1.42)	811	3,600,000	1, 2, 3, 4, 5, 6, 7
Marshall Islands	Self-governing republic in free association with US	54,000 (1.55)	181	2,131,000	1, 2, 3, 4, 5, 6
Nauru	Independent republic	12,100 (2.0)	21.2	436,490	1, 2, 3, 4, 6
New Caledonia	Overseas territory of France	235,200 (2.78)	18,576	1,740,000	2, 3, 5, 7
Niue	Self-governing free association with New Zealand	1,650 (−3.86)	259	390,000	2, 3, 4, 5, 6, 7
Northern Mariana Islands	Commonwealth of the US	75,400 (2.98)	471		2, 3, 4
Palau	Independent republic	20,300 (2.04)	488	600,900	1, 2, 3, 4
Papua New Guinea	Independent state	5,617,000 (2.74)	462,243	3,120,000	1, 2, 3, 4, 5, 7
Pitcairn Islands	Dependency of Britain	50 (4.17)	39	800,000	2
Samoa	Independent state	178,000 (0.55)	2,935	120,000	1, 2, 3, 4, 5, 6, 7
Solomon Islands	Independent state	450,000 (2.50)	28,300	1,630,000	1, 2, 3, 4, 5, 6, 7
Tokelau	Dependency of New Zealand	1,500 (−1.20)	12.1	290,000	2, 3, 6
Tonga	Independent monarchy	101,700 (0.57)	649	700,000	1, 2, 3, 4, 5, 6, 7
Tuvalu	Independent state	10,200 (1.07)	25.9	757,000	1, 2, 3, 4, 5, 6, 7
Vanuatu	Independent republic	204,100 (2.33)	12,189	680,000	1, 2, 3, 4, 5, 6, 7
Wallis and Futuna	Overseas territory of France	14,800 (0.64)	255	300,000	2, 3

Note: 1 — Pacific Islands Forum Secretariat; 2 — Secretariat for the Pacific Community; 3 — South Pacific Regional Environmental Programme; 4 — Forum Fisheries Agency; 5 — South Pacific Applied Geoscience Commission; 6 — The University of the South Pacific; 7 — South Pacific Tourism Organisation.

(Source: For land area and population estimates — Secretariat of the Pacific Community: <http://www.spc.int/demog/Demogen/English01-02/RecentStats/2003/03poster.xls> and Garth Parry, Statistician, SPC).

institutional arrangements in which these organisations collaborate to service the needs of their membership are presented in Fig. 2.

2. The international framework and regional responses

The last two decades have been characterised by increasing engagement of Pacific Island States in international multilateral agreements for coastal and ocean affairs. The most significant, in terms of driving national and regional action in the Pacific Islands, are summarised in Table 2.

3. Regional and sub-regional initiatives

Pacific Island countries and territories have a strong capacity to adapt the provisions of international multilateral arrangements to serve the special interests of the region. This is facilitated through the regional and sub-regional arrangements discussed below.

The 1979 South Pacific Forum Fisheries Agency (FFA) Convention established the FFA Secretariat. The Secretariat supports Pacific Island countries in their efforts to coordinate policy and administrative arrangements for the region's tuna and related fisheries (www.ffa.int). The Convention is a constitutive treaty providing the legal framework for the Agency's activities and responsibilities. All Pacific Island States have either signed or ratified the Convention.

The 1982 Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest is a sub-regional agreement of the eight Pacific States supporting the majority of the tuna catch from the region (www.oceanlaw.net/texts/nauru.htm). The Agreement, which promotes a harmonised approach to the administration of foreign fishing fleets operating within the fisheries zones of the Parties, includes principles that *inter alia* promote:

- priority consideration to licensing fishing vessels of the Parties;
- establishing minimum terms and conditions for licensing foreign fishing vessels;
- cooperation in fisheries monitoring, including information exchange and joint surveillance; and
- cooperation in the management of fisheries stocks of common interest.

Operationalisation of this framework agreement is achieved through the negotiation of subsidiary arrangements. Two implementing arrangements relating to minimum terms and conditions of access for foreign fishing vessels and data and information exchange have been developed. The Parties to the Nauru Agreement are the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu.

The 1986 Convention for the Protection of the Natural Resources and Environment of the Pacific Islands Region and Associated Protocols (Nouméa Convention). In 1982, the SPC, through its environment programme (later called "SPREP") convened a South Pacific Conference on the Human Environment. The Conference adopted the South Pacific Declaration on Natural Resources and the Environment, two Protocols relating to Pollution by Dumping and Pollution Emergencies and the Action Plan for Managing the

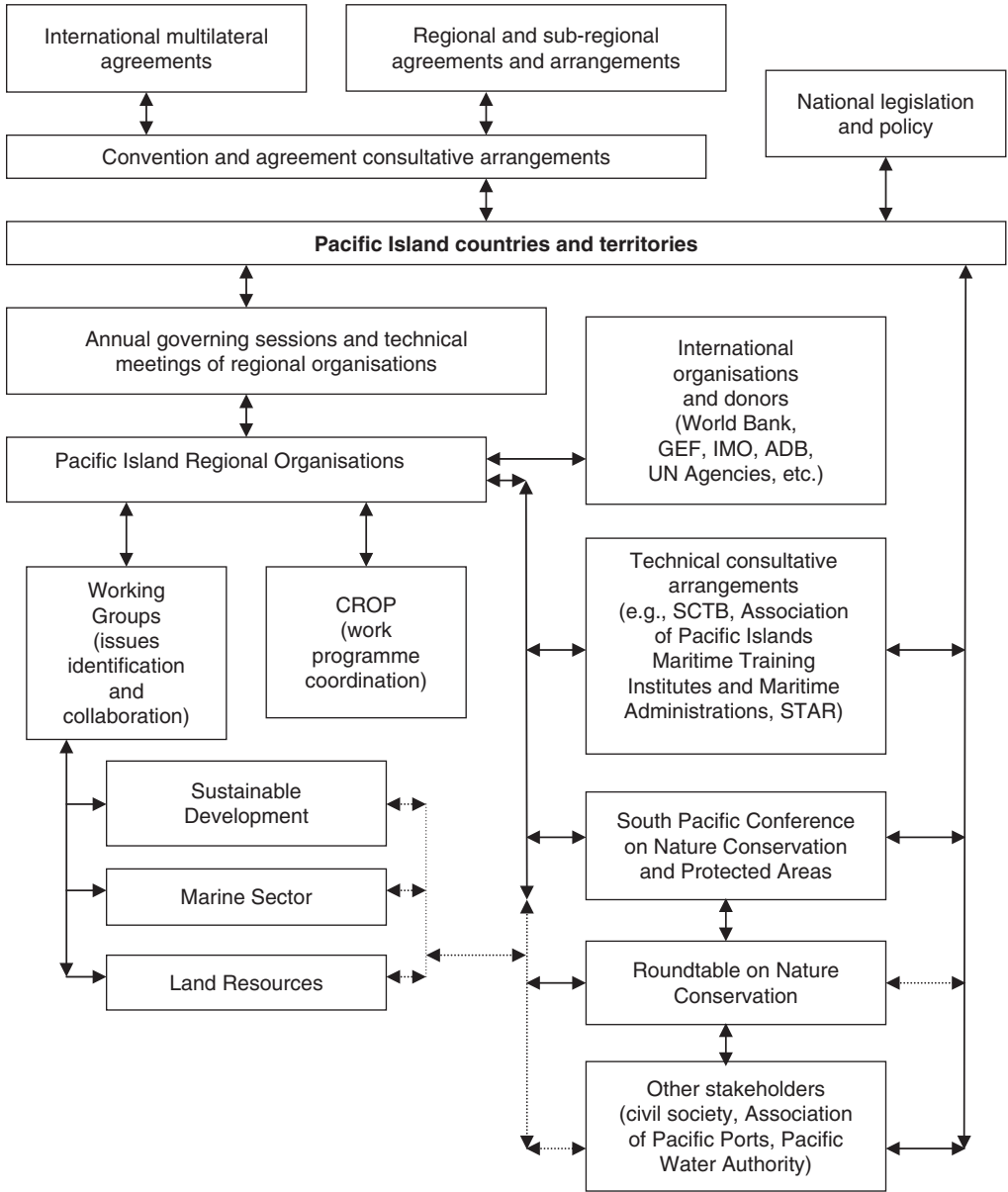


Fig. 2. Collaborative framework and institutional arrangements for marine and coastal affairs in the Pacific Islands Region. Marine and coastal activities: PIFS (policy, economics and trade); SPC (fisheries science and development, maritime, statistics); FFA (fisheries policy and management); SOPAC (non-living resources); USP (education and research); SPREP (environment); SPTO (tourism); and CROP. Some organisations provide secretariat services for some agreements. Refer to text for full titles.

Natural Resources and Environment of the South Pacific Region. Subsequent work by a panel of legal and technical experts led to the adoption of the legal framework for the Action Plan in 1986.

Table 2
Pacific region countries and marine-related multilateral environment agreements

Agreement or Arrangement	Entry into Force	Parties to conventions (July 2004)	Sources
1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (Intervention Convention)	1975	Australia, Fiji, Marshall Islands, New Zealand, Papua New Guinea (PNG), Tonga and Vanuatu	www.imo.org/conventions [1]
1973 Protocol Relating to Marine Pollution other than Oil	1983	Australia, Marshall Islands, Tonga and Vanuatu	—
1971 Convention on Wetlands of International Importance, Especially as Waterfowl Habitat	1975	Australia, New Zealand, Palau and PNG	www.ramsar.org
1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)	1975	Australia, Kiribati, Nauru, New Zealand, PNG, Solomon Islands and Vanuatu	www.imo.org/conventions [2]
1996 Protocol Relating to Environmental Protection from Dumping and Incineration of Wastes or Other Matters at Sea	—	—	—
1972 World Heritage Convention	1975	Australia, Fiji, Federated States of Micronesia, Kiribati, Marshall Islands, New Zealand, PNG, Samoa, Solomon Islands and Vanuatu, Niue and Palau	whc.unesco.org/nwhc/pages/doc/main.htm
1973 International Convention for the Prevention of Pollution by Ships, as modified by the Protocol of 1978 (MARPOL 73/78) and its six annexes	1983	Australia, Kiribati, Marshall Islands, New Zealand, PNG, Samoa, Tonga, Tuvalu and Vanuatu	www.imo.org/conventions [2]
1982 United Nations Convention on the Law of the Sea	1994	Australia, Cook Islands, Fiji, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Niue, New Zealand, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu	untreaty.un.org
1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	1992	Australia, Federated States of Micronesia, Marshall Islands, Nauru, New Zealand, PNG, Samoa and Kiribati	www.basel.int/raif/ratif.html
1992 Civil Liability Convention	1996	Fiji, Marshall Islands, PNG, Samoa, Tonga and Vanuatu	www.imo.org/conventions
1992 Fund Convention	1996	Fiji, Marshall Islands, PNG, Samoa, Tonga and Vanuatu	
1992 Tokyo Memorandum of Understanding on Port State Control	1994	Australia, Fiji, New Zealand, PNG, Solomon Islands and Vanuatu	www.tokyo-mou.org
1992 Agenda 21: Chapter 17 of Agenda 21, Protection of the Oceans, All kinds of Seas, including Enclosed and Semi-Enclosed Seas, and Coastal Areas	—	—	www.un.org/esa/sustdev/documents/agenda21

Table 2 (continued)

Agreement or Arrangement	Entry into Force	Parties to conventions (July 2004)	Sources
and the Protection, Rational Use and Development of Their Living Resources			
1994 United Nations Implementing Agreement for the Provisions of UNCLOS Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks on the High Seas and in Areas Beyond National Jurisdiction (Fish Stocks Agreement)	2001	Australia, Cook Islands, Federated States of Micronesia, Fiji, Nauru, New Zealand, PNG, Samoa, Solomon Islands and Tonga, Niue and Vanuatu	untreaty.un.org
1994 United Nations Framework Convention on Climate Change	1994	Australia, Cook Islands, Federated States of Micronesia, Fiji, Nauru, New Zealand, PNG, Samoa, Solomon Islands and Tonga, Niue and Vanuatu	unfccc.int [4,5]
1994 Convention on Biological Diversity	1993	Australia, Cook Islands, Federated States of Micronesia, Fiji, Nauru, New Zealand, Papua New Guinea, Samoa, Solomon Islands and Tonga, Niue and Vanuatu, Marshall Islands, Kiribati and Tuvalu	www.biodiv.org/world/parties.asp [6,7]
1995 Global Programme of Action on Protection of the Marine Environment from Land-Based Activities, GPA Clearing-House Mechanism	—	—	www.gpa.unep.org [3,8,9]
1995 Programme of Action for the Sustainable Development of Small Island Developing States	—	—	www.un.org/documents/ga [10]
1995 FAO Code of Conduct for Responsible Fisheries	1995	Adopted by the FAO Conference	www.fao.org/fi/agreem/codecond/codecon.asp
2002 World Summit on Sustainable Development	—	Adopted by 191 governments at Johannesburg, South Africa, September 2002	www.un.org/esa/sustdev/documents
Johannesburg Plan of Implementation Declaration for Sustainable Development	—	Adopted at the 17th Plenary Meeting of the World Summit on Sustainable Development on 4 September 2004	—
International Coral Reef Initiative	—	United States, Japan, Australia, Jamaica, France, United Kingdom, Philippines, Sweden, UNEP, UNDP, UNESCO, World Bank, Inter-American Development Bank, IUCN, Alliance of Small Island States, SPREP, Marine Aquarium Council, WWF, Reef Check,	www.icran.org/doc/call_to_action.pdf [11]

Table 2 (continued)

Agreement or Arrangement	Entry into Force	Parties to conventions (July 2004)	Sources
2004 Convention for the Control and Management of Ships' Ballast Water and Sanitation	—	Nature Conservancy, Coral Reef Alliance, South Asia Cooperative Environment Programme, Global Coral Reef Monitoring Network, WorldFish Centre, World Resources Institute, International Coral Reef Initiative-Coordinating Planning Committee Adopted in London on 13 February 2004 (Note: Will enter into force after 12 months following ratification by 30 states representing 35% of world merchant shipping tonnage)	www.imo.org/conventions

The Convention and its two protocols aim to provide a comprehensive umbrella agreement for the protection, management and development of the marine and coastal environment of the Pacific Islands region. It lists the sources of pollution that require control, including pollution from ships, dumping, land-based sources, seabed exploration and exploitation, atmospheric discharges, storage of toxic and hazardous wastes, testing of nuclear devices, mining and coastal erosion. It also identifies environmental management issues requiring cooperation, namely specially protected areas, environmental impact assessment and scientific and technical cooperation (www.spc.org.nc/coastfish/Asides/conventions/). The Convention has been ratified by 12 of the 19 States eligible to become party to it.

The 1986 Action Plan for Managing the Natural Resources and Environment of the South Pacific Region. Articles 2.1 and 2.2 of the 1995 Agreement establishing SPREP stipulate that the Programme shall achieve its purposes through the Action Plan. Adopted by the SPREP Meeting and subject to review every 4 years, the Action Plan is the region's main planning document for interventions, strategies and directives in relation to national and regional environmental priorities, key impact objectives and associated capacity-building processes for managing the environment of the Pacific Islands region. The Action Plan includes means for:

- coordinating regional activities addressing the environment;
- monitoring and assessing the state of the environment, including the impacts of human activities on the ecosystems of the region and encouraging development to be directed towards maintaining and enhancing environmental qualities;
- promoting and developing programmes, including research programmes, to protect the atmosphere and terrestrial, freshwater, coastal and marine ecosystems and species, while ensuring ecologically sustainable utilisation of resources;
- reducing, through prevention and management, atmospheric, land-based, freshwater and marine pollution;
- strengthening national and regional capabilities and institutional arrangements;

- increasing and improving training, educational and public awareness activities; and
- promoting integrated legal, planning and management mechanisms.

The 1990 Apia Convention on Conservation of Nature in the South Pacific. The Apia Convention was negotiated in the mid-1970s to support national and regional action for the conservation, utilisation and development of the natural resources of the South Pacific region. The Convention prescribes the establishment and maintenance of national parks, protected areas and reserves to protect indigenous flora and fauna (www.spc.org.nc/coastfish/Asides/conventions/). The Convention has been ratified by five of the 19 States eligible to become party to it.

The 1992 Palau Arrangement for the Management of the Western Pacific Purse Seine Fishery. The Parties to the Nauru Agreement negotiated the Palau Arrangement, in response to a rapid expansion of purse seine fishing effort in the region and concerns over the impact of purse seine fishing on juvenile yellow fin and bigeye tuna (www.spc.int/oceanfish/html/sctb/sctb14/). In addition to resource conservation concerns, the Arrangement also seeks to maximise the value of available purse seine licenses to the Parties by placing a cap on the number of purse seine vessels collectively licensed to operate in their EEZs. Priority for the allocation of licenses is assigned to the domestic vessels of the Parties.

Although many Pacific Island States have developed national tuna management plans in the last 5 years, the Palau Arrangement is the only formal regional arrangement that provides means for Pacific Island countries to collaborate to manage fishing effort and promote sustainable resource use. Although a useful first step, the effectiveness of the Arrangement has been diminished by the increase in fishing capacity of many of the vessels operating over the last decade and the difficulties in managing vessel numbers. The establishment of the Western Pacific Fisheries Commission in 2005 partially addresses this concern, at least with respect to high seas areas.

The 1992 Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region. This Treaty, based on Article 73 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), was negotiated to promote the optimum utilisation of limited fisheries surveillance and fisheries law enforcement resources in the Pacific Islands region. It provides a vehicle for cooperation in fisheries law enforcement and fisheries surveillance. The treaty achieves this by supporting the harmonisation of licensing arrangements for fisheries access (to promote efficiency in enforcement) and the sharing of physical assets, information and personnel between State parties. Subsidiary agreements between two or more parties are required to support actual implementation. All Pacific Island countries, except New Zealand and Tuvalu, have ratified the Treaty (www.oceanlaw.net/texts/niue.htm).

The 1989 Wellington Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific. This Convention was negotiated as part of the global response to concerns over the rapid expansion of fishing for albacore tuna in the Atlantic, Pacific and Indian Oceans by Japanese, Korean and Taiwanese driftnet fleets in the 1980s. The Wellington Convention prohibits the use of floating gillnets exceeding 2.5 km in the Convention Area. All Pacific Island countries except for Papua New Guinea and Tonga have signed or ratified the Convention (www.oceanlaw.net/texts/wellington.htm).

The 1995 Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and the Control of the Transboundary Movement and Management

of Hazardous Wastes within the South Pacific Region (*Waigani Convention*). The purpose of the Convention is to ensure that any transboundary movements of hazardous wastes within the Convention Area are completed in a controlled and environmentally sound manner. All Forum Island countries, except Tuvalu and the Marshall Islands, have signed the Convention, and the Federated States of Micronesia, Fiji, Papua New Guinea and Solomon Islands have ratified it. SPREP is the Secretariat for the Convention.

The 1997 Strategic Action Programme for the International Waters of Pacific Small Island Developing States. In 1996 the Pacific Islands Forum requested SPREP to coordinate the development of the Strategic Action Programme (SAP) to address the following activity areas:

- integrated conservation and sustainable management of coastal resources, including freshwater resources;
- integrated conservation and sustainable management of oceanic resources;
- prevention of pollution through the integrated management of land or marine-based wastes; and
- monitoring and analysis of shore and near-shore environments to determine vulnerability to environmental degradation.

During formulation of the SAP in 1997, environmental threats and their root causes were examined from the perspective of critical species and their habitats, and living and non-living marine resources. The SAP was designed to support actions to address the root causes. The International Waters Project (IWP) is implementing the SAP over the period 2000–2007. The IWP comprises two complementary, nationally driven, regionally coordinated, consultative programs — one focused on integrated coastal and watershed management, and the other on oceanic fisheries management (www.sprep.org/ws/iwp).

The Pacific Islands Framework for Action on Climate Change, Climate Variability and Sea Level Rise. In 1997, SPREP commenced the implementation of the Pacific Islands Climate Change Assistance Programme (PICCAP). PICCAP sought to build on work undertaken during the preparation of National Environment Management Strategies (NEMS) in 1992–1993 in relation to adaptation and mitigation measures associated with climate change and variability and rising sea levels. At the 2000 Annual Meeting of SPREP in Guam, members adopted a Pacific Islands Framework for Action on Climate Change, Climate Variability and Sea-Level Rise. The Framework for Action identifies the integral relationship between climate change and integrated coastal management (ICM) in relation to marine ecosystems, pollution of the marine environment, institutional strengthening, stakeholder coordination and cross-sectoral policy development (www.sprep.org/ws/climate_change/).

The 2001 Pacific Wastewater Strategic Action Plan. The 1985 Montreal Guidelines, adopted by the United Nations Environment Programme's (UNEP's) Ad Hoc Working Group of Experts on the Protection of the Marine Environment from Land-Based Sources, define land-based sources of marine pollution as: “*Municipal industrial or agricultural sources, both fixed and mobile, on land; discharges which reach the marine environment, in particular: (1) from the coast, including from outfalls, discharging directly into the marine environment and through run-off; (2) through rivers, canals or other watercourses, including underground watercourses and (3) via the atmosphere.*”

An overview of land-based pollutant sources and activities affecting the marine, coastal and freshwater environment in the Pacific Islands region in 1999 estimated that about three quarters of all marine pollution comes from human activities on land [9]. The most significant land-based sources for the region were identified as: domestic sewage-discharges; solid waste from domestic, industrial, and construction activities; fertiliser use; sediments; and increasingly toxic wastes from industrial, agricultural, and domestic sources.

Following a 1999 initiative by SPREP member countries and the Global Programme of Action for Protection of the Marine Environment from Land-based Activities (GPA), the GPA Coordination Office, in cooperation with the World Health Organisation (WHO) developed a Pacific Wastewater Strategic Action Plan (www.sopac.org.fj/Data/Press/Detail.html?PRID=120). The Plan's objective is to support the efforts of Pacific Island countries to address the serious public health problems and the degradation of coastal ecosystems that result from the disposal of inadequately treated municipal wastewater. It supports the convening of regional meetings to promote the development of national, regional and global programmes to address wastewater threats to the environment. The recommendations for decision making aim to guide local and national decisionmakers and professionals on appropriate and environmentally sound wastewater management systems and associated investments. Subsequent regional discussions, under the sponsorship of the Asian Development Bank (ADB) and SOPAC, provided Pacific Island countries with significant support in preparing for the Third World Water Forum in 2003 [12].

The 2002 Pacific Islands Regional Ocean Policy. At the direction of the Pacific Islands Forum at Palau in 2000, the Council of Regional Organisations of the Pacific-Marine Sector Working Group, developed a Pacific Islands Regional Ocean Policy. The Thirty-Third Pacific Islands Forum held in Suva, Fiji, in August 2002, adopted the Policy (www.piocean.org), which presents a vision for a “Healthy Ocean that sustains the livelihoods and aspirations of Pacific Island communities.” The five guiding principles of the Policy are as follows:

- improving our understanding of the ocean;
- sustainably developing and managing the use of the ocean resources;
- maintaining the health of the ocean;
- promoting the peaceful use of the ocean; and
- creating partnerships and promoting co-operation.

The Pacific Islands Regional Ocean Forum (PIROF) was convened in Suva, Fiji in February 2004. The Forum brought together governments, regional organisations and civil society to promote the sustainable development of the region's oceanic and coastal resources. The result was an integrated strategic action framework intended to support implementation of the Policy.

The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific (Western Pacific Fisheries Convention). The objective of the Convention is to promote the conservation and sustainable use of highly migratory fish stocks in the Western and Central Pacific Ocean. To achieve this, Parties agree, among other things, to:

- adopt measures to ensure long-term sustainability of highly migratory fish stocks and promote their optimum utilisation;

- ensure that such measures are based on the best scientific evidence and take account of the special requirements of developing States in the Convention area, particularly small island developing States;
- apply the precautionary approach;
- assess the impacts of fishing, other human activities and environmental factors on target stocks, non-target species, and species belonging to the same ecosystem or dependent upon or associated with the target stocks;
- adopt measures to minimise waste, discards, catch by lost or abandoned gear, pollution originating from fishing vessels, catch of non-target species, both fish and non-fish species;
- protect biodiversity in the marine environment;
- take measures to prevent or eliminate over-fishing and excess fishing capacity;
- take into account the interests of artisanal and subsistence fishers;
- collect and share complete and accurate data concerning fishing activities; and
- implement and enforce conservation and management measures through effective monitoring, control and surveillance.

The Convention entered into force on 19 June 2004, and as of July 2004, all ratifications or accessions were by the following Pacific Island States: Australia; Cook Islands; Federated States of Micronesia; Fiji Islands; Kiribati; the Marshall Islands; Nauru; New Zealand; Niue; Papua New Guinea; Samoa; Solomon Islands; Tonga and Tuvalu (www.ocean-affairs.com/convention.html).

The Draft Master Plan for Solid Waste Management in Pacific Island Countries. In 2003, the Government of Japan provided assistance to Pacific Island countries to draft a Master Plan for managing solid waste in the Pacific Islands at national and regional levels. The draft Master Plan is based on three strategies:

- institutional activities, including policy development, capacity building, information exchange, and public education and awareness;
- improvement and upgrading of existing waste management and disposal systems; and
- development and/or enhancement of waste minimisation activities, such as recycling, so as to reduce the quantities of wastes being produced;

The Plan is to be implemented over a period of 10 years. Emphasis is on sustainable waste management practices through the use of appropriate technologies and management systems. There is also a strong focus on self-help and in-country capacity building (www.sprep.org/ws/solid_waste/).

4. Regional coordination

4.1. Global interests

Global agencies, with Pacific Islands regional operations, have published policies that guide their respective interventions in relation to the environment in the Pacific Islands. The ADB's 2005–2009 Pacific Regional Environment Strategy and the European Union's Code of Conduct for Coastal Zones are good examples of these. They promote principles relating to the precautionary approach, ecosystems management, governance, land-based

pollution, user-pays, stakeholder engagement and participation, integration, institutional issues and supporting law, and good science to support decision-making. Other international agencies, such as the Economic and Social Commission for Asia and the Pacific, the UNEP, the United Nations Development Programme (UNDP) and the United Nations Education, Scientific and Cultural Organization (UNESCO), support a diverse range of specialist services to marine, coastal area and watershed initiatives in the Pacific Islands region, the policy and guidance for which are periodically published and disseminated.

4.2. Regional organisations

Many global agencies have established effective partnerships with established regional institutions based in the Pacific Islands region. The region supports seven organisations that support programmes with activities in watersheds, coastal areas and oceans. The organisations are as follows:

- *Pacific Islands Forum Secretariat*: PIFS, established in 1971, has the regional mandate for political affairs and regional coordination. It has a membership of 16 countries — Australia, New Zealand and the 14 independent island States of the region. Although it does not support technical programmes concerned with natural resources management or coastal and marine affairs, it does coordinate high-level political activities related to these issues (www.forumsec.org.fj/). It supports coordination through several specialist-working groups. Of the working groups that are supported by PIFS, one focuses on sustainable development and another concentrates on marine resources.
- *Forum Fisheries Agency*: The FFA, which is based in Honiara, Solomon Islands, has 17 member countries — the same as the PIFS, with the addition of Tokelau (www.ffa.int). It was established by an international convention in Honiara, Solomon Islands, in late 1979, following United Nations-sponsored developments in the Law of the Sea in the 1970s, which recognised the sovereignty of coastal states over economic resources out to 200 miles offshore. The FFA programme of work is determined at an annual session of members meeting as the Forum Fisheries Committee. The work of FFA is focused on fisheries management, fisheries economics and administration of multilateral fisheries access arrangements. It supports programmes concentrating on fisheries law, fisheries monitoring, compliance and enforcement, fisheries economics and marketing and treaty administration.²
- *Secretariat of the Pacific Community*: Established in 1947, the SPC, based in Noumea, New Caledonia, has 26 member countries and territories. The membership includes the same countries as those belonging to PIFS, plus France and its Pacific territories (French Polynesia, Wallis and Futuna and New Caledonia), the United States and its Pacific-affiliated territories (Guam, Commonwealth of the Northern Marianas and American Samoa), and the United Kingdom (including Pitcairn). Tokelau also

²The FFA Convention foresees the need for “additional international machinery” to provide for cooperation in “conservation and optimum utilisation” of tuna resources, between “all coastal states and all states... harvesting... such resources.” The establishment of the Tuna Commission under the Western Pacific Fisheries Convention will bring this to realisation (www.ffa.int).

effectively participates in the work of SPC as a full member. Members meet annually as the Committee of Regional Governments and Administrations (CRGA) to discuss work programme and budget issues for the Secretariat. A Conference of the Pacific Community, a higher-level policy body that agrees to priority areas of future work for the organisation, follows CRGA. SPC focuses on providing a broad range of services to the marine and fisheries sector, land resources (forestry and agriculture), socio-economics, statistics, health and communications in the Pacific Islands region. It supports programmes targeting coastal fisheries, oceanic fisheries and maritime issues (transport and shipping) (www.spc.int).

- *South Pacific Applied Geoscience Commission*: Based in Suva, Fiji, SOPAC has 16 member countries — the same members as PIFS. In addition, two territories of France (French Polynesia and New Caledonia) and American Samoa have associate membership. An annual Council, supported by a Technical Advisory Group and a Scientific and Technical Advisory Network, determines the work programme of the organisation. SOPAC's work focuses on providing its members with assistance in resource development, environmental science, national capacity development. Its focus includes: minerals; water and energy resource identification; promotion and development; environmental geoscience; human resource development; and disaster management (www.sopac.org.fj/). SOPAC's programme of work extends from deep-sea minerals to coastal and watershed issues particularly in relation to freshwater resources management and island vulnerability and hazard assessment and response. As SOPAC supports programs dedicated to islands ecosystems management and coastal processes, the work of SPREP and that of SOPAC are closely related.
- *South Pacific Tourism Organisation*: In the early 1980s, an informal association of national tourism organisations in the Pacific Islands region formed the Tourism Council of the South Pacific. The current membership comprises of American Samoa, Cook Islands, Fiji Islands, French Polynesia, Kiribati, New Caledonia, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Following a detailed review in 1998, the organisation was re-named the South Pacific Tourism Organisation. The objective of the organisation is to foster regional co-operation in the development and promotion of tourism to and within the island nations of the South Pacific. A key concern for SPTO is the sustained health of the ocean and coasts (www.tesp.com/spto/profile.shtml).
- *University of the South Pacific*: Established in 1968, USP is based in Suva, Fiji. A Council comprising representatives from the 12 island member States governs USP.³ The University has developed considerable capacity in research, particularly in the areas of business management, teacher education, politics, Pacific studies, marine studies, physical and human geography, agriculture, science and technology and eco-tourism. It supports a broad range of study in terrestrial and coastal physical, chemical and biological sciences, resources management and environmental affairs. The University has three main campuses — i.e., at Fiji, Vanuatu and Samoa. In addition an innovative distance education programme supported by the University's sophisticated satellite communications network, USPNet, delivers academic courses to almost half of USP's total student body through local University Centres in 12 Member Countries (www.usp.ac.fj/).

³Papua New Guinea and Palau are not members of USP.

- *South Pacific Regional Environment Programme*: Based in Apia, Samoa, SPREP has the same membership as SPC, except for the United Kingdom and Pitcairn. It was established, originally as a programme within SPC, to take responsibility for regional coordination on environment issues, resource management and conservation. SPREP's mandate is to provide assistance to its members to protect and improve the Pacific Islands environment and to ensure sustainable development. It is focused on efforts to sustain the integrity of the ecosystems of the Pacific Islands region to support current and future life and livelihoods. SPREP supports two Strategic Programmes — Island Ecosystems and Pacific Futures. Cross-cutting services incorporate capacity building, information clearinghouse services, policy and legal services and information and communications technology. Priority areas of technical support are sustainable resource management and conservation (including invasive species), waste management and pollution control, climate variability and economic development (principally aimed at mainstreaming environmental issues in regional and national decisionmaking to promote sustainable development) (www.sprep.org.ws).

4.3. *Coordination among regional agencies*

All regional organisations support an annual meeting of their respective members. In addition to considering administrative and financial issues relating to the organisation as a whole, the respective governing bodies receive reports on progress with the implementation of the approved programme of work. This is based on periodically reviewed corporate plans that identify priorities for current and future action.

The mandates of the various regional agencies provide both opportunities for collaboration and potential for overlap in the services provided to Pacific Island countries. To avoid duplication and promote collaboration and coordination, regional agencies participate in numerous bilateral or multi-agency consultative arrangements. The paramount of these is an annual session involving the heads of the regional agencies.

The Council of Regional Organisations in the Pacific (CROP), whose membership includes all regional organisations in the Pacific Islands region, supports an annual meeting of CROP agency heads. The objective of the meeting is to promote joint initiatives, identify areas of mutual interest and formulate strategies for addressing priorities and issues. In addition, several CROP agencies maintain a formal bilateral Memorandum of Understanding. Such memoranda may be periodically reviewed during informal colloquium-type sessions.

The FFA and SPC, SPC and SOPAC, SPC and SPREP, SPC and USP, and SOPAC and SPREP maintain such agreements — all of which, either implicitly or explicitly, refer to marine, coastal and watershed activities at the regional and national levels. SPREP and SOPAC's Joint Coastal Protection Plan, which focuses on developing national capacity for management of the coastal zone, and which was endorsed by Forum Leaders in 1996, is a good example of such an arrangement.

Additionally, CROP maintains several cross-sectoral working groups that have been established to support collaboration, and reduce overlap, among regional agencies. Three of those working groups — Sustainable Development, Land Resources and the Marine Sector — are concerned with issues relevant to oceans governance and coastal zone management.

In addition to the normal governing council arrangements, regional organisations currently support three consultative mechanisms dedicated to Pacific Island natural systems research and resource management. SPC's Heads of Fisheries Meeting and the Standing Committee on Tuna and Billfish supported by the Oceanic Fisheries Programme are dedicated to fisheries. SOPAC's Science Technology and Resources Network supports discussion on geoscience issues.

4.4. Heads of Fisheries

The Heads of Fisheries is part of SPC's corporate governance structure. It meets, annually, if funding permits, to provide guidance to the Secretariat on priorities in both coastal and oceanic fisheries. In addition to advice received through the Standing Committee on Tuna and Billfish (SCTB), the Heads of Fisheries Meeting receives reports from specialist technical groups. Such groups may be convened to consider specific technical issues which may have implications for SPC's programme of work in relation to fisheries. The Heads of Fisheries provides an opportunity for officials from Pacific Island countries and territories to exchange ideas with a broad range of stakeholders from international fisheries agencies and the donor community.

4.5. Standing Committee on Tuna and Billfish (SCTB)

SPC's Oceanic Fisheries Programme serves as the secretariat for SCTB. The Standing Committee is an annual forum for fisheries scientists and fisheries managers actively involved in scientific issues related to research and stock assessment for Western and Central Pacific tuna and associated species. Participation includes representatives from Pacific Island States and territories, international tuna research and management institutions and States actively fishing in the region. The aims of SCTB are to provide a consultative means to:

- coordinate fisheries data collection, compilation and dissemination according to agreed principle and procedures;
- review research on the biology, ecology, environment and fisheries for tuna and associated species in the Western and Central Pacific Ocean;
- identify research needs and provide a means of coordination, including the fostering of collaborative research, to most effectively and efficiently meet research needs;
- review information concerning the status of stocks of tunas and associated species in the Western and Central Pacific Ocean and produce statements concerning the status of stocks, where appropriate; and
- provide opinions on various scientific issues related to data, research and assessment of Western and Central Pacific Ocean tuna fisheries.

4.6. Science, Technology and Resources Network

SOPAC's Science, Technology and Resources Network (STAR) was founded in 1985 as a vehicle to assist the international research community to provide advice to SOPAC. In association with a Technical Advisory Group, which provides technical advice during the

formulation of SOPAC's annual work programme, STAR provides a forum for international and regional experts to propose priority issues for consideration by SOPAC and its members. STAR usually meets immediately prior to SOPAC's annual governing council.

4.7. *Association of Pacific Ports (APP)*

The APP is a trade and information association founded in 1913 as the Association of Pacific and Far East Ports. Its purpose is to promote increased efficiency and effectiveness of the ports of the Pacific (www.associationofpacificports.com/). Programs of the APP are aimed at enhancing the technical and governance expertise of commissioners and other port officials through meetings, educational seminars and the exchange of appropriate communications. These programs are also pertinent to the needs of ports' management and technical staff. The APP has recently developed an Environment Accord profiling environmental standards and goals for members.

All ports located in areas tributary to the Pacific Ocean are eligible to join the Association of Pacific Ports. Current membership from the islands region includes ports in American Samoa, Pohnpei, Guam and Hawaii.

4.8. *Other arrangements*

Inter-governmental cooperation on marine and coastal issues outside the region supported by the Pacific Islands regional organisations is rare. Occasionally, and normally with external funding assistance, Pacific Island countries will support technical exchanges of experts to assist on marine and coastal management and research issues. American-affiliated territories (American Samoa, Commonwealth of Northern Marinas and Guam, including Hawaii) collaborate on a broad range of coastal resource management initiatives mainly associated with fisheries, through the Western Pacific Regional Fisheries Management Council based in Hawaii.

The same territories, with the addition of Marshall Islands, Palau and the Federated States of Micronesia, also participate in the Marine Resources Pacific Consortium (MAREPAC) coordinated through the University of Guam. One of the objectives of MAREPAC is to provide a framework through which local groups, villages, institutions, agencies, nongovernmental organisations (NGOs), private enterprises and individuals can identify concerns and set priorities in addressing ocean-related issues. Activities to date have included ridge-to-reef type projects in several Micronesian countries.

4.9. *Involving NGOs*

Regional multinational organisations increasingly involve civil society in their work. This was most evident during regional preparations for the World Summit of Sustainable Development (WSSD) in 2002 and the lead up to the 10-year review of the Barbados Programme of Action for Small Island Developing States in Mauritius in early 2005. The CROP Marine Sector Working Group also broadened its consultative framework to engage NGOs for the PIROF planning in February 2004.

Several large international NGOs (and an increasing number of national NGOs) are expanding their activities in the region. This is preparing them well in adding value to

resource management and conservation initiatives that have previously been dominated by government institutions or regional agencies.

Organisations, such as the World Wide Fund for Nature, Conservation International, The Nature Conservancy, The International Conservation Union (IUCN) and the Foundation for the Peoples of the South Pacific (with national offices or affiliates in 10 Pacific island countries) have all established offices in the region. Although current operations are relatively modest, significant global networks and dedicated and knowledgeable staff are driving a significant increase in NGO capacity to support resource management and environmental governance in the region.

Attempts to coordinate NGO work and that of Governments and inter-governmental agencies are not new. Such coordination has been promoted since 1975, when the government of New Zealand sponsored a South Pacific Conference for National Parks and Reserves. SPREP assumed responsibility for the Conference in 1985, and the title was changed in 1990 to the Conference for Nature Conservation and Protected Areas.

The Sixth Conference, held in the Federated States of Micronesia in 1998, established the Pacific Islands Roundtable for Nature Conservation. The Roundtable has taken responsibility for the Action Strategy for Nature Conservation in the Pacific Islands Region — a Strategy formally endorsed by many regional and international multinational organisations and NGOs — including the Chairman of the SPREP Meeting on behalf of Pacific Island countries and Territories that are members of SPREP. The Action Strategy has, since the first version was endorsed by the Conference in 1975, acknowledged the importance of conservation and sustainable management of watersheds and coastal resources and environments.

4.10. Locally Managed Marine Area Network (LMMMA)

The LMMMA Network is a group of institutions and practitioners that collaborate to share learning experiences and improve the potential for success of their individual and collective coastal conservation efforts. LMMMA provides guidance and capacity building to members in the areas of project design, management, monitoring, analysis, and communication associated with the establishment and management of marine protected areas. Large philanthropic institutions in the United States are the principal sources of support for the work of the Network. Regional coordination is facilitated through USP.

5. National context

The capacity of the Pacific Islands region to fully engage in multilateral environment and resource management and conservation agreements, including their full implementation at the regional and national levels, is constrained by limited technical and financial resources. This is compounded by the rapid increase in the number of arrangements Pacific Island countries are expected to participate in, as well as the status of national legislation (some dating from colonial times).

Most Pacific Island countries continue to support national legislation that is sector-based. The result is a relatively large number of instruments that often support overlapping authority and mandates. This creates significant challenges for internal coordination and integration. Recent initiatives, such as those associated with national preparations for the WSSD and the 10-year review of the Barbados Programme of Action, however, have

promoted increased multisectoral consultation across government agencies and institutions and including civil society.

In some countries, such as the Cook Islands and Palau, national environment committees, with a broad mandate to consider a wide range of environmental issues, are being established. A guiding principle for many of these arrangements is to serve as a vehicle for broad-based consultation.

Regionally coordinated, nationally executed programs, such as NEMS, National Biodiversity Strategies and Action Plans and the SAP, support national level consultative arrangements which offer potential to strengthen management of marine and coastal ecosystems. Such project-specific, multisectoral task forces and working groups demonstrate considerable potential to become the national focus for broad stakeholder participation in environment and sustainable resource management arrangements.

5.1. *National environment management strategies*

In the early 1990s, SPREP, in association with the ADB, UNDP, IUCN, collaborated with SPREP Members to prepare National Environment Management Strategies and National Environmental Action Plans (NEAP).⁴

NEMS was viewed as a first step in the dynamic process of identifying appropriate issues and strategies for promoting environmentally sustainable development and the priority environmental programmes (NEAP) that were required to address them. They identified priority needs associated with integrated coastal and watershed planning and management. They described needs to address land-based sources of pollution, threats associated with sea-level rise, the non-sustainable utilisation of coastal resources, strengthening multi-sectoral consultation, capacity building and institutional strengthening. They also provided a focus for securing political support for environmental initiatives — the lack of which was recognised as a major constraint to improved environmental governance at the regional and national levels.

5.2. *National biodiversity strategies and action plans*

During the period 1999–2002, with the support of the GEF, and executed by the UNDP, Pacific Island parties to the Convention on Biological Diversity undertook the preparation of a National Biodiversity Strategy and Action Plan (NBSAP). NBSAP preparations included support for a multisectoral Steering Committee that assimilated material from technical working groups and community workshops. In formulating the Plans, Committees considered issues related to the variety of life forms, different plants, animals and micro-organisms, the genes they contain, and the ecosystems they form. These issues were usually considered at three levels: genetic diversity; species diversity and ecosystem diversity. All NBSAPs identify threats to coastal ecosystems and responses required to address those threats.

⁴The NEMS Project with UNDP assistance was completed in seven countries — Kiribati, Nauru, Niue, Palau, Tokelau, Tuvalu and Samoa. It complements similar activities undertaken in six other countries through the ADB-funded Regional Environment Technical Assistance Project or IUCN assistance (Cook Islands, Fiji, Marshall Islands, Solomon Islands, Tonga, and Vanuatu). Vanuatu, Fiji and Tonga termed its Strategies the National Conservation Strategy, the National Environment Strategy and the Action Strategy for Managing the Environment, respectively.

5.3. *Ocean Resource Management Plan (ORMP)*

American Samoa recently completed a comprehensive consultative process to develop an ORMP that may serve a useful model for other Pacific Island countries [13].

The ORMP calls for the creation of four resource area advisory groups — i.e., one each to deal with watersheds, near-shore waters, harbours, and the territorial and high seas. The groups are composed of representatives from territorial and federal government agencies, environmental and non-profit groups, private industry and community members. The advisory groups are tasked with coordinating existing resource management plans, and developing and implementing 3- to 5-year action strategies for their resource area.

The Plan also establishes a high-level Ocean Resource Management Council. The Council serves as a policy body and oversight committee of the four advisory groups. It reports to the territory's Governor bi-yearly.

5.4. *Policy framework for Integrated Coastal Management (ICM)*

With the support of the Institute of Applied Science at USP, in association with the University of Rhode Island, a multisectoral consultative process involving government agencies, local NGOs and communities is being undertaken on the Coral Coast of the main island of Fiji, Vitu Levu. The objectives of the project, which commenced in 2003, include to:

- demonstrate how ICM can be implemented effectively to address pressing national coastal management issues through the development of a strategy for a key coastal region, the Coral Coast;
- establish a national group to advise and learn from Fiji's Coral Coast demonstration site, to be a focal point for inter-sectoral coastal issues and a constituency at the national and provincial level for the development and adoption of a national policy framework for ICM; and
- build capacity required within the Fijian Affairs Board, selected provincial and government entities, districts and ISA-USP itself through training, mentoring and in-field staff support.

6. Discussion

The collaborative framework for marine and coastal resource and environmental governance in the Pacific Islands region is complex. A large number of conventions and agreements provide the international basis for regional and national action to address a diverse range of marine and coastal issues. The extent these instruments are reflected in national and regional policy varies considerably —generally determined by the political, economic and social significance of the issues addressed; and the capacity to design and implement national and regional responses to international developments related to environment and resource management.

Many Pacific Island countries, and the regional organisations they support, experience difficulty remaining up-to-date with international developments relating to coastal and

marine affairs. The challenges arise principally because of limited financial capacity and human resources.

Most national and regional environmental agencies and resource management institutions in the region have small staff. Although the staff of these institutions are usually highly committed and possess considerable local knowledge, the technical skills required to support effective multisectoral management of activities in ocean and coastal ecosystems is often inadequate. Limited financial resources mean that the challenge of building local capacity to strengthen institutions and collaborative arrangements for effective environmental governance is significant.

The colonial frameworks that underpin much of the national environment and natural resource law in the region also create challenges. Such frameworks generally support a sectoral, rather than an integrated, approach to environment and natural resource management. Increased effort is required to promote synergies between related international, national and regional environment and resource management and conservation instruments and arrangements [14].

There are encouraging signs that the sectoral approach to environmental governance, particularly at the national level, is gradually changing. Many Pacific Island countries are establishing multisectoral working groups and task forces to address national environmental issues. These often include NGOs and the private sector.

The recent formation of a multisectoral Solid Waste Management Group in the Marshall Islands is an encouraging development in this respect. Such initiatives, which include efforts to consolidate currently fragmented waste-related responsibilities across different levels of government and an appraisal of the waste-related costs to the national economy, demonstrate widespread concern about increasing threats to the environment in Pacific Island countries. The development and implementation of effective institutional arrangements to support action at the national level, such as is occurring in the Marshall Islands in relation to waste, is essential to improving environmental governance for coastal and ocean ecosystems in general across the region.

There is much that Pacific Island neighbours can learn from the experiences of initiatives, such as those occurring in the Marshall Islands. The best means to share such information in the Pacific Islands region is through focused regional consultative arrangements. However, these arrangements will not succeed unless they are supported by pro-active, technically well-resourced agencies. Such agencies could be inter-governmental or non-governmental in nature.

In the past, there have been a large number of initiatives by regional agencies to develop plans of action to address shared environmental concerns in the region. While these plans are generally well-founded, implementation has proven problematic. The main reason for this relates to capacity at both the regional and national levels.

The way that Pacific Island countries have managed their shared interests in relation to tuna may suggest strategies for these same countries to address their common concerns in relation to coastal environmental management. The institutional framework to support harmonisation and cooperation in the management and conservation of tuna has evolved in the Pacific Islands region since 1979, when the Convention establishing the FFA was negotiated. Two and a half decades since, Pacific Island countries can be justifiably proud of the extent that they have cooperated to develop principles, policies and programs that have set global precedents for tuna resource management and conservation. The main factors that have contributed to this success include the:

- economic significance of the resource as a global commodity;
- high-level political interest in tuna as a vehicle for the economic development common to all island countries;
- proactive regional organisations (FFA and SPC) cooperating to provide high-quality policy and technical support;
- capacity of tuna to generate national revenue and so reduce dependence on foreign aid funding; and
- motivated national administrations that generally consider FFA and SPC as partners in fisheries management and conservation.

The shared nature of the tuna resources necessitates a degree of collaboration and cooperation among Pacific Island countries that is yet to be replicated for coastal ecosystems management and conservation. This is because the challenges for effective management of coastal ecosystems are different. They are as follows:

- the need to accommodate traditional practice in contemporary management arrangements;
- environmental pressures generated by increasing populations on islands with limited land;
- fragmented national institutional and policy responsibilities;
- limited national and regional capacity and resources (expertise and finances) to support preparation, and participation (including reporting), in international policy development and implementation;
- under-performing information assimilation, consultation and sharing frameworks at national and regional levels;
- limited quality information to support decision making at the community, district, island-wide or national scale;
- multi-stakeholder engagement, participation, consultation and communication is under-developed;
- difficulty securing widespread political momentum for environment initiatives;
- logistical, administrative, financial and technical challenges associated with developing and implementing strategic responses through national or regional plans of action, for example; and
- often complicated national endorsement processes.

While the challenges are different, tuna management and conservation does present valuable lessons for addressing other environmental management challenges in the region. These particularly relate to multilateral consultative arrangements, collaboration between relevant regional agencies and the quality and scope of advice provided by those agencies.

During discussions at the Pacific Islands Regional Ocean Forum in February 2004, which was convened to develop a Framework for Integrated Strategic Action to implement the Policy, mechanisms to improve integration of the management of the ocean and coasts at both the regional and national levels were assigned priority.

Options considered included the establishment of multisectoral consultative frameworks for the ocean and coasts at the national level — along the lines already adopted by many Pacific Island States to support the implementation of national tuna management plans. American Samoa has already made some progress on this, with the establishment of an

Ocean Resources Management Plan that supports broad multisectoral consultation on management and conservation issues, ranging from the uppermost reaches of the territory's watersheds to the limit of its EEZ. At the regional level, the Framework for Integrated Strategic Action forecasts the eventual establishment of an overarching regional consultative body, an Ocean Council, which could consider all regional matters related to securing the health of the ocean and coasts.

Pacific Island oceanic and coastal ecosystems are highly vulnerable because of their relatively small size, narrow resource base, rapidly increasing human population, contingent demands on natural resources to support their economic development, and susceptibility to extreme climatic events. In the face of increasing populations and exposure to natural hazards associated with climate change, coastal ecosystems management in Pacific Island countries is experiencing major challenges. The key need is for concerted and coordinated efforts to improve sustainable management of island resources. Without significant effort in this regard, continued non-sustainable use of resources, habitat degradation, including pollution of coastal waters and threats due to invasive species, will result in future Pacific Island generations inheriting severely degraded coastal systems with depleted capacity to support island communities. The framework for tuna management and conservation provides a useful template for considering integrated management of coastal resources in the Pacific more broadly. The Pacific Islands Regional Ocean Policy provides an important vehicle for addressing and achieving sustainable development and avoiding a bleak future for environmental management in the region.

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