

Overview of an Ocean Policy for the Pacific Islands

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List of Acronyms

ADB	Asia Development Bank
ALTA	Agricultural Land and Tenants Act
APEC	Asia-Pacific Economic Cooperation
BPOA	Barbados Programme of Action
CBD	Convention on Biodiversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLC	International Convention on Civil Liability for Oil Pollution Damage
COLREG	Convention on the International Regulations for Preventing Collisions at Sea
CSC	Convention on Safe Containers
CROP	Council of Regional Organizations in the Pacific
CZM	Coastal Zone Management
DWFNs	Distant Water Fishing Nations
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EU	European Union
FAO	Food and Agriculture Organization
FFA	Forum Fisheries Agency
FSM	Federated States of Micronesia
FSP	Foundation for the People of the South Pacific
GEF	Global Environment Facility
GHG	Greenhouse Gases
GOOS	Global Ocean Observing System
GPA	Global Programme of Action (for the Protection of the Marine Environment from Land-based Activities)
GDP	Gross Domestic Product
HACCP	Hazard Analysis Critical Control Point
IAS	Institute of Applied Science (USP)
ICLARM	International Centre for Living Aquatic Resources Management
ICM	Integrated Coastal Management
ICRI	International Coral Reef Initiative
IGOs	Inter-Governmental Organizations
IMCAM	Integrated Marine and Coastal Area Management
IMO	International Maritime Organization
INMARSAT	Convention and Operating Agreement on the International Maritime Satellite Organization
IOC	International Oceanographic Commission
IUCN	The World Conservation Union
LLMC	Convention on Limitation of Liability for Maritime Claims
MARPOL	International Convention for the Prevention of Pollution from Ships (Marine Pollution)
MHLC	Multilateral High Level Conference
MCA	Marine Conservation Area
MPA	Marine Protected Area
MSR	Marine Scientific Research
MSWG	Marine Sector Working Group
NGOs	Non-Governmental Organizations
NEMS	National Environment Management Strategies
OPRC	International Convention on Oil Pollution Preparedness, Response and Cooperation
OTEC	Ocean Thermal Energy Conversion
PacGOOS	Pacific Global Ocean Observing System
PACPOL	Pacific Pollution Prevention Programme
PAFCO	Pacific Fishing Company
PAL	Athens Convention Relating to the Carriage of Passengers and their Luggage by Sea
PCB	Polychlorinated biphenyls
PCRC	Pacific Concerns Resource Centre
PICs	Pacific Island Countries
PICCAP	Pacific Islands Climate Change Assistance Programme
PIDP	Pacific Islands Development Programme

PIFS	Pacific Islands Forum Secretariat
PIM	Pacem In Maribus (Peace in the Oceans)
PIMRIS	Pacific Islands Marine Resources Information System
PNG	Papua New Guinea
PRA	Participatory Rural Appraisal
RMP	Regional Maritime Programme (SPC)
SAR	Convention on Maritime Search and Rescue
SIDS	Small Island Developing States
SLR	Sea Level Rise
SOE	State of the Environment (Reports)
SOLAS	International Convention for the Safety of Life at Sea
SPACHEE	South Pacific Action Committee for Human Environment and Ecology
SPC	Secretariat for the Pacific Community
SPOCC	South Pacific Organisations Coordinating Committee
SPREP	South Pacific Regional Environment Programme
SPTO	South Pacific Tourism Organization
SOPAC	South Pacific Applied Geoscience Commission
STCW	International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers
SUA	Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation
TAC	Total Allowable Catch
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNDHA	United Nations Department for Humanitarian Affairs
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UK	United Kingdom
UNESCO	United Nations Education Scientific and Cultural Organization
UNIA	United Nations Implementing Agreement
UNITAR	United Nations Institute for Training and Research
USA	United States of America
USP	The University of the South Pacific
VMS	Vessel Monitoring System
WMO	World Meteorological Organization
WWF	Worldwide Fund for Nature

EXECUTIVE SUMMARY

The area of ocean surrounding the islands of the Pacific is far greater than the islands' collective land areas. It offers immense possibilities for the development of the island economies and in improving the well being of Pacific Islanders. The ocean offers food for sustenance, marketable products that help sustain the island economies, some of which have yet to be tapped, enjoyment for users, a medium for transportation and communication, it is of biological significance, and it plays an important role in regional weather and climate patterns. The manner in which the ocean and coastal areas have been used and resources appropriated has seen the need to impose management measures to ensure a semblance of order and good governance.

This paper is an overview that provides a framework for a regional ocean policy for the Pacific Islands. It provides brief descriptions to what is seen to be the important issues that affect the oceans and coastal areas in the islands. Not all the islands in the Pacific are the same. Some are coral atolls, some are low lying islands made of coral and limestone while others are high islands of volcanic origin. Priorities are therefore not expected to be the same but the issues in almost all cases exist.

At the international level, there was recognition that the oceans' living resources were being exploited to levels beyond the ability of the resources to replenish themselves. Pollution from land-based and sea-based sources particularly ships had environmental implications on both the fisheries and the coastal environments. Development of industries and structures along coastal areas impacted on the coastal zones and these have had implications for coastal ecosystems as well as coastal fisheries. International conventions and agreements have been drawn up to improve governance of the oceans. Not all countries are parties to these conventions particularly those that have a substantial economic stake in the resources that need to be sustainably exploited. The turning point for ocean governance has been the coming into force in 1994 of the United Nations Convention on the Law of the Sea 1982 (UNCLOS).

Efforts by the Pacific Islands region in managing and sustainably developing their ocean industries have been commendable. The establishment of regional institutions such as the SPC, USP, SPREP, FFA, and SOPAC and the countries they serve in being **reactive** to the efforts at the international forum is indicative of the high importance placed on protecting the marine environment, the users and the resources. At the same time the regional bodies, with endorsement by their members have to be or should continue to be **proactive** in the activities they have been mandated to undertake on ocean governance. Regional efforts towards that end may be seen in the establishment of surveillance and monitoring systems for tuna fisheries, bans on certain types of fishing gear, research on oceanic and coastal fisheries, academic and practical training in fisheries, marine sciences and policy, marine scientific research, research on coastal processes, and conservation efforts. There are also regional conventions, treaties and agreements in place governing the use of the oceans, and coastal and marine environments.

National efforts in managing coastal areas and the ocean are governed by the collectively agreed regional agreements but they do still maintain their own sovereignty. Management of ocean issues at national and regional levels has largely been sectoral in nature. Land-based activities such as farming and industries affect the coastal and marine environment in different ways, more often than not these are harmful. An **integrated approach to ocean management** is required at both national and regional levels to address the crosscutting effects that sectors have on each other.

A few countries (non-Pacific Islands) have formulated their national ocean policies. None has been done for a region. As with international and regional conventions the ocean policy once formulated and endorsed at the regional level will have to be enabled by respective governments. On the other hand the ocean policy is seen as a template that island states could work with. Not all Pacific Island states have ratified the treaties and conventions of significance to the region. These include the regional conventions.

Some gaps and areas that need greater complementarity in the region were observed. Some of these include:

- ? Existing legislation tends to be sector specific. It must recognize the integrated nature of sectors. Issues discussed indicate the cross-cutting influences of various activities and sectors. The inter-sectoral approach to managing the environment has been highlighted in various forums and must be seriously considered and adopted at different levels bearing in mind the availability of human resources and the technical capacity to implement and monitor.
- ? Recognition of the conservation element in legislation on the commercial exploitation of resources is expected to enable countries to better manage their marine resources and environment. At the same time population growth and the increasing demand in marine products provide environmental challenges that will test the ecological limits of the natural resources.
- ? Boundary issues need to be resolved. Disputes over some boundaries still exist. Work is still being carried out on boundary delimitation in the Pacific Islands. Approval is expected to be given for extensions to enable countries to work on boundary delimitation issues but the costs involved are a limiting factor.
- ? Knowledge on resource utilization rates is limited. This is particularly useful in managing the coastal fisheries that provides for both for local consumption and export and where there is a heavy occurrence of over-fishing.
- ? The development of offshore mining legislation beyond the 12-mile territorial sea is expected to assist those countries that have economically viable offshore mineral wealth to better manage such resources. Legislation that currently exist focuses largely on onshore mining.
- ? the need to conduct a valuation of the regions natural resources in order understand in economic terms what the cost of the natural assets are and the environmental costs should these be in anyway destroyed
- ? Collaboration among the regional agencies must continue to be strengthened. Membership is not uniform. How this will affect the manner in which resources and issues are to be managed is expected to be dealt with as they arise.
- ? The welfare and well being of Pacific Island seafarers needs to be safeguarded. Their role in contributing to the national economy is an important one for some Pacific Island countries. Just as important is the need to ensure that their rights while at sea are protected.
- ? The region must safeguard the Pacific Islands genetic resources and ensure that they benefit from their exploitation.
- ? A regional database covering a number of areas should be considered (some may already be in existence) for public or limited access depending on the nature of the data. The areas which are by no means complete include data bases on:
 - relevant environment legislation in the Pacific Islands
 - regional expertise in various fields including work done at post-graduate level
 - information on existing international and regional funding organizations including (a) criteria for project selection; and (b) accessibility of funding

1.0 Introduction

The Pacific Islands region comprises mainly of ocean that extends thousands of kilometres both north and south of the equator. The ocean affects all Pacific Islanders and we in turn affect it in ways that are both beneficial and detrimental. For the Pacific Islanders the sea has social, spiritual, cultural and ever increasingly, economic significance.

Land accounts for only 2 percent of the region's total area of approximately 550,000 square kilometres.¹ The largest of the islands is Papua New Guinea (PNG) with a land area of 462,000 square kilometres² or 84 percent of the region's land area. Seven islands have land areas of over 700 square kilometres while four have less than 30 square kilometres each. Fifteen territories are either made up wholly atolls or largely of atolls and coral islands. Others, with the exception of Samoa, have a combination of both high volcanic islands and low atolls.³

The combined sea area of 33 million square kilometres accounts for 98 percent of the region's total area. Nine of the countries and territories have a sea area extending over 1 million square kilometres. The difference in area between land and sea is immense.

This vast expanse of ocean is an integral part of the Pacific Islands and associated industries play an important role in the development of their economies.

2.0 The Importance of the Ocean Sector to the Pacific Islands

The scarcity of land-based resources in many Pacific Islands particularly in the atoll countries and territories has meant that the focus is directed to the resources of the oceans to sustain livelihoods. This same focus has grown in importance over the years to the point where it has become necessary to put in place management structures to attempt to monitor and control the increasing demand placed on the ocean's resources.

Island communities for generations have always tried to live in harmony with their environment. They were aware of the resources at their disposal and used what they needed for sustenance. The traditional political and social organization in island communities governed all facets of living. Conservation measures that were woven into this fabric of governance through taboos over the use of certain areas of the sea or over the exploitation of certain marine species for example encouraged the communities to take care of the resources at their disposal. The attitude towards resource and environmental protection was therefore governed by the intrinsic awareness of and acceptance by the Pacific Island communities that they were custodians of the resources. These resources had to be utilized responsibly in order to sustain future generations.

The new developments happening in the ocean arena have taken on new meaning for the Pacific Island Countries (PICs). Management implications on the uses and resources of the oceans are therefore vital.

3.0 Geographical Scope

The geographical coverage for the Regional Ocean Policy for the Pacific Islands covers all States and Territories in the Central and Western Pacific. It has been suggested that the membership under the mandate of the South Pacific Regional Environmental Programme (SPREP) be used as the geographical boundaries for the regional ocean policy. The interconnectedness of marine issues among the States and Territories dictates this if a management regime is to be effective. The approach that has been taken is consistent with the level of regional cooperation and collaboration on ocean-related activities in the Pacific Islands region.⁴

SPREP membership comprises of twenty-two PICs and territories and four metropolitan countries.

¹ South, G.R. & P.A. Skelton. 1999. The Pacific Islands in the Twenty-first Century

² Forum Secretariat. Facts and Figures

³ as in 1

⁴ Forum Secretariat. A Regional Pacific Ocean Policy

The members of the SPREP are: American Samoa, Australia, Cook Islands, Federated States of Micronesia (FSM), Fiji, France, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, New Zealand, Niue, Northern Marianas, Palau, Papua New Guinea (PNG), Pitcairn Island, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, United Kingdom (UK), United States of America (USA), Vanuatu, and Wallis & Futuna. A summary of the Pacific Islands including membership of other regional agencies is described in Table 1.

Country/Territory	Status	Population (Annual Growth %)	Land km ²	EEZ km ²	Membership
American Samoa	Unincorporated US territory	50,923 (3.7)	197	390,000	2,3,5
Cook Islands	Self-governing free association with New Zealand	17,400 (1.2) <i>19,000 (approx 2000)</i>	240	1,830,000	1,2,3,4,5
Federated States of Micronesia	Self-governing free association with the US	100,520 (3.6) <i>119,000 (approx 2000)</i>	702	2,980,000	1,2,3,4,5
Fiji	Independent republic	746,326 (2.0) <i>795,000 (approx 2000)</i>	18,736 <i>(18,272)</i>	1,260,000	1,2,3,4,5,6
French Polynesia	Overseas territory of France	201,400 (2.5)	3,521	5,030,000	2,3,5
Guam	Unincorporated US territory	133, 152 (2.3)	549	218,000	2,3,5
Kiribati	Independent republic	72,298 (2.2) <i>85,000 (approx 2000)</i>	726	3,600,000	1,2,3,4,5,6
Marshall Islands	Self-governing republic in free association with US	49,969 (4.2) <i>65,000 (approx 2000)</i>	720	2,131,000	1,2,3,4,5,6
Nauru	Independent republic	9,919 (2.2) <i>12,000 (approx. 2000)</i>	21.2	436,490	1,2,3,4,6
New Caledonia	Overseas territory of France	173,300 (2.0)	19,103	1,740,000	2,3,5
Niue	Self-governing free association with New Zealand	2,532 (-2.4)	258	390,000	2,3,4,5,6
Northern Mariana Is.	Commonwealth of the US	43,345 (9.5)	475		2,3,4
Palau	Independent republic	16,386 (2.2)	34.5 (<i>487</i>)	600,900	1,2,3,4
Papua New Guinea	Independent state	3,963,000 (2.3) <i>4.6 mil (approx 2000)</i>	461,960	3,120,000	1,2,3,4,5
Pitcairn Islands	Dependency of Britain	65 (-0.6)	4.5	800,000	2,3
Samoa	Independent state	159,004 (0.3) <i>181,000</i>	2,934	120,000	1,2,3,4,5,6
Solomon Islands	Independent state	350,550 (3.4)	29,785	1,630,000	1,2,3,4,5,6
Tokelau	Dependency of New Zealand	1,577 (-1.3)	12.1	290,000	2,3,6
Tonga	Independent monarchy	94,649 (0.5) <i>100,000 (approx 2000)</i>	696.7 <i>(688)</i>	700,000	1,2,3,4,5,6
Tuvalu	Independent state	9,045 (1.7) <i>12,000 (approx 2000)</i>	25.9	757,000	1,2,3,4,5,6
Vanuatu	Independent republic	150,864 (2.8) <i>194,000 (approx 2000)</i>	12,189	680,000	1,2,3,4,5,6
Wallis & Futuna	Overseas territory of France	13,900 (1.3)	124	300,000	2,3

Note: 1 – Pacific Islands Forum; 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

Note: *Approximate population figures for 2000* for Forum member countries (not part of original table / Source: Pacific Islands Forum)
Italicized figures under “Land km²” obtained from Forum Secretariat

Source: South G.R. and J. Veitayaki. SO99-1. 1999. Global Initiatives in the South Pacific: regional approaches to workable arrangement. Asia Pacific Press at the Australian National University. Canberra, Australia. P.7

4.0 Background to the Development of a Regional Ocean Policy for the Pacific Islands

Discussions on the development of a regional ocean policy for the Pacific Islands gathered momentum in the late '90s. It was a response to both international and regional calls for good governance of the oceans. Table 2 describes in brief the development that took place at the Pacific and UN levels leading up to the collective decision by the Pacific regional agencies to develop an ocean policy for the Pacific Islands.

Table 2: Background to the Development of a Regional Ocean Policy for the Pacific Islands

<i>Pacific Developments</i>	
1999: 30 th Pacific Island Leaders South Pacific Forum, Palau, 3-5 October 1999	✍ Endorsed the development of a Regional Ocean Policy and integrated national Ocean policies at the Regional level
1999: Pacific Regional Follow-up Workshop on the Implementation of UNCLOS, Tonga	✍ Recommended the adoption of a Regional Ocean policy and integrated policies at the Regional level
1998: Regional Submission to the United Nations Commission on Sustainable Development	✍ Highlighted the growing awareness of the importance of coordinated and integrated Regional marine sector action in an era of scarce financial and human resources
1995: Release of SPOCC Review of Institutional Arrangements in the Marine Sector, Final Report, July 1995	<ul style="list-style-type: none"> ✍ Reviewed all marine sector organizations; ✍ Highlighted areas of overlap, and addresses ways and means of achieving efficiencies; ✍ Highlighted the need for greater integration and coordination; ✍ Underscored the achievements of PICs in Regional approaches to marine management
<i>Developments in the UN System</i>	
1999: Signature of Ocean Charter by over 60 countries	? A statement of principles on the use of the Ocean with emphasis on Regional and national policy approaches
1999: UN Open-ended and Informal Consultative Process	? Discussed a range of ocean-management issues
1998: International Year of the Ocean	? Provided impetus for improving Ocean governance arrangements worldwide
1994: Entry into force of the United Nations Convention on the Law of the Sea	? Imposed obligations on all States to take certain measures at the National and Regional level as a matter of international law
1992: UN Commission on Sustainable Development	? Focussed attention on small, developing island States
1992: Chapter 17 of Agenda 21 at the UN Conference on Environment and Development	? Integrated approaches and Regional approaches endorsed

Source: Forum Secretariat. 1999.

A common theme pervades the historical process leading to the call for action for the formulation of a regional Ocean Policy. This is the **need for an integrated approach** in Ocean Policy development at both the national and regional levels. This is indicative of the cross cutting issues or themes that affect the oceans, its resources, and its uses. We need to continually remind ourselves that the basic purpose of the Ocean Policy is to ensure that we, the users of the ocean, have to be protected from our own indifference and irresponsibility to ensure that the sustainability of the resources and peaceful uses of the oceans are respected. The ocean is a common heritage with social, economic, cultural, environmental, and biological significance. There is a duty to ensure that that heritage is protected and wisely utilized. Given the vast area of sea available to the Pacific Islands, stewardship of the ocean becomes a shared responsibility.

5.0 Overall Vision

A vision shared by all Pacific Islanders for their ocean should set the theme for the development of a regional ocean policy for the Pacific Islands. In so doing the vision and the goals are expected to be consistent with the actions of the countries nationally (national policies, legislation), regionally and internationally under the relevant conventions and agreements. At the 26th South Pacific Forum in Madang held in September 1995, Pacific Island leaders put together a Vision Statement for enhancing regional cooperation in the next 25 years. It recognizes some of the issues identified in this framework paper to be addressed in the Pacific Islands regional ocean policy (see Annex 1 – South Pacific Forum Vision Statement).

The overall vision of the International World Commission on the Oceans (IWCO) as an example is as follows:

“Our commitment to a public order of the ocean involves more than the observance of rules and procedures, more than institutional innovations, and even more than the pursuit of sustainable development. We are committed above all to the well-being of the individual and to the spiritual and aesthetic destiny of humanity which is inseparable from the wealth of the ocean.”

In its vision for the oceans, Australia promotes *“Healthy oceans: cared for; understood and used wisely for the benefit of all, now and in the future.”*

6.0 Scope of the Regional Ocean Policy

Preliminary suggestions on the development of a regional oceans policy for the Pacific Islands discussed whether the oceans policy “should be confined to consideration of issues and actions at a regional level only or whether it will also include issues and actions within national jurisdictions.” National capacities, infrastructure development and availability of resources differ in respective Pacific Island countries. At the same time a number of ocean management issues that are essentially sovereign responsibilities are handled by regional agencies. A regional ocean policy therefore has the potential to assist at the national level. In fact one such example that may be considered a national issue is marine scientific research. This now falls under the auspices of SOPAC who has been identified as the depository for marine scientific research data and information for the Pacific Islands. The policy process and document would be too simplistic if considerations were largely limited to the regional level as in many cases regional issues affected national capacities. Conversely issues common and shared under the different national jurisdictions would eventually be translated into regional issues and accordingly dealt with at that level. In fact the concept behind the formulation of a regional oceans policy is that it is expected to provide a template that Pacific Island countries could adopt or guided by when producing their own national ocean policies.⁵

7.0 Context or Rationale for a Regional Oceans Policy

A number of reasons were stated at the South Pacific Regional Follow-up Workshop on the Implementation of UNCLOS as to why a regional oceans policy was necessary. They included:

- ⚡ the need to ensure the sustainability of ocean resources
- ⚡ the need to integrate ocean uses
- ⚡ the need to meet international and regional obligations, and
- ⚡ the need for a framework for maritime boundary delimitation

A primary rationale that has been suggested for the development of a regional ocean policy is the need to implement the United Nations Convention on the Law of the Sea (UNCLOS). Other rationale would be the need to avoid duplication of activities at the regional level, and the role a regional ocean policy can play in promoting and coordinating ocean management issues in the region.

8.0 Objectives

A starting point for identifying an objective for the Ocean Policy is the recommendation by the South Pacific Regional Follow-up Workshop on the Implementation of UNCLOS that the overriding objective should be the “general sustainability of oceans resources.” The overarching vision could consider the inclusion of “good oceans governance” since it reflects a sense of responsibility on the part of Pacific Island peoples to look after both the environment and its resources.

9.0 Broad goals and principles

The Marine Sector Working Group (MSWG) could put together the broad goals and principles for the regional oceans policy. It is also possible that the region, through a forum, could also be given the opportunity to discuss what they see should be the broad goals and principles of a regional ocean

⁵ South Pacific Regional Oceans Policy – preliminary suggestions for development (discussion paper)

policy. This would also provide an opportunity for regional participants to consider similar approaches in pursuing national ocean policies in line with regional goals and objectives.

10.0 Key Issues to be examined under a Regional Oceans Policy

A number of key issues for the Pacific Islands to be examined under a regional oceans policy have previously been highlighted and these are now highlighted this paper. It is crucial that they be addressed because of their relevance to ocean governance in the Pacific Islands region. The issues were identified from a number of documents that included the 1992 Report to UNCED, the 1998 Regional Submission to the UN Commission on Sustainable Development, the Follow-up Workshop on the Implementation of UNCLOS held in Vava'u in August 1999 (Vava'u Workshop), proceedings from CROP's Marine Sector Working Group meetings as well as the proceedings from the Workshop on Integrated Ocean Management in the APEC Region in November 2000, and discussions held with several people. A number of these issues that in them selves are regarded as sectors cut across other sectors and themes and therefore cannot be treated isolation. The nature of terrestrial and marine processes particularly for small island countries demands that issues considered for the ocean policy must be approached from an **integrated** perspective with a **proactive** stance.

The issues examined are identified as sectors and themes. For example, pollution and waste management cuts across a number of sectors of the economy but its relative importance requires that it be looked at as a separate policy issue. The key issues or elements identified are as follows:

- ⌘ Implementation of management regimes and conventions relevant to the Pacific Islands
- ⌘ Maritime delimitation
- ⌘ Marine scientific research
- ⌘ Living resources (fisheries)
- ⌘ Non-living resources (minerals)
- ⌘ Pollution prevention and waste management
- ⌘ Marine biodiversity and natural resource conservation and management
- ⌘ Coastal degradation
- ⌘ Defence, surveillance, monitoring and enforcement
- ⌘ Sustainable tourism
- ⌘ Training, education, and public awareness
- ⌘ Shipping
- ⌘ Technology transfer/appropriate technology transfer
- ⌘ Information exchange
- ⌘ Climate change and sea level rise
- ⌘ Natural and environmental disasters
- ⌘ Intellectual property rights / ownership and access to genetic resources
- ⌘ Globalization

The issues highlighted are essentially sovereign responsibilities that the regional agencies have been mandated to deal with. This is a positive first step forward in the formation of a Regional Oceans Policy. It indicates the potential to directly assist at the national level or where Pacific Island states can use the Regional Ocean Policy, once it is formulated, as a guideline to develop its own National Ocean Policy. Each state and territory will have its own set of priorities, strategies, and responses to the issues common to the region so the content of national ocean policies and the importance placed on them may or will be different. International cooperation and collaboration are also expected to continue with assistance coming from donor governments, international organizations and NGOs. Many if not all the regional and international fisheries and environmental conventions recognize the need for cooperation and collaboration among countries and Parties. The issues or elements to be considered under a regional ocean policy are briefly discussed below.

10.1 Implementation of management regimes and conventions relevant to the Pacific Islands

- sovereign issue
- regional assistance (legal offices for FFA and ForSec)

- weaknesses in maritime legislation identified with lack of consistency between national legislation and international law⁶
- implementation of management regimes and instruments and set to standardize/recognize these

The Pacific Islands are committed to the regional and global efforts of ensuring the peaceful uses of the oceans, good quality of life for their people, and the sustainable management and development of their ocean resources. This has to translate into action in a manner that is consistent with their desire to protect their ocean environment.

It is evident that the regional agencies are working closely with national governments in meeting their obligations under the international and regional conventions and agreements. However not all the instruments have been signed and ratified by PICs. Many PICs for example are parties to the Vienna Convention for the Protection of the Ozone Layer 1985 and the Montreal Protocol on Substances that Deplete the Ozone Layer 1987. The FSM, Palau, Tonga and Vanuatu have yet to sign or ratify the Montreal Protocol. Seven SPREP member states are parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) 1973. Similarly the Convention on Biological Diversity (CBD) 1992 has been signed by some while France, the United Kingdom, and the USA have yet to ratify.⁷ At least four SPREP member states have not signed and ratified the CBD. UNCLOS came into force on 16th November 1994. Not all PICs are Parties to the Convention. There is general recognition that many benefits can be accrued from the Convention. The process of ratification will require that national legislation be brought into line with the provisions of the Convention. The same is expected for other legal instruments.

The implications for the Pacific Islands if anything should be positive. The implementation of management regimes and conventions will indicate the serious regard that PICs place on their ocean environment, particularly

- their desire to pursue the goals of peaceful uses of the oceans
- the protection of the coastal and marine environment
- the management and development of both living and non-living resources
- recognition of economic, social, and environmental benefits and
- working together as a regional unit to achieve national and regional objectives

Cross-cutting themes: Fisheries management; mining (coastal, inshore ie. dredging, deep sea mining ie. oil, hydrocarbons, manganese nodules); conservation & management of the marine environment

Mandate: ForSec, FFA, SPREP, SOPAC, USP

Global initiative: Vienna Convention, Conventions/treaties/agreements/declarations

Regional initiative: Conventions/agreements/declarations/regional agency assistance to standardize national legislation with national government approval

10.2 Maritime delimitation⁸

- sovereign issue heavily reliant on regional assistance
- 10-year period after entry into force of UNCLOS nearing end for some PICs (approx. 3 years in a few cases). Most boundary issues remain unresolved.⁹ The cost of conducting research

⁶ In the case of maritime legislation, since 1998 Solomon Islands, PNG and Nauru have enacted new fisheries legislation and regulations. A trend in legislation is the move away from just commercial exploitation per se but to work within the new regime of resource conservation.

⁷ South, G.R. and J. Veitayaki. 1999. Global Initiatives in the South Pacific: regional approaches to workable arrangements. Asia Pacific Press at the Australian National University. Canberra. (p.42)

⁸ Information is based on SOPAC's Maritime Boundary Proposal prepared for AusAID (October 2000) and is still under consideration.

⁹ There are a total of 45 shared boundaries between SOPAC/FFA member states and member countries that are in different stages of development. 16 boundaries have so far been negotiated although 3 need further work before they can be ratified; 3 are presently under negotiation while 26 have yet to be negotiated.

and field survey is high. Zones of potential continental shelf extension include FSM, PNG, Fiji, Solomon Islands and Tonga.

The extension of offshore boundaries is crucial for PICs in relation to development prospects of both living and non-living resources. Potential rewards are high. Expected challenge for maritime boundary delimitation are:

- (i) identification and delineation of potential boundaries are geologically and legally complex;
- (ii) claims to be based on supporting data about the shelf; and
- (iii) data collection and analysis are both time-consuming and expensive

SOPAC and FFA member countries are expected to benefit substantially. Regional initiatives are also expected to benefit. These include the following:

- FFA: monitoring, control and surveillance; VMS; provision of legal service; fisheries management
- SPREP: PacPol project; International Waters Programme
- SPC: oceanic fisheries; social resources
- Forum Secretariat: MSWG; regional oceans policy; international legal advisory services

The work that is currently being carried out under the auspices of SOPAC is crucial because of the need to:

- (i) recognize the importance and need for maritime boundary delimitation to be conducted and completed (short term); and
- (ii) recognize that the knowledge by sovereign states over known and potential ocean resources (both living and non-living) will improve their ability to better manage and utilize these resources in a sustainable manner

Many legal and management aspects confronting the FFA and SOPAC are the same. Member countries need to define their maritime limits for managing both living and non-living resources. Skills involved (political, technological and legal) are the same. Moreover from an environmental perspective the management aspects of oceanic resources cannot be isolated from nearshore resources.

Cross cutting themes: living resources (tuna fisheries); non-living resources; marine scientific research; defence, surveillance, monitoring and enforcement; shipping

Mandate: SOPAC, FFA, ForSec

Global initiative: UNCLOS

Regional initiative: SOPAC Maritime Boundaries Project (proposal prepared for AusAID), PIM Fiji Declaration

10.3 Marine scientific research (MSR)

- sovereign issue (seabed mining / marine resource sustainability)
- FFA members have little or no MSR capability but FFA, SOPAC and SPC provide important support particularly towards maritime delimitation activities
- available data should also be usable / data policy needed
- legislation providing regulations concerning MSR absent from some PICs

It is worth noting that the seabed mineral resources that have been identified as commercially viable were done on the basis of MSR. MSR is subject to coastal state control as recognized under UNCLOS giving states the opportunity to access data for resource exploration, conservation and management. This implies that MSR caters for both living and non-living resources even though this is not explicitly mentioned in UNCLOS.

The new international legal regime for MSR provides substantial potential to PICS. This potential and the benefits under the Convention regime have yet to be fully realized.¹⁰ SOPAC member countries have little or no MSR capability and so much of the work in the Pacific Islands is conducted by institutions from outside the region. Two efforts were recommended to achieve this objective:

- (a) to promote the conduct of foreign MSR in their own offshore waters; and
- (b) to improve their own scientific capabilities, or given its impracticality use the assistance of regional organizations.

SOPAC having taken on that responsibility on behalf of its member states has also become the depository for data obtained from research conducted on coastal processes; coastal, nearshore and offshore minerals, hydrocarbon and wave energy potential, and research on marine geology and geophysics. All SOPAC member countries with the exception of one have taken advantage of this service. Concern was expressed that data collected must be provided in a format that is understood and usable.

The SPC on behalf of its member countries conducts continuous scientific research and monitoring of the fisheries, assessment on the status of stocks, data collection, synthesis and analysis. For both the oceanic and coastal fisheries the aim is that through scientific research member countries are given the kind of guidance they require to better manage and develop their fisheries at both domestic, regional and international levels. MSR conducted at USP's Marine Studies Programme (which also includes the Institute of Marine Resources & the Atoll Research Programme) is particularly geared to applied research ranging from post harvest fisheries to marine plants. Collaboration with other regional and international research institutions provides access to technology and expertise as well as opportunities for sharing of experiences and building capacity through joint research and site visits.

Recognition for a data policy supporting that need has been expressed particularly where such data would serve a dual purpose of providing MSR data that could also be useful in resource management. A joint 1994 FFA/SOPAC study observed the absence of legislation in a few of the FFA member states that would provide a basis for adopting regulations concerning MSR. For those states that had enacted legislation regulations had yet to be adopted.

Cross-cutting themes: Living resources (fisheries); non-living resources; pollution prevention & waste management; training & education (marine science); coastal degradation; information exchange; intellectual property rights & ownership & access to genetic resources

Mandate: SOPAC, SPC, FFA, SPREP, USP

Global initiative: UNCLOS, International Seabed Authority, 1958 Geneva Territorial Sea and Continental Shelf Conventions

Regional initiative: The Madang Guidelines, PIM Fiji Declaration, PacificGOOS

10.4 Living resources (fisheries)

10.4.1 Offshore fisheries (oceanic fisheries mainly tuna)

- allocation of total allowable catches in relation to gear type still expected to be an active management issue. Also setting up of TACs and quotas in the MHLC Convention area opened and undefined
- access to oceanic resources by DWFNs creates risk for sustainable resource management
- stock assessment of oceanic fisheries
- intensity of tuna fisheries expected to increase with improving technology
- surveillance and monitoring activities must be maintained and strengthened¹¹
- precautionary approach to resource utilization
- regulation of high seas fishing (compatibility between in-zone and high seas)
- eco-labeling is presently in its early stages of development but recognized in the FAO Code of Conduct for Responsible Fishing as an environmentally responsible and sustainable resource

¹⁰ Soons, A.H.A. 1994. Implementation of the Marine Scientific Research Regime in the South Pacific. FFA, Honiara / SOPAC, Suva. (Note: Soons addresses FFA member countries.)

¹¹ Forum Fisheries Agency Annual Report 1999 pp.18-19

- development tool. Eco-labeling is a trade incentive. For PICs the catch is that most deal with Japan whose interest is biased towards quality control (HACCP) rather than environmental management (eco-labeling)
- domestication of the tuna industry

Under the 200mile exclusive economic zone that recognizes the sovereign rights of coastal states to the resources within, the Pacific Islands share among them the world's largest undepleted stock of commercial tuna. It is the only significant source of income for many of them and the basis for future economic development. In 1995 the landed value for the catch totaled \$1.7 billion accounting for at least one third of the world tuna catch. Island states receive about \$70 million annually from access and license fees. In 1997 Kiribati for example collected close to AUD\$30 million from fishing access fees representing more than half of the Governments annual budget.¹² The fact that it is still a healthy fishery calls for a strong management regime that will ensure its continued service to the Pacific Islands region.

The Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific is seen as the regime that will protect the highly migratory oceanic resources of the Pacific Islands. It has yet to come into force. **The provisions of this new Convention indicate that it could be a regional policy on fisheries in its own right.** Its significance lies in its attempt to formalize cooperation between PICs and distant water fishing nations (DWFNs) that include China, Indonesia, Japan, Republic of Korea, the Philippines and Taiwan, the UK, Canada and USA. The MHLC convention area and membership is therefore much wider than originally expected with no defined northern and western boundaries. As a possible regional policy on fisheries the convention takes into consideration the two main features of the United Nations Implementing Agreement (UNIA) namely:

- (a) the "ecosystem approach" to management of marine resources promoting optimum utilization of resources and the need for a precautionary approach
- (b) the compatibility of management measures with EEZs and the high seas

Fishing nations are still taking the new convention to task not just over the features mentioned. High seas boarding and inspection, measures for monitoring, control and compliance, decision making process and funding support for the Commission to be set up under the new high seas regime are other aspects of the new convention that fishing nations are not happy with.

The domestication of the tuna industry is an area of fisheries that PICs are pursuing that include the development of national long-line fishing fleets, the development of local expertise and technological competence through possible joint ventures with fishing nations, post-harvest processing (including value added products), and marketing. Domestication is seen as a way of getting the full benefit out of the tuna resources and is a long-term commitment.

10.4.2 Inshore fisheries (coastal, small-scale, subsistence)

- increasing exploitation of inner reef resources and impact on traditional subsistence fisheries
- traditional conservation approaches eroding and unable to cope with growing fishing pressure
- recognition that the problems in inshore fisheries remain largely social and political rather than technical
- lack of statistical data base and regulating harvest based on findings especially subsistence fisheries
- resource assessment of inshore fisheries necessary as fishery is believed to be close to overexploitation
- research may be weak in certain areas such as reef and lagoon fisheries. The difficulty lies in undertaking multi-species, multi-gear resource assessments
- role of traditional marine tenure systems in resource conservation, management and development cannot be overemphasized

"The challenge (for inshore fisheries) will be to maintain present production in the face of increased exploitation rates, smaller stock sizes, greater environmental perturbation and probable

¹² *Fisheries – Key Sector for Private Investment and Growth* – Paper presented by the President of Kiribati at the 29th South Pacific Forum, 24-25 August 1998, Pohnpei, FSM.

ecological damage, and increased population pressure. Fisheries management will usually have to be integrated with overall coastal zone management."¹³

10.4.3 Nearshore fisheries resources (small-scale fisheries for deep-bottom resources/depth: 400m)

- in larger countries with a broad resource base this fishery has yet to develop comprehensively
- catch rates have dropped in other countries where the resource base is not so broad
- need to balance fishing effort against resource availability
- deep-bottom resources expected to be finite but requires sound management

10.4.4 Aquaculture/mariculture

- few successful aquaculture ventures in the Pacific
- substantial research efforts are required to establish feasibility of the industry in the region

Aquaculture is relatively new in most of the Pacific Islands and one that is likely to grow in importance. It is expected to grow in economic importance through export earnings, rural development, import substitution, resource conservation, and food security. Where aquaculture is to be developed as an industry for export purposes, high value products have been suggested. The export value of black pearls from the Cook Islands earned them AUD\$7.5 million. Seaweed farming is increasing rapidly in Fiji and Kiribati.¹⁴

The SPC is currently in the process of developing a regional aquaculture strategy in collaboration with the International Centre for Living Aquatic Resources Management (ICLARM) and USP.

10.4.5 Marine ornamentals

- covers fish, corals, other invertebrates and live rock and is sought after for home-based and large public aquariums
- could become an important revenue earner for PICs (e.g. worth an estimated FJ\$20 million per annum in export earnings for Fiji based on the Ministry of Agriculture, Fisheries, Forests & ALTA)
- sustainable resource management is a necessary tool for protecting marine ornamentals from exploitation through international trade and from environmental stresses associated with extraction
- maintaining quality of product (certification and labeling system) as well as the safety of the marine environment and other species
- no regulation in place yet governing the collection and trade of marine ornamentals from PICs

Mandate: SPC, SPREP, ForSec, [Marine Aquarium Council]

10.4.6 Post-harvest Fisheries

- quality control / seafood risk management (export fisheries, local commercial and subsistence, hazard analysis critical control points - HACCP)
- processing within the region

New import regulations relating to seafood in the US, Canada, Australia, New Zealand, the European Union and Japan concern the implementation of hazard analysis critical control point – HACCP. In fact all major fish importers have or will adopt HACCP requirements for imported fish. The goal of HACCP is to assure that seafood reaches the consumer in a manner that minimizes any health risk. The intent is on food safety (not food quality) from the moment of resource extraction. The Codex Alimentarius Commission, a UN body that compiles agreed upon standards in its Codex Alimentarius (Codex Food Code) is incorporating HACCP principles into the Codex Food Code.¹⁵

¹³ Herr, R.(ed.). 1990. The Forum Fisheries Agency: Achievements, Challenges and Prospects. USP. p.73

¹⁴ Bell, J. 1999. Aquaculture: a development opportunity for the Pacific Islands. In Information Paper 19, First SPC Heads of Fisheries Meeting, Noumea, New Caledonia 9-13 August 1999. SPC, Noumea.

¹⁵ McDorman, T.L. 1997. Seafood Safety Standards (With Special Reference to HACCP): Review of Import Regulations of the US and EU and the Relevant Laws of the South Pacific Region (Draft)

PICs will need to adopt the same standards in order to keep in pace with global trends. Some already have existing legislation such as FSM (National Food and Safety Act 1991); Kiribati (Regulations 1981); PNG (Fisheries Act 1994); and Solomon Islands (Pure Food Act 1996). The possibility of a regional approach to seafood safety, particularly for export is “a qualified yes.”¹⁶ A regional approach is expected to harmonize national laws and provide useful models. It has also been suggested that a set of regional laboratories could be set up to deal with seafood safety. The Institute of Applied Science (IAS) at USP for example has been doing chemical analysis work on levels of histamine in tuna for the Pacific Fishing Company (PAFCO) based in Levuka, Fiji.¹⁷ The Post-harvest Fisheries section of USP’s Marine Studies Programme is also equipped with the necessary facilities to deal with seafood safety supported by personnel who hold internationally recognized qualifications on seafood safety and quality control.

Cross cutting themes (fisheries): Monitoring, surveillance & enforcement; sustainable resource management and conservation; HRD and capacity building; research; traditional marine tenure systems; community-based management/co-management; food security; information exchange; pollution prevention; training, education & public awareness; transfer of technology, climate change & SLR; natural & environmental disasters; globalization

Mandate: FFA, SPC, ForSec, USP, SPREP, SOPAC, [FAO Sub-regional Office (7 members)]

Global initiative: UNCLOS, UNCLOS Agreement on Straddling Fish Stocks & Highly Migratory Fish Stocks 1995, Convention on the Conservation of Migratory Species of Wild Animals 1979 (MS-Bonn Convention), Agenda 21 Chapter 17, Convention on Biodiversity 1992, FAO Code of Conduct for Responsible Fisheries, Rio Declaration on Environment and Development, Codex Alimentarius Commission (UN),

Regional initiative: FFA Convention, Nauru Agreement, Niue Treaty, Vessel Monitoring System (VMS), Regional Register, SPC (Women’s Fisheries Development), SPREP Convention & related Protocols, PIM Fiji Declaration

10.5 Non-living resources

10.5.1 Deep sea minerals

Recent discoveries during the last 20 years of cobalt-rich manganese nodules within the EEZ of the Cook Islands, cobalt rich crust within FSM, Marshall Islands, Kiribati and Tuvalu and gold-bearing sulfide deposits on the seafloors of Fiji, Tonga and PNG have alerted the countries to the new opportunities for offshore mineral development beyond the Territorial Seas. With the new discoveries come the associated responsibilities of social and environmental responsibility and sustainability.

Very few nations have in place comprehensive policies and legislation that manage offshore mineral development. At the present time this is currently governed by land-based mineral policies and legislation that are generally not applicable.¹⁸ UNCLOS provides guiding principles with regard to deep seabed mining and recognizes possible extensions of boundary limits over the continental shelf areas over which marine non-living resources occur.

Deep seabed mining is a long-term commitment and an important one for those countries that have economically viable deposits of seabed minerals. Defining the extent of EEZ boundaries under UNCLOS need to be resolved first particularly if the extended zones hold promise for further exploitation of mineral resources. MSR (exploration) is expected to be an on-going activity that compliments the activities in deep seabed mining. Appropriate policy and legislation to govern offshore mineral exploration and development has been suggested. The challenge would be to secure adequate funds to enable boundary delimitation work to be completed on time and MSR to continue.

10.5.2 Coastal mining (sand, aggregates)

Dredging of coral reefs and mining of coral aggregate (mixture of carbonate sand, gravel, cobbles and boulders, dead reef skeletal material, live coral heads and massive corals) are activities that occur

¹⁶ As in 13

¹⁷ As in 11

¹⁸ The Madang Guidelines: Principles for the Development of Offshore Mineral Policies. Suva, Fiji: SOPAC 1999. SOPAC Miscellaneous Report 362

at different levels in PICs. The following are some of the activities and causes for concern in relation to coastal mining in some of the Pacific Islands:

- Dredging and mining for construction material occur in waters less than 50m or between 10-25m, in some cases proceeding from shore and gradually advancing into deeper lagoon areas. Major mining sites are FSM, Fiji, Kiribati, Marshall Islands, Tonga, Tuvalu, and Samoa.
- Coastal destruction is responsible for reef degradation and erosion of coastal areas in all PICs. About 41% of the reefs in the Pacific are under medium to high pressure from human development (Fiji, French Polynesia, Marshall Islands, PNG, Solomon Islands and Vanuatu).
- Nearly all development in PICs is restricted to the foreshore so the risk is high for both facilities and coastal communities in terms of coastal inundation.
- Sea level projections by the next century given the worst case scenario forecasts submergence of foreshore facilities by 20-100cm. The rise in sea surface temperatures will damage reefs and translates to loss of coastal protection from severe waves.

The implications for PICs with regards to coastal mining strongly suggest a need to study natural systems, examine the response of nearshore systems to any sea-level change, develop appropriate coastal protection systems, and formulate policy on accommodation and adaptation options.¹⁹

Areas that marine mining will have an impact include the fisheries, marine biodiversity, inter-agency cooperation, collaboration with private industries and consideration for stakeholder interests and environmental impact assessments. The Madang Principles suggest basic objectives of a marine mineral policy.²⁰ It further suggested that a marine mineral development policy must be sensitive to fisheries development. The biologically diverse nature of the fishery, its wide coverage of the marine environment and the impact marine mining can have on a wide range of fishing operations ranging from subsistence fishers to purse seiners should be recognized.

10.5.3 Energy

Over the past two decades fuel imports in the region has been steadily escalating. PICs are heavily dependent on imported fossil fuel products to meet energy demand particularly to generate electricity and transportation. The scale of the energy problem is indicated by the fact that at least 70% of the people in the Pacific Islands do not have access to electricity, mainly the remote islands and isolated rural areas. Energy is also a climate change issue. The Kyoto Protocol's Article 2(iv) suggests further elaboration by states of their national policies on the enhancement of energy efficiency in the relevant sectors of the economy. It noted the need to research on, promote, develop and increase the use of new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies.

There has been little development in the area of solar and wind energy throughout the region. SOPAC's main focus on alternative renewable energy has centred primarily on waves/OTEC (ocean thermal energy conversion and geothermal energy). There is a need for significant investment capital to go to the next step of evaluating these options. A renewable energy programme and transfer of appropriate technology needs to be considered.

Cross-cutting themes: marine pollution, waste disposal, living resources, conservation and management, traditional marine tenure systems, integrated coastal management, coastal degradation, climate change & SLR; MSR; implementation of regime & conventions

Mandate: SOPAC, SPREP, USP, ForSec (mineral resource policy formulation)

Global initiative: UNCLOS (Part XI); Agreement Relating to the Implementation of Part XI of the UNCLOS of 10 December 1982, 1994 / Agreement for the Implementation of the Provisions of the

¹⁹ Maharaj, R.M. In Pacific Islands at Risk: Foreshore Development and their Vulnerability and Implications for Adaptation Strategies to Climate Change. SOPAC. Suva.

²⁰ [As in 13/Among the important objectives noted include: (a) promote efficient and timely exploration, development, and production; (b) encourage diversification in resource development; (c) ensure conservation in exploitation of the resources; (d) maximize economic return on resource exploitation; (e) protect the environment; and (f) contribute to overall national development in multiple sectors.]

UNCLOS of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; CITES; UNCED, Agenda 21 Chapter 17; International Coral Reef Initiative (ICRI), Declaration of Barbados

Regional initiative: SOPAC (Agreement Establishing the South Pacific Applied Geoscience Commission), The Madang Guidelines (refer to footnote 6), SPREP Convention and related Protocols, PIM Fiji Declaration

10.6 Pollution prevention and waste management

- land-based sources
- sea-based sources
- waste management (industrial, domestic)
- natural and environmental disasters

Waste disposal and pollution prevention is a problem shared by all Pacific Island countries. These have been exacerbated by increasing population, rapid urbanization, the small size of the islands, the lack of infrastructure to cater for waste disposal, absence of physical structures, and remoteness.

Toxic substances such as pesticides, polychlorinated biphenyls (PCBs), waste oil, and heavy metals pose management problems. There are pollution hot spots in the region, one of which has the highest levels of tributyl tin measured in the sediments around the port and coastal areas.²¹ This is believed to have originated from industrial sewage and leaching into the sea of toxic chemicals from anti-fouling paints on ships' hulls. Human waste disposal poses risks to both human health and the inshore fisheries. In small atolls where groundwater lens act as backup contamination through seepage is suspected.

The shipment of plutonium and radioactive wastes through the region continues to be a matter of concern particularly with the risk of accidents and their consequences (also covered under *Shipping*). The response of island countries to accidents has yet to be tested but they need to be prepared. The Aitutaki Declaration 1997 adds credence to this by acknowledging that security challenges (including environmental security) could arise with little warning and quick response from the region is needed.

Further attention have been suggested in the following areas:

- information in appropriate forms to deal with different aspects of waste disposal, level of contamination, impacts on the marine environment, sources of marine-borne pollution
- public awareness promoting the need for good waste management, available options and regulatory regimes
- establish adequate pollution prevention and response plans that will react quickly improve or establish port facilities to receive ship-borne waste. The MARPOL and Basel Conventions require this of states. The Protocol Concerning Cooperation in Combating Pollution Emergencies in the South Pacific Region (part of the SPREP Convention) recognizes the need to strengthen national capability and for joint cooperation in dealing with pollution emergencies.
- most PICs have not adopted the IMO conventions that relate to the protection of the marine environment as well as other related conventions
- harmonize national marine pollution legislation to be consistent with IMO conventions and assist PICs to become party to these conventions
- implementation of PACPOL
- consider "polluter pays" principle

Cross-cutting themes: training, education & public awareness; shipping; coastal degradation, fisheries, natural resource conservation and biodiversity; non-living resources; sustainable tourism; monitoring; implementation regimes & conventions

Mandate: SPREP, SOPAC, USP, ForSec

Global initiative: UNCLOS, Basel Convention, IMO Conventions (also includes MARPOL and SOLAS), London Dumping Convention, Washington Declaration on Protection of the Marine Environment from Land-based Activities 1995, Agenda 21 Chapters 17-22, Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), Regional

²¹ SPREP. 1999. Pacific Ocean Pollution Prevention Programme: Strategy and Workplan. Apia (p.3)

Seas Programme, Convention Supplementary Compensation for Nuclear Damage, Rio Declaration on Environment & Development, Declaration of Barbados

Regional initiative: SPREP Convention and Related Protocols, SOPAC; Waigani Convention, PACPOL, Waste Minimization and Management and Pollution Prevention Programme (SPREP), PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

10.7 Marine biodiversity and natural resource conservation and management

- marine biodiversity (mangroves, corals/coral reefs, seagrasses)
- coastal fisheries resources
- migratory species
- marine protected areas (MPAs) / marine conservation areas (MCAs)
- export of ornamentals (live corals, aquarium fishes)
- genetic resources

The Pacific region has a very rich biological diversity yet PICs particularly the smaller islands are ecologically fragile.²² It is also among the most critically threatened in the world. The decline of (and threat to) biodiversity in the region is due but not limited to the following causes:²³

- deforestation
- pollution
- physical alteration and sedimentation
- species losses from overexploitation
- losses through competition with or predation by alien species, and
- use of destructive harvesting methods
- live reef food and aquarium fish trade using cyanide and other methods
- climate change and sea warming

The objective of biodiversity protection in the Pacific Islands region is “to address the most urgent threats to the region’s biodiversity and conserve the region’s plants, animals and ecosystems for present and future generations.”²⁴ Key actions at local, national, regional and international levels to address the region’s biodiversity and conservation needs have been identified in the Action Strategy for Nature Conservation in the Pacific Islands 1999-2002 (SPREP, 1999).

A policy on marine biodiversity and natural resource conservation needs to recognize that the major threats to ecosystems and species are both anthropogenic (pollution, sedimentation, overexploitation, destructive harvesting methods) and natural (predation, weather, disease). Over-harvesting of resources for short-term benefits is seen to be a key factor in the loss of biodiversity. Protecting the region’s biodiversity is recognized in the following activities:

- ∞ involving local communities
- ∞ integrating conservation and development through sustainable resource use
- ∞ increasing capacity and skills at all levels in sound resource management
- ∞ creating partnerships with communities, the private sector, planners and policy makers
- ∞ effective monitoring systems
- ∞ sharing information and experience for informed decision making on resource utilization²⁵

Cross-cutting themes: pollution (land- and sea-based); coastal degradation; shipping; climate change; sustainable tourism; training/education/awareness; monitoring; living resources; traditional marine tenure; community-based management; marine ornamental trade; women in fisheries; transfer of technology

Mandate: SPREP, SOPAC, USP, FFA, SPC, Collaboration with Donors, NGOs

Global Initiative: UNCLOS, UNCLOS Agreement for the Convention and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Convention on the Conservation &

²² UNEP. 1999. Pacific Islands Environment Outlook

²³ SPREP. 1999. Action Strategy for Nature Conservation in the Pacific islands region 1999-2002

²⁴ As in 23 (p.9)

²⁵ As in 23 (pp. 9-10)

Management of Highly Migratory Fish Stocks in the Western & Central Pacific Ocean, CMS-Bonn Convention, CITES, RAMSAR Convention, CBD, UNFCCC, Vienna Convention, Global Programme of Action on the Protection of the Marine Environment from Land-based Activities (GPA), MARPOL, Basel Convention, Regional Wetlands Action Plan, International Convention for the Regulation of Whaling, World Heritage Convention, Barbados Programme of Action for the Sustainable Development of Small Islands (BPOA)

Regional initiative: Apia Convention, SPREP Convention & Related Protocols, Convention on Driftnet Fishing, Waigani Convention, SPREP Action Plan 1997-2000, South Pacific Nuclear Free Zone Treaty, ICRI Pacific Regional Strategy, SPREP/GEF/UNDP South Pacific Biodiversity Conservation Programme, PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

10.8 Coastal degradation²⁶

Coastal degradation in the Pacific Islands is a result of some of the following activities:

- the destruction of coastal ecosystems such as mangrove forests, coral reefs, sea grasses for space development purposes
- coastal mining
- construction of coastal structures (seawalls)
- land-based and marine-based sources of pollution (includes environmental disasters)
- natural disasters
- poor planning
- tourism

Coastal areas in atoll island countries are the first and last lines of defence against the elements (storm surges, tidal waves, rising sea level). The larger high islands have a geographical advantage but face the same challenges. For both, pressure imposed on the coastal zone are human induced. Increase in population for most PICs and coastal developments such as infrastructure (roads, hotels), coastal settlements and industrial development contribute to a number of serious coastal problems. These have been described in many publications including the State of the Environment (SOE) reports and subsequent National Environmental Management Strategies (NEMS). Coastlines are dynamic and sensitive. Pressure on them is such that it is not only subject to the trade winds and cyclones but to man-induced pressure as well.

Cross-cutting themes: climate change and SLR; fisheries; pollution and waste management; tourism; coastal structures; natural & environmental disasters; training, education & public awareness; shipping; technology transfer

Mandate: SOPAC, SPREP, USP, SPTO

Global initiative: UNCLOS, CITES, Agenda 21 Chapter 17, RAMSAR Convention, CBD, Barbados Declaration, Rio Declaration

Regional initiative: SPREP Convention, Apia Convention, SPREP Action Plan 1997-2000, PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

10.9 Sustainable tourism

- pollution and sewage disposal
- marine protected areas
- natural and environmental disasters
- climate change and sea level rise
- coastal erosion
- EIAs and environmental legislation
- eco-tourism

In the Barbados Programme of Action countries highlighted the link between environmental quality and sustainable tourism development. This was also noted in The Guidelines for Integration of Tourism Development and Environmental Protection (TCSP, 1990).

²⁶ SOPAC has a Coastal Unit whose goal is “*Responsible management, preservation and sustainable development of the coast through the cooperation of the users, managers, and decision-makers.*”

The Pacific Islands do not have too many choices where tourism is concerned. For some countries the focus can either be directed to inland tourism or coastal/marine. For the rest, the sea is all they have. There is now growing awareness in the tourism circle that environmental degradation and damage to ecosystems can lead to the eventual decline of tourism and related revenues. The **need to support the environmental base** that to a large extent is the life support for tourism in the Pacific is being recognized and should continue to be encouraged.

Tourism continues to be a major source of income generation, employment creation and foreign exchange earner. Tourism arrivals in 1999 for 12 PICs totaled 1,004,620 with earnings totaling US\$1.14 billion creating direct employment for 56,300 persons. There is an average annual increase of 5.3%. This is 1% higher than the global average of 4.3% even though the region's share of global tourism is less than 0.5% of the average 612.5 million tourists. The relative economic significance of tourism differs among PICs ranging from 50% contribution to GDP in the Cook Islands to 1% for PNG.²⁷

It appears that the focus of regional tourism to date has been on marketing and tourism sustainability. Minimal consideration has been paid to the impact of tourism on the environment. Individual hotel/resort operators individually however have established their own environmental projects that include setting up of marine sanctuaries and awareness programmes. Environmental issues that affect tourism include destruction of coral reefs, mangrove deforestation, coastal and marine pollution, waste disposal and coastal erosion. It would be fair to say that some of these issues are either directly or indirectly caused by the many different industries that exist.

Eco-tourism ventures are growing in the region. Indigenous communities and local entrepreneurs run some of these. The impact on the natural environment can be both beneficial and detrimental. The expected growth in tourism has highlighted the need to integrate environmental quality into sustainable tourism development. At the national level tourism master plans exist but the link between tourism development and the environment need to be established. It implies stronger links and collaboration among line ministries and organizations. At the regional level, greater awareness of the possible impacts of the industry on the environment should be addressed. It calls for collaboration among the regional organizations that can address issues in a more consolidated manner and sharing resources and expertise. Tourists are not just visiting the region for sun, sea, and surf. The mentality is shifting to one of greater environmental awareness and appreciation.

Biodiversity conservation has become a special element in sustainable tourism. Coastal communities are also expected to become participants in resource conservation.

Addressing these issues will require a coordinated effort among the stakeholders, and development of regulatory measures. It has been discussed in various forums. Implementation is often the point where action stops. Strengthening the capacity of island countries and territories to enable continuity in the implementation of programmes has also been identified.²⁸

Cross-cutting themes: Coastal fisheries; traditional marine tenure systems; coastal mining; pollution prevention & waste management; marine biodiversity conservation; coastal degradation; monitoring; community-based management; resource valuation; training, education, and public awareness; shipping; information exchange; climate change & SLR; natural & environmental disasters; climate change & SLR; EIA

Mandate: SPTO, ForSec, SPREP, USP

Global initiative: UNCLOS, UNFCCC, CITES, Ramsar Convention, Convention on Biodiversity, Protection of the Human Environment from Land-based Activities, Global Programme of Action for the Sustainable Development of SIDS

Regional initiative: PICCAP, SPREP Action Plan 1997-2000, NEMS, SOE Reports, SPREP Convention, PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

²⁷ SPTO. 2000. Tourism Issues. A paper presented at the SOPAC/IOC Pacific Coastal Global Ocean Observing Systems Workshop, 16th-17th August 2000, Apia. (p.3)

²⁸ As in 26 (p.4)

10.10 Defence, surveillance, monitoring and enforcement

- international cooperation
- oceanic fisheries (tuna)
- drug trafficking (ships/yachts)
- *quarantine of marine products*

Surveillance, monitoring, and enforcement is focussed primarily on the conservation and management of the region's fisheries. Much of the defence work conducted in the Pacific Islands has been associated mainly with monitoring of the exclusive economic zones from poaching by foreign fishing vessels. PICs do not have the capacity of physically monitoring and enforcing laws within their EEZs by themselves. Through the FFA and bilaterally, Australia, New Zealand and France have over the years provided assistance through the provision of aerial surveillance. Forum leaders have over the past few years called for the implementation of the vessel monitoring system (VMS) established by FFA. The VMS is expected to provide effective surveillance and enforcement over highly migratory tuna species enabling conservation and sustainable management of tuna resources.

Defence work other than that happening in the fisheries (surveillance of EEZs by respective navies) is very much a sovereign issue that is dealt with internally but in cooperation with countries and relevant agencies in the region and internationally. Some of the Pacific Islands are being treated as "half-way houses" in international drug smuggling. The smuggling of native species of rare plants and animal species also occur. In fact "external criminal threats involving international finance, smuggling of drugs, goods, people and rare plant and bird species, are serious and escalating."²⁹ The 31st Forum Leaders meeting in Kiribati in October 2000 called for regional and international cooperation to combat the movement of drugs in the region. Security issues discussed in past Forum meetings recognized one of the biggest security concerns in the region is the environment. It was also noted that the regional mechanisms to respond to the various security issues existed through the regional organizations and sub-grouping through which greater collaboration was needed.

Cross-cutting themes: Monitoring, surveillance and enforcement cuts across sectors and covers, or should cover, all aspects of environmental and resource management and development. It is more developed within the fisheries (tuna management) where a combination of sophisticated satellite equipment, human observers on-board vessels, aerial surveillance and regional registration are utilized. Monitoring and assessment of inshore and coastal fisheries as well as coastal development need to be developed and implemented.

Mandate: FFA (fisheries)

Global initiative: All marine environmental-related conventions some of which include UNCLOS, FAO International Code of Conduct for Responsible Fisheries, Convention on the Conservation & Management of Highly Migratory Fish Stocks in the Western & Central Pacific Ocean; CITES

Regional initiative: Forum Fisheries Convention, Niue Treaty (fisheries surveillance & law enforcement), Agreement to Promote Compliance with Conservation and Management Measures by Fishing Vessels on the High Seas, Regional Register, VMS; SPREP Convention, PIM Fiji Declaration

10.11 Training, education, and public awareness

- special technical assistance
- specialization
- public awareness (community-based through to top tier at national decision-making level)
- all sectors

Training is conducted at different levels and crosses all sectors. The mandate for formal marine sector research and training in the Forum region rests with USP, specifically the Marine Studies Programme. Applied research in coastal and oceanic fisheries (SPC), coastal processes (SOPAC, SPREP, USP), deep seabed mining (SOPAC), energy (SOPAC) and climate change adaptation

²⁹ Crocombe, R. 2000. Enhancing Pacific Security: A report prepared for the Forum Secretariat for presentation at the Forum Regional Security Committee (FRSC) Meeting, Port Vila, Vanuatu 13-15 July 2000.

(SPREP, USP) fall under the programme of respective regional institutions. They also work with national governments and regional and international organizations.³⁰ Formal collaborative arrangements are in place among the regional agencies in the following areas:

- coastal management and pollution (SOPAC/SPREP)
- management, development and conservation of tuna (FFA/SPC)
- development of regional energy programme/studies on marine habitats (SOPAC/SPC)
- maritime boundary delimitation/studies on marine habitats (SOPAC/FFA)
- earth science and marine geology studies (SOPAC/USP)
- climate change vulnerability and adaptation studies (SPREP/USP)

A recent study on marine sector training needs assessment identified a number of emerging issues in the area of training and education reproduced in Table 3 below.³¹ The extent of the issues shows the need for close collaboration among the regional institutions and NGOs and harmonization of training activities. Most if not all the emerging issues identified in the Table 3 have also been identified in this paper as separate policy issues or essential elements of issues. Integrated ocean/resource management is a term that may be overused but its significance is not lost particularly for small islands economies.

Table 3: Marine Sector Training and Education Needs – Emerging Issues

No.	Category	Specific Components
1	Aquaculture	Pond management; Hatchery & Post Larvae Production; Quarantine; Environmental; Policy; Black pearl seeders; Attachments
2	Policy	Marine resource management; Ocean management; CZM/ICM; Coral aquaria trade
3	Fisheries management	In-depth (technical) knowledge; Economics; Trade law; Biology; Administration; Policy
4	Community Resource Management	Conservation; Community organization & administration; Impact awareness of land-based activities; Women's roles; Resource assessment & monitoring; sustainable exploitation; Subsistence catch recording; Skills – PRA; Conflict resolution; Problem solving; Socio-economic skills
5	Reef Monitoring	Standardized techniques; Biodiversity analysis; Community level monitoring
6	Marine Ecology & Taxonomy	In-depth knowledge marine biology & ecology; PIN marine specialists; traditional knowledge
7	Protected Area Management	Capacity (to sustain programmes); Community-based sanctuaries; Nationally significant MPAs
8	Interpretation and Awareness	Conservation-oriented; Public awareness of coral/aquaria fish issues
9	Post-harvest	Handling, processing & packing; HACCP & EU requirements; Internal quality control; Competent authority
10	Fishing Techniques	Long lining (small commercial); Tuna fishing (general); artisanal (real need? If yes, rural communities benefit)
11	Vessel Engineers	Shortage – for smaller & medium-sized vessels; merchant & fishing vessels
12	Safety at Sea	Small commercial craft; Tourist boats
13	Enforcement	Policing systems (largely ineffective for inshore & subsistence); case preparation (e.g. village by-laws)
14	Environmental Issues	Impact assessment – marine tourism; Construction activities; Pollution; Aquaculture; Awareness; Interpretation; Enforcement
15	Coastal Zone Management	Integrated coastal management; GIS – satellite imagery; Application
16	Data Collection & Analysis	Artisanal & subsistence catch; Computer skills; Monitoring and analysis; Economic valuation (e.g. coral reefs, mangroves, subsistence fishing)
17	Commerce	Business development; entrepreneurship
18	Diving	Aquarium fishers; Safety training; Rescue diving

³⁰ Regional mandates and work programmes may be obtained from publications produced by the regional organizations or through their websites. For this purpose information is drawn from a draft working paper on Review of Regional Initiatives and Priorities in the Marine Sector (Forum Secretariat).

³¹ Training & Education Needs Assessment in the Marine Sector for the Pacific Island Countries (Draft/ prepared for USP). Further information on the specific components is discussed in that draft paper.

19	Non-Government Organizations	Technical capacity; Leadership; Fundraising; Workshop techniques; PRA; Networking
20	Legislation	Marine legislation specialists (regional/local); Training in CITES implementation

Source: USP (draft) Training & Education Needs Assessment in the Marine Sector for the Pacific Island Countries (obtained from the Marine Studies Programme)

Due to its regional significance continued support for USPs Marine Studies Programme to develop into a centre of excellence in Pacific Island marine studies is necessary. Other regional organizations are also involved in research and training at different levels from community-based workshops to training for policy makers and senior government officials, all serving specific purposes. Collaborative research as well as training among the regional institutions making use of available regional and local expertise and knowledge must be strengthened. Furthermore NGOs and donors are playing an increasingly significant role in training and education in the Pacific Islands region. There is a need to communicate amongst each other on the type of programmes that a being offered to reduce duplication and maximize resources. *Collaboration must also continue to be developed with regional and international institutions.*

Cross-cutting themes: Covers all sectors and addresses identified key issues.

Mandate: all CROP agencies

Global initiative / Regional initiative: Wide coverage in global and regional initiatives.

10.12 Shipping

- pollution (introduction of alien species)
- hazardous wastes
- data on ship-sourced marine pollution
- PICs seafarers (employment, remittances, protection)

The Pacific Islands are dependent on shipping for their economic survival. Regional shipping has been grouped into a number of broad categories: transit shipping; international shipping (cargo or cruise); regional shipping (cargo and passenger); domestic shipping (cargo and passenger); foreign fishing fleet; domestic fishing fleet; and miscellaneous (includes among others warships, research vessels, and private yachts).³²

Relative to other regions of the world, ship-sourced marine pollution is not a serious problem in the Pacific Islands but the threat is likely to increase with the development of trade and economies. There is lack of data on ship-sourced marine pollution in the Pacific. The irony is that ship-sourced marine pollution is seen as a primary concern. Shipping-related issues that have been identified are:

- severe pollution of water and sediments in many regional ports;
- marine debris especially from foreign fishing fleets
- inadequate facilities at regional ports to receive ships' wastes
- grounding and sinking of vessels
- introduction of foreign marine species including by transit shipping undertaking re-ballasting at sea
- oil pollution
- carriage of hazardous goods and wastes

Transit shipping and foreign fishing vessels operating in offshore areas and international waters adjacent to PICs' EEZs could become a monitoring issue. To an extent this has encouraged PICs to take control and fully utilizing their EEZs.

The environmental implications for the Pacific Islands are unknown, as there have been no major oil spills or accidents within Pacific Island waters. PICs however recognize the disastrous implications it could have on their economies, living resources, birds, marine biodiversity, coastal ecosystems and communities and industries. Response capacities will also be tested.

³² SPREP. 1999. Pacific Ocean Pollution Prevention Programme: Strategy and Workplan. Apia. (p.3)

Regional concern has been raised over the continuation of shipments of radioactive materials that transit through parts of the EEZs of the Pacific Islands. The region has collectively voiced their dissatisfaction and concern over the callous attitude shown by the shippers and receivers of the hazardous materials. What is more significant is that two of the countries involved in the transshipment of these materials are members of regional agencies. The collective regional voice must be maintained.

The Regional Maritime Programme (RMP) of the SPC comprising legal and training components is aimed at strengthening current maritime legislation and improving the quality and standards of maritime training in the region. There are a number of IMO and non-IMO conventions that PICs have yet to become parties to. The conventions focus on different aspects of shipping ranging from carriage of goods, safety of life at sea and ship-sourced marine pollution (see to Annex 2).

The employment of Pacific Islanders at sea (as seafarers) needs to be seriously considered and promoted. Views expressed in a discussion indicated that recruitment presently focuses on Asia. There is a need to attract recruiting agencies to market and consider Pacific Islanders. Local agencies could be set up to network with international shipping agencies on behalf of Pacific Islands seafarers to encourage employment opportunities on regional and foreign-going vessels. Remittances received are quite substantial. Of the 7000 wage earners in Kiribati for example, 2000 are seafarers. Remittances from I-Kiribati seafarers amount to approximately US\$8 million per annum. Capacity building in shipping may need to consider specialization and implies costs in terms of specialized technology and expertise (pers. comm.)

Cross-cutting themes: Tourism; fisheries; marine pollution; biodiversity conservation; coastal degradation; capacity building

Mandate: CROP agencies, sovereign issue

Global initiative: UNCLOS, IMO Conventions, Basel Convention, Rio Declaration on Environment & Development

Regional initiative: Waigani Convention, South Pacific Nuclear Free Zone, SPREP Convention, PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

10.13 Technology transfer

- appropriateness
- environmentally sound
- within capability to maintain
- accessibility

Part XIV of UNCLOS focuses on the development and transfer of marine technology (refer to brief discussion on UNCLOS in this paper). SOPAC is recognized as the regional agency assisting its members benefit from the transfer of marine technology and the promotion of marine scientific research. Technology and its utilization should be environmentally sound and appropriate and be made available at all levels. This ranges from the transfer of knowledge to the more sophisticated equipment used in MSR and monitoring of fisheries regimes and those that address issues ranging from resource management and conservation at the community level to those that relate to climate change and greenhouse emissions. The Kyoto Protocol for example suggests the formulation of policies and programmes to promote and enhance the transfer of and access to environmentally sound technologies. Furthermore, given the vulnerability of small island states to climate change and sea level rise, the transfer of appropriate technology and capacity building will further strengthen support of adaptation measures in the Pacific Islands.

Cross-cutting themes: Defence; surveillance and monitoring; fisheries; integrated coastal management; climate change adaptation; deep seabed mining; pollution prevention & waste management; marine biodiversity & resource conservation; intellectual property rights

Mandate: SOPAC and other CROP agencies

Global initiative: UNCLOS, Convention on Biological Diversity, UNFCCC, Vienna Convention, Montreal Protocol, Kyoto Protocol, Washington Declaration, Barbados Declaration, Rio Declaration

Regional initiative: FFA Convention, PIM Fiji Declaration

10.14 Information exchange

- strengthen management capacity (all sectors)
- strengthen data capacity (all sectors)
- increase awareness and knowledge (all sectors)
- retain data (usable and understood) in the region
- disseminate information at all levels

Availability of information and information exchange cuts across sectors and provides the basis for the proper utilization, management and development of resources and the environment. Its timeliness is just as important as gathering the data. The internet is increasingly becoming a useful tool in the Pacific region for information dissemination for research purposes and capacity building. Accessing data on the internet can be very slow and accessibility to computers is also not the same in all areas of the Pacific. The prohibitive costs of the internet in the region is still expected to be drawback.

The Pacific Islands Marine Resources Information System (PIMRIS) has been instrumental in providing assistance for accessing data and should be made more widely accessible to all users. The information database will always be an important area of development and therefore support in the provision of data ranging from policy issues in the region to research in science must continue and be given a home that is central to all users. A database of experts and others involved in various aspects of marine scientific and policy research in the region exists both in hard copy as well as a database that is part of a wider international one. The work conducted by graduate students would also be very useful as well as those conducted by researchers from outside the region but conducting research in the Pacific Islands.

Information resulting from research conducted in the Pacific whether it is for academic purpose or fact finding missions organized by national governments or regional and international institutions must be shared with communities where study sites are conducted.

Cross-cutting themes: covers all sectors

Mandate: CROP

Global initiative: Most of the global and regional instruments include provisions that require Parties to share and exchange information.

Regional initiative: same as above

10.15a Climate change & Sea level rise (SLR)

- coastal communities
- coastal and oceanic fisheries
- coastal ecosystems
- capacity building
- natural and environmental disasters
- disaster preparedness and management
- national planning (proactive)

The Pacific islands are vulnerable to the effects of global warming. Many coral atolls rise to a little over five metres above sea level and could become uninhabitable due to inundation.³³ Other valid explanations as to why inundation could occur include the changing dynamics of coastal processes due to coastal construction and other development. However it remains that coral atolls, and coastal fringes of high islands will feel the effects of SLR.

The challenge for PICs as identified in the Report to the UN Commission on Sustainable Development lies in **national planning**³⁴ and disaster management at the regional and national levels.

³³ Report to the United Nations Commission on Sustainable Development on Activities to Implement the Barbados Programme of Action in the Pacific Region – Apia, SPREP, 1996 (p.5).

³⁴ As in 18 (p.6)

Limitations on resources (human, financial, technical and information) and institutional capacities will mean a delay in responses and consequent added stress on systems.³⁵

Both PICs and regional agencies together have shown a great level of commitment in undertaking **proactive** actions to address the effects of climate change. Most countries have ratified the UN Framework Convention on Climate Change (UNFCCC) 1992. Nonetheless unresolved issues at the international level particularly regarding GHG emissions is hindering progress. The Vienna Convention 1985 and the Montreal Protocol 1987 have yet to be ratified by all SPREP member states. The Kyoto Protocol has not come into force.

Regional responses to international initiatives like the National Environment Management Strategies (NEMS) have tried to develop policies and strategies for climate change in general. They are also integrated in coastal management plans. The Pacific Islands Climate Change Assistance Programme (PICCAP) was established to assist countries meet their reporting obligations under the UNFCCC.

The implications of climate change for the Pacific Islands will impact on all sectors of the economy. While there may still be some uncertainty it is expected that changes will occur in rainfall patterns and soil moisture, prevailing winds and short-term variations in regional and local sea levels and wave action patterns.³⁶ Potential impacts are also expected in the fisheries (changes in distribution and abundance of offshore fish, productivity of inshore fisheries and fish breeding sites), and marine ecosystems (coral bleaching, the health and distribution of mangroves, degradation of sea grasses),³⁷ *and more extreme weather patterns.*

The responses of Pacific Islands to issues of global warming at the local, national, regional and international fora are important. PICs will need to continue to focus on the following:

- ⊘ improve early warning systems and back-up facilities (reduce vulnerability and improve response time)
- ⊘ gather baseline information for determining the impacts of climate change and SLR that will also impact associated areas in pollution, coastal area management, living resources and forecasting
- ⊘ capacity building in specific areas (meteorological data analysis and interpretation, assessment of vulnerability that will assist in effective social and economic decision making)
- ⊘ developing strategies for adaptation bearing in mind the limited adaptive capacity of PICs as well as limited local capacity to mitigate climate change³⁸
- ⊘ ocean monitoring, monitoring of coastal changes and coastal development
- ⊘ encourage the ratification of climate-related instruments and harmonization of national legislation by PICs
- ⊘ awareness programmes on a country basis or at the sub-regional and regional levels in accordance with identified needs
- ⊘ encouraging appropriate reforms in the relevant sectors that promote policies and measures to reduce greenhouse gas emissions not controlled by the Montreal Protocol [Kyoto Protocol Article 2(vi)] that also includes participation under the clean development mechanism (Article 12)

Vulnerability assessments undertaken for PICs reveal that they: are highly vulnerable to climate and sea level changes; have a large natural resilience that is impaired by human pressures; make insignificant contributors to global environmental changes (but nonetheless suffering the consequences of activities occurring in industrialized countries); and have a low capacity to respond to changes.³⁹ A policy on climate change would need to consider the nature of small islands as well as keeping in line with the UNFCCC.

³⁵ Climate Change and Sea Level Rise in the South Pacific region: proceedings of the third SPREP Meeting, Noumea, New Caledonia, 18-22 August 1997. Kaluwin C. & John E. Hay (eds.) – Apia, SPREP, 1999 (p.22)

³⁶ As in 22 (p.21)

³⁷ As in 22 (p.56)

³⁸ As in 22 (p.21)

³⁹ As in 22 (p.20)

10.15b Climate change adaptation

- need for adaptive responses to potential impact of climate change and SLR
- adaptation strategies comes with costs (short and long-term)
- incorporate climate change responses to policies, programmes, plans, projects

Climate change adaptation is an issue that the global forum still has not been able to resolve particularly with regard to carbon emissions quotas. Trading their quotas with industrialized countries could provide short-term benefits but could eventually backfire. Adaptation responses (for better or worse) were being adopted by PICs even before they were fully aware of climate change aspects such as changing weather patterns caused by global warming. Emphasis will have to be placed on development policies that equate adaptation approaches with **proactive, anticipatory approaches** to plans, projects and programmes. The viability of long-term investments (infrastructure, hotels, port development and crops) is expected to focus on the sensitivity of projects to the effects of climate change, and their ability to cope or respond.

Projects with a *development* focus such as tourism, housing, infrastructure and agriculture development need to conduct EIA at least as a minimum requirement before progressing to the next phase. *Adaptation oriented* projects such as coastal protection need to be thoroughly assessed for its possible adverse effects. Developing drought/salt resistant crops will require funding support for research. Development of national expertise in specific areas should be encouraged to support ongoing research and experimental work. *Capacity building* in human resource and institutional development, particularly the former should be ongoing with follow-up programmes. The inclusion of adaptation options in development and planning is an anticipatory approach that stakeholders can benefit from.

Forum leaders recognized in the Kyoto Protocol the importance of adaptation measures. All small island countries have ratified the Kyoto Protocol while the industrialized countries have not made much progress.

Cross-cutting themes: integrated coastal management, disaster awareness and management, fisheries, capacity building, scientific research (vulnerability and adaptation assessment, mitigation, greenhouse gas sources and sinks), monitoring, biodiversity conservation, traditional/local knowledge

Mandate: CROP

Global initiative: Vienna Convention 1985, Montreal Protocol 1987, UNFCCC 1992, Kyoto Protocol, Global Programme of Action on the Protection of the Marine Environment from Land-based Activities, Barbados Programme of Action for the Sustainable Development of SIDS, GOOS

Regional initiative: PICCAP, SPREP Action Plan 1997-2000, NEMS, PacificGOOS, South Pacific Sea Level and Climate Monitoring Project, SOE National Reports, Action Plan for Managing the Environment in the Pacific Islands Region (2001-2004), Pacific Islands Framework for Action on Climate Change, Climate Variability & Sea Level Rise, PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

10.16 Natural and environmental disasters⁴⁰

- national disaster planning
- national disaster preparedness
- disaster mitigation
- early warning systems
- national and local responses to natural and environmental disasters

The region recognizes the impact of natural and environmental disasters brought about as a result of cyclones, oil pollution, sewage and industrial wastes, and the effect of global warming. Responses to

⁴⁰ SOPAC has a Disaster Management Unit whose goal is “To protect the development of the well-being of the people in the South Pacific by reducing the loss of life, property damage and social and economic disruption caused by natural hazards.”

combat these at the regional and national levels are in progress.⁴¹ National disaster preparedness and planning, improving resilience through recognition and strengthening of cultural and traditional systems, and strengthening local mechanisms to deal with climate change-related disasters are some of the ongoing activities happening within the region.

Not all countries will be able to respond effectively and quickly to the call of a major oil or chemical spill along their coastlines or within their waters. Many PICs are still largely unprepared.⁴² The likelihood of trans-boundary pollution is also very possible and the effect this will have on the coastal and marine environments can be disastrous. Appropriate response actions within countries may be limited by their own lack of capacity (human resources, technical expertise and equipment).

The need has been highlighted for:

- the preparation or update national disaster plans;
- strengthening early warning systems;
- strengthening national and local capacity to respond effectively during natural and environmental disasters; and
- the implementation of the Strategy for the Protection of the Marine Environment in the Pacific Region (special attention to be given to oil spill responses)⁴³

Cross-cutting themes: biodiversity conservation, integrated coastal management, capacity building, fisheries, traditional knowledge and systems, climate change & SLR, coastal degradation

Mandate: ForSec (policy issues), SOPAC (technical), SPREP (marine environment protection strategies), SPC (traditional resilience to natural disasters)

Global Initiative: UNDHA, IMO, UNCLOS, Basel Convention, UNFCCC, Montreal Protocol, Rio Declaration, Barbados Declaration

Regional Initiative: Waigani Convention, PICCAP, aid donors (rapid communication links, identifying cyclone susceptibility, coastal protection meetings), PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

11.0 Emerging Issues

Some issues are expected to dominate the Pacific Islands environment and oceans agenda in the coming years. They should also be addressed in the process of policy formulation. Work is already underway particularly at the regional level to tackle some these issues. They should be recognized when formulating an ocean policy for the Pacific Islands region. The emerging issues are:

- a. protecting intellectual property rights and ownership and access to genetic resources
- b. globalization

11.1 Intellectual property rights and ownership and access to genetic resources

- possible growth in illegal trade or illicit dealings
- uncontrolled access
- monitoring
- intellectual property rights

Intellectual proper rights and access to genetic material is expected to increase in importance. The vast ocean that surrounds the Pacific Islands offers possibilities for bio-prospecting. An area of interest for scientists and researchers are the organisms that exist in the deep-sea vents. Other organisms and marine species in shallower areas continue to encourage research for their pharmaceutical properties. Controlled access to genetic resources enables Parties to the Convention on Biodiversity to “facilitate

⁴¹ A regional report titled *Natural Disaster Reduction in Pacific Island Countries* published by SPREP, UNDHA and Emergency Management Australia in response to the UN International Decade for Natural Disaster Reduction (IDNDR) identified the need for a common strategy on natural disaster reduction in the region and measures to implement this strategy. One of its recommendations was to focus on disaster mitigation projects at national and regional levels. (As in 21, p.11)

⁴² As in 23 (p.10)

⁴³ As in 23 (pp. 10-11)

access to genetic resources.....by other Contracting Parties” (Article 15) while requiring them to “develop national strategies, plans or programmes for the conservation, and sustainable use of biodiversity” (Article 6).

Species may be threatened as a result of uncontrolled access and damage to the ecosystems particularly in areas where sampling occurs.⁴⁴ The possibility of accidentally spreading diseases or introducing alien species when collecting samples is ever-present although this perhaps is more likely to happen within the terrestrial environment.

To protect investment in genetic resources, intellectual property right is the vehicle that is used to protect information because of its commercial value. It is for this reason that traditional knowledge of uses and location of genetic resources is particularly important for the Pacific Islanders. It serves two immediate purposes:

- (i) it promotes the preservation of traditional knowledge; and
- (ii) it ensures that the holders of traditional knowledge will be able to benefit from the use and transfer of such knowledge by others

Training, developing research techniques, facilities for research, royalties, and fixed payments for access are enabling activities that stakeholders can benefit from. Access nonetheless must be regulated.

Loss of biodiversity, controlling access to genetic resources, benefit-sharing and intellectual property rights are the issues that PICs must address. While most have signed the CBD the majority of PICs has been slow in putting in place the necessary controls and monitoring mechanisms to protect their interests and their genetic resources. Legislation covering biodiversity or one governing access to genetic resources at the national level is non-existent. Sectoral laws are used instead to implement obligations under CBD.⁴⁵

Cross-cutting themes: Biodiversity conservation; marine scientific research; traditional marine tenure; information exchange; technology transfer; training, education & public awareness; monitoring and surveillance

Mandate: CROP

International Initiative: CBD, UNCED Agenda 21, Barbados Declaration

Regional Initiative: PIM Fiji Declaration, Action Plan for Managing the Environment of the Pacific Islands Region (2001-2004)

11.2 Globalization

- impact of increase travel, trade and tourism (invasive species, diseases, waste disposal)
- access to genetic resources
- national legislation on intellectual property rights
- vulnerability of island economies

Pacific Island leaders through their participation in regional and international processes recognize that development should be ecologically and economically sound. Economic and public sector reforms in the region that are now being adopted or looked at include among others the diversification of export markets and investment sources, achieving free and open trade, addressing multilateral trade issues, and promoting sustainable tourism development. PICs recognize their vulnerability to economic (e.g. a level playing field) and environmental factors (e.g. climate change). The growing interest in accessing genetic resources due to its pharmaceutical or commercial value is pressuring governments to revisit their legislation and to introduce provisions on intellectual property rights.

Geography, distance (high cost of exports), isolation from the main markets, and the forces of nature (cyclones, floods, sea warming) affecting infrastructures and national economic efforts are causes for concern and have to be addressed. Viable solutions may exist however the challenge that has been identified is the global effort (and national effort) to alleviate poverty.

⁴⁴ As in 22 (p.57)

⁴⁵ As in 22 (p.30)

Globalization provides a level playing field but countries that are small and vulnerable (economically and environmentally) are less likely to take advantage of the available opportunities that would empower them economically. Having a strong regional body (Forum Secretariat) supported by other regional agencies and SIDS and like-minded international institutions is expected to give greater recognition to the need for differential treatment to the more vulnerable nations.

Determining the impact of policies that account for environmental implications of development and resource exploitation is difficult. There is a limited local capacity and financial resources to enable governments to proceed with their planned activities. Environmental policies for PICs require a proper assessment of long-term risks as well as working out the cost of managing these risks.⁴⁶ Human, financial and institutional resources are areas that would need to be strengthened to enable the Pacific Islands to participate efficiently. Key economic sectors like fisheries, tourism, agriculture and forestry that are dependent on natural resources could experience a reduced output capacity and affect its integration into the global economy. Over-fishing (decline in catch and loss of species), improper fishing techniques, loss of mangroves, coastal degradation, loss of biodiversity, waste management and soil erosion are some of the effects that would result. Some of these are already happening anyway as a result of increasing population and the demand for food and space.

12.0 An Oceans Forum

In the spirit of collaboration on the development of a regional ocean policy it is worth considering the suggestion that a good starting point would be to consider holding a regional oceans policy forum. The purpose of the forum would be to bring together the key stakeholders from around the region to discuss would the process for developing a regional ocean policy, its scope and content. Table 4 suggests the type of participation that will be required for such a forum. Those in italicized print were added on to the already existing stakeholders.

Table 4: Stakeholder Participation in the Regional Ocean Policy Process

<i>Stakeholder Group</i>	<i>Who needs to be involved?</i>	<i>How can they be engaged?</i>
Pacific Governments and Administrations	Senior government officials from key portfolios: Foreign Affairs, Fisheries, Environment, Treasury/Finance; PM's Departments	<ul style="list-style-type: none"> ✍ providing information ✍ submissions to MSWG ✍ reviewing draft Ocean Policy as appropriate and within specified time lines ✍ participation in the Regional Ocean Pacific Islands Forum (Ocean Forum)
Council of Regional Organizations in the Pacific (CROP)	FFA SOPAC SPC SPFS PIDP SPTO USP SPREP	<ul style="list-style-type: none"> ✍ providing information ✍ commenting on draft Policy within specified time lines ✍ technical, financial and other input in design, implementation and review ✍ participation in the Ocean Forum
Pacific NGOs and Community-based Organizations	Senior officials and second tier officials as appropriate <i>SPACHEE Women in Fisheries Network Pacific Concerns Resource Centre (PCRC)</i>	<ul style="list-style-type: none"> ✍ <i>providing information</i> ✍ participation in the Ocean Forum ✍ input in design, implementation, & review ✍ submissions
Pacific Private Sector Groups	Leading companies and financial groups with interests in the marine sector	<ul style="list-style-type: none"> ✍ participation in the Ocean Forum ✍ input in design, implementation, & review ✍ financial support where appropriate ✍ <i>submissions</i>

⁴⁶ As in 22

Global International Organizations with Pacific Focus	UNEP UNESCO FAO UNDP WMO IOC Commonwealth Secretariat International Seabed Authority UNITAR etc.	<ul style="list-style-type: none"> ✍ providing information ✍ commenting on draft Policy ✍ technical, financial and other input in implementation and review ✍ participation in the Ocean Forum
Donor Agencies and Countries	Australia, New Zealand, Canada, UNDP, ADB, Norway, Sweden, World Bank	<ul style="list-style-type: none"> ✍ providing information ✍ commenting on draft Policy ✍ technical, financial and other input in implementation and review ✍ participation in the Ocean Forum
Private Sector and Investors	Shipping, mining, fishing, oil, tourism, <i>genetic / bio-technology research</i>	<ul style="list-style-type: none"> ✍ participation in the Regional Ocean Pacific Islands Forum ✍ input in design, implementation and review phase ✍ financial support where appropriate ✍
International NGOs with Pacific Focus	WWF IUCN Greenpeace IOI-Pacific Islands FSP	<ul style="list-style-type: none"> ✍ participation in the Ocean Forum ✍ input in design, implementation and review phase ✍ financial support where appropriate ✍ <i>submissions</i>

Source: Forum Secretariat. 1999

13.0 Response to International and Regional Instruments

The Pacific Islands are now facing new challenges brought about by changes in the global economy⁴⁷ and also by the responsibilities imposed on the region by various global and regional instruments. These instruments are expected to shape and influence the formulation of a regional ocean policy.

The rate of international and regional conventions has been exponential and Pacific Islands' responses to these have at best been varied. The rapid increase is indicative of the growing concern that the global society is not able to handle and treat the environment, its resources, and its uses in a sustainable manner. PICs and territories that are parties to a number of conventions may not be able to enforce them because appropriate legislation may not be in place to incorporate the provisions of the conventions.

The main international instrument guiding development of an ocean policy for PICs is the United Nations Convention on the Law of the Sea 1982 (UNCLOS) that entered into force in 1994. A brief discussion on UNCLOS follows in 14.1. There are also obligations under other conventions and agreements that respective PICs are parties to that strengthen the move towards formulating a regional ocean policy. These have been described in brief in Annex 2.

13.1 United Nations Convention on the Law of the Sea (UNCLOS) 1982

Entered into Force: 16 November 1994

Impact: The Convention embodies and enshrines the notion that all problems of ocean space are closely interrelated and need to be addressed as a whole.⁴⁸ With the entry into force of UNCLOS a legal framework has been established covering ALL aspects of human use of the sea and seabed and marine living resources. Its importance for the region cannot be overemphasized. It has opened up major economic opportunities accompanied by responsibilities. Table 5 describes the current status of UNCLOS (updated on 16th October 2000) in relation to PICs.

⁴⁷ South, G.R. & J. Veitayaki. 1999. Global Initiatives in the South Pacific: regional approaches to workable arrangements.

⁴⁸ UN Division for Ocean Affairs and the Law of the Sea

Table 5: Current Status of UNCLOS and of the Agreement relating to the Implementation of Part XI

Country / Territory	United Nations Convention on the Law of the Sea (UNCLOS)		Agreement relating to the implementation of Part XI of the Convention	
	<i>Signature</i>	<i>Ratification</i>	<i>Signature</i>	<i>Ratification</i>
TOTAL	158	135	79	99
American Samoa				
Australia	10/12/82	05/10/94	☞	05/10/94
Cook Islands ⁴⁹	10/12/82	15/12/95		15/02/95
Federated States of Micronesia	29/04/91	29/04/91	☞	06/09/95
Fiji	10/12/82	10/12/82	☞	28/07/95
French Polynesia				
Guam				
Kiribati				
Marshall Islands		09/08/91		
Nauru	10/12/82	23/01/96		23/01/96
New Caledonia				
New Zealand	10/12/82	19/07/96	☞	19/07/96
Niue	☞			
Commonwealth of Northern Mariana Islands (CNMI)				
Palau		30/09/96		30/09/96
Papua New Guinea	10/12/82	14/01/97		14/01/97
Pitcairn Island				
Samoa	28/09/84	14/08/95	☞	14/08/95
Solomon Islands	10/12/82	23/06/97		23/06/97
Tokelau				
Tonga		02/08/95		02/08/95
Tuvalu	10/12/82			
Vanuatu	10/12/82	10/08/99	☞	10/08/99
Wallis & Futuna				

Source: UN Division for Ocean Affairs and the Law of the Sea (*Updated 16 October 2000*)

13.1.1 UNCLOS articles relating to Ocean Policy Issues

Living Marine Resources: Part V (Exclusive Economic Zone) from Articles 61-73; Part VII (High Seas) Section 2 Articles 116-120 and Annex I. The LOSC places heavy emphasis on conservation and management, optimum utilization of resources, rights of states both coastal and land-locked and the role of appropriate international organizations. This is also recognized for living resources on the high seas. Annex I describes the types of highly migratory species.

Non-living Marine Resources: All of Part XI (The Area) prescribes the conduct and responsibilities of States covering MSR, technology transfer, protection of the marine environment and the participation of developing states. Articles 150-151 relate to policies on the development of the resources and production. UNCLOS recognizes that the Area and its resources are the common heritage of mankind. The International Sea-Bed Authority was established under Article 156 and is the primary body that oversees the management of non-living marine resource activities.

Pollution: All of Part XII (Protection and Preservation of the Marine Environment / 12 Sections). Sources of pollution addressed include those from land-based sources, sea-bed activities and

⁴⁹ Cook Islands is not a member of the UN

from the Area, dumping at sea, vessels and the atmosphere. Safeguards and enforcement procedures are also taken into account and provisions relating to global and regional cooperation, technical assistance, monitoring and environmental assessment. Part XI (The Area) Article 145 deals specifically with protection of the environment from the Area.

Marine Scientific Research: All of Part XIII (6 Sections) is dedicated to the conduct of MSR within the EEZ of coastal states and beyond that in areas of extended continental shelves. It prescribes the conduct of coastal states and those of other states and international organizations that wish to conduct MSR in the EEZ coastal state. Part XI (The Area) Article 143 also requires that MSR be conducted in accordance with Part XIII. International cooperation is encouraged to strengthen developing states' research capabilities. Scientific data and knowledge gained must be disseminated. Part XIV Articles 275 and 276 promote MSR through the establishment of national and regional centres. Part III (Straits) Section 2 (Transit Passage) Article 40 states that no research including MSR is to be carried out by ships without prior authorization.

Technology Transfer: All of Part XIV (4 Sections). Technology is referred to information, HRD, and equipment. International cooperation is encouraged and it must take into account the needs of developing states. Article 276 states the need to establish regional centres that deal with marine scientific and technological research and the strengthening of existing research institutions to advance MSR and national capabilities. Part XI (The Area) Article 44 promotes and encourages the transfer of technology and scientific knowledge to developing states.

UNCLOS did not deal with climate change and sea level rise issues. This however has been adequately covered in subsequent conventions and agreements.

14.0 Summary of International and Regional Conventions⁵⁰

14.1 Framework Instruments

- ✍ Stockholm Declaration on the United Nations Conference on the Human Environment 1972
- ✍ United Nations Convention on the Law of the Sea 1982 (UNCLOS)
- ✍ Declaration on the UN Conference on Environment and Development 1992 (Rio Declaration)
- ✍ UNCED Chapter 21 Agenda 17

14.2 Marine Living Resources (covers Fishing and Surveillance/Monitoring)

- ✍ South Pacific Forum Fisheries Agency Convention (FFA Convention) 1979
- ✍ The United Nations Convention on the Law of the Sea 1982
- ✍ Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Concern 1982
- ✍ Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America 1987
- ✍ Agreement Among Pacific Island States Concerning the Implementation and Administration of the Treaty on Fisheries Between the Government of Certain Pacific Island States and the Government of the USA of 2 April 1987
- ✍ Convention for the Prohibition of Fishing Vessels with Long Driftnets in the South Pacific (Wellington Convention / Driftnet Convention) 1989
- ✍ Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region (Niue Treaty) 1992
- ✍ Palau Arrangement for the Management of the Western Pacific Purse Seine Fishery 1992
- ✍ Convention for the Conservation of Southern Bluefin Tuna 1993
- ✍ Agreement to Promote Compliance with Conservation and Management Measures by Fishing Vessels on the High Seas 1993
- ✍ Federated States of Micronesia Arrangement for Regional Fisheries Access
- ✍ FAO International Code of Conduct for Responsible Fisheries 1995

⁵⁰ There has been an attempt to cover most of the international and regional conventions with relevance to the Pacific Islands. Only a few have not been discussed.

- ✍ Agreement for the Implementation of the Provisions of the UNCLOS of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks 1995
- ✍ Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to the Food Security 1995
- ✍ Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean and Final Act 2000

14.3 Marine Non-Living Resources

- ✍ Agreement establishing the South Pacific Applied Geoscience Commission 1990 (SOPAC)
- ✍ Agreement Relating to the Implementation of Part XI of UNCLOS of 10 December 1982, 1994

14.4 Preservation and Protection of the Environment

(This also covers Marine Pollution, Wastes, Biodiversity Conservation and Climate Change.)

- ✍ International Convention for the Regulation of Whaling 1946
- ✍ Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention) 1971
- ✍ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London Convention) and of the 1996 Protocol thereto
- ✍ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) 1973
- ✍ World Charter for Nature 1982? (non-binding international instrument adopted by the UN General Assembly)
- ✍ Vienna Convention for the Protection of the Ozone Layer 1985
- ✍ Montreal Protocol on Substances that Deplete the Ozone Layer 1987
- ✍ United Nations Framework Convention on Climate Change 1992
- ✍ Convention on Biodiversity 1992
- ✍ United Nations Conference on Environment and Development: Chapter 17 Agenda 21 1992
- ✍ Jakarta Mandate on Marine and Coastal Biological Diversity
- ✍ Convention on the Conservation of Nature in the South Pacific (Apia Convention) 1976
- ✍ South Pacific Nuclear Free Zone Treaty 1985
- ✍ Convention for the Protection of the Natural Resources and Environment of the South Pacific Region and Protocols (SPREP Convention) 1986
 - Protocol concerning Cooperation in Combating Pollution Emergencies in the South Pacific Region
 - Protocol to SPREP for the Prevention of Pollution of the South Pacific Region by Dumping
- ✍ Agreement establishing the South Pacific Regional Environment Programme (SPREP) 1993
- ✍ Convention to Ban the Importation into Forum Island Countries of Hazardous Waste and to Control the Transboundary Movement and Management of Hazardous Waste within the South Pacific Region (Waigani Convention)

14.5a Shipping – Marine Pollution

- ✍ International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (Intervention Convention) 1969 and Protocol Relating to Marine Pollution other than Oil 1973
- ✍ International Convention on Civil Liability for Oil Pollution Damage (CLC Convention) 1969
- ✍ International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND Convention) 1971
- ✍ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London {Dumping} Convention) and of the 1996 Protocol thereto
- ✍ International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL Convention 73/78)
- ✍ International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC Convention) 1990
- ✍ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989

- ✍ Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Waste and to Control the Transboundary Movement and Management of Hazardous Waste within the South Pacific Region 1995 (Waigani Convention)

14.5b Shipping - Maritime Transport

- ✍ Convention on the International Maritime Organization (IMO Convention) 1948
- ✍ Convention on Facilitation of International Maritime Traffic (Facilitation Convention) 1965
- ✍ Convention on Safe Containers (CSC Convention) 1972
- ✍ Athens Convention Relating to the Carriage of Passengers and their Luggage by Sea (PAL Convention) 1974
- ✍ International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW Convention) 1978

14.5c Shipping – Maritime Safety and Salvage

- ✍ International Convention on Load Lines (Load Lines Convention) 1966 and its Protocol of 1988
- ✍ International Convention on Tonnage Measurement of Ships (Tonnage Convention) 1969
- ✍ Convention on the International Regulations for Preventing Collisions at Sea (COLREG Convention) 1972
- ✍ International Convention for the Safety of Life at Sea (SOLAS Convention) 1974
- ✍ Convention on Limitation of Liability for Maritime Claims (LLMC Convention) 1975
- ✍ Convention and Operating Agreement on the International Maritime Satellite Organization (INMARSAT) 1976
- ✍ Convention on Maritime Search and Rescue (SAR) 1979
- ✍ Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA Convention) 1988
- ✍ International Convention on Salvage (Salvage Convention) 1989

15.0 Other Ocean Policies

A number of countries are pursuing at different rates the development of their ocean(s) policy. Noted are Australia, Canada, Norway, and the United Kingdom. There are others. The Australian Oceans Policy is briefly discussed below. Many of the issues highlighted in the Australian Oceans Policy are generic. Funding is expected to be a big challenge for policy implementation for the Pacific Islands. The other is political will. A common ocean policy that recognizes the sovereignty of States over their waters but at the same time exists to provide guidance over issues of common concern is expected to be of benefit to PICs.

15.1 Australia's Oceans Policy

Australia's Oceans Policy as described in the policy documents *sets in place the framework for integrated and ecosystem-based planning and management for all of Australia's marine jurisdictions*. The objective is to promote ecologically sustainable development of ocean resources while encouraging marine industries and protecting marine biological diversity.

Central to the Oceans Policy is the development of Regional Marine Plans based on large marine ecosystems. This is to be carried out under a series of arrangements that will have both national and Australian regional participation.

The Oceans Policy looks at specific sectoral measures detailing the major challenges faced by Australia and the responses they intend to take covering over twenty areas. These include planning and management of areas ranging from conservation of marine biological diversity, shipping, marine pollution, offshore petroleum and minerals, tourism, fisheries and aquaculture, understanding the oceans, pharmaceuticals, biotechnology and genetic resources, community participation, and protecting the national interest. Performance assessment is an integral part of the Oceans Policy to ensure that the strategies and actions are effective in achieving Policy goals.

Australia places great importance on its marine science and technology and marine industries. In formulating its *Marine Industry Development Strategy* and *Marine Science and Technology Plan* conservation and resource development remain uppermost. Developing science and technology (S&T) is primarily for the purpose of increasing Australia's capacity for protecting and managing its marine resources.

15.1.1 Australia's vision for its oceans

"Healthy oceans: cared for; understood and used wisely for the benefit of all, now and in the future."

15.1.2 Australia's broad goals for its oceans

- ✍ To exercise and protect Australia's rights and jurisdiction over offshore areas, including offshore resources.
- ✍ To meet Australia's international obligations under the UNCLOS and other international treaties.
- ✍ To understand and protect Australia's marine biological diversity, the ocean environment and its resources, and ensure ocean uses are ecologically sustainable.
- ✍ To promote ecologically sustainable economic development and job creation.
- ✍ To establish integrated oceans planning and management arrangements.
- ✍ To accommodate community needs and aspirations.
- ✍ To improve our expertise and capabilities in ocean-related management, science, technology and engineering.
- ✍ To identify and protect our natural and cultural marine heritage.
- ✍ To promote public awareness and understanding.

15.1.3 Policy Statements

Australia's policy statements are intended to assist in applying the principles, and to provide the basis for reporting and performance assessment in policy implementation. The policy statements that the Oceans Policy documents further expand on cover the following areas:

- ✍ Maintenance of ecosystem integrity
- ✍ Integrated oceans planning and management of multiple ocean use
- ✍ Promotion of ecologically sustainable marine-based industries
- ✍ Governance
- ✍ Managing for uncertainty
- ✍ Application of the precautionary principle
- ✍ User-pays and other economic instruments
- ✍ Reporting, monitoring and assessment
- ✍ Duty of care and stewardship
- ✍ Interests and responsibilities of indigenous peoples
- ✍ Broader community participation
- ✍ Regional and global responsibilities

Specific sectoral measures that have been identified cover the major areas that the national Government is responsible for. These were taken into consideration prior to the formulation of the Oceans Policy statements. What Australia has done amongst other things has been to identify where the actions are required and placed under five categories as identified in Table 7 below.

Table 7: Actions to be taken under the Australian Oceans Policy

Ocean Uses and Impacts	People and the Oceans	Understanding the Oceans	Assessing Effectiveness	Protecting the National Interest
<ul style="list-style-type: none"> - conservation of marine biodiversity - fisheries - aquaculture - offshore petroleum and minerals - pollution of the marine environment - shipping - marine tourism - marine construction, engineering and other industries - pharmaceutical, biotechnology and genetic resources - alternative energy sources - aboriginal and Torres Strait Islander peoples' responsibilities and interests - natural and cultural heritage 	<ul style="list-style-type: none"> - community participation, skills development and training 	<ul style="list-style-type: none"> - physical, chemical and geological attributes - marine biological diversity and ecosystem processes - information for management: monitoring and state of the environment reporting - weather and climate services for the marine environment - climate change and variability 	<ul style="list-style-type: none"> - performance assessment and reporting 	<ul style="list-style-type: none"> - defence - international - surveillance and enforcement

Source: Commonwealth of Australia. 1998. Australia's Ocean's Policy, Specific Sectoral Measures.

15.2 Lessons that can be learnt

Consultation

The Australian process for formulating its Oceans Policy took time to prepare. It involved the participation of different interest groups and stakeholders through considerable consultation, sharing of ideas and submissions. Those involved included the national government, state governments, communities, conservation groups, industry, and other resource users.

Partnerships

Putting a policy into action such as one covering a vast area of ocean requires partnerships across the board – government, the private sector, non-governmental organizations, the scientific community and the wider community involving numerous interest groups.

Collective Agreement

It is important to have good leadership to keep the work of producing an ocean policy in focus. Differences in opinion over matters pertaining to ocean governance could be a hindrance to the formulation of an Ocean Policy. Collective agreement at the regional and national levels is vital for the Pacific Islands Ocean Policy. The process is just as important as the final product.

Bibliography

Bell, J. 1999. Aquaculture: a development opportunity for the Pacific Islands. In: Information Paper 19, First SPC Heads of Fisheries Meeting, 9-13 August 1999. SPC, Noumea.

Commonwealth of Australia. 1997. Australia's Oceans Policy. Department of Environment, Canberra.

Crocombe, R. 2000. Enhancing Pacific Security: A report prepared for the Forum Secretariat for presentation at the Forum Regional Security Committee (FRSC) Meeting, 13-15 July 2000, Port Vila.

Doulman, D.J. (ed.). 1987. Tuna Issues and Perspectives in the Pacific Islands Region. East-West Centre, Honolulu.

Forum Fisheries Annual Report 1999. FFA, Honiara.

Forum Fisheries Agency. 1994. Multilateral Treaty on Fisheries. Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America. FFA, Honiara.

Heathcote, P. 1997. Maritime Law in the South Pacific – Towards Harmonisation. A thesis presented in fulfilment of the requirements for the degree of Doctor Philosophy in Marine Studies at the University of the South Pacific.

Herr, R. (ed.). 1990. The Forum Fisheries Agency: Achievements, Challenges and Prospects. USP, Suva.

Kaluwin, C. & J.E. Hay. (eds.). 1999. Climate Change and Sea Level Rise in the South Pacific Region: Proceedings of the third SPREP Meeting, 18-22 August 1997, Noumea, New Caledonia. SPREP, Apia.

Maharaj, R.M. Pacific Islands at Risk: Foreshore Development and their Vulnerability and Implications for Adaptation Strategies to Climate Change In: Mimura, N. (ed.). Coastal Impacts of Climate Change. APN Environment Agency, Japan.

McDorman, T.L. 1997. Seafood Safety Standards (With Special Reference to HACCP): Review of Import Regulations of the US and EU and the Relevant Laws of the South Pacific Region (Draft)

Quarrie, J. (ed.). 1992. Earth Summit '92. The Regency Press Corporation, London.

Soons, A.H.A. 1994. Implementation of the Marine Scientific Research Regime in the South Pacific. FFA, Honiara / SOPAC, Suva.

SOPAC. 2000. SOPAC's Maritime Boundary Proposal (A Proposal prepared for AUSAID)

SOPAC. 1999. The Madang Guidelines: Principles for the Development of Offshore Mineral Policies. SOPAC Miscellaneous Report 362. SOPAC, Suva.

SOPAC. 1997. Regional Coordination of Law of the Sea Issues in the South Pacific. Report by the Director of SOPAC to the South Pacific Organisations Coordination Committee (SPOCC). SOPAC Technical Report 252. SOPAC, Suva.

South, G.R. & J. Veitayaki. 1999. Global Initiatives in the South Pacific: regional approaches to workable arrangements. Asia Pacific Press, Canberra.

South, G.R. & P.A. Skelton. 1999. The Pacific Islands in the Twenty-first Century. United Nations Environment Programme, Nairobi / International Ocean Institute, Valleta.

South Pacific Handbook of Treaties and other Legal Instruments in the field of Environmental Law. SPREP, Apia & UNEP, Nairobi. 1998.

South Pacific Regional Oceans Policy – Preliminary Suggestions for Development (Discussion paper)

SPREP. 1999. Action Strategy for Nature Conservation in the Pacific Islands Region 1999-2002. SPREP, Apia.

SPREP. 1999. Pacific Ocean Pollution Prevention Programme: Strategy and Workplan. SPREP, Apia.

SPREP. 1996. Report to the United Nations Commission on Sustainable Development on Activities to Implement the Barbados Programme of Action in the Pacific Region. SPREP, Apia.

Tarte, S. 2000. Regional Fisheries in the Pacific – Cooperating to Protect Marine Resources In Indigenous Affairs No.1/2000

Tarte, S. 2000. Tuna management and conservation: Negotiating for our survival? In Pacific News Bulletin May 2000.

Tito, T. 1998. Fisheries: Key Sectors for Private Investment and Growth. A paper presented by H.E. Teburoro Tito, Beretitenti of the Republic of Kiribati at the 29th South Pacific Forum, 24-25 August 1998, Pohnpei.

United Nations. 1983. The Law of the Sea. United Nations Convention on the Law of the Sea with Index and Final Act of the Third United Nations Conference on the Law of the Sea. UN, New York.

UNEP. 1999. Pacific Islands Environment Outlook. UNEP, Nairobi.

Vuidreketi, I. 2000. Tourism Issues. A paper presented at the SOPAC/IOC Pacific Coastal Global Ocean Observing Systems Workshop, 16-17 August 2000, Apia. SPTO, Suva.

_____. 1998. The Jakarta Mandate on the Conservation and Sustainable use of Marine and Coastal Biological Diversity. Secretariat of the Convention on Biological Diversity. (First Version – October 1998).

_____. Training & Education Needs Assessment in the Marine Sector for the Pacific Island Countries (Draft consultancy report prepared for the University of the South Pacific).

SOUTH PACIFIC FORUM VISION STATEMENT

The leaders who have participated in the Twenty-Sixth meeting of the South Pacific Forum, the paramount regional inter-governmental organisation in the South Pacific, have a vision for enhancing regional cooperation for the next twenty-five years in which:

Forum members co-operate on the basis of equality, friendship and mutual respect – with due regard for what each can afford – in efforts to maintain security, improve living standards and ensure sustainable development throughout the region;

Opportunities for co-operation with other governments, non-governmental organisations and international organizations, including other bodies in the Asia-Pacific, are actively pursued and developed;

Resources, including fisheries, forestry, minerals, water and land, are developed with regard for conservation, the legacy of past generations and the future;

Unity in securing shared interests contributes to the national, regional and global good;

Material progress is matched by improvement in the quality of people's lives including human development, equality between women and men, and protection of children;

Vulnerability to the effects of natural disasters, environmental damage and other threats will be overcome;

Indigenous and other values traditional and customs of the region are respected and promoted through cultural, sporting and other exchanges;

Self-determination will be exercised in the remaining dependent territories, and unwelcome activities by external powers, including nuclear testing, will cease;

International economic co-operation through trade, investment and other exchanges, strengthens subsistence and commercial agriculture, industrial development and competition, leading to growth –with equity, broadly-based participation and capacity-building for self-reliance;

Openness, accountability and other principles of good government are embodied in the practices, policies and plans of regional institutions; and

National, sub-regional and regional efforts to achieve the Forum's vision receive the support they require from the Forum Secretariat and other regional organisations.

Issued at Madang, Papua New Guinea, 14th September 1995

SUMMARY OF REGIONAL AND INTERNATIONAL CONVENTIONS
RELEVANT TO THE PACIFIC ISLANDS

LIVING RESOURCES

1. Convention Establishing the South Pacific Forum Fisheries Agency 1979 (FFA Convention)

Opened for signature: 10th July 1979

Ratification: All FFA member countries

Depository:

Role: The Convention provides a legal framework for the activities of FFA and is implemented through its work programme after the approval of the Forum Fisheries Committee (FFC).

2. Treaty on Fisheries Between the Governments of Certain Pacific Islands States and the Government of the United States of America 1987

Opened for signature: 2nd April 1987

Entry into force (First arrangement): 1988

Ratification: All FFA member countries and the USA

Expired: 15th June 1993

Entry into force (Second Arrangement): 15th June 1993

Ratification/acceptance/approval (incl. all amendments): All FFA member countries and the USA

Expiry: 15th June 2003

Depository: Government of Papua New Guinea

Negotiations are currently under way for the extension of the Treaty after 2003. Key issues that being considered include:

- ✍ the duration of any extension (of the Treaty);
- ✍ the number of vessels to be licensed;
- ✍ the fee package to be paid to the Pacific Islands parties; and
- ✍ linkages to the new Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Pacific Ocean

3. Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific 1989 (Wellington Convention / Driftnet Convention)

Opened for signature: 29th November 1989

Entry into force: 17th May 1991

Status: Only 8 FFA member countries have so far ratified the Wellington Convention (see Table 8)

Depository: Government of New Zealand

Protocol I: USA only

Protocol II: Chile and Canada only

Note: No FFA member country has signed or ratified Protocols I & II

The Wellington Convention was a response to the Declaration of the South Pacific Forum (now Pacific Islands Forum) at Tarawa on 11th July 1989 that called for a convention to ban the use of driftnet fishing in the South Pacific region. The Convention was borne out of the following concerns:

- ✍ damage done by pelagic driftnet fishing to albacore tuna resource, and environment and economy of the South Pacific region
- ✍ navigational threat posed by driftnet fishing
- ✍ increased exploitation of fisheries and threat to fish stocks by large driftnet fishing
- ✍ call for driftnet fishing ban at the 1989 South Pacific Forum in Kiribati, and 29th South Pacific Conference, Guam
- ✍ recognition of UNCLOS particularly Parts V, VII, and XVI

Table 8: Status of the Wellington Convention as at 4th February 2001

	Convention		Protocol I		Protocol II	
	Signed	Ratified	Signed	Ratified	Signed	Ratified
Australia	2/2/90	6/7/92				
Canada					24/9/91	29/8/98
Chile					1/11/91	5/10/93
Cook Islands	29/11/89	24/1/90				
Federated States of Micronesia	29/11/89	20/12/90				
Fiji	11/8/93	18/1/94				
France	30/4/90					
Kiribati	13/2/90	10/1/92				
Marshall Islands	29/11/89					
Nauru	13/2/90	14/10/92				
New Zealand	29/11/89	17/5/91				
Niue	29/11/89					
Palau	29/11/89					
Papua New Guinea						
Samoa		9/9/96				
Solomon Islands	7/3/91	19/1/98				
Tokelau	29/11/89	17/5/91				
Tonga						
Tuvalu	13/2/90					
United Kingdom						
U.S.A.	14/11/90	28/2/92	27/2/91	28/2/92		
Vanuatu	13/2/90					

Source: Forum Fisheries Agency. 2001. SPFFA Fourth MCS Working Group Meeting (Paper No. MCS4/INFO3.1)

4. Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region 1992 (The Niue Treaty)

Opened for signature: 10th July 1992

Ratification: 12 instruments of ratification as of 4th February 2000

Entry into force: 20th May 1993

Depositary: Government of Niue

The implementation of the Treaty is based on subsidiary agreements at the bilateral, sub-regional or regional levels. Only one so far has been established between Tonga and Tuvalu. Only 3 of the 17 countries have not ratified the Treaty. They are New Zealand, Tokelau, and Tuvalu. Tokelau is recognized officially as a separate Party to this Treaty. The FFA member countries that number 16 do include Tokelau as a separate entity from New Zealand.

Taking into account the UN Convention on the Law of the Sea and the FFA Convention, Parties to the Convention are obligated to cooperate in the enforcement of their fisheries laws and regulation, and to cooperate in developing regionally agreed procedures of such surveillance and enforcement. Article V encourages information exchange on vessel movement, licensing and surveillance and enforcement activities in a standardized manner.

5. Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Concern 1982 (The Nauru Agreement)

Opened for signature: 11th February 1982

Ratification: All 7 members of the Nauru Group (Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, and Solomon Islands). Tuvalu acceded to the Agreement on 15th May 1985 although it is not an original member of the Nauru Group. Other Pacific Islands states may also accede on the concurrence of all the parties.

Entry into force: 2nd December 1982

The Nauru Agreement is an international treaty. Members are obligated to adopt common courses of action with respect to their shared fisheries resources so long as that cooperation benefits them without their taking away their sovereign rights.

The alliance of the Nauru Group of countries is considered sensible and logical for the following reasons:⁵¹

- ✍ they have contiguous EEZs and has implications for resource management, surveillance and enforcement. Their combined EEZs cover 45 percent of the total in-zone area of all Pacific Island countries and territories or 14 million square kilometres of the Central and Western Pacific Ocean. It also accounts for 72 percent of on the in-zone area of FFA member countries.
- ✍ the Nauru Group share tuna stocks, particularly skipjack, based on studies conducted by the SPC
- ✍ fishing operations conducted by DWFNs in the Pacific Islands region is concentrated within the EEZs of the Nauru Group. More than 75 percent of the tuna caught by DWFN fleets in the EEZ of Pacific Island countries comes from the Nauru Group

6. Palau Arrangement for the Management of the Western Pacific Purse Seine Fishery 1992

Signed: All 8 countries have signed (FSM, Marshall Islands, Nauru, Palau, PNG and Tuvalu signed on 28th October 1992 in Fiji; Kiribati and Solomon Islands signed in 1993)

Ratification: All except Palau, Solomon Islands and Tuvalu have yet to ratify

Entry into force: 1st November 1995 following deposit of ratification at FFA by PNG. Note: With the agreement now in force other FFA members who are not parties to the Nauru Agreement can accede to the Palau Arrangement.

The Palau Arrangement restricts fishing effort in the purse seine industry in the central and western Pacific by imposing a limit on the number of fishing vessels licensed to fish in the Nauru Agreement area. The challenge has been the maintenance of this limit particularly with increasing interest from potential fishers. In a review of the Arrangement in April 2000 an alternative suggestion to limiting the number of licensed vessels was limiting the number of vessel days. Such an approach would require a more rigorous monitoring and surveillance through the FFA VMS.

7. Federated States of Micronesia Arrangement for Regional Fisheries Access

Signed: 5 countries of the Nauru Group have signed (FSM, Kiribati, Palau, Nauru, and PNG). 2 countries have acceded to the arrangement - Solomon Islands and Marshall Islands.

Concerns are already being expressed about the eligibility of certain vessels under this Arrangement and the frequent changes in flags by some vessels.

⁵¹ Doulman, D.J. (ed.). 1987. *Tuna Issues in the Pacific Islands Region*. East-West Centre. Honolulu (pp. 259-260)

8. The Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10th December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks

Signed: 59 states as of 4th February 2001

Ratification: 27 states

Entry in force: Yet to enter into force but will do so 30 days after the date of deposit of the thirtieth instrument of ratification or accession.

The objective of this Agreement is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks. This is achieved through effective implementation of the relevant provisions of the Convention and in the process improving cooperation between States. The Agreement, one of the concrete results of UNCED 1992, seeks to address Programme Area C in Chapter 17 of Agenda 21 which noted the inadequacy of high seas fisheries management and the over-utilization of some of the resources. It also noted that there were problems with unregulated fishing, over-capitalization, excessive fleet size, vessel flagging to escape controls, insufficient selective gear, unreliable databases and lack of sufficient cooperation between States. Innovative measures particularly in environmental and resource protection obligates States to adopt a precautionary approach to fisheries exploitation and also gives expanded powers to port States to enforce certain obligations to safeguard proper management of fisheries resources.⁵²

In ratifying this Agreement, Parties are committed to the conservation, management and sustainable exploitation of the resources highlighted in this Agreement through cooperation in the form of financial, scientific and technological assistance. The status of the Agreement with respect to FFA member countries is seen in Table 9.

Table 9: Current Status of the Agreement on UNCLOS with respect to FFA member countries relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks

(As at 4th February 2001)

FFA Member Country	Date of Signature	Date of Ratification
Australia	4 th December 1995	23 rd December 1999
Cook Islands		1 st April 1999
Federated States of Micronesia	4 th December 1995	23 rd May 1997
Fiji	4 th December 1995	12 th December 1996
Kiribati		
Marshall Islands	4 th December 1995	
Nauru		10 th January 1997
New Zealand	4 th December 1995	
Niue	4 th December 1995	
Palau		
Papua New Guinea	4 th December 1995	4 th June 1999
Samoa	4 th December 1995	25 th October 1996
Solomon Islands		13 th February 1997
Tonga	4 th December 1995	31 st July 1996
Tuvalu		
Vanuatu	23 rd July 1996	

Source: Division for Ocean Affairs and the Law of the Sea in FFA Paper No. MCS4/INFO3.1

9. Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean 2000

Opened for signature: 5th September 2000 – 13 of the 25 States have signed the Convention; 1 has signed the Arrangement; and 25 have signed the Final Act.

⁵² SPREP. 1999. Action Strategy for Nature Conservation in the Pacific Islands Region 1999-2002. SPREP, Apia. (Annex 5: p.42)

Ratification: None (as of 14th December 2000)

Entry into force: The Convention will come into force 30 days after the date of deposit of instruments of ratification, acceptance, approval or accession by 3 States north of 20° North latitude and 7 States south of 20° North latitude. Current status of the MHLC Convention is seen shown in 10.

Depositary: Government of New Zealand

The Convention is an attempt to formalize cooperation between the Pacific Islands and the distant water fishing nations (fishing states) that includes the USA and Japan. The objective of the Convention as indicated by Article 2 is:

... to ensure, through effective management, the long-term conservation and sustainable use of highly migratory fish stocks in the western and central Pacific Ocean in accordance with the 1982 Convention and the Agreement.

Under the Convention, one of the world's largest fisheries areas has been created; a substantial portion of which lies in the Pacific Ocean and includes the EEZs of PICs and territories. It recognizes the ecological and geographical vulnerability of small island developing States and territories and their unique needs and also acknowledges that effective conservation and management can only be achieved through cooperation between coastal and fishing States.

Table 10: Current Status of the (MHLC) Convention

As at 14th December 2000

Country	Convention		Arrangement Signed	Final Act Ratified
	Signed	Ratified		
Australia	--/10/00			05 / 09 / 00
Cook Islands	05/09/00			05 / 09 / 00
Federated States of Micronesia	05/09/00			05 / 09 / 00
Fiji	05/09/00			05 / 09 / 00
Kiribati				05 / 09 / 00
Marshall Islands	05/09/00			05 / 09 / 00
Nauru				05 / 09 / 00
New Zealand	05/09/00			05 / 09 / 00
Niue	--/10/00			05 / 09 / 00
Palau	05/09/00			05 / 09 / 00
Papua New Guinea				05 / 09 / 00
Samoa	05/09/00			05 / 09 / 00
Solomon Islands				05 / 09 / 00
Tonga				05 / 09 / 00
Tuvalu	05/09/00			05 / 09 / 00
Vanuatu	05/09/00			05 / 09 / 00
New Caledonia				05 / 09 / 00
China				05 / 09 / 00
Chinese Taipei			05/09/00	05 / 09 / 00
Indonesia				05 / 09 / 00
Korea				05 / 09 / 00
Philippines				05 / 09 / 00
Canada				05 / 09 / 00
France				05 / 09 / 00
USA	05/09/00			05 / 09 / 00

Source: Government of New Zealand in FFA Paper No. MCS4/INFO3.1

CONVENTIONS RELATING TO CONSERVATION (also covers Marine Pollution, Waste Management, Biodiversity, Preservation & Protection of the Marine Environment)

1. Convention on the Conservation of Nature in the South Pacific Region 1976 (Apia Convention)

Opened for signature: 12th June 1976

Entry into force: 26th June 1990 after ratification by 4 countries

Depositary: Government of Samoa

This is a regional Convention that encourages the creation of protected areas. It recognizes the Principles (26 in all) set out in the Declaration of the UN Conference on the Human Environment noting that the people are the driving force in the changes taking place globally. The establishment of protected areas is seen as a way to conserve, utilize and develop in a sustainable manner in order to benefit present and future generations. As of 15th January 2001 Parties to the Apia Convention are Australia, Cook Islands, Fiji, France, Papua New Guinea, and Samoa.

2. South Pacific Nuclear Free Zone Treaty 1985 (Treaty of Rarotonga) and Protocols (I-III)

Adopted: 6th August 1985

Ratification: 12 countries have become Parties. Tonga has signed the Treaty but has yet to ratify accede. Forum members that have to act on the Treaty include the Marshall Islands, Palau, France (New Caledonia, French Polynesia and Wallis and Futuna), United Kingdom (Pitcairn Island), and the USA (American Samoa, Guam, and Northern Marianas)

Entry into force: 11 December 1986

Depositary: Forum Secretariat *Secretariat:* Forum Secretariat

This is a regional treaty that came about as a result of the decision of the 15th South Pacific Forum that advocated for a nuclear free zone to be established in the region. The treaty renounces nuclear explosive devices (Article 3); obligates Parties not to use its territories from the stationing of nuclear explosive devices (Article 5), from testing nuclear explosive devices (Article 6), or from dumping of radioactive wastes anywhere within the South Pacific Nuclear Free Zone (Article 7). A control system will enable the Parties to verify compliance with their obligations (Article 8) and are encouraged to keep each informed on matter arising from or related to the treaty (Article 9).

3. Convention for the Protection of the Natural Resources and Environment of the South Pacific Region and related Protocols 1986 (SPREP Convention)

Opened for signature: 24th November 1986

Entry into force: 22nd August 1990. Countries and territories are in different stages of signing (S), ratifying (R) and acceding (A) to the Convention and Protocols I and II as shown in Table 11.

Depositary: Forum Secretariat *Secretariat:* SPREP

The SPREP Convention provides a broad framework for countries to cooperate in preventing coastal and marine pollution. Parties have been encouraged to conclude bilateral or multilateral and regional or sub-regional agreements in order to protect, develop and manage the marine and coastal environment of the Convention area [General Provision, Article 4(1)]. The Convention recognizes the different pollution sources: from vessels; land-based sources; seabed activities; airborne pollution; disposal of wastes; storage of toxic and hazardous wastes; testing of nuclear devices; and mining and coastal erosion.

Table 11: Convention for the Protection of the Natural Resources and Environment of the South Pacific Region and related Protocols⁵³ 1986 (SPREP Convention)

Country	Convention			Protocol I			Protocol II		
	S	R-A	S/R-A	S	R-A	S/R-A	S	R-A	S/R-A
Australia			↯	↯					↯
Cook Islands			↯			↯			↯
FSM			↯			↯			↯
Fiji		↯			↯			↯	
Kiribati									
Marshall Islands			↯			↯			↯
Nauru	↯			↯			↯		
Niue									
Palau	↯			↯			↯		
PNG			↯			↯			↯
Samoa			↯			↯			↯
Solomon Islands		↯			↯			↯	
Tonga									
Tuvalu	↯			↯			↯		
Vanuatu									
France						↯			↯
French Polynesia									
New Caledonia									
Wallis & Futuna									
New Zealand			↯			↯			↯
Tokelau									
United Kingdom	↯			↯			↯		
Pitcairn Island									
USA			↯			↯			↯
American Samoa									
Guam									
Northern Marianas									

Source: SPREP. 1999. Pacific Islands Environment Outlook (p.35)

4. Agreement establishing the South Pacific Regional Environment Programme (SPREP) 1993

Opened for signature: 16th June 1993

Entry into force: 31st August 1995. As of 30/09/2000 all SPREP member countries have become Parties except for the UK (on behalf of Pitcairn Island). The USA (on behalf of its territories of American Samoa, Guam, and the Northern Marianas) and Vanuatu have yet to ratify.

Depositary: Government of Samoa

Secretariat: SPREP

SPREP was established to “*promote cooperation in the South Pacific region and to provided assistance in order to protect and improve its environment and to ensure sustainable development for preset and future generations.*” (Article 2)

5. Convention to Ban the Importation into Forum Island Countries of Hazardous Waste and to Control the Trans-boundary Movement and Management of Hazardous Waste within the South Pacific Region 1995 (The Waigani Convention)

Opened for signature: 16th September 1995, Waigani, PNG

Ratification: 3 countries ratified so far from Forum member countries

Entry into force: Yet to enter into force, requiring 10 Parties before this can happen.

Depositary: Secretary General of the Forum Secretariat

Secretariat: SPREP

⁵³ There are two Protocols: (1) Protocol concerning Cooperation in Combating Pollution Emergencies in the South Pacific Region; and (2) Protocol to SPREP for the Prevention of Pollution of the South Pacific Region by Dumping.

This regional convention that has been signed by all Forum countries with the exception of the Marshall Islands “*seeks to ban the importation of all hazardous and radioactive wastes from outside the Convention area.*” That Pacific Island countries have all signed the Convention is indicative of their seriousness in dealing with the problems posed by hazardous and radioactive wastes. The Convention recognizes a number of regional and international programmes, agreements and guidelines. These include the:

- ✍ Programme of Action for the Sustainable Development of Small Island Developing States 1994
- ✍ Basel Convention 1994
- ✍ UNCED Agenda 21, 1992
- ✍ Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes 1987
- ✍ SPREP Convention 1986
- ✍ South Pacific Nuclear Free Zone Treaty 1985
- ✍ International Atomic Energy (IAEA) Code of Practice on the International Transboundary Movement of Radioactive Waste
- Declaration of the United Nations Conference on the Human Environment (Stockholm) 1972

Among its many requirements the Waigani Convention⁵⁴:

- ✍ categorizes hazardous wastes from outside the region
- ✍ identifies appropriate disposal or reuse methods for each category of waste
- ✍ bans the importation of hazardous wastes from outside the region
- ✍ requires Parties to consider becoming Parties to the London Dumping Convention, the SPREP Convention and the Basel Convention
- ✍ obligates Parties to dispose of their own wastes in an acceptable manner
- ✍ obligates Parties to develop national waste management strategies
- ✍ establishes mechanisms to strictly control the movement of hazardous wastes
- ✍ encourages the Parties to minimize to the extent possible the production of hazardous wastes

6. International Convention for the Regulation of Whaling 1946

Adopted: 2nd December 1946 at Washington

Entry into force: 11th October 1946

Depositary: Government of the United States of America

This convention protects all species of whales from becoming over-fished and puts in place conservation procedures that would encourage the maintenance of a healthy whale stock as well as safeguard them for the benefit of future generations. The Convention sets up a Whaling Commission (Article III) to encourage research and investigation relating to whales and whaling; to collect and analyse statistical information on the current condition and trend of whale stocks and the effects of whaling activities; and to appraise and disseminate information on methods of maintaining and increasing whale stock population (Article IV). Whaling and the global concern for decreasing whale stocks continue to be an issue. More than ten species of whales are identified in the Convention.

7. Convention on Wetlands of International Importance Especially as Waterfowl Habitat 1971 (Ramsar Convention)

Adopted: 2nd February 1971 at Ramsar

Entry into force: 21st December 1975

Depositary: Director General, United Nations Educational, Scientific and Cultural Organization (UNESCO)

⁵⁴ SPREP. 1996. Report to the United Nations Commission on Sustainable Development on Activities to Implement the Barbados Programme of Action in the Pacific Region. SPREP, Apia. (p.16)

“Wetlands” is defined by the Convention as “*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters.*” (Article 1)

The Convention aims at stemming the progressive encroachment on and loss of wetlands now and in the future due to their great economic, cultural, scientific, and recreational value whose loss is seen as irreparable (Preamble). Whether wetlands designated by contracting Parties for inclusion in the List of Wetlands of International Importance are selected or not Parties are required to promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands.

8. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London Dumping Convention) and of the 1996 Protocol thereto.

Adopted: 29th December 1972 in quadruplicate at London, Mexico City, Moscow and Washington
Entry into force: 21st March 1994. Seven Pacific Island countries (as of 12/11/98) have ratified the Convention. They are Marshall Islands, Vanuatu, Australia, Niue, France (French Polynesia, New Caledonia, Wallis & Futuna), United Kingdom (Pitcairn Island) and the USA (American Samoa, Guam, Northern Marianas).

Depositary (for the Convention): Governments of Mexico, the Union of Soviet Socialist Republic⁵⁵, the United Kingdom, and the United States of America

Depositary (for the 1996 Protocol): Secretary General of the International Maritime Organization

Parties to this international convention are required to control sources of pollution of the marine environment and prevent polluting the sea through dumping of wastes and other matters. Either individually or collectively they are obligated to “*protect and preserve the marine environment from all sources of pollution and take effective measures, according to their scientific, technical and economic capabilities, to prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter*” (Article 2). Parties are also obligated, where appropriate, to harmonize their policies.

It has been suggested that Pacific Island countries should consider adopting and incorporating provisions of this Convention into domestic law because it can be done without major cost or administrative changes and it also offers protection to existing tropical ecosystems. Moreover with the accession of all Pacific Island countries to the London Dumping Convention and its incorporation into national law a uniform regime would be in place across the whole south and west of the Pacific prohibiting dumping of hazardous materials into the marine environment.⁵⁶

9. Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973 (CITES)

Adopted: 3rd March 1973 at Washington

Entry into force: 1st July 1975. Nine Pacific Island countries and territories have ratified CITES. They are Fiji, Papua New Guinea, Vanuatu, Australia, New Zealand, Niue, France (French Polynesia, New Caledonia, Wallis & Futuna), United Kingdom (Pitcairn), and the USA (American Samoa, Guam, Northern Marianas).

Depositary: Government of the Swiss Confederation

Secretariat: United Nations Environment Programme (UNEP)

The CITES Convention recognizes that wild flora and fauna have an intrinsic role to play in the earth’s natural systems and must be protected as a consequence for both present and future generations. The best possibility for flora and fauna to be protected lie in the hands of the people and the state. CITES also recognizes that international cooperation is also essential in protecting certain species of wild flora

⁵⁵ The Government of the Russian Federation has assumed the role of depositary.

⁵⁶ Heathcote, P. 1997. Maritime Law in the South Pacific – Towards Harmonisation. [A thesis present in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Marine Studies at the University of the South Pacific] (p.136)

and fauna against overexploitation through international trade. Certain marine species also form part of the endangered list on international trade and include giant clams.

10. Vienna Convention for the Protection for the Ozone Layer 1985

Adopted: 22nd March at Vienna

Entry into force: 22nd September 1988. Sixteen Pacific Island countries and territories have ratified the Vienna Convention. Those who have yet to ratify (as of 12/11/98) are the Federated States of Micronesia, Nauru, Palau, Niue and Tokelau, Pitcairn, and the UK. Note that France has ratified for French Polynesia, New Caledonia and Wallis & Futuna, and the USA for American Samoa, Guam and Northern Marianas.

Depositary: Secretary General, United Nations

Secretariat: UNEP (short term)

The Vienna Convention was adopted due to the awareness of the potential harmful effects of the modification of the ozone layer on human health and the environment and the determination that these would be protected. Through research and systematic observations (Article 3), cooperation in the legal, scientific and technical fields (Article 4), and the transmission of information (Article 5), the Parties are obligated to protect the health of their citizens and the environment from effects due to human-related activities.

11. Montreal Protocol on Substances that Deplete the Ozone Layer 1987

Adopted: 16th September 1987 at Montreal

Entered into force: 1st January 1989. Sixteen Pacific Islands and territories have ratified (as of 12/11/98). Those that have yet to ratify are Nauru, Palau, Niue and Tokelau.

Depositary: Secretary General, United Nations

Parties to the Montreal Protocol are Parties to the Vienna Convention for the Protection of the Ozone Layer. In recognizing that the global emissions of certain substances⁵⁷ can significantly deplete or modify the ozone layer and consequently harm the environment and human health, precautionary measures are identified to control total global emissions. The ultimate objective is that these substances will be eliminated based on developing scientific knowledge while taking into account technical and economic considerations as well as the developmental needs of developing countries.

12. United Nations Framework Convention on Climate Change (UNFCCC) 1992

Adopted: 9th May 1992 at New York

Entered into force: 21st March 1994. Palau and Tonga (as of 12/11/98) have yet to ratify the UNFCCC. PICs that have ratified are: Cook Islands, FSM, Fiji, Kiribati, Marshall Islands, Nauru, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. Ratification by the USA also applies to American Samoa, Guam and Northern Marianas.

Depositary: Secretary General, United Nations

The Climate Change Convention came about as a result of the concern by the international community regarding the need to protect the climate system from enhanced greenhouse effects. This is due to the substantial increase of greenhouse gas concentrations in the atmosphere resulting in its additional warming as well as that of the earth's surface. The Convention's ultimate objective is:

"...to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved with a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development in a sustainable manner." (Article 2:Objective)

⁵⁷ The substances addressed in the Montreal Protocol fall under the following categories: (a) carbon; (b) nitrogen; (c) chlorine; (d) bromine; (e) hydrogen; and (f) water.

The Convention takes into consideration previous actions that include the following:

- ✍ Declaration of the United National Conference on the Human Environment 1972
- ✍ Charter of the United Nations (ie. the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies; and the responsibility to ensure that activities with their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction)
- ✍ Provisions of General Assembly resolutions 45/53 (1988), 44/207 and 44/228 (1989), 45/212 (1990) on the protection of global climate for present and future generations of mankind
- ✍ Provisions of General Assembly resolutions 44/206 (1989) on possible adverse effects of sea level rise on islands and coastal areas, particularly low-lying coastal areas, and 44/172 (1989) on the implementation of the Plan of Action to Combat Desertification
- ✍ Vienna Convention for the Protection of the Ozone Layer 1985
- ✍ Montreal Protocol on Substances that Deplete the Ozone Layer 1987
- ✍ Ministerial Declaration of the Second World Climate Conference (adopted 7th November 1990)

13. Convention on Biological Diversity 1992 (CBD)

Adopted: 5th June 1992 at Rio de Janeiro

Entered into force: 29th December 1993. Except for Palau all other Pacific Island countries have ratified the Convention on Biological Diversity.

Depositary: Secretary General, United Nations

According to the Charter of the United Nations and under the principles of international law, States have the Sovereign right to exploit their own resources pursuant to their own environmental policies. States also have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.⁵⁸

.... the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and technologies, and by appropriate fundingis the cornerstone of this Convention. (Article 1: Objectives)

Important issues to the Pacific Islands include the loss of biodiversity, access to genetic resources and issues of benefit sharing and intellectual property rights. Compliance with CBD has been slow with no country in the Pacific yet to pass a separate biodiversity legislation or legislation that governs access to genetic resources. Implementation of CBD obligations is drawn on existing sectoral laws.⁵⁹

14. United Nations Conference on Environment and Development – Chapter 17 of Agenda 21 1992

Met: at Rio de Janeiro from 3rd-14th June 1992

Agenda 21 addresses present-day problems but it is also forward looking in its aims of preparing the global community to the challenges of the new millenium. Present challenges dealing with worsening poverty, hunger, ill-health, illiteracy and the continuing deterioration of the ecosystems on which our livelihoods and survival depend are expected to continue to be future challenges too. The extent to which these challenges are either going to become bigger than our ability to deal with them or not will be tested by the effectiveness of our global partnership aimed at sustainable development. There is global consensus and political commitment for development and environmental cooperation with the broadest public participation called for (ie. across the board, multi/cross-sectoral and involving different stakeholders).

⁵⁸ Convention on Biological Diversity. Article 3: Principle

⁵⁹ UNEP. 1999. Pacific Islands Environment Outlook. UNEP, Nairobi. (p.30)

Agenda 21 is regarded as a dynamic programme that is being carried out with full respect of the principles (27 in all) contained in the Rio Declaration on the Environment and Development. Chapter 17⁶⁰ is of direct relevance to the development of the Ocean Policy for the Pacific Islands. Seven programmes have been identified as the basis for action for Chapter 17. These are:

- ✍ Integrated management and sustainable development of coastal and marine areas, including exclusive economic zones
- ✍ Marine environmental protection
- ✍ Sustainable use and conservation of marine living resources of the high seas
- ✍ Sustainable use and conservation of marine living resources under national jurisdiction
- ✍ Addressing critical uncertainties for the management of the marine environment and climate change
- ✍ Strengthening international, including regional, cooperation and coordination
- ✍ Sustainable development of small islands

Pacific Island countries responded to UNCED through their National Environment Management Strategies. Further in-country and regional-based programmes covering biodiversity conservation, resource management and climate change related activities among others continue to play a major part of the Pacific Islands environmental programmes.

15. Jakarta Mandate on Marine and Coastal Biological Diversity 1995

The second meeting of the Conference of the Parties (COP) to the Convention (i.e. Convention on Biodiversity) held in Jakarta in November 1995 adopted the decision on the conservation and sustainable use of marine and coastal biological diversity. It became known as the Jakarta Mandate on Marine and Coastal Biological Diversity through a Ministerial Statement recognizing a new global consensus on the importance such a Convention.

There are five thematic areas of the Jakarta Mandate. They are:

- A. Integrated marine and coastal area management
- B. Marine and coastal protected areas
- C. Sustainable use of marine and coastal living resources
- D. Mariculture
- E. Alien species

Integrated Marine and Coastal Area Management (IMCAM)

IMCAM recognizes the need to break away from sectoral approaches to management of marine and coastal resources to multiple-use, systems-oriented modes of management, based on precautionary approaches and ecosystem management principles. IMCAM is seen as a participatory process for decision-making to prevent, control, or mitigate adverse human activities in the marine and coastal environment and to contribute to the restoration of degraded coastal areas.⁶¹

Marine and Coastal Protected Areas

Critical habitats for living marine resources must be an important criterion for the selection of marine and coastal protected areas within the IMCAM framework and taking into consideration the objective of the CBD. The protection of ecosystem functioning and protecting specific stocks are conservation measures that the Mandate notes should be emphasized. Moreover networks of marine and coastal protected areas, other conservation areas, and Biosphere Reserves, are regarded as useful tools of conservation, management and sustainable exploitation of marine and coastal resources.

⁶⁰ Chapter 17 of Agenda 21: Protection of oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources.

⁶¹ The Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity. First Version – October 1998 (p.4)

Sustainable Use of Living Marine and Coastal Resources

There is recognition of the fact that a real danger exists of the world's fisheries resources depleting, and mangroves, coral species, and species important under bioprospecting becoming threatened or overexploited. The overall goal is to conserve and sustain marine and coastal resources to meet the needs of the communities and maintain the integrity of ecosystems.

Mariculture

Mariculture has both advantages and disadvantages. While offering an alternative source of protein supply and the possibility of an economically viable industry mariculture can also become a threat to coastal biological diversity. It can degrade natural habitats, release alien or living modified organisms, encourage the transmission of diseases to wildstock, and displace local and indigenous communities. The aim is to assess the consequences of mariculture for marine and coastal biodiversity and promote techniques that minimize adverse impacts.

Alien Species

Invasive species are a serious problem internationally. There have been many examples of direct and irreversible detrimental effects on terrestrial, freshwater and marine ecosystems. It hinders biodiversity conservation and sustainable resource management.

16. Agreement Establishing the South Pacific Applied Geoscience Commission (SOPAC)

Established: 1972

Members: 16 Member Countries – Cook Islands, FSM, Fiji, Guam, Kiribati, Marshall Islands, New Caledonia, New Zealand, PNG, Solomon Islands, Tahiti Nui, Tonga, Tuvalu, Vanuatu and Samoa.

SOPAC's mission statement states the purpose of its establishment: *To improve the well being of the peoples of Pacific Island member countries through the application of geoscience to the management and sustainable development of their non-living resources, specifically in the offshore, coastal and onshore areas of Member States as well as in other areas of the South Pacific Region.*

SOPAC's work focuses on three areas: (i) resource development – mineral resources, water resources, and energy; (ii) environmental science – coastal, hazard assessment, and ocean; (iii) national capacity building.

17. Convention of the World Meteorological Organization 1947 (WMO)

Adopted: At London 1947

Entry into force: 1950. As of June 1996 there were 185 Members comprising 175 Member States and 6 Member Territories. All have their meteorological and hydrological services.

The WMO was established to: (i) facilitate international cooperation in the establishment of networks of stations for making meteorological, hydrological and other observations; and (ii) to promote the rapid exchange of meteorological information, the standardization of meteorological observations and the uniform publication of observation data and statistics. The range of activities therefore ranges from weather prediction, air pollution research, climate change related activities, ozone layer depletion studies and tropical storm forecasting. The work of the WMO also applies to the area of aviation, shipping, dealing with water problems, agriculture and other human activities

1. International Convention for the Prevention of Pollution from Ships 1973 (as modified by the Protocol of 1978 relating thereto (MARPOL Convention 73/78))

Adopted: 2nd November 1973 (modified by Protocol of 1978) at London. As of 12/11/98 five Pacific Island states have ratified. They are the Marshall Islands, PNG, Tonga, Tuvalu, and Vanuatu. France, the U.K., and the U.S.A. have also signed.⁶²

Depositary: Secretary General, Intergovernmental Maritime Consultative Organization

MARPOL is the most important convention for the prevention of marine pollution. The Convention applies to all ships of any type or size but excludes warships, and naval auxiliaries owned or operated by the State in non-commercial activities. MARPOL was established in recognition of the “need to control and minimize the deliberate, negligent or accidental release of oil and other substances from ships into the marine environment.”⁶³ The Convention is aimed at achieving complete elimination of intentional pollution on the marine environment by oil and other harmful substances and the minimization of accidental discharges of such substances.⁶⁴ Only very limited discharges of the substances covered by MARPOL 73/78 are permitted.

2. International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties 1969 (Intervention Convention) and Protocol Relating to Marine Pollution other than Oil (1973) and Protocol 1973

Ratification: Over 70 States have ratified 31st of March 2000. Pacific Island states that have become Parties include Fiji, the Marshall Islands, PNG, Tonga and Vanuatu.

Entry into force: 6th May 1975

Parties are given the right in the Intervention Convention to take such measures on the High Seas as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution of the sea by oil, following upon a maritime casualty or acts related to such a casualty, which may reasonably be expected to result in major harmful consequences (Article 1). A Coastal State can take measures against the polluting party as long as it is proportionate to the actual or threatened damage. They cannot intervene unless grave and imminent danger is anticipated and there is realistic concern that major harm might result from oil pollution. Measures are taken only after consultations with States or persons whose interests are affected but these may be dispensed with in cases of extreme urgency. National legislation is required to put this Convention into effect.⁶⁵

3. International Convention on Civil Liability for Oil Pollution Damage 1969 (CLC Convention)

Adopted: 29th November 1969 at Brussels

Entry into force: 19th June 1975. Pacific Island States that are Parties to the CLC Convention include Fiji, Marshall Islands, Tonga, Tuvalu, and Vanuatu. Australia, France, New Zealand, the UK and the USA are also Parties.⁶⁶

The CLC Convention helps facilitate the recovery of compensation for oil pollution damage against the vessel responsible. The ship owner is liable for oil pollution damage up to a certain limit. The Convention applies to sea-going vessels of any type that carry oil as cargo. Bunkers on the other hand are included only if the vessel is carrying oil in bulk. Ship owners whether they are operating the ship

⁶² UNEP. 1999. Pacific Islands Environment Outlook. UNEP, Nairobi. (p.29)

⁶³ As in 56 (pp.132-133)

⁶⁴ <http://www.leeds.ac.uk/cem/seminars/angela/sld005.htm> (Author: Angela Carpenter)

⁶⁵ As in 56 (pp.134-135)

⁶⁶ <http://www.seac.ciesin.org/prod>

or not are liable for any damage resulting from oil escaping or being discharged from that ship. Insurance must cover the amount of such liability.

4. International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971 (FUND Convention)

Adopted: 18th December 1971 at Brussels

Entered into force: 16th October 1978. Fiji, Marshall Islands, Papua New Guinea, Tonga, Tuvalu and Vanuatu are the Pacific Island States that are Parties to this Convention together with other SPREP members that include Australia, France, the UK and the USA.

Only State-parties to the CLC can become Party to the FUND Convention. This Convention establishes an international fund that provides additional compensation where damage claims exceeds the owners' liability under the CLC or if the case falls under the one of the legitimate defences under CLC. Oil companies finance the international fund through levies on imports of oil. The CLC and the FUND provide a complete liability and compensation scheme for oil pollution damage. The FUND will only compensate for pollution caused in the territory that includes the Territorial Sea, and the Exclusive Economic Zone of a Contracting State. It will also cover for preventative measures that need to be taken to prevent and minimize such damage.⁶⁷

It has been suggested that Pacific Island countries should consider acceding to the CLC and FUND because it gives ship owners a responsibility to insure against damage caused by marine pollution. Coastal interests on the other hand can secure compensation for loss of resources and amenities. Moreover the adoption of Limited Liability by Pacific Island countries provides a security for them knowing that the limits are uniform and recognized internationally.⁶⁸

5. International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC Convention)

Adopted: 30th November 1990 at London

Entered into force: 13th May 1995. The Marshall Islands is the only Pacific Island country that is Party to this Convention. Australia, France and the USA are also Parties.

The OPRC Convention 1990 was a response to the *Exxon Valdez* oil pollution incident that highlighted the potential damage to the marine environment if a consolidated and coordinated response employing appropriate equipment was not launched immediately. Emergency and contingency response plans must be in place in ports and oil terminals and also on board ships (Oil Pollution Emergency Plan) flying flags of countries who are Parties to the Convention. It is crucial for Pacific Island countries to have such plans in place in particular equipment to combat oil pollution as well as to encourage regional cooperation in clean-up responses should an incident occur. The setting up of marine pollution prevention legislation would strengthen the move to ensure responses are put in place and functioning and also to set up a fund to assist in clean up activities funded by a levy placed on oil tankers, diesel powered ships and oil terminal operators.⁶⁹

6. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989 (non-IMO Convention)

Adopted: 1989 at Basel

Entered into force: 5th May 1992. As of 12/11/98 only 3 Pacific Island countries, the FSM, Fiji and PNG had ratified the Basle Convention apart from Australia, France, New Zealand, the UK and the USA.

The Basel Convention is a global environmental treaty and is a response of the international community to the problems caused by the production of millions of tonnes of hazardous wastes that are harmful to people and to the environment. The categories of wastes covered under the Convention are toxic, poisonous, explosive, corrosive, flammable, eco-toxic, or infectious. The Convention about in

⁶⁷ As in 56 (pp.141-142)

⁶⁸ As in 18

⁶⁹ As in 18

the late 80's after it was revealed that industrialized countries were shipping waste materials to developing countries and Eastern Europe with the tightening of their environmental regulations. The treaty regulates the transboundary movement of hazardous wastes by obligating its Parties to manage and dispose these wastes in an environmentally sound manner (ESM). According to the Convention, ESM means *“taking all practical steps to minimize the generation of hazardous wastes and strictly controlling its storage, transport, treatment, reuse, recycling, recovery and final disposal, the purpose of which is to protect human health and the environment.”*

The key objectives of the Basel Convention are:

- ✍ to minimize the generation of hazardous wastes in terms of quantity and hazardousness
- ✍ to dispose of them as close to the source of generation as possible
- ✍ to reduce the movement of hazardous wastes

7. International Convention for Safe Containers 1972

Adopted: 2nd December 1972

Entered into force: 6th September 1977. Apart from Australia, France, New Zealand, the UK and the USA, the Marshall Islands and Vanuatu are the only two Pacific Islands that are Parties to this Convention.

There are two goals under this Convention:

- (i) to maintain a high level of safety of human life in the transport and handling of containers by providing acceptable test procedures and related strength requirements that have proven adequate over the years;
- (ii) to facilitate the international transport of containers by providing uniform safety regulations, equally applicable to all forms of surface transport. It transcends national safety regulations in the sense that such regulations may be considerably divergent in different countries

Reciprocal acceptance of safety-approved containers is the cornerstone of the Convention enabling it to move in international transport with the minimum of safety control formalities. The simplified amendment procedure in the Convention makes it possible to speedily adapt the test procedures international container traffic requirements. There have been four amendments to date.

8. International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers 1978 (STWC Convention) as amended in 1995

Adopted: 7th July 1978 at London

Entered into force: 28th April 1984. SPREP member countries that are State Parties to this Convention are Fiji, Kiribati, Marshall Islands, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, Australia, France, the UK, USA, and New Zealand (accession applied to Cook Islands and Niue but not Tokelau).

The STWC Convention established for the first time an internationally acceptable minimum standard on training, certification and watchkeeping for seafarers. The Convention and Part of the STCW Code form a binding treaty between States, its interpretation governed by the Vienna Convention and the Law of Treaties. A single department has to be responsible for administering the whole Convention with the necessary regulatory and administrative authority to ensure that compliance of its provisions are observed government departments, education and training institutes, ship owners and seafarers.

9. International Convention on Load Lines 1966 (Load Lines Convention) and Protocol of 1988

Adopted:

Entry into force: 21st July 1968. SPREP member countries that are State Parties to the Load Lines Convention include Fiji, Marshall Islands, P.N.G., Samoa, Tonga, Tuvalu, Vanuatu, Australia, France, New Zealand, the UK and USA.

Underlying the purpose of the Load Lines Convention which is to establish uniform principles and rules on the limits that ships on international voyages may be loaded is the need to safeguard the lives

and property at sea. Ships under the jurisdiction of this Convention can only proceed on an international voyage after it has been surveyed, marked, and provided with an International Load Line Certificate or an Exemption Certificate. Contracting Flag State vessels whether registered or not and engaged on international voyages come under the Conventions scrutiny. Warships, ships less than 24 metres (79ft) in length, existing ships weighing less than 150 gross tons, pleasure yachts not engaged in trade and fishing vessels are exempted.

10. International Convention on Tonnage Measurement of Ships 1969 (Tonnage Convention)

Adopted:

Entry into force: 18th July 1982. Pacific Island countries that are State Parties to the Tonnage Convention include Fiji, Marshall Islands, Papua New Guinea, Tonga, Tuvalu and Vanuatu. Australia, France, New Zealand, the UK and USA are the other SPREP members who are Parties to the Convention.

The lack of uniformity of tonnage measurement among countries led to a demand for an international standard system of tonnage measurement on ships engaged on international voyages. It provided uniformity in both principles and rules. The Tonnage Convention is similar to the Load Lines Convention in terms of scope or coverage of ships.

11. Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREG Convention)

Adopted: 20th October 1972

Entry into force: 15th July 1977. COLREGS is now in force for Fiji, Marshall Islands, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, Australia, France, New Zealand, the UK and USA.

The COLREG Convention came about due to the absence of legally binding regulations for preventing collisions at sea. It was designed to update and replace the Collision Regulations 1960 that was annexed to the SOLAS Convention.⁷⁰ The Convention applies to all vessels flying the flag of contracting states, and all vessels irrespective of flag and navigating the waters of a contracting state. These waters are connected to the High Seas and navigable by sea-going vessels.⁷¹ One of the most important aspects of COLREGS is the recognition that it gives to traffic separation schemes. Under these schemes vessels are required to observe regulated traffic lanes in order to avoid collisions. This is particularly important in busy shipping routes.

The provisions in this Convention deal with steering and sailing rules, lights and shapes, and sound and light signals. The other two parts are general and exemptions provisions. Four Annexes to the Convention contain technical requirements that concern: (i) lights and shapes and their positioning; (ii) sound signaling appliances; (iii) additional signals for fishing vessels when operating in close proximity; and (iv) international distress signals.

Several hundreds of traffic separation schemes are now in place around the world resulting in considerable reduction in the number of ship collisions.

12. Convention on Limitation of Liability for Maritime Claims 1976 (LLMC Convention)

Adopted: 1986

Entry into force: 1st December 1986. The Marshall Island and Vanuatu are the only Pacific Island states that where this Convention is in force together with Australia, New Zealand, the UK and France.

The LLMC Convention encompasses the principle that a ship owner may limit his liability for death, personal injury or property damage up to a predetermined limit based on the tonnage of the vessel. The Convention is based on the principle of commercial insurability. Coverage includes ship owners, operators and charterers, and persons providing services directly connected with salvage operations.⁷²

⁷⁰ [<http://www.imo.org/imo/convent/safety.htm>]

⁷¹ As in 56 (p.300)

⁷² As in 56 (p.317)

13. Convention on the International Maritime Satellite Organization 1976 (INMARSAT)

Adopted: 3rd September 1976

Entry into force: 16 July 1979. The Convention is in force for the Marshall Islands, Australia, France, New Zealand, the UK and USA.

INMARSAT was set up to improve maritime communications so as to assist in distress and improve safety of life at sea, strengthen efficiency and management of ships, maritime public correspondence services and radio determination capabilities. INMARSAT began in 1981 is headquartered in London. A 1989 amendment also extended services to land-based services and vehicles.

14. Convention on Maritime Search and Rescue 1979 (SAR)

Adopted: 27th April 1979

Entry into force: 22nd June 1985. PNG, Vanuatu, Australia, France, New Zealand, the UK and USA are Parties.

The SAR Convention's main purpose is to facilitate co-operation between Governments and between participants involved in search and rescue (SAR) operations at sea by establishing an international SAR plan. State Parties are required to provide adequate SAR services in their coastal waters and are also encouraged to enter into SAR agreements with neighbouring States to strengthen SAR facilities and training requirements. These include SAR regions, pooling facilities, establishing common procedures, training and liaison visits. Procedures to be taken during emergencies and SAR operations are outlined including the establishment of rescue coordination centres and sub-centres.

Establishing ship reporting systems are required of Parties to enable coast radio stations to be kept consistently informed of ship location that would be vital in during emergencies. The SAR Convention has divided the world's oceans into regional search and rescue regions. Countries have worked together to identify and agree on specific areas of the sea for which each country's search and rescue services will be responsible for. This was provisionally completed in September 1998.

The 1998 amendments that entered into force on 1st January 2000 clarifies responsibilities of Governments and emphasizes the need for a regional approach and coordination of SAR operations between the maritime and aviation sectors. An important aspect of the amendment is developing national capabilities and to provide SAR services on a 24hour basis.⁷³

15. International Convention on Salvage 1989 (Salvage Convention)

Adopted: 28th April 1989

Entry into force: 14th July 1996. The Marshall Islands, Vanuatu, Australia, the UK and USA are Parties.

The old mode of thinking was that salvage at sea would only be compensated if the salvor managed to prevent extensive pollution work and eventually save the ship or its cargo. If the ship or cargo were not saved compensation would be forfeited. Under a new look Convention salvors are encouraged to try their utmost to reduce the risks and consequent damages of pollution and be compensated for these efforts. All salvage contracts, except for those that by implication or expressed provide otherwise, come under the Salvage Convention. It has been suggested that the vagueness of the clauses under the criteria for rewarding contractors have led to the reluctance of some States to become Parties to the Convention.⁷⁴

⁷³ As in 71

⁷⁴ As in 56 (p.319)

**16. Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation
(SUA Convention) 1988**

Adopted: 1989

Entry into force: 1st March 1992. Parties to the SUA Convention include the Marshall Islands, Vanuatu, Australia, France, New Zealand, the UK and USA.

Note: Attempts at acquiring further information on the SUA Convention was not very successful

[PIROPannex3.pdf](#)