

### Changes made to the brief per bilateral consultations:

1. Administrative fees are included in the cover page as the project support services of the project.
2. The summary on the cover page has been shortened. The overall length of the project brief has also been shortened to a total of 14 pages. The project outputs are identified for each of the four project objectives.
3. The project brief has been revised to include text that the future sustainability of project results will be facilitated by the strengthening of the existing regional and national task forces, which are inter-ministerial in nature (objective 1, and activity 1.4). They will facilitate the definition of priority action programmes for each participating country. In order to ensure that adequate financial resources and mechanisms are available for the sustainability of the project, after year three of the project, an assessment of options for creating financial and institutional sustainability in ocean fisheries management with recommendations for future action will be prepared as appropriate (activity 3.9). Furthermore, the project will review the opportunities for self-financing of project components at regional and national levels, pinpointing the potential economic sources and mechanisms. Consultations will also be undertaken with the co-operating governments and all stakeholders involved, including the private sector, and a donor conference will be sponsored, using the on-going GEF project as leverage, for the creation of necessary additional donors and the securing of loans.
4. The presentation of the project financing on the cover page and annexes 1 and 5 has been improved. Annex 5 presents a set of interventions that constitute the baseline for the project, and is so identified as “on-going, planned, or secured financing”. Of the baseline, there is a set of interventions that the project has leveraged as new financing for the proposed project, and these are identified as co-financing. The baseline is separated by the four project components/objectives as well. There is a third set of interventions identified that are also planned, but are not considered as part of the baseline. These are identified as the associated funding.
5. Efforts have been made to secure co-financing from UNDP for this project have not been fruitful to date due to the very small amounts of TRAC resources, which are already committed. However, UNDP will continue to seek agency co-financing during final project preparation.
6. Palau, as with any other GEF-eligible South Pacific SIDS not presently requesting this project, is welcome to join in when they are in a position to do so, as is the agreed arrangement for the implementation of Strategic Action Programmes (e.g., when they have formally become a participant in the GEF).
7. The project brief has been revised per minor suggestions for clarification given to Andrew Hudson.

## GEF Project Brief

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### 1. Identifiers

<b>Project Number:</b>	RAS/98/A08
<b>Project Name:</b>	Implementation of the Strategic Action Programme (SAP) of the Pacific Small Island Developing States.
<b>Project Duration:</b>	5 years
<b>Implementing Agency:</b>	UNDP
<b>Executing Agency:</b>	South Pacific Regional Environmental Programme (SPREP)
<b>Requesting Countries:</b>	Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.
<b>Eligibility:</b>	Eligible under para. 9(b) of GEF Instrument
<b>GEF Focal Area:</b>	International Waters
<b>GEF Programming Framework:</b>	OP #9: Integrated Land and Water Multiple Focal Area

### 2. Summary

The long-term objective of this project is to conserve and sustainably manage the coastal and ocean resources in the Pacific Region. Project activities are designed to encourage comprehensive, cross-sectoral, ecosystem based approaches to mitigate and prevent existing imminent threats to International Waters. The SAP provides a regional framework within which actions are identified, developed and implemented. Targeted actions will be carried out in two complementary, linked consultative contexts: Integrated Coastal and Watershed Management (ICWM) and Oceanic Fisheries Management (OFM). ICWM actions will focus on freshwater supplies including groundwater, Marine Protected Area (MPA) enhancement and development, sustainable coastal fisheries, integrated coastal management including tourism development, and activities to demonstrate waste reduction strategies will be stressed. The OFM component will target the Western Pacific Warm Pool ecosystem, whose boundaries correspond almost precisely to the Western Pacific tuna fishery. Participating countries and regional organizations seek to achieve long-term sustainable development of ocean fisheries, explore regional level options to increase domestic benefits from the tuna fishery, increase the contribution of offshore fishery resources to regional economic food security, and divert fishing pressure away from over-exploited coastal resources. Interventions will include three other pressing concerns related to SIDS, namely biodiversity, vulnerability to climate change, and land degradation. Management capacity at the individual country and regional level will be strengthened and global benefits would accrue. The project will provide working examples of economies of scale in environmental management.

### 2. Costs and Financing (Millions US\$)

<b>GEF Financing:</b> Project	US\$ 11,580,000
Agency Support Cost	US\$ 420,000
PDF	US\$ 290,000
<u>Sub-total GEF</u>	<u>US\$ 12,290,000</u>

<b>Co-financing:</b>	South Pacific Commission	US\$ 1,331,532
	Forum Fisheries Agency	US\$ 6,107,311
	SPREP	US\$ 619,540
<b>Total Project Cost:</b>		<b>US\$ 20,348,383</b>

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4. Associated Financing (Million US\$)

US\$ 18,719,520. Please see Annex 5 for details.

5. GEF Operational Focal Point Endorsements

B. Nair <i>for</i> Permanent Secretary for Local Government, Housing and Environment Ministry of Local Government and Environment Government of Fiji 29 April 1998	Savae Latu Secretary for Lands, Survey and Natural Resources Ministry of Lands, Survey and Natural Resources Kingdom of Tonga 12 May, 1998
Sabino Anastacio Minister of State Ministry of State Republic of Palau 20 April 1998	Sisilia Talagi Acting Secretary to Government/Head, External Affairs External Affairs Office Government of Niue 12 May, 1998
Sharon G. Potoi-Aiafi <i>for</i> Secretary of Foreign Affairs Ministry of Foreign Affairs Government of Samoa 30 April 1998	Marie- Antoinette W. Niriu Officer-in-Charge Department of Foreign Affairs Government of the Republic of Vanuatu 12 May, 1998
Moses Biliki GEF Operational Focal Point Ministry of Forests, Environment and Conservation Government of the Solomon Islands 17 April 1998	Teken C. Tokalaake Permanent Secretary for Environment and Social Development Ministry of Environment and Social Development Government of Kiribati 15 May, 1998
Jonelik Tibon General Manager Environmental Protection Authority Republic of the Marshall Islands 14 May, 1998	

## 6. IA Contact

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**Table 1** Acronyms and Abbreviations

ADB	Asian Development Bank
APEC	Asia-Pacific Economic Cooperation
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species
CMT	Customary Marine Tenure
CS	Community Specialist
CTA	Chief Technical Advisor
DPAC	Demonstration Project Advisory Committee
DWFN	Distant Water Fishing Nation
EEZ	Exclusive Economic Zone
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
EIA	Environmental Impact Assessment
FAO	Food and Agriculture Association
FCCC	Framework Convention on Climate Change
FFA	Forum Fisheries Agency
ForSec	Forum Secretariat
FSPI	Foundation for Peoples of the South Pacific International
GDP	Gross Domestic Product
GEF	Global Environment Facility
GPA/LBA	Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities
ICLARM	International Centre for Living Aquatic Resources Management
ICM	Integrated Coastal Management
ICWM	Integrated Coast and Watershed Management
ICRI	International Coral Reef Initiative
IMO	International Maritime Organisation
IOC	Intergovernmental Oceanographic Commission
IUCN	International Union for the Conservation of Nature and Natural Resources - World Conservation Union
LME	Large Marine Ecosystem
MPA	Marine Protected Area
NEMS	National Environment Management Strategies
NGO	Non-governmental Organization

NTF	National Task Force
OFM	Oceanic Fisheries Management
OP	Operational Programme of the Global Environment Facility
PCU	Project Coordination Unit
PECC	Pacific Economic Cooperation Council
PDF	Project Development Facility of the Global Environment Facility
PIC	Pacific Island Country
PICCAP	Pacific Islands Climate Change Assistance Programme
PIDP	Pacific Islands Development Programme
PPER	Project Performance and Evaluation Review
RTF	Regional Task Force
SAP	Strategic Action Programme
SIDS	Small Island Developing States
SOPAC	South Pacific Applied Geoscience Commission
SPACHEE	South Pacific Action Committee on the Human Environment and Ecology
SPBCP	South Pacific Biodiversity Conservation Programme
SPC	South Pacific Commission
SPF	South Pacific Forum
SPOCC	South Pacific Organizations Coordinating Committee
SPREP	South Pacific Regional Environment Programme
STAP	Scientific and Technical Advisory Panel
TCSP	Tourism Council for the South Pacific
TPR	Tripartite Review
TNC	The Nature Conservancy
UN	United Nations
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
UNCED	UN Conference on Environment and Development
UNCLOS	UN Convention on the Law of the Sea
UNCSD	UN Commission on Sustainable Development
UNDP	UN Development Programme
UNEP	UN Environment Programme
UNESCO	UN Educational, Scientific and Cultural Organization
USP	University of the South Pacific
WCMC	World Conservation Monitoring Centre
WPAC	World Protected Areas Commission
WWF	World Wide Fund for Nature

## **Project Description**

### **I. Background and Context (Baseline course of action)**

#### *Introduction*

The South Pacific region comprises almost 38.5 million square kilometers, with less than two percent of that vast area constituting the land base shared by Pacific SIDS. This vast and complex marine system contains an enormous and largely undocumented array of diversity. It is known in general, however, that the region contains the most extensive and biologically diverse reefs in the world, the deepest ocean trenches, deep-sea minerals, the world's largest tuna fishery, as well

as an array of globally threatened species such as sea turtles and dugongs. The many thousands of islands are, with the exception of some larger Melanesian Islands, entirely coastal in nature, often with limited freshwater resources and surrounded by a rich variety of ecosystems including mangroves, seagrass beds, estuarine lagoons and coral reefs. In addition to significant biodiversity value, these coastal and marine ecosystems support large subsistence and commercial fisheries. The fisheries are the major source of subsistence protein for much of the Pacific and form an indispensable part of the economic fabric, both present and predictable future, for many Pacific SIDS. Despite the remarkable and globally significant biodiversity of the region, and despite the extent to which the present and likely future economic health of the region is based on sustainable coastal and ocean fishery regimes, marine resource conservation and management regimes are currently inadequate. Coastal areas are degraded by increased land based sources of pollution, the modification of critical habitats, and growing, unsustainable exploitation of living and non-living resources.

The necessity for a comprehensive and coordinated approach to coastal and oceanic management is made all the more urgent by an increased environmental degradation. This degradation negatively affects the region's natural resource base that is particularly sensitive to ecological disturbance, highlighted by the fact that the largest number of documented extinctions worldwide has occurred in the islands of the Pacific. Environmental degradation is further underpinned by pressure from growing populations and economic growth curves that are in many cases flat or falling. The biodiversity values and productivity of these resources, which are global in nature, are affected by, among other things, fishing, tourism, infrastructure development, waste disposal, and the introduction of exotic marine organisms - all of which are directly relevant to the health of the region's shared international waters.

As a result of the broad social, economic and environmental significance of the Pacific Region, a SAP which was formally endorsed at the ministerial level at the September 1998 meeting of the South Pacific Forum, for International Waters of the Pacific Islands Region was initiated and developed by the thirteen Pacific Island States participating in the work of the GEF. This work represents a pioneering effort by this group of SIDS to integrate national and regional sustainable development priorities with shared global environmental concerns for protecting International Waters. The SAP is included as Annex 8.

#### Background - The Pacific Small Island Developing States

A defining feature of the area of which the PICs are a part is the Western Pacific Warm Pool ecosystem. The limited land base of the area is distributed among 200 high islands and 2500 low islands and atolls. All participating project countries lie in the tropical zone and experience sea surface temperatures which rarely fall below 20 degrees Celsius. In general, the islands increase in size from east to west, such that over 83% of the region's land mass is situated in Papua New Guinea, and most of the rest is in the other Melanesian countries and territories.

The region's 6.5 million people are at various stages of development, and socio-economic conditions vary widely between, and sometimes within, countries. Throughout the region urban residents lead a more consumerist lifestyle than those in small isolated islands, remote coastal areas, and the interiors of large islands. The latter follow a more subsistence way of life, have a relatively low income, and, based on usual valuation methods, have a low standard of living. PIC economies are largely based on agriculture, although for statistical purposes agriculture often includes fishing. For the Pacific Islands as a whole economic growth during the past

decade has been almost nil. For many PICs populations are on track to double at the rate of every 20 to 25 years, a rate of growth that will put tremendous pressure on already stressed coastal ecosystems. While these rates may be decreased somewhat by limited migration to metropolitan countries, expanding population will no doubt cause increased economic and associated environmental difficulties.

While traditional measures of affluence clearly indicate an almost desperate situation for some PICs, the

Traditional support systems are part of the region's rich cultural diversity. One-fourth of the world's languages are found in Pacific Island countries, various traditional authority systems exist, a wide range of religious institutions with significant influence characterize the region, and the communal ownership and traditional systems of management account for 80% of the land (often including the adjacent marine area). These characteristics are not only vital to social and cultural identity and to the of transfer traditional knowledge between generations, but also add considerable complexity in developing and implementing national management plans, especially at the village level. The status and position of women differs considerably among Pacific Island states due to factors such as cultural traditions, colonial history and level of socio-economic development. As identified by the SAP, and as further identified in the STAP review (Annex 3), traditional systems must be associated with achieving the economic, political and social goals of the islands. It will be difficult but essential to include appropriate and significant principles of traditional systems in national development planning and implementation if these plans are to be truly sustainable.

The EEZs of the PICs cover approximately 30.5 million-sq. km., or about 74% of the region's water surface. PICs thus look toward their substantial coastal and ocean fisheries as an important, even indispensable means of advancing economic well-being through commercial and subsistence fisheries. They are crucial to food security for the region and are also an important source of employment and income, foreign exchange, and non-economic values which include cultural, religious, and recreational significance. As a general rule, coastal fisheries have provided non-monetary fish values in the form of subsistence protein and monetary value to villages from the sale of coastal fish. The ocean fishery, largely tuna, has been generally used to provide a source of foreign exchange.

Coastal fisheries are estimated to produce some 108,000+t/year of which up to 78%, or 84,000+t/year may be from subsistence fishing activity. This catch includes fin-fish and invertebrates. Only about 5,000 tons of the coastal fish catch is exported. To date, fisheries feature in national plans mainly in terms of their economic development potential and not for their contribution to the subsistence economy or small island nutrition. Fisheries development policies tend not to recognize or acknowledge the importance of the subsistence fishery in general, of inshore invertebrate harvests, or for the role of women in these fisheries. Oceanic fisheries contribute little to local food supplies, only 1 % of the 1 million tons of industrial caught tuna enters to local economy, but the cash value of the Pacific region tuna fishery is approximately US\$ 1.7 billion and growing. While 50% to 60% of the tuna catch is in the EEZs of the PICs, they realize 4% of the dollar value of the total catch. Four fishing methods are generally employed in the tuna fishery, the purse-seine, longline, pole and line, and troll. Although the purse-seine fishery takes about 84% of the total catch, it accounts for only about 51% of the total value. By contrast the longline fishery, with only 10% of the catch, accounts for 41% of the revenue.

The future of fisheries contribution to the social and economic fabric of the region is not at present an optimistic one. The population of the Pacific islands will increase from 6,008,000 to 8,871,000 between now and the year 2010, a 48 % increase. If present levels of per capita fish consumption are maintained this will result in a demand for fish of 166,776 tons in the year 2010, or a 49% increase over the present level of consumption. If the current lack of effective government management regimes continue to be the case, if destructive fishing practices continue, and if coastal degradation is not controlled and the current level of loss reversed, the actual yields from the coastal fishery are likely to decrease between now and the year 2010. The most likely responses to decreased yields of available fish and rapidly increasing population will be greater consumption of non-coastal fish resources (tuna and associated by-catch), greater reliance on costly imports, and an overall decline in per capita fish consumption.

If the PICs are to avoid decreased diet quality, increased food costs, decreased revenues from the ocean fishery, and deteriorating food security, then effective, integrated coastal fisheries management must be dramatically emphasized, overall integrated coastal management must receive high priority, and ways found to increase the extent to which the region's tuna and associated by-catch can find their way into local economies. If these measures are undertaken on a priority basis, there is still time for the PICs to achieve the long-term sustainability of both their coastal and ocean resources.

The threats to living marine resources are related to over-exploitation and environmental degradation. Over-exploitation, principally of inshore fisheries, is exacerbated by destructive fishing methods, which include explosives and various types of toxic compounds such as traditional vegetable poisons, household bleach, cyanide and herbicides, and by inappropriate government incentives for coastal fisheries. Environmental degradation in the islands is manifested in a number of ways, whose effects often exacerbate each other. In many cases the degradation is chronic, with gradual rather than sudden changes in the resources, making the relationship between cause and effect less obvious, and reducing the likelihood of timely and appropriate action being taken. Fisheries management efforts alone, whether carried out with regard to specific resources or to the ecosystem as a whole, may be insufficient to protect coastal fisheries in the absence of actions to mitigate the deleterious effects of these threats.

An emerging threat to both critical species and habitats as well as living marine resources is the introduction of exotic marine organisms. Vectors in the Pacific include intentional introductions for aquaculture and accidental introductions via shipping (e.g., hull fouling and ballast water).

Finally, the non-living resource that all the Pacific Islands share and that is most seriously threatened is the quality of both fresh and marine water. Groundwater is at risk because its loss or degradation is often irreversible. The principal threat to water is from land-based sources of pollution. These derive from sewage (poor sanitation), sediments (soil erosion, agriculture, forestry), urban runoff, agro-chemicals and solid waste. Beaches, reef flat sand and coastal aggregates are another resource that is threatened by over-exploitation; extraction rates far exceed natural replenishment rates. Beaches are also important habitat.

For further information on the historical context of this project, please see annex 7.

## **II. Rationale and Objectives (Alternative course of action)**



### Long-term objective

The long-term objective of the project is to achieve global benefits by developing and implementing measures that emphasize economies of scale to restore, conserve, and sustainably manage coastal and oceanic resources in the Pacific Region. The increasing number of environmental concerns combined with a traditional sectoral approach to development pose significant threats to the international waters of this region.

The STAP review made specific reference to the need to address the question of “information gaps” and to be specific about the relationship of these information gaps to proposed project activities. The SAP analysis concluded that while information gaps exist, these gaps should not serve as a barrier against moving quickly to address the issues that are the subject of this Brief. Actions recommended in the SAP, which were used as the frame of reference for the Activities which follow, are made consistent with the conclusion that recommended actions could, with existing data and information, be accomplished within the timeframe of and the resources available to the project.

### Rationale for GEF Financing

The economic, social, and environmental well-being of participating PICs have historically depended upon the vitality of the vast, productive Pacific Ocean. The cooperatively prepared and endorsed PDF-B submission and subsequent adoption of the SAP provide a sound technical basis for, and country commitment to, participation in OP #9, specifically the Small Island Developing States Component of that OP. The objective of OP #9 is to support “...better use of land and water resource management practices on an area wide basis.” Under this OP activities are supported that have “.....an area wide focus, and with biodiversity considerations often included in project objectives, more proactive interventions aimed at protecting international waters with important biodiversity are common.” A major focus is to support measures for “prevention of damage to threatened waters...” and the OP’s long-term objective “.... is to achieve global environmental benefits through implementation of IW projects which integrate the use of sound land and water resource management strategies as a result of changes in sectoral policies and activities that promote sustainable development.” The project overall is constructed consistent with this GEF guidance. Further, the objectives and programs of the SAP directly correspond to GEF guidance under this OP and its SIDS component.

The SIDS component of OP#9 notes that “SIDS require more integrated approaches to improved land and water management in order to address threats to their water resources.” Further, it states that “...activities are typically targeted to six major issues that SIDS have in common.” During activities related to the PDF-B and the SAP, the thirteen SIDS cooperating in this project have worked consistent with the integrated approaches suggested in the OP and have targeted each of the six major issues into the objectives and activities of this SAP implementation activity. Further, the SAP identifies the “Solutions” to the identified priority concerns, imminent threats, and ultimate root causes as being integrated coastal and watershed management and ocean fisheries management. The proposed project, especially its reliance on criteria driven demonstration projects in ICWM activities, and strengthening regional management/institutional capability for both the ICWM and OFM components, also has a high potential for successful replication both within and outside of the region.

The proposed project will contribute significantly to the reduction of stress to the international

waters environment in the Region. It also supports efforts of the thirteen countries and several regional organizations to make changes in sectoral policies, target critical investments, and develop necessary programs consistent with the conclusions of the SAP. The long-term commitment of the countries is demonstrated by their involvement in, among other things, the Barbados Programme of Action, the Pacific Way, and regional organizations such as the Secretariat for the Pacific Community (SPC), the South Pacific Regional Environment Programme (SPREP), the South Pacific Applied Geoscience Commission (SOPAC), and the Forum Fisheries Agency (FFA). GEF support will serve a catalytic role in the project and the continuing participation of existing donors will contribute to this multi-country, multi-regional organization, and multi-stakeholder effort. Linkages with the UNDP/GEF initiative IW:LEARN will provide for sharing of project results and replication of successful practices in other regions of the world and specifically among other SIDS.

### **III. Project Activities/Components and Expected Results**

*GEF project objectives and activities*

#### **Objective 1: Create Enhanced Transboundary Management Regimes and Project Coordination Support**

The participating countries have begun creating the necessary management structures to accommodate project needs. Further, work under the SAP resulted in the formation of a Regional Task Force (RTF). The responsibility of the RTF, under the direction of a Chief Technical Advisor (CTA), was to both form and inform the process of SAP formulation. The RTF will be continued during SAP implementation, its membership will be reviewed in light of additional community involvement and participation needs identified in the SAP and changes and/or additions will be made accordingly. A Programme Coordination Unit (PCU) to implement the SAP will be established. There will be provision made for the recruitment and hiring of a CTA. There will also be provision made for the recruitment and hiring of a full time community assessment and participation specialist. This is important as there is a need to effectively coordinate and facilitate activities among thirteen countries, three different lineal systems, and different islands types, languages and cultures. The community specialist will also promote community based participation, particularly important to this project since governments in the region have limited capacity to police and enforce top down environmental rules and regulations and given a strong history of local control or customary tenure in relation to resource use and practices. If this project is to be successful, there will have to be a level of local participation and consultation far beyond any implemented to date, and that level of consultation and participation will require a full time presence in the PCU. In order to improve the potential for future sustainability of the project outputs, the regional and national task forces will be strengthened. They will facilitate the definition of priority action programmes for each participating country.

**Output 1: Creation of an enhanced transboundary management regime and effective project coordination support mechanism**

**Activity 1.1** Recruit and hire the CTA;

**Activity 1.2** Recruit and hire the Community Assessment and Participation Specialist;

**Activity 1.3** Create the Pacific Islands Programme Coordination Unit (PCU) to facilitate, coordinate, and communicate to participating countries, regional organizations, and others the results of ongoing priority activities identified in the following activities;

**Activity 1.4** Continue the RTF and the National Task Forces (NTF), which are of an interministerial nature, where appropriate, following a membership and terms of reference review, to better reflect the priority activities of the project, participating regional organizations, stakeholders and overall project needs;

**Activity 1.5** Plan and hold a Communications Workshop to develop a communications strategy, including education and awareness, and identify the level of communications activities and hardware and software, newsletters, email and internet services necessary to successful project implementation;

**Activity 1.6** Develop a Workplan for the region wide implementation of the SAP and , utilizing the NTFs, update each of the 13 country annexes to the SAP including information on necessary investments and commitments/plans for implementation; and,

**Activity 1.7** Reconvene the RTF to assist in the formulation of the workplan, communications strategy, community assessment and participation plan, and to help create the terms of reference for, and advise during the conduct learn from the experience of the demonstration and other major activities identified in this proposal.

Expected results from these activities would include enhanced transboundary management regimes, effective project management support, the creation of an updated SAP document, and thirteen updated country annexes.

**Objective 2: Create the Conditions Necessary to Achieve the Conservation and Sustainable Management of Coastal Living and Non-Living Resources**

The SAP identified ICWM as one of two solutions to priority concerns, imminent threats, and ultimate root causes of the degradation of international waters. Activities under this objective will focus on freshwater resources, sustainable coastal fisheries, effective Marine Protected Areas, and waste reduction initiatives. Waste management activities undertaken will be those that address problems that have a demonstrable, negative effect on coastal living resources.

A comprehensive programme to address all of the priority concerns of the thirteen participating countries is not realistic given the range of issues identified as priority concerns in the SAP and the resources likely available. The targeted proposals provided to the SAP process by the participating countries provide, in part, the basis for the selection of demonstration projects based on selection criteria and organizational constructs that will maximize opportunity for replication across the region. Criteria would include: maximum replication potential; adequate community participation and support; consistency with the SAP; representation among the three island types (high islands, low islands and atolls), among the three lineal systems in the region (matrilineal, patrilineal, and mixed), and the three ethnic separations (Melanesia, Polynesia, and Micronesia); previously stated country interest (as included in SAP related country project submissions); and further analysis of the most appropriate sites for specific demonstration

activities.

The selection of priority issues for demonstration projects has been driven by the results of the SAP and its supporting documents, and were chosen consistent with the GEF Operational Strategy, Operational Programme #9, and the Indicative Activities for SIDS that are included in the GEF Operational Strategy. OP #9 recognizes that SIDS “.....share access to marine resources and experience common water-related environmental problems (for example, saltwater intrusion into groundwater supplies as a result of rising oceans) or stocks of fish being depleted....”, and that “...activities are targeted to six major issues SIDS have in common (coastal area management and biodiversity, sustainable management of regional fish stocks, tourism development, protection of water supplies, land and marine-based sources of pollution, and vulnerability to climate change).”

The wide range of traditional authority systems, the communal ownership and traditional systems of management that account for 80% of the land (often including the adjacent marine area) as well as the strong role of individual communities in resource decision making, all argue for special emphasis to be placed on community participation during the life of the project. Community participation, including the private sector, will be an integral component of each demonstration project. As a means to assure direct country participation and effective communication during and after the demonstration activity, each demonstration project will have a Demonstration Project Advisory Committee (DPAC) comprised of country representatives, personnel from regional organizations, and the PCU. The CTA will convene DPACs on an as needed basis and, to conserve resources, will utilize to the maximum extent possible electronic communications to coordinate with the DPACs. To the extent possible, provision will be made for cross membership among DPACs to assist the learning process during activity implementation. DPACs will also be given opportunity to assist in developing the synthesis the work of their respective demonstration projects, derive lessons learned and prepare recommendations for how best to replicate activity results across the region. DPACs will be encouraged to interact directly with IW:LEARN to facilitate the transfer of information and project results to other SIDS for replication.

**Output 2: Programme for the sustainable development and use of coastal living and non-living resources**

**Activity 2.1** Support for the creation of demonstration projects in selected countries to develop robust techniques for protecting freshwater resources including assessment of watershed capacity and quality, projecting the availability of potable water at acceptable pumping rates, strategies for preventing and/or supplementing shortfalls, measures for demand-side management/conservation of freshwater resources, and pollution prevention strategies with special attention to aquifer recharge areas.

**Rationale**

The SAP gives priority to the need to address surface and groundwater issues. It cites excessive exploitation of surface and groundwater for urban use and tourism development, reallocation of surface water to domestic and agricultural uses, the draw-down of limited groundwater resources, and saltwater intrusion into groundwater aquifers as issues requiring immediate attention. The need to address surface and groundwater issues also receives frequent mention in

country project submissions. Climate variability and change and related sea level rise is increasing the uncertainty of the availability of potable freshwater in islands. This was reflected in Chapter 17 of Agenda 21 and the Barbados Programme of Action. Variability in rainfall, affecting both surface runoff and groundwater recharge, as well as increased salinization of the fragile groundwater lens of atoll States, are posing unprecedented problems for water resource managers. This activity would need to be conducted within a framework that addresses the overall quality of freshwater resources and related watershed management issues and ultimately be useful to all Pacific Island States as they work to address this important sectoral issue. Where relevant, integrated coastal management tools and techniques will be developed and applied. Work on this issue will require collaboration between the SPREP and SOPAC.

**Activity 2.2** Support to develop criteria for, and creation of an initial minimum three sites within, a regional system of Marine Protected Areas (MPAs) that fosters a participatory, community-based approach to these protected area initiatives.

### **Rationale**

Marine Protected Areas can serve to promote the conservation and sustainable use of the natural and cultural heritage of the Pacific. In particular, MPAs have the potential to significantly contribute to conservation of endangered species and also to effective fisheries management through MPAs in key species nursery areas or as stock refugia areas. Recent experience clearly supports using a community-based approach to protected area initiatives that recognizes and actively involves local resource users and owners. There are currently forty-one Marine Protected Areas in PICs. These are generally small with often limited resources and information which results in ineffective management. Many MPAs exist on paper only and often lack local support largely due to an absence of local community involvement in the identification, establishment and management of these areas.

This activity would create partnerships between SPREP, SPC Fisheries, governments and local communities in the work of conceptualizing, creating, and ultimately managing MPAs. The SAP identified the creation of effective marine protected areas as a high priority area requiring immediate intervention, and marine protected area attention is explicitly called for in many of the country project submissions. As a major emphasis in this Activity is the identification and protection of globally significant biodiversity, it is consistent with the SIDS component of GEF OP #9 which calls for "Close linkages to the biodiversity focal area." Work undertaken in this component would focus on capacity-building, management, awareness/education/ involvement, institutional strengthening, and, ultimately, investment.

**Activity 2.3** Support for at least three (3) demonstration projects with the objective of the further identification of regional elements necessary to the creation and long-term sustainability of Coastal Fisheries;

### **Rationale**

The SAP identified sustainable fisheries as a high priority activity requiring immediate intervention. The need to develop sustainable coastal fisheries is also reflected in many of the country project submissions prepared during the SAP. As Customary Marine Tenure (CMT) is an inseparable feature of the coastal fishery in the Pacific, and as it represents the most "local"

form of fishery management practiced in the PICs, it provides the focus for this activity. Given traditional fisheries often involve specialization of activities by gender, measures developed within this activity to sustain the most positive elements of subsistence fishing and CMT will likely require substantial local involvement of women.

Many PICs are characterized by a patchwork of CMTs along the coast, each having a different set of rules controlling access to or use of the resource. This makes the development of larger-scale fisheries and coherent national systems of fishery management very difficult to achieve. In fact such a system has many parallels with an international fishery involving many nations. The main difference is that in general PICs do not possess the equivalent of the UN Convention on the Law of the Sea (UNCLOS) at the local level. Indeed, at the national level, many PICs do not even acknowledge the existence of CMT, let alone provide a framework for its expanded operation. It seems clear that any successful plan to secure a sustainable future for PIC coastal fisheries will have to take account of and incorporate the most favorable aspects of CMT.

This activity would complement and add to work already begun by the Secretariat of the Pacific Community (SPC), through a project grant from the EU, integrated coastal fisheries demonstration projects in Papua New Guinea, the Cook Islands, Tokelau, Fiji and Tonga. This activity is clearly consistent with the SIDS component of GEF Operational Programme # 9 which states that threats to water resources in SIDS can be addressed by, among other things, measures to achieve the sustainable management of regional fish stocks. As with Activity 2.2, community involvement will be emphasized throughout the life of the demonstration projects. There will be particular attention paid to the role of gender in coastal fisheries activity as well as the role of MPAs in coastal fisheries, the use of appropriate integrated coastal management approaches and the introduction of exotic marine organisms. Partnerships will be stressed and there will be a strong emphasis on the need to incorporate the many elements of sustainability inherent in many environmentally sound and effective traditional fishing methods which instances and locations are highly ritualized and gender specific. This Activity will provide for collaboration between SPREP and the SPC.

**Activity 2.4** Support for three community centered demonstration projects with the objective of creating models of low cost/no cost community-based waste reduction activities, and support for a feasibility study to determine the costs, benefits and desirability of regional recycling and disposal options.

### **Rationale**

The SAP identified waste management as one of four priority issues requiring immediate action. PICs are not in a position to invest the very substantial amounts of money that would be required to construct costly municipal waste treatment facilities or commit to other high cost waste reduction strategies. This inability to commit the necessary resources to solve the issue of waste, with its direct effects on coastal and marine ecosystems, is compounded by waste disposal problems unique to SIDS. As an example, it is difficult to contract with shipping companies to transport hazardous and toxic wastes from SIDS due to the risks these companies incur in shipment. When it is possible to ship wastes for storage in mainland locations the cost is often prohibitive. This activity, within the context of the Basel and Waigani Conventions, will include a feasibility study of a regional approach to recycle hazardous or toxic materials. A regional or sub-regional approach could take advantage of economies of scale to make the venture profitable

while at the same time reducing ongoing degradation of coastal waters.

A further intent of this activity would be to develop demonstration projects to show that there are viable, low cost/no cost alternatives that can be implemented at the community level that will reduce the current loadings of solid and liquid waste that have a detrimental effect on receiving waters. As isolated island communities are brought into the market-based economy, non-traditional products and their associated wastes including pesticides, petroleum-based products, processed food products, and other industrial/manufactured products proliferate and accumulate at the household and community level. Community-based activities will emphasize integration of traditional practices, cultural values, and public participation for pollution prevention, waste reduction, and improved sanitation. Since many of the participating countries will find it difficult if not impossible to pay for costly, after the fact pollution problems, every effort should be made to initiate pollution prevention awareness and activities. This activity would include, where appropriate, the application of integrated coastal and watershed management approaches to problem identification and the development of solutions. Demonstrations would include, among other things, wastewater re-use strategies in a country that has wastewater and sewage sludge treatment, waste reduction in the tourism sector and the selection of pilot sites for demonstration projects for composting programs. Links between waste management demonstrations, MPAs and coastal fisheries activities will be actively promoted.

Results of these activities would include the development and implementation to bring about the sustainable development and use of the coastal living and non-living resources of the participating countries.

### **Objective 3: Create the Conditions Necessary to Achieve the Conservation and Sustainable Management of Oceanic Living Marine Resources**

Participating countries and regional organizations seek to undertake measures to achieve the long-term sustainable development of ocean fisheries, explore options to increase domestic benefits from the tuna fishery and associated by-catch, and thereby reduce fishing pressure on increasingly degraded and over-exploited near-shore resources. More specifically, the pelagic fishery of the Western Pacific Warm Pool Ecosystem are globally significant resources where the productive use benefits are diffuse and the fishery will over time suffer from an open access problem. Individual SIDS capture only a small portion of the productive use benefit providing no incentive to incur additional management costs. This warrants intervention on a regional scale, but the transaction costs of regional cooperation serve as a barrier to joint management. The result of this objective would be to remove this barrier and thus create opportunities to improve ocean fishery management regimes in the EEZs of participating countries, give participating countries greater leverage vis-a-vis distant water fishery operators, protect and enhance globally significant biological resources and increase food security for the region.

Work centered on the oceanic living resources of the Pacific Region takes place within three spheres: the national, the regional and the broader international sphere. Within their respective EEZs, the participating countries undertake certain actions that benefit the individual countries themselves, constitute a baseline investment, and thus are not the subject of GEF assistance. Within the full range of certain ocean stocks, however, there is a need for ongoing consultation at the regional and broader international levels that will result in direct regional and global benefits. It is the provision of this incremental level of assistance, assistance aimed at increasing the

capacity of participating countries to act on a regional basis in these activities, that is the subject of this element of the proposal. It is likely that activities envisioned in this Objective will create conditions for the identification of broader regional opportunities in the future, activities that could well become the subject of further GEF assistance. GEF assistance is being sought to enhance ocean fishery related joint planning, enhance current skill levels, increase the capacity and overall institutional effectiveness, and strengthen existing incentive systems.

The PICs, through their participation in the Multilateral High-Level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, are committed to an ongoing process of enhancing regionally based management arrangements. They have established a target date of June, 2000 for the completion of enhanced consultative arrangements. The strengthening of regionally based management programs are seen as essential if PICs are to take an effective, regional approach in discussions such as those that are ongoing in relation to the Agreement for the Implementation of the Provision for the United Nations Convention of the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, commonly referred to as the Implementing Agreement (IA).

The countries are committed to taking a precautionary approach to the management of their shared ocean fishery. Under a precautionary approach the absence of scientific certainty may not be used as a reason for failing to take conservation and management measures. Work related to the GEF funded OFM project component would be predicated on the precautionary approach. The participating countries will be holding a workshop in May of 1998 to define how to apply the principles of a precautionary approach to the ocean fisheries of the region.

**Output 3: Programme for the achievement of sustainable development and use of ocean living marine resources**

**Activity 3.1** Provide technical assistance to the Forum Fisheries Agency (FFA) to build project related capacity, nationally and regionally, and to devise and implement management arrangements on behalf of member countries as they seek ways to increase their direct benefits from tuna fishery activity taking place within their EEZs;

**Activity 3.2** Provide technical assistance to the Secretariat of the South Pacific Commission to provide additional, project related scientific advice and accommodate additional reporting responsibility deriving from its involvement in project activities;

**Activity 3.3** Provide initial support to FFA member countries to secure their participation in the development of additional and appropriate management regimes the objective of which will be to maximize regional benefit from the regional tuna fishery and its associated by-catch. This support would constitute seed money as countries explore means, including the possible use of concessions money, to strengthen existing information and management regimes;

**Activity 3.4** Provide support for increased fishery monitoring activity including monitoring of non-target species through such mechanisms as observers and sampling programs at the national and regional levels;

**Activity 3.5** Strengthen, through the provision of additional training, the fisheries management



capabilities of the National Fisheries Administrations and similar organizations in participating countries;

**Activity 3.6** Support the coordination and continued development of regional surveillance and enforcement activity with special emphasis on by-catch and management failures in ocean fisheries;

**Activity 3.7** Coordinate and Refine consultative processes within and between FFA member countries with the objective of strengthening regional capability;

**Activity 3.8** Provide assistance to review current and further develop harmonized minimum terms and conditions for foreign fishing vessel access to the EEZs of participating countries.

**Activity 3.9** After year three of the project, prepare an assessment of options for creating financial and institutional sustainability in ocean fisheries management with recommendations for future action as appropriate.

Expected results from these activities would include the development and implementation of measures that would bring about the sustainable development and use of the ocean living marine resources in the EEZ's of the participating countries.

**Objective 4: Maximize Regional Benefits from Lessons Learned through Effective Community Assessment, Participation, and Education During the Life of the Project and catalyze Donor Participation in SAP Related Activities**

The number of country participants, the wide range of languages spoken throughout the region, the various lineal systems involved, the strong role of individual communities in resource decision making, and the importance of gender roles around resource use all argue for special emphasis to be placed on community based participation and assessment if any lessons learned are to be effectively replicated for regional and ultimately global benefit. As noted under Objective 1, the PCU will include a full time professional with overall responsibility for community assessment and participation and will work closely with community groups, NGOs and education resources already in place within SPREP and other regional organizations.

Objective 2 identifies clear links between local communities and the success of demonstration projects in protecting biological resources, the conservation and sustainable management of coastal fisheries, as well as improved waste management. Links between effective oceanic fisheries management, addressed by Objective 3, and local food security have also been highlighted. Thus it is important to develop effective means to assess the conditions for success or failure within project activities. To promote lessons learned it will be essential to develop and disseminate educational materials such as pamphlets, posters, and other teaching aids to complement formal and non-formal educational programs. The extrapolation of lessons learned to further national or regional investment in ICWM and OFM will also require the analysis of new project costs and dialogue between relevant stakeholders and donors in the region. This objective will include increasing the extent to which the NGO community, including but not limited to specialized environmental, conservation, and resource management NGOs, needs to be involved as active project participants.

**Output 4: Programme to effect project related community assessment, participation and education**

**Activity 4.1** Create and provide resources for the Community Assessment and Participation Advisory Committee to the overall project;

**Activity 4.2** Review the current state of information relevant to the project regarding available community assessment work, past public participation activities of this nature, currently available community education materials, and update listings of all relevant community-based NGOs throughout the region and their functions;

**Activity 4.3** Support a workshop to review project elements and define appropriate community assessment, participation and education strategies to assure effective levels of community based participation in the work of the project. This activity element will be coordinated with the Communication Strategy;

**Activity 4.4** With the assistance of the Community Assessment and Participation Advisory Committee and taking into account workshop results, devise the Workplan for the Community Assessment, Participation, and Education activities of the project;

**Activity 4.5** Provide the resources necessary to implement the Workplan referenced in Activity 4.4, including resources for specific assessment and participation initiatives for selected Demonstration Projects under the ICWM project component and for the creation of a public participation programme aimed at key stakeholders for the OFM component;

**Activity 4.6** Review the opportunities for self-financing of project components at regional and national levels, pinpointing the potential economic sources and mechanisms. Undertake consultations with the co-operating governments and all stakeholders involved, including the private sector.

**Activity 4.7** Sponsor a donor conference using the on-going GEF project as leverage for the creation of necessary additional donors and the securing of loans.

Expected results from these activities would include the development and implementation of a programme creating effective project related community assessment, participation and education.

#### **IV. Risks and Sustainability**

##### Issue, Actions and Risks

The long-term success of regional scale management programs such as the one proposed here depend, *inter alia*, on the political willingness of the participating PICs to cooperate. The latter in turn depends on changing economic, political and social conditions at the individual country level. For this project, the geopolitical factor appears to introduce only a low to moderate risk at this time; countries have made clear their specific commitment to the project by their determined and successful participation in preparation of the SAP and through active involvement in the regional organizations of which they are all members. A more serious risk is likely to be the temptation to focus short-term priorities away from environmental concerns to the potential

detriment of the project. It may be that country commitment to a regional approach on the issues addressed by the project will help solidify movement to sustainable approaches to the ICWM and OFM project components. Still, this risk is seen as being moderate. Another potential barrier to success is the communication challenge posed by having to effectively connect thirteen countries, many of which are not adequately served by or connected to adequate communications systems, hundreds, perhaps thousands of powerful local communities, countless languages, various lineal systems, and a myriad of other important interests whose involvement is essential to project success. The risk that the communications challenge may prove problematic is seen as moderate, even given the substantial amount of project resources that have been committed to the communications challenge.

### Sustainability

The project is designed to identify, stimulate and integrate the use of sound land and water resource management strategies in the region through proactive interventions aimed at protecting international waters. The project will also focus on building sustainable institutional capacities for environmental monitoring through criteria driven demonstration projects in ICWM activities and strengthened regional management/institutional capability for OFM components. The project components have a high potential for successful replication of successful practices both within and outside of the region.

The project also supports efforts of the thirteen countries and several regional organizations to make changes in sectoral policies, target critical investments, develop necessary programs with community participation, and, through the continuation of the RTFs, update each of the thirteen country annexes to the SAP. The support of GEF will serve a catalytic role in the project to leverage existing and potential donors to contribute to this multi-country, multi-regional organization, and multi-stakeholder effort to ensure long-term sustainable and effective environmental management and protection of the South Pacific Region.

### Government Commitment

This proposal has the long-term commitment of the thirteen participating countries and all of the relevant regional organizations. Participating governments and those of a number of other PICs who do not qualify for GEF assistance, have already demonstrated strong commitment to strengthening regional cooperation in the Pacific area and this commitment has been confirmed by a readiness to cooperate on collaborative efforts such as their approach to UNCED, development and endorsement of the Pacific Way, and membership in regional organizations such as FORSEC, SPREP, SOPAC, FFA, and SPC. Country participation in the SAP was exemplary, enthusiastic, and resulted in a consensus document that will serve the project well.

## **V. Stakeholder Participation and Implementation Arrangements**

### Stakeholder Commitment and Participation

Stakeholder Commitment and Participation are key elements of the project. During SAP preparation each country committee undertook public consultation and the results of these consultations were taken into account in final SAP preparation. Since many natural resource decisions in the region are made at the local level, community participation and assessment activities, and an effective educational component, will be provided for during implementation.

### National and Regional Institutions

Direct and ongoing oversight of project activities will be the responsibility of the Project Coordination Unit (PCU). The PCU will be comprised of a Chief Technical Advisor (CTA) and a Community Specialist (CS). Administrative and technical support for the PCU will be provided by SPREP for the ICWM component of the project and by the SPC and FFA for the OFM component.

There will be a continuation of the RTF and participating countries will be asked to continue, if relevant, their respective National Task Forces (NTFs). The RTF will, among other things, review and comment upon the project document and generally oversee implementation activities. The RTF will continue to be comprised of representatives from participating countries, regional organizations, GEF Implementing Agencies, NGOs and the private sector. The NTFs will continue to be, comprised of representatives from across ministries, disciplines and public members from the business sector, community level, and NGOs.

### Project Implementation

The South Pacific Regional Environmental Programme, which coordinated work done under the PDF-B and the SAP formulation, will be the executing agency.

## **VI. Incremental Costs and Project Financing**

The resolution of water-related problems in Pacific SIDS will yield important global and regional benefits. The region's marine ecosystems and constituent biodiversity provide habitat for endangered and migratory species such as tuna, a keystone species providing an important link in the oceanic food chain. Ecosystems at the country level are interlinked with the regional marine system as many islands within Pacific SIDS are entirely coastal in nature, a unique facet of many SIDS. The GEF has recognized these unique characteristics by targeting activities for SIDS into issues of coastal area management, biodiversity, sustainable management of regional fish stocks, tourism development, protection of water supplies, land and marine based sources of marine pollution, and vulnerability to climate change.

Pacific SIDS ecosystems have associated future use values (e.g., recreation potential, scientific research, and concentrated biodiversity), and existence values, both of which accrue at the global level. The costs of inaction are the loss of these benefits. The full project will demonstrate how global and regional management objectives can be integrated into cross-sectoral activities at the country level, thereby reducing negative externalities. The incremental costs (IC) associated with the project, and which are the subject of the attached Annex 1, are those which are deemed necessary to bring about the global and regional benefits consistent with the GEF Operational Strategy and OP #9 of the GEF Operational Programs document.

### **Project budget: RAS/98/A08**

<b>Objective 1</b>	<b>Activities</b>	<b>Incremental Cost</b>
1.1	Recruit and hire the CTA	500,000
1.2	Recruit and hire the Community Assessment, Participation Specialist	350,000

1.3	Create the Pacific Islands Programme Coordination Unit (PCU) to facilitate, coordinate, and communicate to participating countries, regional organizations, and others the results of ongoing priority activities identified in the following activities	480,000
1.4	Continue the RTF and the National Task Forces (NTF), following a membership and terms of reference review, to better reflect the priority activities of the project, participating regional organizations, stakeholders and overall project needs	200,000
1.5	Plan and hold a Communications Workshop to develop a communications strategy and identify the level of communications activities and hardware and software, email and internet services necessary to successful project implementation	630,000
1.6	Develop a Workplan for the region wide implementation of the SAP/Update the Regional SAP after year 5 of the Project	30,000
1.7	Reconvene the RTF to help form the terms of reference for, advise during the conduct of, and learn from the experience of the demonstration and other major activities identified in this proposal	30,000
<b>Sub-total</b>		<b>2,220,000</b>
<b>Objective 2</b>		
2.1	Support for the creation of demonstration projects in selected countries to develop robust techniques for protecting freshwater resources including assessment of watershed capacity and quality, projecting the availability of potable water at acceptable pumping rates, strategies for preventing and/or supplementing shortfalls, and measures for demand-side management/conservation of freshwater resources.	1,250,000
2.2	Support to develop criteria for, and create an initial 3 sites within, a regional system of Community-Based Marine Heritage and Conservation Areas (MPAs).	1,250,000
2.3	Support for three demonstration projects with the objective of the further identification of regional elements necessary to the creation and long term sustainability of Coastal Fisheries	1,250,000
2.4	Support for three community centered demonstration projects with the objective of creating models of low cost/no cost community-based waste reduction activities, and support for a feasibility study to determine the costs, benefits and desirability of regional recycling and disposal options.	1,250,000
<b>Sub-total</b>		<b>5,000,000</b>
<b>Objective 3</b>		
3.1	Provide technical assistance to the Forum Fisheries Agency (FFA) to build project related capacity, nationally and regionally, and to devise and implement management arrangements on behalf of member countries	700,000
3.2	Provide technical assistance to the South Pacific Commission to provide additional, project related scientific advice and accommodate additional reporting responsibility deriving from its involvement in project activities	800,000

3.3	Provide initial support to FFA member countries to secure their participation in the development of additional and appropriate management regimes the objective of which will be to maximize regional benefit from the regional tuna fishery and its associated by-catch.	1,000,000
3.4	Provide support for increased fishery monitoring activity including monitoring of non-target species through such mechanisms as observers and sampling programs at the national and regional levels	750,000
3.5	Strengthen, through the provision of additional training, the fisheries management capabilities of the National Fisheries Administrations and similar organizations in participating countries	250,000
3.6	Support the coordination and continued development of regional surveillance and enforcement activity	-
3.7	Coordinate and Refine consultative processes within and between FFA member countries with the objective of strengthening regional capability	-
3.8	Provide assistance to review current and further develop harmonized minimum terms and conditions for foreign fishing vessel access to the EEZ's of participating countries.	-
<b>Sub-total</b>		<b>3,500,000</b>
<b>Objective 4</b>		
4.1	Create and provide resources for the Community Participation Advisory Committee	
4.2	Review the current state of information regarding available community assessment work, past public participation activities across sub-regions, countries, and lineal systems, currently available community education materials	
4.3	Support for a workshop to review project elements and define appropriate community assessment, participation and education strategies to assure effective levels of community based participation in the work of the project	
4.4	With the assistance of the Community Participation Advisory Committee and taking into account workshop results, devise the Workplan for the Community Assessment, Participation and Involvement activities of the project	
4.5	Provide the resources necessary to implement the Workplan referenced in Activity 4.4.	
<b>Sub-total</b>		<b>860,000</b>
<b>Project Support Services</b>		<b>420,000</b>
<b>Total Project Budget</b>		<b>US\$ 12,000,000</b>

## VII. Monitoring, Evaluation and Dissemination

### Monitoring and Evaluation

Project objectives, outputs and emerging issues will be regularly reviewed and evaluated at annual meetings of the Regional Task Force. The project will be subject to the various evaluation and review mechanisms of UNDP, including PPER (Project Performance and Evaluation Review), TPR (Tripartite Review) and an external Evaluation and Final Report prior to the termination of the project. The project will also participate in annual PIR (Project Implementation Review) exercise of the GEF. An output at the end of the project will be the creation of thirteen

annexes to the SAP summarizing specific policy reforms, new or reformed institutions that have been created, investments needed in each country, and commitments or plans for implementation of activities. Provision will also be made within the project for monitoring three types of IW indicators: process, stress reduction, and environmental status indicators.

*Lessons Learned and Technical Reviews*

This project will be involved from the start in the new GEF International Waters LEARN (Learning Exchange and Resource Network) programme. IW:LEARN is a distance education programme whose purpose is to improve global management of transboundary water systems. IW:LEARN will provide structured interactive conferencing capacity across and within the portfolio of GEF International Waters projects which will allow participants to share learning related to oceans, river basins, and coastal zone management. For environmental professionals working on GEF-financed projects, IW:LEARN will greatly expand opportunities for peer-to-peer consultation, collaborative research with physically distant colleagues, opportunities to exchange best practices and training modules among projects, and the delivery of short courses.

## **Annexes**

Annex 1:	Incremental Cost Annex
Annex 2:	Logical Framework Matrix
Annex 3:	STAP Roster Technical Review
Annex 4:	Summary of the Strategic Action Programme for the South Pacific Islands

### Optional Annexes, available upon request

Annex 5	List of on-going or planned projects
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This annex provides information on those programmes and projects that are in some way associated with this project. In particular, this annex provides information on the baseline activities to the proposed project to supplement the incremental cost matrix of annex 1.

Annex 6:	Table of Regional Environmental Threats
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This annex provides information on the nature of threats and issues facing SIDS, including damage to coral reefs, mangroves, seagrass beds, overfishing, surface and groundwater pollution, tourism, among others. Symptoms, immediate and root causes, scale and severity of a number of issues and threats are described.

Annex 7:	Historical Context of Project
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This annex provides further background information on the historical context of the proposed project, beginning with the decision in 1990 by the Pacific Island Countries to prepare a joint regional position for the 1992 United Nations Conference on Environment and Development. The background to the preparation of the proposed project is described as having an early draft endorsed in October 1995 to the implementation of the preparatory project in 1997. In particular, the annex details the milestones and other key events during the preparation of the proposed project.

Annex 8:	Strategic Action Programme
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This annex is the Strategic Action Programme (SAP) for International Waters of the Pacific Islands Region which was initiated and developed by the thirteen Pacific Island States participating in the preparatory work of the proposed project, with financial assistance from the Global Environment Facility (GEF). It represents a pioneering effort by the Pacific small island developing states (SIDS) to integrate their national and regional sustainable development priorities with shared global environmental concerns for protecting International Waters.

Annex 9:	Country Focal Point endorsement letters
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## Annex 1a: Incremental Cost Annex

Domestic Benefits	Baseline	Alternative	Incremental
<b>Objective 1</b>	Environmental management policies, strategies and programmes within individual PICs lack sufficient co-ordination; by themselves national efforts are insufficient to mitigate threats to their shared international waters.	Coordination and management efforts among PICs.	Interventions more effectively targeted at the regional level to removing the root causes of threats, thus improving the efficacy and cost effectiveness of national management endeavours.
<b>Objective 2</b>	Countries face growing environmental, social and economic costs from degradation of their respective coastal resources.	Efforts targeted at removing the root causes of coastal environmental degradation.	The ecological sustainability of development activities in country coastal areas will be better assured.
<b>Objective 3</b>	At present domestic benefits from ocean resources are limited and benefits must be increased within the limits of sustainability.	Increased level of co-operation within existing regional fora will allow individual countries to benefit economically and help reduce unsustainable fishing pressure in coastal areas.	Increase in national fisheries management capabilities will ensure that each country can participate more effectively in regional fora, thus will yield direct country benefits as well.
<b>Objective 4</b>	Stakeholder involvement at national level uneven and overall poorly utilized given the importance of local control over natural resources.	Targeted emphasis on project related common assessment participation information and education will accrue to the benefit of each country.	Countries able to integrate communities and stakeholders into sustainable development activities based on project experience and results.
Global Benefits	Baseline	Alternative	Incremental
<b>Objective 1</b>	Limited national activity does not take into account regional considerations and is not cross-sectoral approach.	Regional and cross-sectoral approaches are emphasized as a means of bringing about long term sustainable development for PICs.	Increased interactions and regional transactions facilitates planning, implementation and maximizes learning from regional cross-sectoral approach to problems.
<b>Objective 2</b>	Distances involved and lack of resource availability within countries makes difficult a regional approach to integrated coastal management.	Develop mechanisms for effective country experience in coastal resource protection and enhancement measures and ensure successful replication across the region.	Support for demonstration projects in coastal areas and development of mechanisms for maximizing learning and replicability.
<b>Objective 3</b>	Regional organizations have made substantial progress in effectively representing regional interests in ocean fisheries related international fora.	Increase regional capacity to secure additional regional benefit from ocean fisheries and determine conditions necessary to assure long term sustainability of ocean fishery resources.	Region benefits economically and socially from accessing ocean fisheries and a fishery of global importance is sustained over the long term.

**Objective 4** Individual country stakeholders poorly sensitized to the connection between regional environmental sustainability and individual country environmental sustainability.

Raise regional stakeholder awareness of regional connections through communication of the results of and lessons learned from project activities and public involvement in them.

Regional distribution of publications, brochures, manuals and community participation models.

## Annex 1b: Incremental Cost Annex

Objective		Baseline (B)	Alternative (A)	Increment (A-B)
1	Support for the Creation of Enhanced Transboundary Management Regimes and Project Coordination Support	278,070	2,498,070	2,220,000 (GEF)
2	Create the Conditions Necessary to Achieve the Sustainable Development and Use of Coastal Living and Non-Living Resources	51,600,405	57,474,607	5,000,000 (GEF) 874,202 (non-GEF)
3	Create Conditions Necessary to Achieve the Sustainable Development and Use of Oceanic Living Marine Resources	24,738,627	34,526,487	3,500,000 (GEF) 6,287,860 (non-GEF)
4	Assure that the Appropriate Level of Community Assessment, Participation, and Education Characterizes Work Undertaken During the Life of the Project	863,333	2,619,654	860,000 (GEF) 896,321 (non-GEF)
	Project Support Services		420,000	420,000
	<b>Total</b>	<b>77,480,435</b>	<b>97,538,818</b>	<b>20,058,383</b>
	PDF			290,000
	<b>Total project cost</b>			<b>20,348,383</b>

Please see Annex 5 for details on baseline and co-financing sources.

## Annex 2: Logical Framework Matrix

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<p><b>Long-term Objectives</b></p> <p>Implementing the SAP to conserve and sustainable manage the coastal and ocean resources in the Pacific Region to achieve integrated sustainable development and management of International Waters.</p>	<p>A framework and coordination for regional and national interventions on behalf of PICs.</p> <p>Improved national and regional capacities for the long term sustainable development of ocean fisheries and improved ICWM capabilities in the Pacific Region.</p>	<p>PCU documents. RTF Meeting.</p>	<p>Continued country commitment to a regional approach. Project capacity to adequately conceptualize and implement a community based approach. Key regional institutions and national governments working co-operatively.</p> <p>Changes in economic, political and social conditions detract of country commitment to a regional approach.</p>
<p><b>Project Purpose</b></p> <p>Address the root causes of degradation of International Waters through a programme focus on improved OFM and ICWM.</p>	<p>Country participation in and endorsement for the OFM and ICWM workplans.</p>	<p>Completed OCM and ICWM workplans. National and additional donor commitments to workplan elements.</p> <p>PCU documents and working group reports.</p>	<p>The number of countries make it difficult to secure adequate country participation.</p> <p>Regional organizations and country participants are not able to work co-operatively to the extent necessary for project success.</p> <p>GEF funds not adequately complemented by country commitments and other donors.</p>
<p><b>Output 1</b></p> <p>Creation of an enhanced transboundary management regime and effective project coordination support mechanism</p>	<p>PCU created and RTF, NTF re-established.</p> <p>Effective project communications system ensured.</p> <p>Increased capacity for regional level participation in project related global fora.</p>	<p>CTA and CS employed.</p> <p>Adequate support staffing provided Results of communication workshop and implementation of workshop recommendations.</p>	<p>Executing agency willing to commit physical space and support resources.</p> <p>Substantial investment in communications capability essential to project success.</p> <p>Lack of clear lines of responsibility to the GEF project hamper implementation.</p>

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
	Increased capacity to create national benefits through enhanced transboundary management regimes.	Increased level of governmental participation in regional fora. Increased extent to which explicit regional positions are formed for use in various global fora. Documents of existing and potentially new regional fora.	Potential regional benefits merit higher level government participation and capacity to form regional positions. Short term national needs outweigh increased level of participation in regional fora.
<b>Output 2</b> Program for the sustainable development and use of coastal living and non-living resources	Regional commitment to demonstration projects. Effective country level participation in demonstration projects.  Demonstration project results effectively communicated at the regional level and replication of results begun.	Approved workplan for the ICWM component. PCU documents.	Countries see the long term benefit deriving from a demonstration approach. Demonstration sites selected through application of criteria that maximizes replication. Countries not willing to participate fully in demonstration site work. Demonstration Projects poorly executed.
<b>Output 3</b> Program for the achievement of sustainable development and use of ocean living marine resources	Increased regional effectiveness in global ocean fisheries negotiations. Increased regional benefit from tuna stocks in participating country EEZs.  Increased capacity in monitoring and surveillance of participating country EEZs.  Strengthen fisheries management capabilities within participating countries to secure added regional benefit.	FFA and SPC documents. Specific regional benefits derived in international fisheries negotiations. Country fisheries related economic reports. Improved information on non participating country tuna and bycatch within country EEZs.  Increased level of professional training opportunities for national fisheries personnel. Increased quantitative and qualitative national fisheries participation in regional fora.	Country benefits to be gained through regional cooperation justify country participation. Increased benefits from the tuna stocks in country EEZs can be realized.  Short term benefits of country by country approach to tuna fisheries impedes regional approach.
<b>Output 4</b> Program to effect project related community assessment, participation and education	Community advisory committee created. Community participation workplan developed and approved.  Key stakeholders analyzed and involved in project activities.	PCU documents.  Report of stakeholder analysis/study.	Communities will recognize benefits of involvement. Stakeholders will recognize benefits of involvement.  Countries will be willing to partner with communities to improve activity results.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
	<p>General project progress and activity updates broadly disseminated electronically and through other venues.</p> <p>New stakeholder networks created. Strong community influence on natural resource use decisions harnessed.</p> <p>General public awareness of project related issues enhanced.</p>	<p>Stakeholder consultation reports. Report of the communications advisory committee re: project related communications requirements and associated workplan.</p> <p>List of direct community group participants involved in project activities.</p> <p>List and description of written materials publicly disseminated.</p>	<p>Perceived benefits of participation insufficient to attract full range of stakeholders. Project aims seen as inconsistent or competing with local interests.</p>
<p><b>Output/Activities</b></p> <p><i>Output 1</i></p> <p>Hiring of Staff</p> <p>Establish RTF/NTF</p> <p>Establish Communications System</p> <p>SAP Workplan Development</p> <p>Advisory Committees formed</p>	<p>Issuance of Contracts.</p> <p>Disbursement records.</p> <p>SAP workplan.</p> <p>Communications workplan.</p>	<p>Meeting Reports, Disbursement records.</p>	<p>Staffing pattern can be completed within 3 months.</p>
<p><i>Output 2</i></p> <p>Freshwater supply related demonstration projects. Development of pilot projects for a regional system of community based marine heritage and conservation areas.</p> <p>Coastal fisheries demonstration projects. Waste reduction demonstration projects.</p>	<p>Specific demonstration sites selected. Workgroups established. Workplans completed. Project records.</p>	<p>PCU documents. Visits to project demonstration sites. Interviews with demonstration site participants.</p>	<p>Countries can agree on demonstration sites to be chosen. Suitable criteria can be developed that will lead to replicability.</p> <p>Demonstration site activities poorly implemented and badly managed. Host country commitment may lessen due to conflicting national priorities.</p>
<p><i>Output 3</i></p> <p>Capacity building for FFA and SPC. Maximize regional benefit of tuna/bycatch fisheries. Improved fish monitoring capability.</p>	<p>FFA and SPC records. Development of GEF project related work programme. Availability of drafts and convening of expert meetings according to agreed workplan.</p>	<p>Meeting reports. Availability of work programme. Project documents defining new and improved management arrangements on behalf of member countries.</p>	<p>Country benefits to be gained through regional co-operation justify country participation. Increased benefits from the tuna stocks in country EEZs can be realized.</p>

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<p>Improved fisheries management capabilities for regional effect.</p> <p>Coordination/continued development of regional surveillance of enforcement activity.</p> <p>Strengthened consultative processes for FFA member countries</p>	<p>Development of implementation strategies for each specific activity.</p> <p>Development of implementation mechanisms for each activity.</p>	<p>Project documents related to improved regional management regime for tuna fisheries/bycatch.</p> <p>Project documents related to improved fisheries monitoring activities.</p> <p>Project documents related to additional measures to strengthen country fisheries management capabilities.</p> <p>Project document related to improved regional surveillance and enforcement activities.</p> <p>Project document related to continued development for harmonized minimum terms and conditions for FFV access to EEZs.</p>	<p>Short term benefits of country by country approach to tuna fisheries impedes regional approach.</p> <p>Governments will release appropriate staff for further training.</p>
<p><i>Output 4</i></p> <p>Create community participatory advisory committee. Create necessary site specific community participation advisory subcommittees.</p> <p>Review currently available community assessment, public participation, community education experiences and related materials</p> <p>Workshop to define community participation workplan.</p> <p>Identification of key stakeholders for the OFM component</p>	<p>PCU documents. Successful establishment of the CPACs and appropriate sub CPACs. Appropriate materials developed. Workplan developed.</p> <p>NGOs, key stakeholders and others identified.</p>	<p>Publication of public information and educational materials.</p> <p>Interviews with community stakeholders including NGOs.</p> <p>Manuals for effective community based activities. Records of public meetings and consultations.</p> <p>Participation of community members, NGOs and others in project activity workgroups.</p>	<p>Government participants willing to incorporate public members and others in project work. Adequate level of community interest.</p> <p>The work of involving community level persons seen as too difficult. Experts conclude that presence of community members on committees impedes work progress.</p>

## **ANNEX 3: STAP TECHNICAL REVIEW**

### **1. Overall Impressions**

The proposal is sound, well thought out and researched and has obviously drawn from the experiences and work of a wide range of relevant sources. Given the background information provided, the project should, without doubt, be placed high on the list of Pacific Island priorities. The issues identified (although with an obvious coastal and marine focus) are all relevant to multiple spheres of Pacific Island development, including the economic, social, cultural and geopolitical.

This reviewer fully endorses the proposal and strongly recommends that it be finalized expeditiously and forwarded to the GEF for consideration.

### **2. Relevance and Priority**

The objectives of the project and the strategies outlined to achieve those objectives are in consonance with the aims of the GEF operational programme "Integrated Land and Water Multiple Focal Area", under which International Waters projects fall. Moreover, the proposal is directly relevant, as it focuses on another critical GEF priority area - the special conditions and needs of Small Island Developing States.

The proposal, as outlined, also seeks to equip Pacific Island states with the necessary tools to meet their obligations with respect to important international conventions, to which many are signatory. These include UNFCCC, MARPOL, UNCLOS, Convention on Biological Diversity, *inter alia*.

In addition, the project focuses heavily on priority areas identified by the Pacific Islands themselves, viz. degradation of water quality; degradation of associated critical habitats and unsustainable use of resources. The whole programme appears to be internally driven, and has the full support of the relevant national Governments.

### **3. Project Approach**

Given the priority issues identified, the approach outlined appears generally capable of meeting the overall objectives. The strategy focuses heavily on capacity building, stakeholder participation, it takes cognizance of diversity among islands (political, ethno-cultural, linguistic, environmental, resources availability etc), the need for self-financing, and seeks to improve the overall quality of life in a sustainable manner. These guiding principles are critical if the countries are to truly benefit from the project.

### **4. Objectives**

Overall, the objectives have been well formulated and properly focused. For the most part, the activities listed are consistent with those objectives.

*Notwithstanding the above, there is the implied notion that adequate baseline (scientific and technical), and that there is little need to undertake further research. This may well be the case,*



*but it does appear to be somewhat in conflict with the acknowledgement that there are "Information Gaps". If in fact these information gaps exist, then there should be some specific subset of activities that unambiguously address this need. If the project team believes that this concern is fully covered under an existing set of activities, then perhaps a very clear statement to that effect should be included in the appropriate section of the document. Obviously, the unavailability of critical baseline data for all countries represented in the project could frustrate the achievement of objectives.*

## **5. Background and Justification**

In this reviewer's opinion, adequate background information and supporting justification have been provided. The document is properly referenced and substantiated by quality documentation. Given the current needs of the Pacific Islands, the benefits to be derived, and the fact that the proposal meets the objectives of both the GEF and the Pacific Islands, it is strongly recommended that the project should be approved.

However, the project team might wish to consider including a brief section (1-2 paragraphs at most) which provides an objective assessment of the state of data availability, and highlighting any critical areas for which data is likely to be deficient. Such information would assist the funding agency in deciding, a priori, whether project objectives could be realistically achieved within the timetable proposed (This also relates to the comment highlighted in italics at (4) above).

## **6. Critical Analysis of the Situation**

All relevant and critical circumstances have been thoroughly considered and analyzed. The threats and actions proposed for dealing with them have been clearly set out and are appropriate for meeting the objectives of the project. Both the root causes of the identified problems (issues) and overt manifestations of the problems (symptoms) have been adequately addressed. In addition, critical system effects and externalities that are likely to impact on the project have been fully considered.

## **7. Activities**

The proposed activities are appropriate to the issues being tackled, and all indications are that they are efficacious. It is not recommended that any of the proposed activities should be excluded **(See comments (4) and (6) in relation to other considerations, which might enhance the proposal, however).**

The sequencing of activities is logical, and obviously designed to ensure that each succeeding component derives maximum benefit from each previous activity.

## **8. National Priorities and Community Participation**

The proposal is in consonance with national and regional environmental plans and strategies for the Pacific Region. The countries chosen for participation in the project are all appropriate, and none should be excluded from the list. The project can also be meaningfully executed, with all

objectives achieved, without any further addition of countries to the list. The proposal has fully considered and incorporated into the design, economic, social, cultural, ethnic, linguistic and livelihood issues, within the context of the project's overall environmental objectives.

It is evident that extensive and meaningful stakeholder consultations have taken place, and that local communities and populations will be involved in all phases of project preparation (i.e., design, execution, monitoring and evaluation).

## **9. Institutional Arrangements**

Present institutional arrangements for project execution are adequate and appropriate. It is also heartening to note that adequate flexibility has been built into the institutional arrangements, to ensure that structural or other changes can be made where necessary, without jeopardizing project success.

## **10. Time Frame**

It is possible to achieve all project objectives within the proposed time frame.

## **11. Funding**

The proposed GEF funding level appears to be adequate and appropriate, given the activities to be undertaken. Proposed co-financing contributions would at this stage also appear to be realistic and achievable.

## **12. Innovative Features/Replicability**

The project is innovative in that it treats the Region's coastal and marine environment as a unified system, while at the same time recognizing diversity in ecosystems at the micro (country) level. **Moreover, it is one of the first such efforts known to this reviewer, which seeks to integrate both regional and national sustainable development priorities with shared global concerns for protecting international waters.**

The project can have a strong demonstration effect for other similar societies and many elements can be replicated successfully. Such replication is possible in the small island developing states in the Caribbean, and in the Indian Ocean region.

## **13. Sustainability**

The project clearly provides for sustainability after the GEF funds expire, via a variety of mechanisms. These include the assurance of continued Government commitment and "political will" (both at the regional and national levels) well into the future; given the long-term, proactive nature of the project and the emphasis on capacity building, resources will be optimized providing a greater range of economic and social benefits for a wider range of stakeholders. In this way, stakeholder commitment and participation beyond the GEF phase will be assured. In light of the foregoing, other donor agencies and Governments of developed countries with strong

commitments to the achievement of sustainable development could be easily persuaded to become partners in the process.

#### **14. Development Dimensions and Rationale for GEF Support**

It is important to note that there is strong focus on the development dimensions of the proposal. Among the objectives are the improvement of the quality of life in the participating countries, and the development of self-financing activities at the level of the local populations and other stakeholders. Given the commitment of GEF to the achievement of global sustainable development practices, in particular its programming framework “integrated land and water multiple focal area”; there is strong justification for submitting the proposal to the GEF for consideration. The project is therefore not only designed to meet key Pacific Island needs, but without doubt, will assist in furthering the objectives of the sustainable development programmes of the GEF.

#### **15. Additional Comments**

(a) Annexes 1-5 provide a comprehensive listing of objectives and activities for each sub component, while Annex 6 clearly identifies the key “regional environmental threats”. *However, there does not appear to be a strong enough linkage (or cross-referencing) between the threats on the one hand and the activities identified to mitigate/reduce the threats, on the other. While a linkage is implied, there should be absolutely no doubt in the mind of the funding agency as to whether the activities proposed are appropriate for achieving the stated objectives.*

(b) The proposal appropriately acknowledges (and includes) the need for an education and awareness component. It also cites the importance of stakeholder involvement and participation in the process. *However, the project team might wish to consider strengthening this section of the document by including a clearer focus on the importance traditional knowledge, technologies and expertise, and indicating how these elements will be effectively incorporated as specific activities.*

(c) While it is acknowledged that the proposal is not designed to focus on climate change and sea level rise issues *per se*, stronger and more consistent references to this threat would enhance the argument for implementation of the project. Apart from a direct reference to the subject on page 14 of the draft GEF Project Brief under the subheading “Rationale”, this relationship is not pursued. Certainly the potential impacts of climate change will have implications for marine and coastal ecosystems, habitat degradation and the sustainability of economic and social activity in the coastal zone. Reference to the existing Pacific Region climate change project (PICCAP) would also be useful in this connection.

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### **ANNEX 3A: INCORPORATION OF COMMENTS MADE BY THE STAP REVIEW**

The STAP review gives a very favorable general review of the project brief. The review includes four suggestions for the Project Team to consider. They include:

- a suggestion on the part of the reviewer that the issue of “information gaps” be explicitly addressed, either in the context of such gaps having been taken into account or having already been satisfactorily addressed;
- a suggestion that the project team consider including a brief section providing an assessment of the state of data availability and highlighting any critical areas for which data is likely to be deficient;
- a need to create stronger linkages between the table of threats on the one hand and the activities identified to mitigate/reduce the threats on the other; and
- the need to strengthen the stakeholder involvement section by including a clearer focus on the importance of traditional knowledge, technologies and expertise, and indicating how these elements will be effectively incorporated as specific activities.

The first two needs seem to address the same issue, i.e., the extent to which information and data gaps were identified, how they have been incorporated into project development, and, implicitly, to the extent they have not been incorporated, how this could be accomplished. The Strategic Action Programme makes explicit the results of the gap analysis that was undertaken in by Regional Task Force and the various committees and work groups working with the Task Force. The results of their analyses are included in Section VII of the SAP final report and are the subject of Table 5 in the SAP document. The SAP is included as Annex 8 of the Project Brief. In summary, the SAP concluded that while there were information gaps, the existence of such gaps should not prevent actions being taken. Actions recommended in the SAP, which was used as the frame of reference for Activity recommendations in the Project Brief, were made consistent with the conclusion that the recommended actions could, with existing data and information, be accomplished within the timeframe of and the resources available to the project. The reviewer has stated in the Review that he is in agreement with this conclusion (See Sections 6, 7 and 10 of the Review). The Project Brief will make note of this information.

The third need, i.e., the suggestion that there be stronger links between the table of threats on the one hand and the activities to mitigate/reduce these threats on the other, is, in the opinion of the project team, quite adequately addressed in the work of the SAP. It is the countries themselves, their country representatives, representatives from regional organizations, and public members who formulated the table of threats, undertook the synthesis of those threats, and created the priority concerns that are the essence of both the SAP and the Project Brief. The work described within the SAP document makes this clear (See SAP Sections IV, V, VI, and SAP Tables 2, 3 and 4).

The fourth need, i.e., to place a clear focus on traditional knowledge, technologies and expertise and indicate how these elements will be incorporated as specific activities, is a welcome suggestion and has now been incorporated into the Project Brief on Pages four and five. The Project Team is hesitant, however, to be specific how these traditional elements will be incorporated into specific activities. Traditional practices and associated technologies and specialized expertise varies widely throughout the region. In the opinion of the Project Team, it would premature to be specific about the incorporation of specific, tradition-based approaches

until the specific demonstration sites have been selected in the early work of project implementation.

## **ANNEX 4: SUMMARY OF THE STRATEGIC ACTION PROGRAMME FOR THE SOUTH PACIFIC ISLANDS**

### **INTRODUCTION**

The Strategic Action Programme (SAP) for International Waters of the Pacific Islands Region was initiated and developed by the thirteen Pacific Island States participating in the work of the Global Environment Facility (GEF). It represents a pioneering effort by a group of small island developing states (SIDS) to integrate national and regional sustainable development priorities with shared global environmental concerns for protecting International Waters.

The SAP has built on considerable national and regional work related to International Waters. This work includes, e.g., reports of the National Consultations, the State of the Environment (SOE) Report or National Environmental Management Strategy (NEMS) for each country, the Action Plan for Managing the Environment of the South Pacific Region 1997-2000, the Draft Regional Strategy for Development Priorities of the Forum Island Countries, the Action Strategy for Nature Conservation in the South Pacific Region 1994-1998, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, the Report to the United Nations Commission on Sustainable Development (UNCSD) on Activities to Implement the Barbados Programme of Action in the Pacific Region (1996) and the 1992 Report to the United Nations Conference on Environment and Development (UNCED) in The Pacific Way.

### **International Waters**

International Waters include oceans, large marine ecosystems, enclosed or semi-enclosed seas and estuaries as well as rivers, lakes, groundwater systems, and wetlands with transboundary drainage basins or common borders. The water-related ecosystems and critical habitats associated with these waters are integral parts of the system. International Waters extend far inland and far out to sea. This is because the global hydrological cycle links watersheds, airsheds, estuaries, and coastal and marine waters through transboundary movement of water, pollutants and living resources.

This definition of International Waters fits precisely the reality of the Pacific Islands. Although separated by vast distances, these islands are linked and controlled by the vast marine environment. The land to sea ratio is generally so small that Pacific islands are wholly coastal in character. The importance of the health of International Waters to the islands cannot be overstated.

### **Transboundary Environmental Concerns**

Work undertaken during the SAP process resulted in the identification of three priority transboundary concerns related to International Waters: Degradation of their quality; degradation of their associated critical habitats; and unsustainable use of their living and nonliving resources. These concerns are inextricably linked by their causes and by the cumulative, mutually exacerbating effects of these causes.

### **Imminent Threats**

International Waters in the Pacific region are subject to a number of threats giving rise to transboundary concerns. The threats were examined from the perspective of critical species and

their habitats and living and non-living marine resources.. Priority was given to those transboundary concerns that arise from the following imminent threats to the health of those waters. The priority concerns include:

1. pollution of marine and freshwater (including groundwater) from land-based activities
2. issues related to the long term sustainable use of marine and freshwater resources
2. physical, ecological and hydrological modification of critical habitats
3. unsustainable exploitation of living and nonliving resources, particularly, although not exclusively, the unsustainable and/or inefficient exploitation of coastal and ocean fishery resources.

Each imminent threat affects each transboundary concern. The linkages between the imminent threats to and the transboundary concerns for International Waters require integrated measures to address the concerns effectively.

### **Root Causes**

The root causes were examined in their legal, institutional, socio-economic and environmental context. The ultimate root cause underlying the imminent threats has been identified as deficiencies in management. The factors contributing to the management root cause can be grouped into two linked subsets: a) governance and b) understanding. The governance subset is characterised by the need for mechanisms to integrate environmental concerns, development planning, and decision-making. The understanding subset is characterised by the need to achieve island-wide ecosystem awareness through improved education and participation. This island wide awareness and participation will help make possible the development and implementation of measures to protect International Waters.

### **Information Gaps**

The SAP analysis revealed a set of information gaps relevant in particular to decision-makers (as opposed to researchers) who must address ultimate root causes and respond to imminent threats. Particularly important is the lack of strategic information presented in an appropriate manner to decision-makers, resource users, managers and communities to evaluate costs and benefits of, and to decide among, alternative activities. Improving information input and exchange at the regional, national, and community levels is an objective of this SAP.

### **Proposed Actions**

Actions to address the root causes of degradation of International Waters will be taken through regionally consistent, country-driven targeted actions that integrate development and environment needs. These actions are designed to encourage comprehensive, cross-sectoral, ecosystem-based approaches to mitigate and prevent imminent threats to International Waters. The SAP provides the regional framework within which actions are identified, developed and implemented. Targeted actions will be carried out in two complementary, linked consultative contexts: Integrated Coastal and Watershed Management (ICWM) and Oceanic Fisheries Management (OFM). Through the ICWM and OFM approaches, the SAP sets out a path for the transition of Pacific islands from sectoral to integrated management of International Waters as a whole, which is essential for their



protection over the long term.

Management in these two contexts will necessarily include three other pressing concerns in sustainable development planning, namely: biodiversity, vulnerability to climate change and land degradation. These are GEF focal and cross-cutting areas, and the remaining three of the seven major issues identified in the Barbados Programme of Action for the Sustainable Development of SIDS as common to most islands. The other three major small island issues from the Barbados Programme have already been addressed above, and the seventh, tourism, can only be effectively dealt with in this type of framework for national sustainable development. The SAP also meets the objectives of the GEF operational programme entitled "Integrated Land and Water Multiple Focal Area," to which International Waters projects addressing the needs and special conditions of small islands are assigned by GEF. Consequently, the SAP is expected to involve and build upon the complementary skills and experience available from organizations and groups active in our region.

The region receives much development assistance from a variety of donors for a wide range of projects. The SAP will be taken into account in discussions with donors to plan and coordinate regional and national development assistance for International Waters in order to address imminent threats and their root causes more effectively. The SAP will facilitate the choice and design of high priority interventions, remove duplication, and ensure that projects do not work at cross-purposes. Funding from GEF *per se* can only support a small proportion of such interventions, hence the importance of the SAP to organize and leverage additional assistance in order to receive maximum benefit from available funds. The SAP is designed to comply with the requirements of GEF, but also, and perhaps more importantly, to be a framework for overall national and regional planning and assistance for the management of International Waters.

The SAP complies with the legal framework for regional cooperation and related obligations established by the regional Conventions, the UN Convention on Law of the Sea, the Convention on Biological Diversity, the Framework Convention on Climate Change and other international conventions within which the Pacific Island countries identify common issues and coordinate national approaches to address those issues. Application of ICWM and OFM approaches will facilitate further joint action between sectors nationally and between governments regionally. As experience with ICWM and OFM grows, this SAP will also evolve, reflecting the increased knowledge of and changing conditions in the environment of our islands. To ensure that the SAP remains a living, evolving and useful instrument for sustainable development, and to assess and apply lessons learned from its implementation, the SAP will be reviewed every five years.

### **Priorities for Action**

All sustainable development issues related to International Waters in this SAP cannot be addressed at once. Therefore four high priority areas have been identified for immediate intervention: improved waste management, better water quality, sustainable fisheries and effective marine protected areas.

Targeted action within these activity areas is proposed in five categories: management, capacity-building, awareness/education, research/information for decision-making, and investment. Institutional strengthening is included under management and capacity-building. The analytical framework within which proposals for assistance should be evaluated under the SAP is set out below.

Goal of the SAP: Integrated sustainable development and management of International Waters

Priority Concerns:            Degradation of water quality  
   Degradation of associated critical habitats  
   Unsustainable use of resources

Imminent Threats:            Pollution from land-based activities  
   Modification of critical habitats  
   Unsustainable exploitation of resources

Ultimate Root Causes:        Management deficiencies  
   a) governance  
   b) understanding

Solutions:                        Integrated Coastal and Watershed Management  
   Oceanic Fisheries Management

ICWM Activity Areas:        - improved waste management  
   - better water quality  
   - sustainable fisheries  
   - effective marine protected areas

OFM Activity Areas:         - sustainable ocean fisheries  
   - improved national and regional management capability  
   - stock and by-catch monitoring and research  
   - enhanced national and regional management links

Targeted actions:            - management/institutional strengthening  
   - capacity-building  
   - awareness/education  
   - research/information for decision-making  
   - investment

## Annex 5: List of on-going and planned projects

Programme / Project	Countries	Year	On-going and Planned, Secured Funding	Co-financing	Associated Funding	Funding Agency and/or Country	Cooperative Agencies
Marine Resources Division Management	Regional	98 - 2000	478,941			Core Budget from country contributions	
	<b>COASTAL FISHERIES</b>						
Capture	Regional	98 - 2000	545,360	272,680	200,000	Core Budget and on AusAid funded position	FAO and USP
Post Harvest	Papua New Guinea, Tokelau, Fiji, Tonga, Cook Islands	98	76,751	38,376	300,000	UK Funded ICFMaP	
Training	Regional	98 - 2000	776,245	388,123	1,500,000	AusAid, France, NZ, Commonwealth Sec, UNDP	SPC/Nelson Polytechnic Pacific Island Fisheries Officers Course
Information Services	Regional	98 - 2000	553,563	276,781	900,000	France	FFA and SOPAC
Resource Assessment	Regional	98	89,947	44,974	300,000	UK, EC, France	
Women's Fisheries Development	Regional	98 - 2000	260,100	130,050		NZ, AusAid	
	<b>OCEANIC FISHERIES</b>						

Programme / Project	Countries	Year	On-going and Planned, Secured Funding	Co-financing	Associated Funding	Funding Agency and/or Country	Cooperative Agencies
Administration	Regional	98 - 2000	361,097	180,549		Core budget, AusAid, NZ, ROC/Taiwan	
Fisheries Statistics	Regional	98 - 2000	852,975			France, European Commission, Consultancies	
Tuna and Billfish Research	Regional	98 - 2000	930,495			AusAid, ROC/Taiwan, PNG, ACIAR	
South Pacific Regional Tuna Resource Assessment and Monitoring Project (SPR Tramp)	Regional	98 - 2000	2,905,088			European Commission	FFA
	<b>OCEANIC FISHERIES</b>						
Executive Management	Regional	98 - 2000	1,474,350			General Fund, AusAid	
Economics and Marketing	Regional	98 - 2000	3,201,478	1,600,739		General Fund, NZODA, AusAid, Canada, EU, ADB, CFTC, OFCF (Japan), UNDP and Taiwan	SPC
Legal Services	Regional	98 - 2000	1,117,533	558,767		General Fund, UK, AusAid, CIDA, CFTC, NZODA, Rep. of Korea	

Programme / Project	Countries	Year	On-going and Planned, Secured Funding	Co-financing	Associated Funding	Funding Agency and/or Country	Cooperative Agencies
Monitoring Control and Surveillance	Regional	98 - 2000	3,912,650	1,956,325		General Fund, AusAid, US	
Information Technology and Communication	Regional	98 - 2000	1,377,264	688,632		General Fund, AusAid, NZODA,	
Corporate Treaty Services	Regional	98 - 2000	2,605,697	1,302,848		General Fund, US Treaty Funds	
<b>COASTAL ZONE MANAGEMENT</b>							
Resource Development - Water Resources	Regional and country activities	98, 99	536,450		85,200	Regular Budget, CFTC, AusAid, UN Taiwan, NZODA	
Environmental Science - Coastal	Regional and country activities	98, 99	402,570		163,300	Regular Budget, Canada, AusAid, Japan, Korea	
Human Resources Development	Regional	98	250,630			Regular Budget, CFTC, AusAid, France, Canada	
Information Technology	Regional	98	278,070		16,330	Regular Budget, Various, France	
Sanitation and Public Health	Kiribati		500,000				
National Fisheries Policy FSM	FSM		400,000				

Programme / Project	Countries	Year	On-going and Planned, Secured Funding	Co-financing	Associated Funding	Funding Agency and/or Country	Cooperative Agencies
Water Supply and Sewage	FSM		11,500,000				
Majuro Water Supply and Sanitation	Marshall Islands		10,800,000				
Urban Development	Samoa		420,000				
Sanitation and Master Plan for Port Vila	Vanuatu		470,000				
Legislative Framework for Urban Planning and the Environment	Vanuatu		405,000				
Urban Infrastructure Project	Vanuatu		12,400,000				
Fisheries Management	Papua New Guinea		12,000,000				
Management	Regional	98 - 2000	1,687,260				

Programme / Project	Countries	Year	On-going and Planned, Secured Funding	Co-financing	Associated Funding	Funding Agency and/or Country	Cooperative Agencies
Finance and Administration	Regional	98 - 2000	1,548,110				
<b>CONSERVATION OF NATURAL RESOURCES</b>							
Project Management	Regional	98 - 2000	30,070				
South Pacific Biodiversity Programme	Regional	97 - 2000			2,831,000	4,468,319 GEF Funded	UNDP
Natural Resource Conservation Programme	Regional	98 - 2000	268,400		1,504,140		
Coastal Management and Planning Programme	Regional	98 2000			1,440,870		
<b>ENVIRONMENTAL EDUCATION, INFORMATION AND CAPACITY BUILDING (SPREP)</b>							
Project Management	Regional	98 - 2000	79,770	159,540			
Environmental Policy/Strategy Education, Information and Technology	Regional	98 - 2000	230,000	460,000	3,093,680		
<b>ENVIRONMENTAL MANAGEMENT PLANNING</b>							
Project Management	Regional	98 - 2000	69,570				

Programme / Project	Countries	Year	On-going and Planned, Secured Funding	Co-financing	Associated Funding	Funding Agency and/or Country	Cooperative Agencies
Climate Change and Integrated Coastal Management	Regional	98 - 2000				4,297,000 GEF Funding	
Environmental Management Planning	Regional	98 - 2000	295,000		3,110,000		
Waste Management, Pollution Prevention	Regional	98 - 2000	1,390,000		3,275,000		
<b>Total</b>			77,480,434	8,058,383	18,719,520		

The baseline of this project (US\$ 77,480,434) is based upon those activities identified as on-going, planned, or secured. The co-financing (US\$ 8,058,383) represents the leveraged cost of those new activities of the proposed project's of the baseline projects. Another US\$ 18,719,520 is planned for a set of activities associated with the proposed project.



**Annex 5: List of on-going and planned projects (Baseline contribution)**

Programme / Project	Project Objectives and Issues Addressed	Objective 1	Objective 2	Objective 3	Objective 4
Marine Resources Division Management	Technical guidance and develop collaborative links with other South Pacific Regional bodies.		478,941		
	<b>COASTAL FISHERIES</b>				
Capture	Training programmes in fishing and seamanship skills, adaptation of new fishing methods, technical assistance in FAD programme planning and implementation.		545,360		
Post Harvest	Promotes income earning opportunities through introduction of new improved seafood processing, packaging and marketing. Information resource base on post harvest fisheries.		76,751		
Training	Development and implementation training courses in small fishing business management. Regional and national workshops on grading sashimi tuna, safety-at-sea public awareness and fishing methods.		776,245		
Information Services	Provide information on a wide range of fisheries development and management issues.				553,563
Resource Assessment	Assist with design and implementation of inshore resource surveys; programmes for the collection, analysis and interpretation of fishery statistics and other activities and mechanisms to prevent over-exploitation of national fishery resources.		89,947		
Women's Fisheries Development	Promotes creation of income earning opportunities, building capacity of rural women to participate in seafood economic activities.		260,100		
	<b>OCEANIC FISHERIES</b>				

Programme / Project	Project Objectives and Issues Addressed	Objective 1	Objective 2	Objective 3	Objective 4
Administration	Provide technical oversight for OFP and develop collaborative links with other regional and international bodies working in tuna research.			361,097	
Fisheries Statistics	Maintain database on industrial tuna fisheries for research and monitoring purposes.			852,975	
Tuna and Billfish Research	Monitor exploitation of commercial tuna and Billfish stocks with DWFN's to guide national fisheries development.			930,495	
South Pacific Regional Tuna Resource Assessment and Monitoring Project (SPR Tramp)	Implement continuous monitoring of region's tuna fisheries based on tuna tagging programme.			2,905,088	
<b>OCEANIC FISHERIES</b>					
Executive Management	Pivotal role in Agency internal management and regional initiatives and developments.			1,474,350	
Economics and Marketing	Assist member countries develop effective management arrangements of their domestic tuna industry and prepare for MHLC2 related activities designed to develop an effective regional arrangement for conservation and management of the migratory stocks.			3,201,478	
Legal Services	Assist member countries to strengthen and fulfil their legal responsibilities. Key role in regional initiatives and developments in international law - involved in harnessing benefits of UNCLOS and meet new challenges.			1,117,533	

Programme / Project	Project Objectives and Issues Addressed	Objective 1	Objective 2	Objective 3	Objective 4
Monitoring Control and Surveillance	Reinforce member countries' capacity to achieve compliance by fishing operators with national regulations and regional arrangement license conditions.			3,912,650	
Information Technology and Communication	Develop effective and standardized information technology and data communication systems as a priority for member countries.			1,377,264	
Corporate Treaty Services	Accountable and efficient administration of treaties and provision of personnel, finance, property and office services.			2,605,697	
	<b>COASTAL ZONE MANAGEMENT</b>				
Resource Development - Water Resources	Sustainable development and utilization of water resources in member countries.		536,450		
Environmental Science - Coastal	Improved management of the coastal zone of member countries for preservation and sustainable development.		402,570		
Human Resources Development	Strengthen national capacity in geoscience through education and training of member country individuals.		250,630		
Information Technology	Support Regional electronic databases, Internet services, Installation and train member country individuals.	278,070			
Sanitation and Public Health	TA to improve sanitation, sewage disposal and water supplies, and to include institutional strengthening.		500,000		
National Fisheries Policy FSM	TA to develop national fisheries policy and preparation of action plans for each of the states and promote sustainable development of fisheries.		400,000		

Programme / Project	Project Objectives and Issues Addressed	Objective 1	Objective 2	Objective 3	Objective 4
Water Supply and Sewage	To improve health and quality of life of the people of FSM and facilitate economic growth. Rehabilitate and upgrade water supply and distribution systems serving the capital region areas of four states of FSM.		11,500,000		
Majuro Water Supply and Sanitation	New water wells, reservoirs, water treatment plants, transmission mains, sewage pumping stations with development of sector plans and programmes.		10,800,000		
Urban Development	TA to prepare project to refurbish and improve drainage and sewage systems and drainage for preparation of an urban development plan for Apia.		420,000		
Sanitation and Master Plan for Port Vila	TA to prepare Sanitation Master Plan for development of sanitation requirements for Port Vila over 20 year timeframe.		470,000		
Legislative Framework for Urban Planning and the Environment	TA to assist the Government in reviewing, updating, drafting, adoption and enforcing physical planning legislation and regulations, building codes and physical plans.		405,000		
Urban Infrastructure Project	For rehabilitation and improvement of urban roads and traffic management, water supply and sanitation and repair of Port Vila wharf.		12,400,000		
Fisheries Management	Increase employment and incomes in PNG through the establishment of a sustainable domestic private sector fishing industry.		6,000,000	6,000,000	
Management	Effective implementation of policies and directives of Sprep Meeting on behalf of member countries and effective implementation of SPREP Action Plan.		1,687,260		

Programme / Project	Project Objectives and Issues Addressed	Objective 1	Objective 2	Objective 3	Objective 4
Finance and Administration	Responsible for providing 'core' administration services and assisting management in monitoring and implementing obligations and requirements set out in SPREP's Financial and Staff Regulations.		1,548,110		
<b>CONSERVATION OF NATURAL RESOURCES</b>					
Project Management			30,070		
South Pacific Biodiversity Programme	Endeavour to identify, establish and initially manage a series of large, diverse Conservation Areas to protect important ecological features.		-		
Natural Resource Conservation Programme	Participation by countries in regional campaigns on species conservation and sustainable use initiatives. Implementation of Regional and International Conventions, Agreements and Strategies.		268,400		
Coastal Management and Planning Programme	Coordinate coastal management and planning activities including coastal resource surveys and management plan development. Assist member countries to reduce and control disposal causing pollution and coastal erosion causing environmental damage.		-		
<b>ENVIRONMENTAL EDUCATION, INFORMATION AND CAPACITY BUILDING (SPREP)</b>					
Project Management					79,770
Environmental Policy/Strategy Education, Information and Technology	National Development Plans integrating environment and strengthening institutional support in member countries - Environmental legislation.				230,000
<b>ENVIRONMENTAL MANAGEMENT PLANNING</b>					
Project Management			69,570		

Programme / Project	Project Objectives and Issues Addressed	Objective 1	Objective 2	Objective 3	Objective 4
Climate Change and Integrated Coastal Management					
Environmental Management Planning	Integrated Coastal Management approaches- EIA national planning, Population and environmental linkages.		295,000		
Waste Management, Pollution Prevention			1,390,000		
<b>Total</b>		278,070	51,600,405	24,738,627	863,333

**Annex 6: Table of Regional Environmental Threats**

<b>Issue</b>	<b>Symptoms/Impacts</b>	<b>Immediate Causes</b>	<b>Root Causes</b>	<b>Scale</b>	<b>Severity</b>
<b>Degradation of associated critical habitats</b>					
Coastal Development	Destruction of coral reefs, lagoons, seagrass beds, beaches: Species depletion or loss and ground and surface water shortage.	Increased demand from population growth, food production, cash cropping, urbanization, tourism, industrialization, lifestyle changes, agro-deforestation, damming and canalization	Inadequate environmental guidelines for coastal development. Lack of enforcement. Limited use of environmental assessment. Limited awareness	Localized throughout the region	Moderate to severe
Damage to Coral Reefs	Loss of coral habitat by collision and removal; indirect impacts through siltation; declining reef associated fauna. Reduced capacity to meet basic human needs and loss of aesthetic and recreational value	Nutrients derived from sewage, soil erosion and agricultural fertilizers. Solid waste disposal and sedimentation from soil erosion dredging, coral mining, trampling of shallow reef flats, breaking of corals, collecting of marine souvenirs	Lack of education about sensitivity of marine ecosystems: lack of management; lack of enforcement	Localized throughout the region	Moderate to severe
Mangrove destruction	Deterioration of mangrove habitats: decreased fish and shrimp catches: reduced water quality: coastal erosion	Reclamation for land, landfill, wood collection, shrimp farm construction and decreased freshwater supply	Lack of regulations and management, lack of awareness, damming, of waterways and rivers: increased population pressure.	Localized and common in the western part of the region	Moderate to severe

Destruction of Seagrass beds and other subtidal habitats.	Signs of physical disturbance: loss of seagrass-associated endangered species, including turtles, dugong, seabirds and certain cetaceans.	Coastal dredging and filling. Pollution, overfishing and elevated nutrient levels and sedimentation.	Lack of adequate regulations and enforcement: limited awareness, limited awareness of seagrass importance	Localized and common in the western part of the region	Moderate to severe
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Issue	Symptoms/Impacts	Immediate Causes	Root Causes	Scale	Severity
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### Unsustainable exploitation of resources

Overfishing in the coastal areas	Changes in biological community structure. Habitat modification, loss of protected species. Decline in catches with decrease in average size.	Increased fishing efforts - too many boats and too many fishermen for subsistence/survival needs. Destructive fishing practices.	Lack of surveillance and enforcement of existing regulations. Lack of stock assessment hampers resource management. Destruction of nursery habitats (mangroves and seagrass)	Regional	Severe
Turtle capture and egg collection by local fishermen and communities; sale of shells to tourists and for export	Decrease in nesting populations	Need for subsidiary food supply in areas of poor fish resources. Economic returns from sales to tourists. By catch of turtles in fisheries.	Lack of public awareness, and alternative food sources. Lack of enforcement and stock assessment.	Regional	Severe



Collection of corals and mollusks for souvenir trade	Breakage of corals and decline of live coral cover; decline in reef-associated fauna	Unregulated collection of corals and mollusks	Expansion of tourism; lack of awareness; lack of regulations and enforcement	Regional	Moderate to Severe
Ornamental fish collection for export	Potential decrease in reef fish populations, damage to the reef	Potential overfishing of individual species, destructive fishing methods	Lack of stock assessment, monitoring and management. Lack of collector training	Localized throughout the region	Low to moderate
Conservation of marine mammals (especially dugongs)	Potential decline in population	Accidental capture in fisheries	Lack of awareness	Localized throughout the region	Low to moderate
Overfishing of oceanic resources	Potential decline in population	Excessive bycatch and discards. Poor fishing gear selectivity especially purse seine/longline	Lack of monitoring and enforcement of regulations. Lack of trained staff for surveillance	Regional	To be determined

Issue	Symptoms/Impacts	Immediate Causes	Root Causes	Scale	Severity
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### Degradation of water quality

Surface and groundwater	Excessive exploitation of surface and groundwater for urban use: reallocation of surface water to domestic and agricultural uses; draw-down of limited groundwater resources;	Poor water reticulation and distribution systems with inadequate concern for water conservation and excessive pumping of groundwater resources.	Inadequate regards for conservation measures including maintenance of distribution systems and household plumping - no pricing for water and lack of incentive for water conservation.	Regional in urban areas	Moderate to severe
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saltwater intrusion into coastal aquifers

Sewage-related and solid microbial pollution	Marine and aquatic organism infections and diseases. Eutrophication and alteration of marine environment, habitat loss and human health effects. Contamination of groundwater.	Direct discharge of untreated or poorly treated sewage; Lack of sewage treatment plants	Inadequate pollution control regulations, monitoring and enforcement	Localized in the vicinity of coastal urban areas and large tourist developments	Severe
Disposal of Solid Waste	Deterioration of aesthetics, alteration of coastal habitats, physical damage to coastal and marine life; contamination of groundwater from landfill	Improper solid waste disposal and beach litter.	Lack of adequate waste disposal regulations and enforcement, inadequate public awareness	Localized in the vicinity of coastal urban areas, coastal villages, tourism developments and adjacent to major shipping lanes	Moderate to severe

Tourism Development	Destruction of coastal areas and adjacent marine habitats	Intense tourism development: overexploitation of available water resources; poor infrastructure linkages: excessive use of marine habitat: landfilling	Limited coastal zone planning and infrastructure planning; limited awareness of adverse tourism impacts: unregulated tourism activities and access	Regional	Moderate to severe
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## ANNEX 7: HISTORICAL CONTEXT OF PROJECT

The early impetus for the current project was the decision of PICs in 1990 to prepare a joint regional position for the 1992 United Nations Conference on Environment and Development (UNCED). This work occurred simultaneous with the development by the PICs of National Environmental Management Strategies (NEMS) which transpired between 1990-1996.

UNCED provided the first opportunity for PICs to gather information, analyze results, and build a regional consensus on integrating environmental and development concerns into a sustainable whole, incorporating the knowledge and experience gained in the twenty years since the Stockholm Conference on the Environment. The joint regional position presented at UNCED was titled Environment and Development: A Pacific Island Perspective and The Pacific Way: Pacific Island Developing Countries' Report to UNCED. The Perspective synthesized National Reports from the Islands and presented extensive additional information on sustainable development in the region. It was a supporting document for The Pacific Way, which presented a summary of the state of the environment for the islands and a description of regional priority concerns, both of which continue to be applicable.

Based in part on the results of The Pacific Way and the Perspective, the United Nations Development Programme (UNDP), SPREP and the Government of Australia co-financed a Global Environment Facility (GEF) Pacific regional training and scoping workshop in Nadi, Fiji, 1-4 August 1995. It was agreed at this workshop that a regional proposal for preparation of a Strategic Action Programme (SAP) to the GEF from Pacific Islands would combine the following activity areas:

- Integrated conservation and sustainable management of coastal resources, including fresh water resources;
- Integrated conservation and sustainable management of oceanic resources;
- Prevention of pollution through the integrated management of land- or marine-based wastes; and
- Monitoring and analysis of shore and near-shore environments to determine vulnerability to environmental degradation.

An early draft of the proposal was endorsed by the 8th SPREP meeting in October 1995. PDF Block B funds were requested from GEF in November 1995. Following further regional and national consultation the proposal was submitted to and endorsed by Heads of Government of participating island countries. At the 1996 27th South Pacific Forum. The South Pacific Forum requested SPREP to coordinate implementation of the proposal. The proposal was approved by UNDP on 19 April 1997. The Chief Technical Adviser commenced work on April 22, 1997. The initiation of the project was announced to participating countries, SPREP National Focal Points, the SPREP collaborating institutions, Pacific Island Countries' (PIC) Missions to the United Nations (UN) and members of the South Pacific Organizations Coordinating Committee (SPOCC) in SPREP Circular No. 523. Participating countries were asked to establish a National Task Force (NTF) and nominate Task Force Coordinators (TFCs) in SPREP Circular No. 524.

A Regional Task Force (RTF) to oversee preparation of the SAP was established. It was composed of one representative from Fiji, Marshall Islands, Samoa, Tonga, and Vanuatu, with additional

members from SPC, SPF, SPREP, the three GEF Implementing Agencies (UNDP, UNEP, WB), two NGOs (IUCN, TNC) and one private sector representative (Fiji Dive Operators Association, recommended by TCSP). The ADB and ESCAP also participated. The RTF met on 5 and 6 June 1997 in Apia. It considered draft regional reviews, draft guidelines for national consultations, and draft terms of reference for the TFCs. The report of the RTF meeting was circulated. The TFCs met in Apia on 8 and 9 July 1997 to receive a briefing on GEF, the SAP preparation process and objectives and suggested methodology for national consultations. They also received the draft reviews and other materials for the consultations. The report of the TFC meeting was circulated.

The SAP was prepared in accordance with the results of the national consultations. The results, in the form of national reports and targeted project proposals, were endorsed by the SPREP and GEF national focal point and were submitted to SPREP. A preliminary draft executive summary of the SAP was circulated to participating countries, SPREP National Focal Points, PIC Missions to the UN, SPOCC members, RTF and TFCs in SPREP Circular No. 541. The draft SAP was reviewed and approved by the RTF and the TFCs on 2 and 3 September 1997 at a joint meeting held in Apia. The report of the meeting was circulated.

The SAP was reviewed and subsequently endorsed by the Heads of Government of the South Pacific Forum at their twenty-eighth meeting in Rarotonga on 15-19 September 1997, built on considerable national and regional work related to International Waters. This work includes, for example, reports of the National Consultations; the State of the Environment (SOE) Report or National Environmental Management Strategy (NEMS) for each country; the Action Plan for Managing the Environment of the South Pacific Region 1997-2000; the Draft Regional Strategy for Development Priorities of the Forum Island Countries; the Action Strategy for Nature Conservation in the South Pacific Region 1994-1998; the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities; the Report to the United Nations Commission on Sustainable Development (UNCSD) on Activities to Implement the Barbados Programme of Action in the Pacific Region (1996); and the 1992 Report to the United Nations Conference on Environment and Development (UNCED) in The Pacific Way.

The SAP assists Pacific island countries improve regional capacity for management of transboundary water resources and create improved management structures to address environmental degradation and ensure the long term sustainability of ocean fisheries in the Western Pacific Warm Pool ecosystem. The SAP also leads to improved integration of environmental concerns into local, national and regional policy, and improved water quality and the conservation of key coastal and ocean ecological areas. The Programme is consistent with the GEF Operational Strategy and with Operational Programme #9, the Integrated Land and Water Multiple Focal Area that addresses Small Island Developing States (SIDS).

These concerns represent part of what, overall, was identified by the SAP as threatening to international waters in the Pacific. A review of critical species and habitats identified several forms of land-based sources of pollution. The most serious threat is nutrients derived from sewage, soil erosion and agricultural fertilizers. Nutrient overloads particularly affect coral reef ecosystems, weakening the reef carbonate skeleton and smothering the reef with algae. The other two most serious land-based pollution threats are solid waste disposal and sedimentation. Sedimentation is derived from soil erosion, dredging, coastal development and upstream, inland activities. The second set of threats derives from physical alterations of the seabed or coastline, in particular

through destruction of fringing reefs, beaches, wetlands and mangroves for coastal development and by sand extraction. The final set of threats derives from over-exploitation. Coastal food fisheries, especially near urban areas, are under pressure from over-fishing, as are commercially valuable vertebrate and invertebrate export species

The SAP identifies the root causes of degradation of international waters and will address the special conditions and needs of SIDS. Activities implemented under the SAP will encourage sectoral changes needed to achieve the goals of sustainable development and implement measures that are needed to address the root causes of ecological stress in the Pacific region. The sector by sector approach to development is being challenged but remains dominant within the region. The costs associated with reforming institutions to address the cross-sectoral nature of most sustainable development issues facing islands are well beyond the current capacity of all island governments of the region. The imperative for adopting an integrated approach to island development has been clearly demonstrated and is reflected in the Barbados Programme of Action for the Sustainable Development of Small Island Developing States, which is scheduled for a comprehensive review for the UN General Assembly in 1999.

Targeted actions identified by countries in the SAP will be carried out in two complementary, linked consultative contexts: Integrated Coastal and Watershed Management (ICWM) and Oceanic Fisheries Management (OFM). Through the linked ICWM and OFM approaches the SAP sets out a path for the transition from sectoral to integrated management of international waters as a whole which is essential for their protection - and for the sustainable future of the PICs - over the long term.

The project will build capacity at the local, country, and regional level. Work in the ICWM area will focus on the implementation of a series of demonstration projects based on criteria developed to maximize replicability across the region. The demonstration projects will address issues of sustainable freshwater resources, Marine Protected Areas, coastal fisheries, and improved waste management and provide a framework for targeted proposals prepared by countries as part of the SAP process. Each of these issues was identified within the SAP as "high priority areas" which were in need of "immediate intervention." The project will also enable the PICs to further develop and implement regional fisheries management arrangements the objective of which is to ensure the sustainable harvesting of the oceanic fish stocks in country EEZs specifically and generally in waters of the western and central Pacific. These fish stocks are of global significance and are identified within the SAP as requiring immediate attention.

Management in these two contexts will necessarily include three other pressing concerns in sustainable development planning, namely: biodiversity, vulnerability to climate change and land degradation. These are GEF focal and cross-cutting areas, and the remaining three of the seven major issues identified in the Barbados Programme of Action for the Sustainable Development of SIDS as common to most island developing states. The other three major small island issues from the Barbados Programme have already been addressed above, and the seventh, tourism, can only be effectively addressed in the type of national sustainable development framework that this project will begin to create for PICs.

The SAP meets the objectives of the GEF Operational Programme titled "Integrated Land and Water Multiple Focal Area," to which International Waters projects addressing the needs and special

conditions of small islands are assigned by GEF. Consequently, the SAP is expected to involve and build upon the complementary skills and experience available from organizations and groups active in the region. Within the SAP root causes were examined in their legal, institutional, socio-economic and environmental context. The ultimate root cause underlying the imminent threats was identified as deficiencies in management. The factors contributing to the management root cause are grouped into two linked sub-sets: a) governance and b) understanding. The region wide nature of the needed interventions, coupled with the significant control that local communities exercise with regard to natural resource issues, makes especially important the substantial, planned community assessment, involvement, education and stakeholder participation in the project.

The region receives much development assistance from a variety of donors for a wide range of projects. Results of the SAP will be extremely useful to the planning and coordination of regional and national development assistance for International Waters in order to address imminent threats and their root causes more effectively. The SAP will facilitate the choice and design of high priority interventions, avoid duplication, and ensure that projects do not work at cross-purposes. It is important to note that funding from GEF *per se* can only support a small proportion of the needed interventions, particularly in the coastal areas. Hence GEF funding for SAP implementation will be used to leverage additional assistance in order to receive maximum benefit from available funds. Finally, SAP implementation is designed to provide a focus for improved coordination and collaboration between and among regional organizations through the South Pacific Organizations Coordinating Committee (SPOCC).

From a regional perspective, the SAP is designed to encourage proposals with diverse applications that achieve global benefits while maintaining the fundamental unity of approach and discipline established by the SAP. The SAP intends to enable development of projects reflecting the different national styles and circumstances of each participating country, and it is designed to be sufficiently flexible to accommodate these differences. This variety will enable rapid regional learning, provide examples of approaches tailored to disparate situations and assist national adaptations as countries analyze and share the results of their work.

**ANNEX 8:****STRATEGIC ACTION PROGRAMME FOR INTERNATIONAL WATERS  
OF PACIFIC ISLANDS**

**by: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu through their respective National Task Forces for International Waters**

**with the guidance of:**

**The Regional Task Force  
The South Pacific Organizations Coordinating Committee**

**with the financial support of:**

**The Government of Australia  
The Government of New Zealand  
The Global Environment Facility through  
The United Nations Development Programme**

**with the assistance of:  
the staff of the South Pacific Regional Environment Programme**

**August 1997**



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## **Executive Summary**

### **I. Introduction**

This Strategic Action Programme (SAP) for International Waters of the Pacific Islands Region was initiated and developed by the thirteen Pacific Island States participating in the work of the Global Environment Facility (GEF). It represents a pioneering effort by our group of small island developing states (SIDS) to integrate our national and regional sustainable development priorities with shared global environmental concerns for protecting International Waters.

The SAP has built on considerable national and regional work related to our International Waters. This work includes, e.g., reports of the National Consultations, the State of the Environment (SOE) Report or National Environmental Management Strategy (NEMS) for each country, the Action Plan for Managing the Environment of the South Pacific Region 1997-2000, the Draft Regional Strategy for Development Priorities of the Forum Island Countries, the Action Strategy for Nature Conservation in the South Pacific Region 1994-1998, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, the Report to the United Nations Commission on Sustainable Development (UNCSD) on Activities to Implement the Barbados Programme of Action in the Pacific Region (1996) and the 1992 Report to the United Nations Conference on Environment and Development (UNCED) in The Pacific Way.

### **II. International Waters**

International Waters include oceans, large marine ecosystems, enclosed or semi-enclosed seas and estuaries as well as rivers, lakes, groundwater systems, and wetlands with transboundary drainage basins or common borders.

The water-related ecosystems and critical habitats associated with these waters are integral parts of the system. International Waters extend far inland and far out to sea. This is because the global hydrological cycle links watersheds, airsheds, estuaries, and coastal and marine waters through transboundary movement of water, pollutants and living resources.

This definition of International Waters could have been designed with our Pacific Islands in mind. Although separated by vast distances, our islands are linked and controlled by our marine environment. Our land to sea ratio is generally so small that all our islands are wholly coastal in character. The importance of the health of International Waters to our islands cannot be overstated.

### **III. The Region**

This section is descriptive rather than prescriptive, intending to highlight those parts of the Pacific picture most relevant to the sustainable development of our International Waters as a background to the analysis and proposals for action.

### **IV. Transboundary Environmental Concerns**

We have identified three priority transboundary concerns for our International Waters. These are:

1. Degradation of their quality
2. Degradation of their associated critical habitats
3. Unsustainable use of their living and nonliving resources

These concerns are inextricably linked by their causes and by the cumulative, mutually exacerbating effects of these causes on the transboundary concerns.

## **V. Imminent Threats**

Our International Waters are subject to a number of threats giving rise to the transboundary concerns. The threats were examined from the perspective of critical species and their habitats, living marine resources and non-living resources. We consider that the priority transboundary concerns for our International Waters arise from the following imminent threats to the health of those waters:

1. pollution of marine and freshwater (including groundwater) from land-based activities
2. physical, ecological and hydrological modification of critical habitats
3. unsustainable exploitation of living and nonliving resources

Each imminent threat affects each transboundary concern. The linkages between the imminent threats to and the transboundary concerns for International Waters require integrated measures to address the concerns effectively.

## **VI. Root Causes**

The root causes were examined in their legal, institutional, socio-economic and environmental context. We recognized that an important, ultimate root cause underlying the imminent threats is deficiencies in management. The factors contributing to the management root cause can be grouped into two linked subsets: a) governance and b) understanding. The governance subset is characterised by the need for mechanisms to integrate environmental concerns, development planning and decision-making. The understanding subset is characterized by the need to achieve an island-wide ecosystem awareness in our people. This provides a focus for intervention to protect International Waters.

## **VII. Information Gaps**

Our analysis revealed a set of information gaps relevant in particular to decision-makers (as opposed to researchers) who must address ultimate root causes and respond to imminent threats. Particularly important is the lack of strategic information presented in an appropriate manner to decision-makers, resource users, managers and communities to evaluate costs and benefits of, and to decide between alternative activities. Improving information input and exchange at regional and national levels is an objective of this SAP.

## **VIII. Proposed Solutions**

We propose to address the root causes of degradation of International Waters through regionally consistent, country-driven targeted actions that integrate development and environment

needs. These actions are designed to encourage comprehensive, cross-sectoral, ecosystem-based approaches to mitigate and prevent imminent threats to International Waters. The SAP provides the regional framework within which actions are identified, developed and implemented. Targeted actions will be carried out in two complementary, linked consultative contexts: Integrated Coastal and Watershed Management (ICWM) and Oceanic Fisheries Management (OFM). Through the ICWM and OFM approaches, the SAP sets out a path for the transition by our islands from sectoral to integrated management of International Waters as a whole, which we consider to be essential for their protection over the long term.

Management in these two contexts will necessarily include three other pressing concerns in our sustainable development planning, namely: biodiversity, vulnerability to climate change and land degradation. These are both GEF focal and cross-cutting areas, and the remaining three of the seven major issues identified in the Barbados Programme of Action for the Sustainable Development of SIDS as common to most islands. The other three major small island issues from the Barbados Programme have already been addressed above, and the seventh, tourism, can only be effectively dealt with in this type of framework for national sustainable development. The SAP also meets the objectives of the GEF operational programme entitled "Integrated Land and Water Multiple Focal Area," to which International Waters projects addressing the needs and special conditions of small islands are assigned by GEF. Consequently, the SAP is expected to involve and build upon the complementary skills and experience available from organizations and groups active in our region.

Our region is the beneficiary of much development assistance from a variety of donors for a wide range of projects. We will be able to use the SAP together with our donors to plan and coordinate regional and national development assistance for International Waters in order to address imminent threats and their root causes more effectively. The SAP will facilitate the choice and design of high priority interventions, remove duplication, and ensure that projects do not work at cross-purposes. Funding from GEF *per se* can only support a small proportion of such interventions, hence the importance of the SAP to organize and leverage additional assistance in order to receive maximum benefit from available funds. The SAP is designed to comply with the requirements of GEF, but also, and perhaps more importantly, to be a framework for overall national and regional planning and assistance for the management of International Waters.

The SAP complies with the legal framework for regional cooperation and related obligations established by the regional Conventions, the UN Convention on Law of the Sea, the Convention on Biological Diversity, the Framework Convention on Climate Change and other international conventions within which the Pacific Island countries identify common issues and coordinate national approaches to address those issues. Application of ICWM and OFM approaches will facilitate further joint action between sectors nationally and between governments regionally. As experience with ICWM and OFM grows, this SAP will also evolve, reflecting the increased knowledge of and changing conditions in the environment of our islands. To ensure that the SAP remains a living, evolving and useful instrument for sustainable development, and to assess and apply lessons learned from its implementation, the SAP will be reviewed every five years.

## **IX. Priorities for Action**

We are mindful that we cannot address all sustainable development issues related to International Waters in this SAP at once. Therefore we have initially identified four high priority areas

for immediate intervention: improved waste management, better water quality, sustainable fisheries and effective marine protected areas.

Targeted action within these activity areas is proposed in five categories: management, capacity-building, awareness/education, research/information for decision-making, and investment. Institutional strengthening is included under management and capacity-building.

The analytical framework within which proposals for assistance should be evaluated under the SAP is set out below.

Goal of SAP: Integrated sustainable development and management of International Waters

Priority Concerns:	Degradation of water quality Degradation of associated critical habitats Unsustainable use of resources
Imminent Threats:	Pollution from land-based activities Modification of critical habitats Unsustainable exploitation of resources
Ultimate Root Causes:	Management deficiencies a) governance b) understanding
Solutions:	Integrated Coastal and Watershed Management Oceanic Fisheries Management
ICWM Activity Areas:	- improved waste management - better water quality - sustainable fisheries - effective marine protected areas
OFM Activity Areas:	- sustainable ocean fisheries - improved national and regional management capability - stock and by-catch monitoring and research - enhanced national and regional management links
Targeted actions:	- management/institutional strengthening - capacity-building - awareness/education - research/information for decision-making - investment

## STRATEGIC ACTION PROGRAMME FOR INTERNATIONAL WATERS OF PACIFIC ISLANDS

### I. Introduction

This Strategic Action Programme (SAP) for International Waters of the Pacific Islands Region was initiated and developed by the thirteen Pacific Island States participating in the work of the Global Environment Facility (GEF). The SAP represents a pioneering effort by our group of small island developing states (SIDS) to integrate our national and regional sustainable development priorities with shared global environmental concerns for the protection of International Waters.

The seminal impetus for the work that would ultimately culminate in this SAP was our decision<sup>1</sup> in 1990 to prepare a joint regional position to the 1992 United Nations Conference on Environment and Development (UNCED). UNCED provided the first opportunity for our islands to gather information, analyze the results and build a regional consensus on integrating environmental and developmental concerns into a sustainable whole, using the knowledge and experience gained in the twenty years since the Stockholm Conference on the Environment.

This consensus is embodied in the national and regional studies on sustainable development of our SIDS and the constraints. Their conclusions have been approved by our Governments. We undertook this considerable analytical effort because we realized the need for collective action to achieve a sustainable future for our islands. An overview of this effort to date follows; it became the starting point of the work of the National Task Forces leading to our SAP.

Our consensus position was elaborated in two fundamental documents submitted to UNCED in 1992: Environment and Development: A Pacific Island Perspective, and The Pacific Way: Pacific Island Developing Countries' Report to UNCED. The Perspective synthesizes National Reports from the islands and presents extensive additional information on sustainable development in the region.<sup>2</sup> It is a supporting document for The Pacific Way, which presents a summary of the state of the environment for the islands and a description of the regional priority concerns, both of which continue to be applicable.<sup>3</sup>

At national level, Pacific Island States participating in this SAP assessed the state of their environment. We then went on to develop National Environmental Management Strategies (NEMS) or programmes with similar objectives, taking into account National Development Plans. Nearly all of this work is either adopted and published or expected to be adopted and available soon.<sup>4</sup>

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<sup>1</sup>This decision was taken at the third Intergovernmental Meeting of the South Pacific Regional Environment Programme (SPREP) held in Nouméa, New Caledonia, September 1990.

<sup>2</sup>The Perspective was developed with the financial assistance of the Asian Development Bank (ADB) and the United Nations Development Programme (UNDP).

<sup>3</sup>See, e.g., State of the Environment Reporting for the Pacific, 1996.

<sup>4</sup>NEMS: Cook Islands (1993), Federated States of Micronesia (1993), Kiribati (1994), Marshall Islands (1992), Nauru (draft under consideration), Niue (1994), Samoa (1994), Solomon Islands

At regional level, and over the same period since UNCED, the members of the South Pacific Organizations Coordinating Committee (SPOCC) reached similar conclusions within their respective mandates on priority concerns for sustainable development. Examination of these concerns engaged national experts in an ongoing regional dialogue, and enabled the islands to compare experiences and develop regional approaches.<sup>5</sup>

We found further confirmation of our assessment of our priority regional concerns in independent studies by, e.g., the Asian Development Bank (ADB) and the World Bank,<sup>6</sup> and in GEF's Operational Strategy for International Waters. Independent reviews of our region's International Waters were commissioned to ensure that the SAP is based on the most current information available.<sup>7</sup> These reviews concur that the ample and consistent information on sustainable development concerns and priorities for action in the region remain applicable.

For detailed and extensive descriptions of the full, current regional and national picture of environment and development in our islands, separate consultation is recommended of this comprehensive suite of documentation.<sup>8</sup> Section III of the SAP briefly summarizes the present regional context from these sources, which were provided to the National Task Forces for further ground-truthing during National Consultations for the preparation of the SAP.<sup>9</sup>

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(1993), Tonga (1993), Tuvalu (unpublished). Fiji, Papua New Guinea and Vanuatu have completed variants thereof.

<sup>5</sup>Examples of the range of topics addressed specifically to the needs of the region include: an inventory of land-based pollutants, the role of sediments as pollutants in and their transport to the ocean via rivers, an overview of destructive fishing practices, introduction of aquatic organisms, coastal management training needs, coastal protection trends and prospects, issues and activities associated with coral reefs and related ecosystems, natural resource accounting, traditional resource management and oceanic and coastal fisheries management.

<sup>6</sup>See, e.g., A Pacific Framework for Integrated Coastal Management (1994), ADB; Pacific Island Economies (1993), World Bank.

<sup>7</sup>The reviews especially commissioned for the SAP are: Review of Critical Marine Habitats and Species in the Pacific Islands Region by Chris Bleakley (1997); Review of Fishery Management Issues and Regimes in the Pacific Islands Region, by Garry L. Preston (1997); A Review of Non-living Resources and Threats in the Pacific Region, by Russell Howorth (1997); Strategies for Preventing and Mitigating Land-based Sources of Pollution to Transboundary Water Resources in the Pacific Region (1997), by Nancy S. Convard and Andrew Tomlinson.

<sup>8</sup>This work includes, e.g., the reports of the National Consultations, the State of the Environment Report or NEMS, the Action Plan for Managing the Environment of the South Pacific Region 1997-2000, the Draft Regional Strategy for Development Priorities of the Forum Island Countries, the Action Strategy for Nature Conservation in the South Pacific Region 1994-1998, the Report to the United Nations Commission on Sustainable Development (UNCSD) on Activities to Implement the Barbados Programme of Action in the Pacific Region (1996) and the 1992 report to UNCED in The Pacific Way. This documentation is fully referenced in the Bibliography, Annex 1.

<sup>9</sup>The reports of the National Task Forces are appended to the SAP in Annex 7.

Since UNCED we have been actively involved in international programmes of action to address those global transboundary concerns which also reflect our priority transboundary concerns. These programmes have been taken into account in the SAP.<sup>10</sup>

Our islands are widely scattered across but closely linked by the Pacific Ocean and they are remarkably diverse. Yet the very existence of this SAP and its profoundly country-driven nature demonstrate our determination to continue to seek a constructive unity in our diversity. With this SAP we aim to enhance a strong history of regional cooperation in sustainably improving the quality of life and protecting our fragile environment for our island peoples in a way that will achieve national, regional and global benefits.

## II. International Waters

For purposes of this SAP, International Waters are defined in accordance with GEF's Operational Strategy. International Waters include oceans, large marine ecosystems, enclosed or semi-enclosed seas and estuaries as well as rivers, lakes, groundwater systems, and wetlands with transboundary drainage basins or common borders.

The water-related ecosystems and critical habitats associated with these waters are integral parts of International Waters, which extend inland and seaward. This is because the global hydrological cycle links watersheds, airsheds, estuaries, and coastal and marine waters through transboundary movement of water, pollutants and living resources. Oceans drive the hydrology and the climate of the planet. International Waters encompass all our islands and their health determines the quality of our life there.

GEF's definition of International Waters, with its emphasis on linkages between fresh and marine waters, watersheds and coasts, habitats and resources, could have been designed with our Pacific Islands in mind. Although separated by vast distances, our islands are linked and controlled by our marine environment. The waters and ecosystems within and between our Exclusive Economic Zones (EEZs) are vital to our existence. Our land-to-sea ratio is generally so small that, with the possible exception of the largest land masses of Papua New Guinea, all our islands are wholly coastal in character. This means that the whole island influences, or is influenced by, marine coastal and nearshore activities and processes. It also means that a natural or anthropogenic disaster such as a cyclone or an pollution accident often affects the entire society and economy of an island.

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<sup>10</sup> The international programmes addressing our region's priority transboundary concerns in particular include:

- the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (SIDS). To coordinate and facilitate its implementation, the South Pacific Forum set up an Advisory Committee in 1994. The Committee's achievements so far are described in its regionally agreed 1996 Report to the UNCSD. The report also reviews priority concerns and needed actions.

- the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA/LBA), adopted in 1995; regional implementation has commenced in the context of the South Pacific Regional Pollution Prevention, Waste Minimisation and Management Programme.

- the International Coral Reef Initiative (ICRI), adopted in 1995; implementation has begun of a specific Pacific Region Strategy developed and endorsed by Forum Island Countries.



The twenty-two countries and territories of the Pacific Islands region consist of only 550,000 km<sup>2</sup> of land with 5.2 million inhabitants spread across 29 million km<sup>2</sup> of ocean. If Papua New Guinea is excluded, the figures drop to 87,587 km<sup>2</sup> and 2.2 million people. In contrast, our EEZs occupy about one-sixth of the earth's surface, or more than 30 million km<sup>2</sup>. This area is three times larger than either the USA or China.

The importance of International Waters to our islands cannot be overstated; especially important are those waters and associated habitats in the coastal and nearshore area. It is here that most of our people already live and work in ways that are dependent on healthy International Waters. Here also is focused most national planning for a variety of activities intended to enhance our prosperity by expanding our economic base. The success of national development planning for our SIDS is wholly dependent on the continued health of our International Waters.

### **III. The Region**

#### **A. Physical Setting**

In addition to being widely separated from each other as nations, within our individual, national borders we are also widely dispersed. Other than Nauru and Niue, which are single-island countries, we are archipelagic. Many of our constituent islands are separated by vast expanses of ocean, entailing a unique set of sustainable development challenges.

The islands are of two basic types: a) "high," which are large, mainly of volcanic rock, forested, with fertile soil and usually with ample fresh water and b) "low," which are small, often atolls, mainly of coralline limestone, with few trees, poor soil and, usually, little fresh water.<sup>11</sup> The type of island is a major determinant of the types of ecosystems present and of the sustainable development options available.<sup>12</sup>

Climate conditions vary in the high islands; smaller islands have mild and humid weather with rainfall typically of 2m or more per year. All the islands lie in tropical latitudes, where sea surface temperatures generally stay above 20°C. These tropical areas are subject to trade winds and vulnerable to devastating cyclones both north and south of the equator.<sup>13</sup>

#### **B. Biological Environment**

The island nations have distinctly different terrestrial ecosystems ranging from very diverse and high endemism in large mountainous high islands to the west to quite low diversity and endemism in small low islands and atolls to the east. For some islands, 80% or more of the resident species are endemic. The high endemism is due to the isolated evolution of island species,

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<sup>11</sup>Howorth (1997), *op. cit.* at note 7.

<sup>12</sup>Bleakley (1997), *op. cit.* at note 7.

<sup>13</sup>Howorth (1997), *op. cit.* at note 7.

which also renders these ecosystems vulnerable to disturbance, with a limited ability to recover once disturbed.<sup>14</sup> Any habitat loss on a high island is likely to contribute to extinction of flora and fauna. Susceptibility to such loss depends heavily on the state of the native forests, which must be considered a habitat whose health is as critical to our islands' well-being as is the health of our coastal habitats. Indeed, the health of the latter is intimately linked with the health of the former.<sup>15</sup>

Our region is one of the global centers of marine biological diversity which provides the basis for the wealth of living natural resources whose benefits are shared by our communities and the rest of the world. The Western Pacific has the highest marine diversity and the most extensive coral reef systems in the world.<sup>16</sup>

The marine habitats and species most critical to our sustainable development are briefly described below, although the importance of terrestrial habitats, especially forests, must not be forgotten.<sup>17</sup> They are interdependent parts of complex natural processes, including food chains, biogeochemical cycles, sediment fluxes and currents. As such they are linked to the global environment. They are also central to our social and economic well-being. It is not possible to single out one habitat or species for separate management in our region.<sup>18</sup>

## 1. Critical Habitats

### a. Coral reefs

Coral reefs are associated with all our islands and are the most important and extensive of the types of ecosystems in our region. Coral reefs provide a variety of vertebrate and invertebrate fishery resources for both commercial and subsistence purposes. They also provide income from tourism, coastal protection, sand for beaches, construction materials, reservoirs of biodiversity, breeding, nursery, feeding and shelter habitats and environmental health indicators.

### b. Mangroves

Mangroves are common in the western part of the region and decline towards the east; in the region covered by this SAP only Cook Islands have none. The other Pacific Island nations each have a unique mangrove community structure.<sup>19</sup> They help maintain coastal water quality by

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<sup>14</sup>Bleakley (1997), op. cit. at note 7.

<sup>15</sup>The Perspective (1992), op. cit. at note 2, pp. 194-198.

<sup>16</sup>Bleakley (1997), op. cit. at note 7; Global Marine Biological Diversity (1993), edited by Elliott A. Norse.

<sup>17</sup>Unless otherwise indicated, the information which follows, up to the section addressing fish, is principally drawn from Bleakley (1997), op. cit. at note 7.

<sup>18</sup>Pacific Regional Report on the Issues and Activities Associated with Coral Reefs and Related Ecosystems (1996).

<sup>19</sup>ICRI Pacific Regional Workshop (1996).

acting as a sink for sediments, nutrients, pollutants and contaminants; they provide coastal protection, breeding, nursery, feeding and shelter habitats, a variety of vertebrate and invertebrate fishery resources for both commercial and subsistence purposes, commercial and traditional uses for construction and handicraft materials, fuel wood, medicines, fungicides and dyes.

c. *Seagrass beds*

Like mangroves, seagrass beds are common in the west and decline towards the east; in the SAP region, only Cook Islands, Nauru and Niue<sup>20</sup> have none. They stabilise coastal sediments, provide breeding, nursery, feeding and shelter habitats, are critically important to the endangered dugong and sea turtle species, help to maintain coastal water quality by trapping and recycling nutrients and contribute significantly to coastal productivity.

d. *Lagoons and Beaches*

The region's lagoons vary widely, from those broadly open to the ocean to those that are completely enclosed, resulting in unique combinations of conditions and species. Lagoon fisheries are an important resource. Beaches are a dynamic and constantly changing coastal feature found throughout the region, and include landward dunes and sand bars and sand reservoirs offshore to seaward. They provide coastal protection, a tourist attraction, sand for cement and nesting areas for marine turtles.

e. *Estuaries*

Estuaries are common on high islands with well-developed watersheds. They support mangrove and seagrass areas, breeding, nursery, feeding and shelter habitats and a variety of vertebrate and invertebrate fishery resources for both commercial and subsistence purposes. Estuaries are among the richest and most productive of coastal habitats.

f. *The Western Pacific Warm Pool Large Marine Ecosystem*

Large Marine Ecosystems (LMEs) are regions where physical conditions and biological communities are so intricately linked and interdependent that the area should be managed as a whole.<sup>21</sup> So far 49 potential LMEs have been identified; these are more coastal than oceanic.<sup>22</sup> Recent research suggests that the Western Pacific Warm Pool might be an appropriate oceanic LME, whose boundaries correspond almost precisely to those of the Western Pacific tuna fishery,

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<sup>20</sup>Ibid.

<sup>21</sup>Large Marine Ecosystems "are large regions, often over 200,000 km<sup>2</sup>, that have unique bathymetry, hydrography and productivity, and within which populations of plants and animals are assumed to have adapted reproductive, growth and feeding strategies, and where the close linking of physical conditions, biological communities and fish stocks indicate that the area should be managed as a single unit. They include upwellings, semi-enclosed seas, shallow shelf ecosystems on western ocean boundaries, coral reefs, ocean shelf-deltaic-riverain interactive systems." (Description by Sherman and Alexander, quoted in: A Global Representative System of Marine Protected Areas, Volume 1, p. 12, 1995.)

<sup>22</sup>Preston (1997), op. cit. at note 7.

and which appear to encompass a functional physical and ecological unit which is of global significance.<sup>23</sup>

## 2. Critical species

These species tend to share a number of the following characteristics (in no particular order): they are economically valuable, nutritionally important, relatively rare, sedentary, easy to catch or collect, slow-growing, slow to reach maturity and reproduce, important to ecosystem maintenance (keystone species), have few offspring and are found towards the upper end of the food chain.

Because of their enormous economic and nutritional value, the region's fish are considered critical as a group, which include four main tuna target species (albacore, big-eye, skipjack and yellowfin), tuna by-catch species, and fish found in reefs and lagoons. At least 3,392 distinct species of reef and inshore fish are known to occur in the region, which is more than half of those known to occur worldwide. By-catch species include billfish and oceanic sharks, as fish; also critical as a by-catch group are non-fish species, especially dolphins, turtles and seabirds.

Other economically and nutritionally critical species<sup>24</sup> in the region are: turtles, sharks, trochus, green snail, bêche-de-mer, giant clams, spiny lobster, coconut and mangrove crabs, helmet, trumpet and conch shells. The species critical for other reasons listed above are: dugongs, marine mammals, saltwater crocodile, and certain seabirds. The latter groups of species, and at least two species of seabirds in the region are already classified as vulnerable, threatened or endangered.

## C. Cultural Characteristics

Ethnically, the islands are usually classified as either Melanesian (75% of the region's population), Micronesian or Polynesian. Their linguistic diversity is remarkable. The peoples of Melanesia, in particular, and those of Micronesia speak a large number of separate languages, and all are different from the languages of Polynesia. For example, more than 700 languages are spoken in Papua New Guinea, and over 100 in both Solomon Islands and Vanuatu; the four states of the Federated States of Micronesia each speak at least one different language. In Polynesia, each country usually has one language, but that language is very different as between countries. One-fourth of the world's languages are found in Pacific Island countries. This myriad of different languages is vital to social and cultural identity and to transfer traditional knowledge between generations, but it also adds considerable complexity in developing and implementing national management plans, especially at village level.<sup>25</sup>

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<sup>23</sup>Ibid.

<sup>24</sup>These species are also identified as critical by Preston (1997), op. cit. at note 7.

<sup>25</sup>The Perspective (1992), op. cit. at Note 2.

Various traditional authority systems exist; these are mostly matrilineal in Micronesia, patrilineal in Polynesia and vary in Melanesia, depending on the dominant members of a given society there. Religious institutions have enormous influence. The status and position of women differs considerably among Pacific Island states because of factors such as cultural traditions, colonial history and level of socio-economic development.

Perhaps the most distinctive cultural characteristic relevant to our sustainable development is the communal ownership and traditional systems of management of land, and usually the adjacent marine area, and the resources of both. This is prevalent in almost all island states, where up to 80% of land is under communal ownership. In many cases fishing rights are maintained from the beach to the seaward edge of outer reefs, and in some cases further offshore.<sup>26</sup>

Specific ownership and management forms vary widely throughout the region, but all are essentially kin-based and subsistence-oriented.<sup>27</sup> These are not strictly systems of property or territory in the Western sense, but are complex and profound expressions of a given island's social structure.<sup>28</sup> These traditional land and marine management and tenure systems also carry with them valuable knowledge about associated resources. In many local communities, chiefs maintain control over communal land and resource use, usually with powers that parallel and often supersede those of the national government.<sup>29</sup>

Our traditional systems must be associated with achieving current economic, political and social goals of our islands. It will be difficult but it is essential to include appropriate and significant principles of traditional systems in national development planning and implementation if these plans are to be truly sustainable.

#### **D. Economic Structure**

Our island states are at different levels of economic development, which can vary widely even within one state. Nevertheless, our economies generally share the following elements, in no particular order:<sup>30</sup> a narrow resource base, small domestic markets, high costs for energy, access, infrastructure, transportation, communication and servicing; substantial dependence on imported petroleum and on external trade, long distances from export markets and import sources, low and lumpy international traffic volumes, vulnerability and little resilience to natural disasters (at

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<sup>26</sup>Bleakley, *op. cit.* at note 7, p. 18.

<sup>27</sup>*Land Tenure in the Pacific* (1987), edited by Ron Crocombe.

<sup>28</sup>*Traditional Resource Management in the Melanesian South Pacific: A Development Dilemma* (1997), by G.B.K. Baines.

<sup>29</sup>*The Perspective* (1992), *op. cit.* at Note 2.

<sup>30</sup>The following is compiled from several sources, including: *The Perspective* (1992), *op. cit.* at note 2; *The Pacific Way* (1992), *op. cit.* at note 8; *Pacific Island Economies* (1993), *op. cit.* at note 6; *Report to UNCSD on the Barbados Programme of Action* (1996), *op. cit.* at note 8; Bleakley (1997) and Preston (1997), *op. cit.* at note 7, and comments from the Forum Secretariat (1997).

present cyclones generally, earthquakes in certain countries, and possibly sea level rise in the future), burgeoning populations, low economic growth, domination by the public sector, limited opportunities for the private sector, and fragile natural environments.

For the region overall economic growth since the early 1980s has been very low.<sup>31</sup> Meanwhile, our population has been growing at a natural rate of at least 2.3% per year, a rate which was already considered unsustainable at the beginning of this decade.<sup>32</sup> In many of our countries per capita GDP has been declining, or, at best, remaining stagnant. Youth unemployment is one particularly worrying concern. The mutually exacerbating combination of high natural population growth and low economic growth is probably the most important long-term sustainable development issue facing our islands.<sup>33</sup>

Population distribution varies widely. Migration to urban areas, usually the national or provincial capital, is steadily increasing. These urban areas are invariably located on the coast. The urban growth rate is at least 50-100% higher than the already large overall population growth rates.<sup>34</sup> National averages do not adequately reflect the actual densities found in some parts of the countries, many of which have extraordinarily high concentrations of people in the urban area and very low densities in rural parts of the "capital" island and on outer islands. Already in the early nineties, seven of our countries were more than 50% urban, and the others had at least a quarter of their population living in urban areas.

A distinctive economic characteristic of our region is the predominance of non-monetary subsistence production to provide for basic needs. Both the monetary and subsistence economies of our states are largely based on agriculture, fisheries and tourism. Agriculture, fisheries and tourism are critically dependent on a healthy environment. National economies are augmented by substantial development aid and, particularly in Polynesia, by cash remittances from relatives overseas. The significance of cash remittances varies widely in the region; they are not reflected in GDP figures.

Agriculture is the largest employer, producing subsistence food such as root crops and garden vegetables and primary commodities such as copra and other coconut products, cocoa, sugar (Fiji) and coffee for export income. Timber production and mining is significant in parts of Melanesia. Non-traditional crops are being tried, such as vanilla and ornamental flowers. Some smaller, atoll islands are physically unable to produce enough food for their populations and must depend upon imported food. Other islands depend on imported food to the extent that their land is being used for export crops.

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<sup>31</sup>The six World Bank Pacific Member Countries (Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu) averaged 2.2% growth from 1983-1993; the GDPs of most Pacific Island countries fluctuated around 1-3% during 1994-1995.

<sup>32</sup>The Pacific Way (1992), op. cit. at note 8; Pacific Island Economies (1993), op. cit. at note 6.

<sup>33</sup>Preston (1997), op. cit. at note 7; UNDP (1994), cited therein, p. 10.

<sup>34</sup>Bleakley, op. cit. at note 7, p. 18.

Despite the importance of agriculture, the amount of arable land per capita in the region is small; atolls have the poorest soil and a consequently even higher dependence on marine resources than high islands. Compared with our tiny land area, the economic importance and potential of our extensive marine area is considerable. Currently, this potential is primarily manifested in the fisheries sector. A brief overview follows.<sup>35</sup>

Fisheries in the region operate on a variety of scales: at one end are large-scale, high-technology, export-oriented industrial fisheries and at the other are small, labor-intensive, low-technology, subsistence and artisanal fisheries for domestic consumption, with a mix of methods and outlets falling between these two extremes. Although there is some degree of overlap, the sector is usually analysed in two categories:

- a) oceanic fisheries, which primarily include the international tuna fishery straddling the Western Central Pacific Ocean
- b) coastal fisheries, which include reefs, lagoons and estuaries.

The oceanic fishery produces about 1 million tonnes of tuna and an unknown quantity of by-catch per year, most of which is harvested by about 1,300 fishing vessels from 21 countries. About 7% of the catch is taken by Pacific Islanders, and around 400 industrial-scale tuna vessels are based in Pacific Island countries. The annual expenditure of these locally based vessels is estimated at about \$100 million.

The international tuna fishery provides our region with an important source of export revenue, largely through access license fees, although these are a small proportion (about 3.7% or USD\$68 million) of the total value of the regional tuna catch, which was USD\$1.7 billion in 1995, up from about USD\$375 million in 1982. The tuna catch now represents around 10% of the combined GDP of all the nations of the region, and a third of the value of all exports from the region. It provides 6-8% of all wage employment in the region. About 10,000 Pacific Islanders are formally employed on tuna vessels and in tuna processing plants; direct and indirect tuna-related employment is estimated at between 21,000-31,000 people. In terms of actual food, however, less than 0.25% of the international tuna catch enters the domestic food supply of our islands.

The Pacific Islands region is the most important tuna fishing area of the world. About a third of all tuna in the world comes from this region, and its tuna fisheries dwarf those of the other three main tuna fishing areas both in volume and value. From a regional perspective, tuna produces over nine times the amount of fish as all of the other fisheries of the region combined. In terms of value, the tuna fishery is worth over six times that of all other Pacific Island fisheries combined.

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<sup>35</sup>A comprehensive review of living marine resource management regimes and issues specially commissioned for this SAP is found in Preston (1997), op. cit. at note 7. The discussion of tuna fisheries is derived from this review and from written comments on this section by the Forum Fisheries Agency.

The coastal fishery produces about 108,000 tonnes per year of a highly diverse range of finfish (including tuna), invertebrates and algae by thousands of male and female subsistence, artisanal and commercial fishers from the region itself. Tuna forms a substantial component of the catch of both subsistence and artisanal fisheries, and in terms of volume tuna appears to be the most important family of fish for small-scale fisheries.

The contribution of the fishery sector to public health and welfare is often insufficiently appreciated. Fisheries and related activities have cultural, religious and recreational significance that are vital to social and community cohesion.

In addition to employment, coastal fisheries provide a key source of subsistence protein: only about 20% of the fish and invertebrate catch enters the cash economy. Tuna makes up a substantial portion of all fish consumed, especially in the most economically vulnerable countries of the region. Fish is nutritionally essential to households that are unable to obtain equally sustaining alternative protein sources. The food security situation in several Pacific Island countries, many of which are already categorized by the Food and Agriculture Organisation (FAO) as Low Income Food Deficit Countries, would be even more precarious in the absence of tuna and other fish. Future population pressures, together with the fully exploited nature of inshore and coastal fisheries, mean that the future food security of the region will become increasingly more reliant on its tuna resources.

The quantity of non-tuna exports from domestic capture fisheries is perhaps 5% of coastal fishery production, derived from bottom fish, reef fish and crustaceans. The principal exports by value are bêche-de-mer and shell products from trochus and green snail.

The economic contribution of the fishery sector as a whole to the region must not be underestimated, especially because national assessments significantly undervalue its actual importance to national GDP because of inadequate accounting for artisanal and subsistence production.

Women play an important economic role in inshore marine resource use; they, rather than men, are the principal regular suppliers of marine protein for the family meal. The men tend to fish further offshore and for more commercial purposes.<sup>36</sup> A large proportion of the subsistence fishery for family consumption is comprised of invertebrates, which are gathered almost exclusively by women.<sup>37</sup> Their role as a source of information on the status of the coastal environment is critical, and their involvement in managing the environment is essential to successful management.<sup>38</sup>

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<sup>36</sup>Preston and Bleakley (1997), *op. cit.* at note 7, both strongly emphasise this point in their reviews.

<sup>37</sup>Preston (1997), *op. cit.* at note 7, p. 18.

<sup>38</sup>Bleakley (1997), *op. cit.* at note 7, p. 16.



Tourism is showing substantial growth in the region, with receipts of US\$ 723 million, representing about 5% of the region's GDP, in 1994. Receipts were nearing US\$ 1 billion in 1996. This regional aggregate does not adequately define the importance of tourism to individual economies, with two countries not participating in this SAP accounting for about 42% of those receipts.<sup>39</sup> The aggregate figure also does not reflect the different levels of development of tourism in countries in the region. Tourism has considerable economic potential if managed sustainably. The South Pacific region has ideal resources to satisfy the growing interest in cultural and eco-tourism. If development is undertaken so as not to erode the environmental conditions, it will enable the region's unique products to be offered in a highly competitive international market. Tourism places an economic value on cultural and natural resources that can ensure the resources are used in a sustainable manner. Tourism is critically dependent on the management of a healthy environment.

## **E. Legal Framework**

### **1. International**

Our Pacific Island States are linked in a complex group of binding regional and global international agreements which govern sustainable development of International Waters in general and the marine sector in particular. These agreements form an extensive and evolving international legal framework within which our sustainable development activities take place and with which our present and planned activities must comply, for those of us who are full parties, or at least not undermine, for those of us who are as yet only signatories. The SAP is designed to be consistent with and assist in the implementation of our international commitments.

To keep this section to a size somewhat proportionate with the remainder of this overview, the discussion is necessarily brief and furthermore limited to agreements immediately related to the highest priorities, which are primarily land-based, identified in the SAP. Hence it was not possible to address the important, complex and extensive suite of treaties developed under the auspices of the International Maritime Organisation (IMO) dealing with the activities of vessels. Nevertheless, we recognise that, under UNCLOS and the SPREP Convention, the IMO treaties must be addressed as well, and in particular those treaties dealing with vessel-source pollution. Waste management is identified as one of the priority issues under this SAP, and integrated waste management planning requires the inclusion of vessel-based waste.

#### *a. The 1982 United Nations Convention on the Law of the Sea*

From the plethora of treaties addressing or affecting International Waters, the most important for this SAP is the 1982 United Nations Convention on the Law of the Sea (UNCLOS, entry into force: 1994), which is the fundamental global treaty addressing International Waters. Of all relevant binding international instruments in force, it is by far the most comprehensive in scope and the most powerful in terms of both rights accorded to and obligations assumed by its parties.

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<sup>39</sup>French Polynesia and New Caledonia. Of those states participating in the SAP, Fiji, Papua New Guinea, Vanuatu, Samoa, Solomon Islands and Tonga, in descending order of receipts, all had tourism income in 1996 ranging from US\$ 301 million in Fiji to US\$ 12.6 million in Tonga, according to the latest figures released by the Tourism Council of the South Pacific (TCSP).

All but one of the countries participating in the SAP are either full parties (9) or signatories (3) to UNCLOS.<sup>40</sup> UNCLOS is supplemented by an agreement on deep seabed mining<sup>41</sup> and the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea....Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.<sup>42</sup>

UNCLOS has been described as "a constitution for the oceans."<sup>43</sup> This Convention arose from and is specifically founded on the proposition that "**the problems of ocean space are closely interrelated and need to be considered as a whole.**"<sup>44</sup> This guiding precept is illustrated clearly by, for example, Part XII on the marine environment, which addresses pollution of the marine environment from any source, including those sources from land and air as well as from the sea. In keeping with its constitutional nature, UNCLOS is designed to facilitate development of agreements addressing or affecting specific marine issues in requisite detail and at appropriate operational levels. In its holistic approach to management of International Waters, GEF's Operational Strategy is consistent with UNCLOS.

Although much remains to be done in our region to implement UNCLOS,<sup>45</sup> compatible actions undertaken pursuant to other international and regional conventions addressing or affecting marine issues may be viewed as a promising start to implementing UNCLOS as well, as are compatible actions developed in the context of international and regional organisations addressing and affecting marine issues. Such conventions, organisations and actions include those described below and in the following two parts of this overview.

*b. The Convention on Biological Diversity*

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<sup>40</sup>As of 25 July 1997, full parties are: Cook Islands, Federated States of Micronesia, Fiji, Marshall Islands, Nauru, Papua New Guinea, Samoa, Solomon Islands and Tonga; signatories are: Niue, Tuvalu and Vanuatu. Kiribati is not a signatory.

<sup>41</sup>Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (adopted 1994).

<sup>42</sup>As of July 25, 1997, Cook Islands, Federated States of Micronesia, Fiji, Nauru, Papua New Guinea, Solomon Islands, Samoa and Tonga have become parties; Vanuatu is a signatory.

<sup>43</sup>Remarks by H.E. Tommy T.B. Koh, President of the Third United Nations Conference on the Law of the Sea, at the final session of the Conference in December 1982. The Law of the Sea, UN Official Text (1983), p. xxxiii.

<sup>44</sup>UNCLOS, Preamble, third paragraph. The Law of the Sea. UN Official Text (1983), p. 1. Attempts in the nineteen fifties and sixties to deal with ocean issues individually in separate treaties had been unsuccessful.

<sup>45</sup>See, e.g., Environmental Law in the South Pacific (1996), edited by Ben Boer; Evaluation of the Implications of the United Nations Convention on the Law of the Sea for SPREP Activities (1996), by Martin Tsamenyi.

In the context of this SAP, which requires linkages to other GEF focal areas, the Convention on Biological Diversity<sup>46</sup> (CBD, 1992) and the Framework Convention on Climate Change<sup>47</sup> (FCCC, 1992) are important.

In implementing the CBD, the Jakarta Mandate on Marine and Coastal Biological Diversity (1995) sets out a programme specifying that action should be taken by parties in five areas; the first three are particularly relevant to this SAP and in the same order of priority action: Integrated Marine and Coastal Area Management, Marine and Coastal Protected Areas and Sustainable Use of Coastal and Living Marine Resources.<sup>48</sup>

In the Pacific Islands region, implementation of the CBD has commenced through the South Pacific Biodiversity Conservation Programme (SPBCP). It is funded by GEF and executed by SPREP, containing regional and national, terrestrial and marine components with local community participation as a unifying theme. The SPBCP has supported the establishment of sixteen community-based conservation area projects in the region. Two species-focused regional programmes consistent with the CBD and UNCLOS are the Marine Turtle and the Marine Mammal Conservation Strategies, executed by SPREP.

As required under UNCLOS and the CBD, the SAP also took into account other international conventions specifically concerned with protection of species and habitats. These include (in order of entry into force): the Whaling Convention,<sup>49</sup> the World Heritage Convention,<sup>50</sup> CITES,<sup>51</sup> the Wetlands or Ramsar Convention<sup>52</sup> and the Migratory Species or Bonn Convention (1979).<sup>53</sup> A draft Regional Wetlands Action Plan for the Pacific Islands has been developed under the auspices of SPREP that could assist in implementing relevant provisions of,

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<sup>46</sup>In 1996 10 Pacific Island states participating in this SAP are parties to the CBD: Cook Islands, Fiji, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Papua New Guinea, Samoa, Solomon Islands and Vanuatu. Non-parties are Niue, Tonga and Tuvalu.

<sup>47</sup>Only Tonga is not a party to the FCCC, of the countries participating in this SAP.

<sup>48</sup>The other two are: Implementing Environmentally Sustainable Mariculture Practice and Introduction of Alien Species. This list is taken from: *Biodiversity in the Seas* (1996), by de Fontaubert *et al.* Note that these are also issues in the Pacific Islands region, but they have not been identified for immediate priority action under this SAP.

<sup>49</sup>International Convention on the Regulation of Whaling, Washington, 1946 and Protocol, International Whaling Commission, 1956.

<sup>50</sup>Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972. None of the participants in this SAP are parties; only Solomon Islands and Fiji are signatories.

<sup>51</sup>Convention on International Trade in Endangered Species, Washington, 1973. Of the states participating in this SAP, only Papua New Guinea and Vanuatu are parties.

<sup>52</sup>The Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Ramsar, 1971 (entry into force: 1975; 1982 Protocol). Of those participating in this SAP, only Papua New Guinea is a party.

<sup>53</sup>Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979.

e.g., the CBD, the Wetlands Convention and UNCLOS.<sup>54</sup> The actions proposed in this SAP are compatible with the CBD and will contribute directly and indirectly to the conservation of marine and terrestrial biological diversity in our region.

*c. The Framework Convention on Climate Change*

Comprehensive and coordinated support by GEF to the Pacific Island parties for implementation of their national reporting obligations under the FCCC commenced in 1997 under the Pacific Islands Climate Change Assistance Project (PICCAP), executed by SPREP. A second phase of CC:TRAIN, the GEF-funded global climate change training programme, is expected to assist at least nine Pacific Island countries.

Pacific Islands are particularly vulnerable to the effects that climate change may have on sea level rise. The actions proposed in this SAP with regard to, in particular, protection of critical habitats, will have the additional benefit of mitigating effects of sea level rise.

## 2. Regional

The main regional conventions relevant to International Waters are, in order of entry into force: the Forum Fisheries Convention,<sup>55</sup> the Wellington or Driftnet Convention,<sup>56</sup> the Apia Convention,<sup>57</sup> the Nouméa or SPREP Convention<sup>58</sup> and the Niue Treaty.<sup>59</sup> Not yet in force is the Waigani Convention.<sup>60</sup> The Forum Fisheries, Wellington and Niue Conventions address oceanic fisheries.

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<sup>54</sup>Annex 6.2 of the Report of the ICRI Pacific Regional Workshop (1995).

<sup>55</sup>The South Pacific Forum Fisheries Convention, Honiara, 1979.

<sup>56</sup>The Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, Wellington, 1989.

<sup>57</sup>The Convention on the Conservation of Nature in the South Pacific, Apia, 1990.

<sup>58</sup>The Convention for the Protection of Natural Resources and Environment of the South Pacific Region and its two Protocols on, respectively, prevention of pollution by dumping and cooperation in combating pollution emergencies, Nouméa, 1990. Of the Pacific Island States participating in this SAP, Cook Islands, Federated States of Micronesia, Fiji, Marshall Islands, Nauru, Papua New Guinea, Samoa and Solomon Islands are parties; Tuvalu is a signatory; Kiribati, Niue, Tonga and Vanuatu are not signatories.

<sup>59</sup>The Treaty on Cooperation in Surveillance and Law Enforcement in the South Pacific, Niue, 1993.

<sup>60</sup>The Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region, Waigani, adopted in September 1995, not yet in force.

The Nouméa Convention places the most extensive responsibilities on its parties with regard to protecting the marine environment. The Nouméa Convention includes land-based activities affecting the marine environment; thus parties also have terrestrial obligations under this Convention, as they do under UNCLOS. It is implemented largely through the SPREP Action Plan (currently 1997-2000), which is approved by the Heads of Government at the annual SPREP meeting, who also review the progress of the Action Plan.

The Apia Convention addresses both terrestrial and marine habitats. It is implemented through an Action Strategy adopted at a dedicated Conference held every four years. The achievements of the current Action Strategy<sup>61</sup> will be reviewed at the Sixth Conference, to be held in Pohnpei in October 1997. The Action Strategy also aims to ensure consistency with the CBD and its implementing programmes, in particular the SPBCP and other relevant regional plans.

In this section attention has primarily been given to legally binding international and regional treaties and conventions. A number of non-binding but widely endorsed international instruments relevant to this SAP have been considered.<sup>62</sup> Despite their non-binding nature, these instruments are useful in developing state practice and in helping to establish a presumption in favor of such practice becoming "generally recommended," a status which, under UNCLOS, contributes to the eventual evolution of that practice into international law.<sup>63</sup>

### 3. National

At national level, implementation of conventions has been fragmentary. This is due to several factors, including a limited awareness of the implications of the conventions and the extent of the obligations imposed. These obligations engage numerous divisions of national administrations, which need enhanced capacity to develop cross-sectoral approaches. A related issue is the general need for Pacific Island nations to develop integrated national legislation that supports sustainable development policies, and that is also consistent, enforceable and in keeping with appropriate customary principles. The requisite institutional and administrative capacity and mechanisms are largely insufficient at present.<sup>64</sup>

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<sup>61</sup> Action Strategy for Nature Conservation in the Pacific Region 1994-1998, adopted at the Fifth South Pacific Conference on Nature Conservation and Protected Areas, Tonga, October 1993.

<sup>62</sup>Such instruments include (in order of adoption): Agenda 21 (1992), the Barbados Programme of Action for SIDS (4/1994), the International Coral Reef Initiative (ICRI, 5/1994), the Code of Conduct for Responsible Fisheries (10/1995), the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (11/1995) and the ICRI Pacific Regional Strategy (12/1995).

<sup>63</sup>The Duty to Respect Generally Accepted International Standards (1991), by Bernard H. Oxman.

<sup>64</sup>See, e.g., *Environmental Law in the South Pacific* (1996), *op. cit.* at note 45; the critical reviews by, respectively, Bleakley, Convard, Howorth and Preston (1997), *op. cit.* at note 7; *Evaluation of Implications of UNCLOS for SPREP Activities* (1996), *op. cit.* at note 45; *Report on the Sub-regional Meetings to Identify Coastal Management Training Needs, by SPREP* (1995), *Overview of Destructive Fishing Practices in the Pacific Island Region*, by Joeli Veitayaki *et al.* (1995), *Pacific Island Economies* (1993), *op. cit.* at note 6; *The Perspective* (1992), *op. cit.* at note 2; *The Pacific Way* (1992), *op. cit.* at note 8.

## F. Intergovernmental Cooperation

Intergovernmental cooperation for Pacific Island development started again after World War II, with the establishment in 1947 of the South Pacific Commission (SPC), the oldest intergovernmental organisation in the South Pacific. As the issues to be addressed by the governments of the region increased in scope and complexity, four other regional intergovernmental organisations with different mandates were created between 1971 and 1979.<sup>65</sup> Their activities are coordinated by the South Pacific Organisations Coordinating Committee (SPOCC), formed for that purpose. The role and function of each organisation are regularly reviewed.<sup>66</sup> The regional system for dealing with marine issues spans an extensive range of activities.

The South Pacific Commission (SPC), with 27 members, is one of the major general development agencies in our region. Under its apolitical mandate, it provides advisory, consultative and training services to governments on scientific, economic, social, environmental, health, agricultural, rural development, community health, education, demographic and cultural matters. Its broad marine experience ranges from village-level and coastal projects such as transfer of appropriate boat-building technology, subsistence and artisanal fisheries research and development, coastal fishery stock assessment and protection, all through its Coastal Fisheries Programme, to scientific research on oceanic fisheries, especially tuna and billfish, in its Oceanic Fisheries Programme. The latter prepares an annual report on the status of tuna stocks, monitors and compiles regional tuna fishery statistics, and is studying the dynamics of the Warm Pool of the Western Pacific, an LME which encompasses much of the region. The SPC works closely with the Forum Fisheries Agency (FFA) in this area.

The Forum Fisheries Agency (FFA) was established pursuant to the Forum Fisheries Convention (FFC) in 1979, and serves as the FFC's secretariat. The FFA developed from the consideration that a regional approach would be an effective way for Pacific Island countries to capitalise on opportunities being created in the mid-1970s by the Third United Nations Conference on the Law of the Sea, which were dramatically altering international thinking on ownership,

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<sup>65</sup>These four are, chronologically: the South Pacific Forum (SPF), convened for the first time in 1971 with its Secretariat established in Suva, Fiji in 1973; what is now known as the South Pacific Applied Geoscience Commission (SOPAC), created in 1972, also based in Fiji; The South Pacific Regional Environment Programme (SPREP), created in 1976 and now based in Apia, Samoa; the South Pacific Forum Fisheries Agency (FFA), established in 1979 and based in Honiara, Solomon Islands. The other members of SPOCC are (in alphabetical order): the Pacific Islands Development Programme (PIDP) at the East-West Center in Honolulu, HI, the Tourism Council for the South Pacific (TCSP) in Suva, Fiji, and the University of the South Pacific (USP), with several branches in the region and headquartered in Suva, Fiji.

Unless otherwise indicated, the information in this section is based on the final report of the review of regional institutional arrangements in the marine sector, commissioned by SPOCC, (1995), *The Perspective* (1992) *op. cit.* at note 2, and comments from SPOCC members (1997).

<sup>66</sup>A review focussing on institutional arrangements in the marine sector, was commissioned by SPOCC and completed in 1995. The recommendations of the review of ForSec have now been implemented. A review of SPC was undertaken earlier this year.

management and use of ocean resources.<sup>67</sup> FFA's 16 members include 14 Pacific Island nations, Australia and New Zealand, but, purposely, no distant water fishing nations (DWFNs). For fisheries issues, this difference between FFA and SPC in eligibility for membership is an important distinction between the two organisations.

FFA's objective is to assist members with sustainable development and management of their fisheries and related activities. FFA advises members on, e.g., maritime boundary delimitation, legal, technical and economic issues, monitoring and surveillance of foreign fishing activity, human resource and institutional strengthening, applied fisheries research, policy assessments and representation at international fisheries meetings. FFA is developing opportunities to increase member country involvement in existing foreign-based operations.

FFA helped conclude and serves as the secretariat for the Wellington Treaty and Niue Convention. It takes a key role in assisting member countries to develop effective and comprehensive fisheries management arrangements for tuna across the full geographical range of the stock, including the high seas. It collaborates with SPC in pelagic fisheries data.

The South Pacific Forum is comprised of all 16 independent and self-governing nations of the Pacific Islands region, whose Heads of Government meet annually. Its secretariat (ForSec) executes the requirements of the Heads of Government expressed at the annual meetings. The Secretary-General of ForSec provides the permanent Chair of SPOCC and the Division of Development and Economic Policy serves as SPOCC's secretariat; ForSec thus provides the lead coordination role in the region.

ForSec's mission is to enhance the economic and social well-being of the people of the Pacific Islands, in support of the efforts of national governments. Its responsibility is to facilitate, develop and maintain cooperation and consultation between and among its members on issues such as trade, economic development, transport, energy, telecommunications and other related matters. It seeks to support its members in pursuing their objectives through multilateral fora.

Currently, ForSec is concentrating on development and economic policy, trade and investment policy, and political and international affairs. Focal areas include economic reforms (especially public sector restructuring), development planning and cross-sectoral sustainable development issues. ForSec also aims to assist private sector development, to provide financial support to encourage exports and improve industrial skills, improve the regional investment climate and increase awareness in its members of developments in the international trading environment. The Pacific Forum Line is an example of a commercial marine enterprise resulting from consultations within the framework of the Forum: it is a commercial shipping service set up, owned and managed by 10 Forum members to meet specific regional needs. ForSec provides advice and coordination services in international relations, security and law enforcement issues and assists with legislative drafting.

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<sup>67</sup>This Conference would culminate in the 1982 UN Convention on the Law of the Sea (UNCLOS), discussed further in section E of this part.

ForSec is assessing developments in the Asia-Pacific Economic Cooperation (APEC) process and represents its members on the Pacific Economic Cooperation Council (PECC). It maintains a direct practical role with key regional donors, including the European Union (EU).

The South Pacific Applied Geoscience Commission's (SOPAC) overall mandate is to assist its members in assessment, exploration and development of their nearshore and offshore mineral and other marine non-living resource potential. Its work also includes baseline data for coastal engineering and development, hazard evaluation, assistance and training for local hydrography and "lands and survey"-type activities. SOPAC advises Pacific Island states on environmental effects of physical modifications to the coast. SOPAC has regional responsibility for the water and sanitation sector; it coordinates with SPC on health-related issues and SPREP on pollution issues.<sup>68</sup>

The University of the South Pacific (USP) was created by royal charter. It is governed by the University Council comprising representatives from its twelve member countries.<sup>69</sup> USP provides tertiary education and undertakes scholarly and applied research and is closely involved on educational matters with the Pacific Island governments, in most of whose countries it has a branch. In the marine sector, USP features a Marine Studies Institute and Programme and cooperative projects with other regional intergovernmental agencies such as FFA and SOPAC. Environmental and pollution monitoring and EIAs are significant activities of the Institute of Applied Science. The International Ocean Institute undertakes training for regional personnel in marine and coastal management issues.

The Tourism Council of the South Pacific (TCSP)<sup>70</sup> is jointly owned by its 12 member countries. Its role is to work with national tourist offices, international airlines and tour operators to increase visitor arrivals in the region, to market and promote tourism and to help the private sector enhance the quality of their products and services through a variety of programmes on training, tourism awareness and preservation of the environment. TCSP's other services include production and distribution to the travel industry worldwide of South Pacific Travel Manuals and Guides in English, French and German, organising regional participation at international travel exhibitions, maintaining an internet site (SPICE) and collection and dissemination to the region of tourism statistics, sector reviews, environmental guidelines and visitor surveys.<sup>71</sup>

The Pacific Islands Development Programme (PIDP) has 22 members. It draws academic resources from regional and international organisations to plan and conduct projects mainly

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<sup>68</sup>Of the countries participating in this SAP, Nauru and Niue are not members of SOPAC.

<sup>69</sup>Of the countries participating in this SAP, the Federated States of Micronesia and Papua New Guinea are not members of USP.

<sup>70</sup>The following is drawn from the TCSP's own public information materials (1997) and TCSP's comments on this section.

<sup>71</sup>Of the countries participating in this SAP, Federated States of Micronesia, Nauru and Marshall Islands are not members of TCSP.



concerned with private sector development, senior-level private and public sector management training, formulation of national development policies and strategies and publication of research results on these topics.

The South Pacific Regional Environment Programme (SPREP) is the regional technical and coordinating body responsible for environmental matters in the Pacific region. Its membership comprises 26 Pacific Island States, territories and metropolitan countries, all of whom have agreed that their mission in this organisation, facilitated by its secretariat, is to "promote cooperation in the South Pacific region and to provide assistance in order to protect and improve its environment and to ensure sustainable development for present and future generations. SPREP shall achieve these purposes through the Action Plan adopted from time to time by the SPREP meeting, setting the strategies and objectives of SPREP."<sup>72</sup> The Action Plan for 1997-2000 was adopted at the Ninth SPREP meeting in November 1996. The principal goal for the next four years is to "build national capacity in environmental and resource management through support to government agencies, communities, NGOs and the private sector."<sup>73</sup> SPREP also serves as the secretariat for the Apia and Nouméa Conventions; it will serve as the secretariat for the Waigani Convention when the latter enters into force.

The Economic and Social Commission for Asia and the Pacific (ESCAP), through its Pacific Operations Center (ESCAP/POC) in Port Vila, and backed-up by its Environment and Natural Resource Division at its headquarters in Bangkok, Thailand, provides a variety of advisory services to Pacific Island countries. In recent years these services have included reviews of national marine fisheries economics and management and of other issues related to sustainable development. ForSec has assigned to ESCAP and SPREP the joint responsibility for monitoring and reporting on the implementation of the Barbados Programme of Action in the region.<sup>74</sup>

## **G. Non-governmental Organisations**

Non-governmental organisations (NGOs) are playing a steadily increasing role in our region's sustainable development. They vary widely in their approach, the services they provide, issues they address and their level of focus which may be local, national, regional and international. International NGOs active in this region which address environmental aspects of sustainable development include Greenpeace International, the Nature Conservancy, and the World Wide Fund for Nature (WWF). A unique form of non-governmental and intergovernmental organisation is represented by the IUCN World Conservation Union, whose programmes are described in section H below.

Regional NGOs include the Foundations for Peoples of the South Pacific International (FSPI; now with branches in most Pacific Island countries), Maruia Society, Meltrust (the umbrella

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<sup>72</sup>Article 2 of the Agreement Establishing SPREP (1993).

<sup>73</sup>SPREP Action Plan 1997-2000, p. 5.

<sup>74</sup>Information provided by Dr. Charles Kick, ESCAP/POC, 1997.

organisation of national, local community-based development NGOs located in New Caledonia, Papua New Guinea, Solomon Islands and Vanuatu) and the South Pacific Action Committee on the Human Environment and Ecology (SPACHEE).

National Councils of Women are established in all Pacific Island States and serve as the umbrella women's organisation in most countries. Church and women's groups are also active; the latter particularly assist women to improve their family's standard of living. Traditional leadership councils often work as a form of NGO in determining land and coastal waters management; they are gaining legal recognition for this role.

National NGOs play an important role in sustainable development in the region. Their methods of operation, autonomy and sources of funding vary widely. Establishment of effective partnerships between NGOs, the private sector and government will be essential to sustainable development.

## H. Global Programmes

The Pacific Island region is involved in a variety of international programmes related to International Waters. A brief, indicative selection follows.

- FAO's Fishery and Forestry programmes
  - ICLARM and WCMC's Global Database on Coral Reefs and their Resources (ReefBase)
- IMO's programmes for the prevention of vessel-based pollution
  - IUCN - the World Conservation Union - has many programmes of relevance to the SAP, particularly the Marine and Coastal Programme and the global network focussed on developing a Global Representative System of Marine Protected Areas.
  - UNDP's Capacity 21 Programme, with four main components related to sustainable development: national frameworks, planning and financing, land and sea resources management capacity and contribution of landholder organisations.
  - UNEP's Regional Seas Programme in which the Noumea Convention and the SPREP Action Plan represent the Pacific Islands.
  - UNESCO/IOC programmes including: Environment and Development in Coastal Regions and Small Islands; IOC/UNEP/WMO Global Ocean Observing System; Global Coral Reef Monitoring Network.
  - WHO's Healthy Islands Programme

## IV. Transboundary Environmental Concerns

The preparations for UNCED first enabled us to clearly identify and agree on principal environmental concerns shared by all the Pacific Island States.<sup>75</sup> These concerns were (no priority implied):

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<sup>75</sup>Certain concerns, such as salinisation, air pollution, sea-based pollution, and the effects of mining are not considered significant regional issues at present, although they are nationally significant for certain states in our region.

- a. Proliferation of waste in various forms on our land and into our waters
- b. Degradation of land (includes deforestation (high islands), agrodeforestation (high and low islands), soil erosion and coastal erosion
- c. Depletion or loss of coastal/inshore living marine resource and other species
- d. Degradation of freshwater quality
- e. Degradation and loss of habitats.<sup>76</sup>

These concerns became - and have remained - for us the priority environmental issues in the region on which we have focussed since UNCED through appropriate regional organisations.<sup>77</sup>

After the focal area and definition of International Waters was set out in GEF's Operational Strategy and work on this SAP began, we reviewed our priority regional environmental concerns in this more inclusive, globally focused, transboundary context.<sup>78</sup> Table 1 presents the environmental and socio-economic effects of each concern which have transboundary implications.

Viewed globally, our International Waters are of considerable importance. Our region is a major centre in the world for marine biodiversity, with remarkably high levels of terrestrial biodiversity and endemism (particularly on our high islands) as well. Our region is also home to or provides migratory, nursery, breeding or feeding grounds for globally significant populations of vulnerable, rare and endangered species, including marine turtles, dugong, seabirds and certain cetaceans.<sup>79</sup>

We have the most extensive system in the world of marine habitats (especially coral reefs) that are critical to maintaining this biodiversity. The global role of these extraordinarily productive systems as carbon sinks, and thus as potential moderators of the effects of climate change, cannot be underestimated, though it remains to be precisely quantified.<sup>80</sup>

These habitats are also globally significant as natural filters of land-based pollution and as natural protection against storms and sea-level rise.<sup>81</sup> The natural filters help maintain the health of offshore waters, ecosystems and associated species including oceanic fisheries. The natural

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<sup>76</sup>See, e.g., *The Pacific Way* (1992), op. cit. at note 8.

<sup>77</sup>See, e.g., Report to UNCSO on Activities to Implement the Barbados Programme of Action (1996), op. cit. at note 8.

<sup>78</sup>The Report of the Brainstorming Session on International Waters by the Scientific and Technical Advisory Panel (STAP), 1996, was found helpful in setting our regional priorities in the context of transboundary concerns.

<sup>79</sup>Bleakley (1997), op. cit. at note 7.

<sup>80</sup>Oceanography: A View of the Earth (1995), by M. Grant Gross.

<sup>81</sup>Reviews by Bleakley, Convard, Howorth, Preston (1997), op. cit. at note 7.

coastal protection helps maintain the physical security of our own people, their homes and their livelihoods, and of commercial enterprises that also depend on a protected coast, such as international tourism and shipping.

Furthermore, through their function as breeding, nursery and feeding grounds, these habitats help maintain internationally important fish stocks, some of which range over the full width of the Pacific Ocean. One reviewer remarks that: "the tuna fishery of the Western Central Pacific Ocean is one of only two remaining major fisheries in the world still considered to be in healthy condition and amenable to increased exploitation. This fishery, and the large marine ecosystem on which it is based, is a global asset which requires the concerted attention and support of the international community if it is to be managed sustainably."<sup>82</sup>

In addition to providing an important source of food to the rest of the world, primarily through our oceanic fisheries, the health of our International Waters is also important to maintain our own domestic food security, source of income and employment, and social and cultural cohesion and welfare, in particular through our coastal fisheries and other resources. Environmental refugees and the attendant social unrest are becoming an increasing international problem. Maintaining the health of our International Waters will help us ensure that our people do not risk becoming part of this issue.

Viewed in terms of activities that affect the health of International Waters, many if not all of our priority concerns are already or will soon become transboundary by virtue of the fact that these activities are prevalent in all thirteen of our island countries. This prevalence is likely to have deleterious and cumulative effects on International Waters which will, if unchecked, seriously impair the health of International Waters in and far beyond our region. This assessment is supported by evidence of detrimental effects on the waters in and around our islands already.

Finally, we considered the importance of our regional water system in a global context. **We see ourselves as the custodians of one-sixth of the earth's surface, of which less than 2% is land, and which harbors unique, diverse and fragile forms of life** on that land and in its waters.<sup>83</sup> The Pacific Island region covered by this SAP is arguably the largest regional water system on earth. This system is internationally shared not only by us, the participants in this SAP, but also by fourteen other states and territories in the Pacific region. This water system is also vital to the continued health of the planet as a whole. It is likely to be at risk from our priority concerns; viewed in terms of their effect on International Waters as a system, these concerns are interdependent and mutually exacerbating nationally, regionally, and so, inexorably, globally.

We came to three conclusions from our globally-focused review. First, our priority concerns remain essentially unchanged. Second, many, if not all of these concerns are transboundary in their linkages throughout our region with disquieting consequences for the International Waters we share and on which we all crucially depend. Finally, viewed from the global perspective of the

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<sup>82</sup>Preston (1997), op. cit. at note 7. p. 2.

<sup>83</sup>The Perspective (1992), op. cit. at note 2, p. 147.

effects of our priority concerns on International Waters, three overarching transboundary concerns could be identified within which our regional priorities could be clustered. These are:

1. Degradation of the quality of our International Waters (regional priority concerns a,b,d,e)
2. Degradation of their associated critical habitats (regional priority concerns a,b,d,e)
3. Unsustainable use of living and nonliving resources (regional priority concerns b,c,e)

## V. Imminent Threats

Our International Waters are subject to a number of threats giving rise to the transboundary concerns. The preparation process for this SAP included the identification of these threats from a regional perspective and an assessment of their imminence by the reviewers. The National Task Forces were asked to review their conclusions. The reviewers each examined the threats to International Waters from a different perspective: critical species and their habitats, living marine resources and non-living resources. Their findings were clear, consistent and bolstered even more by having been arrived at from these different points of departure, as illustrated by a brief overview of the threats as perceived by each reviewer.

The three sets of threats to **critical species and habitats**<sup>84</sup> consist first of several forms of land-based sources of pollution. The most serious threat is nutrients derived from sewage, soil erosion and agricultural fertilisers. Nutrient overloads particularly affect coral reef ecosystems, weakening the reef carbonate skeleton and smothering the reef with algae. The other two most serious land-based pollution threats are solid waste disposal and sedimentation. Sedimentation is derived from soil erosion, dredging, coastal development and upstream, inland activities.

The second set of threats derives from physical alterations of the seabed or coastline, in particular through destruction of fringing reefs, beaches, wetlands and mangroves for coastal development and by sand extraction. The final set of threats derives from overexploitation. Coastal food fisheries, especially near urban areas, are under pressure from overfishing, as are commercially valuable vertebrate and invertebrate export species.

Tropical marine systems can be remarkably robust in recovering from severe natural disturbances such as cyclones. But this natural resilience may be weakened in the face of chronic threats such as overfishing, pollution, elevated nutrient levels and sedimentation. Mitigating these threats is vital not just for the species and habitats themselves, or even just as resources, but also for the sake of maintaining the overall health of marine systems.

The threats to **living marine resources**<sup>85</sup> are divided into two sets: overexploitation and environmental degradation. Overexploitation, principally of inshore fisheries, is exacerbated by destructive fishing methods, which include explosives and various types of toxic compounds such as traditional vegetable poisons, household bleach, cyanide and herbicides,<sup>86</sup> and by inappropriate

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<sup>84</sup>Bleakley (1997), op. cit. at note 7, pp. 16-18.

<sup>85</sup>Preston (1997), op. cit. at note 7, pp. 23-25.

<sup>86</sup>A detailed, country-by-country description of this threat and its effects in the Pacific

government incentives for coastal fisheries. Environmental degradation in the islands is manifested in a number of ways, whose effects often exacerbate each other.<sup>87</sup> In many cases the degradation is chronic, with gradual rather than sudden changes in the resources, making the relationship between cause and effect less obvious, and reducing the likelihood of timely and appropriate action being taken. Fisheries management efforts alone, whether carried out with regard to specific resources or to the ecosystem as a whole, may be insufficient to protect coastal fisheries in the absence of actions to mitigate the deleterious effects of these threats.

Finally, the **non-living resource**<sup>88</sup> that all the Pacific Islands share and that is most seriously threatened is the quality of both fresh and marine water. Groundwater is at particular risk because its loss or degradation is often irreversible. The principal threat to water is from land-based sources of pollution. These derive in particular from sewage (poor sanitation), sediments (soil erosion, agriculture, forestry), urban runoff, agro-chemicals and solid waste.

Beaches, reef flat sand and coastal aggregates are another major non-living resource that is threatened by overexploitation; extraction rates far exceed natural replenishment rates. Beaches are also an important habitat.

We concluded that three overarching imminent threats to our International Waters could be derived from the reviews:<sup>89</sup>

1. their pollution from land-based activities
2. physical, ecological and hydrological modification of their critical habitats
3. unsustainable use of their living and nonliving resources

We consider prioritisation of the threats to be inappropriate, because each threat affects each concern. Pollution from land-based activities threatens water quality, critical habitats and

Islands is provided by the Overview of Destructive Fishing Practices (1995), op. cit. at note 64.

<sup>87</sup>The threats to living marine resources from coastal degradation are:

- organic pollution from human settlements (sewage), agricultural practices (fertilisers) or food processing activities (sugar mills, fish canneries and transshipment sites)
- increased freshwater runoff and siltation from logging, mining, land clearance, coastal construction and other major disturbances to watersheds and the terrestrial ecosystem
- loss of fish nursery grounds and other critical habitats, especially mangroves and seagrass beds, due to deforestation, reclamation or other coastal activities
- physical damage to habitat from coastal sand and gravel mining, dredging, coastal construction, blasting of reef passages, use of destructive fishing methods (explosives) and shipwrecks
- chemical pollution from agriculture (pesticides), industrial sites, mining, petrochemical extraction and handling, ships running aground and use of poisons for fishing.

<sup>88</sup>Howorth (1997), op. cit. at note 7, pp. 33-39.

<sup>89</sup>Our conclusions were also supported by regional work cited elsewhere (see, e.g., notes 2, 6 and 8) and the ground-truthing by the National Task Forces.

sustainable use of resources. Habitat modification of the habitats threatens those habitats, water quality and sustainable use of resources. Excessive exploitation of resources threatens their sustainable use, the habitats and water quality. The linkages between the imminent threats to and the transboundary concerns for International Waters require comprehensive measures to address the concerns effectively.

## VI. Root Causes of the Transboundary Concerns

The root causes were examined in their legal, institutional, socio-economic and environmental context. Differentiating between proximate and ultimate root causes was found to be a useful analytical approach.<sup>90</sup>

It was evident from the analysis that each imminent threat was composed of a subset of contributory physical problems which each had their own proximate root causes. These problems differ both in type and severity and hence in the nature and extent of the effect of the overarching threat on the transboundary concerns. Based on prior regional and national studies, the commissioned reviews, and the work of the National Task Forces, priorities were also established among the contributory physical problems in terms of the severity of their effects on the transboundary concerns. The results are presented in Table 2.

The ultimate root causes of the threats were found in factors that influence the actions of our island peoples in such a way as to result in the degradation of our International Waters. Based on prior regional and national studies, the commissioned reviews, and the work of the National Task Forces, priorities were also established among those factors. The results are presented in Table 3.

We recognised that an ultimate root cause underlying the imminent threats is deficiencies in management. The management issue permeates our society at all levels: from the individual citizen right on up through the household and the village to private companies, national government and regional organisations. Management deficiencies can be grouped into two linked subsets: a) governance and b) understanding. The governance subset is characterised by the need for mechanisms to integrate environmental concerns, development planning and decision-making. The understanding subset is characterised by the need to achieve an island-wide ecosystem awareness in our people. Table 4 presents the management issues arising under the two subsets.

This provides a focus for intervention to protect International Waters.<sup>91</sup> For example, the governance mechanisms envisaged include those which enable timely identification of

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<sup>90</sup>Proximate causes are those producing the actual, demonstrable physical effects that threaten International Waters and thus culminate in the transboundary concerns. Ultimate root causes are those that influence human actions which then result in the proximate causes of the observable physical effects. The innovative work of Dr. Laurence Mee on proximate and ultimate root causes in the GEF focal area of International Waters must be recognised; the analysis in this SAP has benefitted from his paper: International Waters and Environmental Security (1997).

<sup>91</sup>We note that our identification of management deficiencies as an ultimate root cause of the degradation of our International Waters is consistent with the assessment of this issue for SIDS by GEF.

development plans for activities which affect International Waters. They must ensure that these plans explicitly consider other and alternative uses, including environmental uses and effects, and all relevant stakeholders. Planning time scales must be expanded to comprise long-term costs and benefits as well. The mechanisms must support the taking of clear, motivated decisions and their enforcement.

Successful application of these governance mechanisms involves the understanding subset. Understanding includes the ability to access and use information related to resources and environment. Narrow, short-term individual sector-based perceptions of International Waters resources by managers and users must also change to an inclusive and generally equitable perspective. Increasing the understanding of these issues by the general public is central to achieving effective management. Improved understanding of the consequences of behavior by the people will assist with enforcement of management decisions. Sustainable development is a national objective that requires active, correctly informed engagement by all citizens.

The independent reviews commissioned for this SAP and the other work referred to above confirm both our own and the GEF's assessment of the priority transboundary concerns, their root causes and, consequently, the fundamental need for improved integrated cross-sectoral management of the resources of our International Waters to achieve sustainable development.

## **VII. Information Gaps**

Our analysis also revealed a set of information gaps relevant in particular to the work of decision-makers (as opposed to researchers) in developing ways to address ultimate root causes and to respond to imminent threats. These information gaps are presented in Table 5. The islands already share national information through various regional mechanisms, which is also required by the regional Conventions and UNCLOS. Improving information input and exchange at regional and national levels is an objective of this SAP.

Attention is particularly drawn to the lack of strategic information presented in an appropriate manner to decision-makers, resource users, managers and communities to evaluate costs and benefits and decide between alternative activities. This information is vital to planning for International Waters, because the uses of these waters are so versatile. That very versatility is a significant asset in a development portfolio. Appropriately and adaptively managed with correct information, International Waters can sustainably support a variety of uses which are now more generally perceived as conflicting and mutually exclusive.

Information gaps do not prevent actions being taken. The gaps serve as a salutary reminder of the need to apply the precautionary principle in developing activities and choosing between alternatives, and of the corollary that preventing environmental problems almost always costs far less than trying to remedy them after they occur.

## **VIII. Proposed Solutions**

We propose to address the root causes of degradation of International Waters through regionally consistent, country-driven targeted actions that integrate development and environment needs. These actions are designed to encourage comprehensive, cross-sectoral, ecosystem-based



approaches to mitigate and prevent imminent threats to International Waters. The SAP provides the regional framework within which these actions are identified, developed and implemented. Targeted actions will be carried out in two complementary, linked consultative contexts: Integrated Coastal and Watershed Management (ICWM) and Oceanic Fisheries Management (OFM).

A fundamental criterion for the success of targeted actions is the establishment of appropriate ecosystem management units for national sustainable development planning. These management units are the same for both developmental and environmental purposes. On our islands these units should be comprised of upstream watersheds and their adjacent coastal and offshore areas. Adding the inland watershed to the management unit for development planning is essentially an upstream extension of the principles of Integrated Coastal Management (ICM). The lack of effective mechanisms to include upstream activities has hampered the achievement of ICM. Furthermore, such few models for this form of management as do exist are derived from large, well-endowed countries, and are inappropriate for Pacific Islands. Hence the development of the ICWM approach by our islands is established by the SAP.

A complementary consultative context established by this SAP is Oceanic Fisheries Management (OFM), which concentrates initially on the tuna fishery. The international complexities and specialised requirements of the oceanic fisheries sector involves DWFNs, regional organisations and national governments in ongoing consultations at the highest level.<sup>92</sup> The Western Pacific Warm Pool Large Marine Ecosystem is proposed for investigation as a suitable management unit. Enhancement of regional fishery management in light of developments with regard to the UN Convention on the Law of the Sea and the UN Implementing Agreement, innovative ecosystem-based management approaches in the context of an LME, research on the status of tuna stocks, examination of by-catch and other components of the ecosystem and the integration of those aspects of oceanic fisheries relevant to overall national and regional International Waters resource management are the principal elements of the OFM approach.

Crucial to the organizing principle and implementation of the SAP is the recognition that ICWM and OFM are interdependent elements along the continuum that is the essence of International Waters. As with the great oceanic gyres, ICWM and OFM are flywheels with cogs that drive each other, but the mechanisms governing their relationship are not well understood. The SAP aims to improve that understanding. Through the ICWM and OFM approaches, the SAP sets out a path for the transition by our islands from sectoral to integrated management of International Waters as a whole, which we consider to be essential for their protection over the long term.

The SAP meets the objectives of GEF's operational programme entitled "Integrated Land and Water Multiple Focal Area," to which International Waters projects addressing the needs and special conditions of small islands are assigned by GEF. Interventions under the SAP will necessarily include three other pressing concerns in our sustainable development planning,

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<sup>92</sup>The most recent of these was the Second Multilateral High-Level Conference on the Management and Conservation of Highly Migratory Fish Stocks in the Western and Central Pacific, Majuro, Republic of the Marshall Islands, June 1997.

namely: biodiversity, vulnerability to climate change and land degradation. The first two are GEF focal areas and the latter is a GEF cross-cutting area.<sup>93</sup> Consequently, the SAP is expected to involve and build upon the complementary skills and experience available from organisations and groups active in the region.

Our region is the beneficiary of much development assistance from a variety of donors for a wide range of projects. Donors and the islands will be able to use the SAP to plan and coordinate regional and national development assistance for International Waters to address imminent threats and their root causes more effectively. The SAP will facilitate the choice and design of high priority interventions, remove duplication, and ensure that projects do not work at cross-purposes. Funding from GEF *per se* can only support a small proportion of such interventions, hence the importance of the SAP to organise and leverage additional assistance in order to receive maximum benefit from the available funds. The SAP is designed to comply with the requirements of GEF, but also, and perhaps more importantly, to be a framework for overall national and regional planning and assistance for the management of International Waters.

The SAP complies with the legal framework for regional cooperation and related obligations established by the regional Conventions, UNCLOS, CBD, FCCC and other international conventions within which the Pacific Island countries identify common issues and coordinate national approaches to address those issues. Application of ICWM and OFM approaches will facilitate further joint action between sectors nationally and between governments regionally. As experience with ICWM and OFM grows, this SAP will also evolve, reflecting the increased knowledge of and changing conditions in the environment of our islands. To ensure that the SAP remains a living, evolving and useful instrument for sustainable development, and to assess and apply lessons learned from its implementation, the SAP will be reviewed every five years.

## **IX. Priorities for Action**

Achieving the goals of the SAP is a long-term effort. It is necessary to maintain regional and national momentum, build in feedback and learning loops, and be able to measure success in incremental but encouraging steps. We are also mindful that we cannot address all sustainable development issues related to International Waters in this SAP at once. Therefore we have initially identified the following high priority activity areas for immediate intervention. These are:

- improved waste management
- better water quality
- sustainable fisheries
- effective marine protected areas.

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<sup>93</sup>These are also the remaining three of the seven major issues identified in the Barbados Programme of Action as common to most islands. The other three major small island issues from the Barbados Programme have already been addressed above, and the seventh, tourism, can only be effectively dealt with in this type of framework for national sustainable development.

Targeted actions within these activity areas are proposed in the following five categories: management, capacity-building, awareness/education, research/information for decision-making, and investment. Institutional strengthening is included under management and capacity-building.

The targeted actions are designed to:

- assist decision-makers in changing sectoral development policies to make them consistent with sustainable development,
- facilitate and catalyse GEF funding and "regular" assistance<sup>94</sup> from the IAs and other donors,
- benefit from and be coordinated with other relevant national, bilateral, regional and international sustainable environment/development initiatives in the Pacific Islands,
- assist with the implementation of international treaty obligations and commitments,
- promote collective action to address regional issues and minimise duplication of effort.

The analytical framework within which proposals for assistance should be evaluated under the SAP is set out below.

Goal of SAP: Integrated sustainable development and management of International Waters

Priority Concerns:     Degradation of water quality  
                               Degradation of associated critical habitats  
                               Unsustainable use of resources

Imminent Threats:    Pollution from land-based activities  
                               Modification of critical habitats  
                               Unsustainable exploitation of resources

Ultimate Root Causes:     Management deficiencies  
                                       a) governance  
                                       b) understanding

Solutions:            Integrated Coastal and Watershed Management  
                               Oceanic Fisheries Management

ICWM Activity Areas:     - improved waste management  
                               - better water quality  
                               - sustainable coastal fisheries  
                               - effective marine protected areas

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<sup>94</sup>In assessing the proposals, it is important to note that the baseline and agreed incremental cost section of the project proposals are indicative estimates only, given that the incremental costs must be agreed between the GEF and the recipient country. Determining incremental costs is a process to be initiated within the framework of the SAP. These project proposals are the initiation of that process, for further elaboration between the relevant national authorities, the GEF and the Implementing Agencies. Detailed technical negotiations between the country and GEF are expected. The Operational Strategy envisages that the IAs will assist substantively, each according to its specialisation, with the development of project proposals from concept papers to full project proposals.

- OFM Activity Areas:
- sustainable ocean fisheries
  - improved national and regional management capability
  - stock and by-catch monitoring and research
  - enhanced national and regional management links

- Targeted actions:
- management/institutional strengthening
    - capacity-building
    - awareness/education
    - research/information for decision-making
    - investment

From a regional perspective, the SAP is designed to encourage proposals with diverse applications that achieve global benefits while maintaining the fundamental unity of approach and discipline established by the SAP. The SAP intends to enable development of projects reflecting the different national styles and circumstances of each participating country, and it is designed to be sufficiently flexible to accommodate these differences. This variety will enable rapid regional learning, provide examples of approaches tailored to disparate situations and assist national adaptations as countries analyse and share the results of their work.

As the first SAP for International Waters of SIDS to be developed under the auspices of the GEF, we are also concerned that our work be available and useful to other groups of SIDS. Insofar as they may share our transboundary concerns and the root causes, we hope that our proposed solutions will serve as examples for consideration beyond our own region.

**Table 1: Environmental and Socio-economic Effects**

- I. Transboundary concern: Degradation of water quality**
- A. Threat: Land-based sources of pollution
1. Sewage-related liquid and solid microbial pollution
    - Environmental effects
      - a. Marine and aquatic organism infections and diseases\*
      - b. Depletion of fish stocks and biodiversity\*
      - c. Changes in biological diversity and food webs\*
    - Socio-economic effects
      - a. Human health effects\*
      - b. Increased costs of human health protection
      - c. Loss of tourism/recreation value\*
      - d. Loss of aesthetic values
      - e. Increased intake treatment costs
      - f. Increased potential for upstream/downstream conflicts\*
      - g. Increased costs of alternative water supplies
      - h. Increased costs of medical treatment and prevention
      - i. Increased costs of fisheries product processing\*
  2. Solid waste (domestic, industrial, litter, dredge spoil)
    - Environmental effects
      - a. Habitat loss\*
      - b. Hydrological modification
      - c. Entanglement/suffocation of marine organisms\*
      - d. Beach and sediment compositional changes
      - e. Endangerment of species
    - Socio-economic effects
      - (a)-(d) in (1) above
      - e. Endangerment of commercial species\*
      - f. Loss of property value
      - g. Increased costs of wildlife protection
      - h. Increased costs of clean-up
      - i. Increased costs of navigational surveys and dredging\*
  3. Nutrients (includes sewage and fertilisers)
    - Environmental effects
      - a. Redox changes (extreme anoxia)
      - b. Eutrophication
      - c. Increased algal blooms
      - d. Changes in algal community
      - e. Changes in macrophyte community
      - f. Changes in fish community with loss in case of anoxia

- g. Loss of habitat (e.g., coral reefs)\*
- h. Changes in biological diversity and food webs\*

**Table 1: Environmental and Socio-economic Effects** (continued)

3. Nutrients (includes sewage and fertilisers)
  - Socio-economic effects
  - (a)-(d) in (1) above
  - (e)-(f) in (2) above
  - g. Loss of water supplies\*
  - h. Costs of water treatment
  - i. Change in fisheries value\*
  - j. Compromise of options for aquaculture development
  - k. Loss of property values
  - l. Costs of weed control
  - m. Loss of wildlife (including migratory bird) sanctuaries\*
  - n. Increased costs of navigational clearance\*
  - o. Increased costs of fish surveillance and processing for toxin prevention\*
  - p. Costs of reduced fish marketability\*
  
4. Sediments
  - Environmental effects
  - a. Habitat modification\*
  - b. Changes in biological community composition\*
  - c. Changes in species growth/survival/reproduction\*
  - d. Increased erosion
  - e. Increased sedimentation/siltation
  - f. Destruction by smothering of benthic communities\*
  - g. Changes in sediment redox conditions (organics)
  - h. Loss of water quality
  
  - Socio-economic effects
  - a. Increased costs of navigational surveys and dredging\*
  - b. Loss of reservoir storage capacity
  - c. Damage to equipment from particle scouring
  - d. Loss of tourism/recreational values\*
  - e. Increased water treatment costs
  - f. Increased costs of coastal protection from waves/storms/erosion
  - g. Increased costs of cleaning intakes
  - h. Increased vulnerability to sea level rise\*
  
5. Toxic wastes (domestic, agricultural, industrial, hazardous)
  - Environmental effects
  - a. Reproductive dysfunction in organisms\*
  - b. Behavioral dysfunction in organisms\*
  - c. Modified community structure\*
  - d. Increased mortality of organisms\*
  - e. Changes in biological diversity and food webs\*

**Table 1: Environmental and Socio-economic Effects** (continued)

5. Toxic wastes (domestic, agricultural, industrial, hazardous)
  - Socio-economic effects
    - a. Loss in fisheries\*
    - b. Loss of protected areas\*
    - c. Increased costs of human health protection
    - d. Increased costs of fish processing\*
    - e. Reduced options for other uses
    - f. Increased costs of water treatment
    - g. Loss of tourism/recreation value\*
    - h. Potential for upstream/downstream conflict\*
  
6. Spills
  - Environmental effects
    - a. Increased mortality in bird and other marine/aquatic life\*
    - b. Habitat damage\*
    - c. Long-term contamination of beaches and sediments with associated ecological changes\*
  
  - Socio-economic effects
    - a. Costs of clean-up
    - b. Costs of preventive measures
    - c. Costs of contingency measures
    - d. Real or perceived damage to fisheries
    - e. Loss of tourism/recreation values (temporary/permanent)\*
    - f. Costs of litigation
    - g. Costs of insurance
    - h. Loss of protected areas and associated wildlife\*
    - i. Costs of disruption to shipping, fishing, science and other activities during clean-up\*



**Table 1: Environmental and Socio-economic Effects** (continued)**II. Transboundary concern: Degradation of critical habitats****A. Threat: Physical, ecological and hydrological modifications of critical habitats**

Environmental Effects (common to all seven ecosystems)

- a. Loss of natural productivity
- b. Loss of biodiversity\*
- c. Loss of natural storm barriers\*
- d. Loss of natural protection from erosion
- e. Loss of carbon sinks and release of carbon to atmosphere\*
- f. Loss of migratory species using the habitat\*
- g. Altered migratory patterns\*
- h. Effects on adjacent marine ecosystems\*
- i. Damage to endangered, threatened or endemic species\*
- j. Changes in community structures
- k. Loss of natural filtration/cleansing systems\*
- l. Spread of disease\*
- m. Spread of exotic species\*
- n. Physical downstream changes of coastal dynamics\*
- o. Changes in ecosystem stability
- p. Loss of environmental assimilative capacity\*
- q. Possible outbreaks of ciguatera

Socio-economic effects (common to all seven ecosystems)

- a. Reduced capacity to meet basic human needs (food, fuel, shelter) for local populations
- b. Changes in employment opportunities for local populations and associated changes in social structures
- c. Loss of aesthetic/recreational values for local populations
- d. Loss of existing and future income from fisheries, tourism\*
- e. Loss of possible new commercial opportunities for the ecosystem (e.g., pharmaceuticals)
- f. Human migration\*
- g. Human conflicts\*
- h. Loss of educational and scientific value\*
- i. Loss of land due to loss of physical protection
- j. Health damage/loss of life due to loss of physical protection
- k. Increased costs of responding to risks
- l. Disregard of intergenerational equity\*
- m. Loss of cultural heritage\*
- n. Costs of replacing natural protections with substitute services
- o. Increased vulnerability to sea level rise\*
- p. Loss of opportunity for sustainable economic development\*
- q. Costs of restoration

**Table 1: Environmental and Socio-economic Effects** (continued)

2. Freshwater shortage (ground and surface)
  - Environmental Effects
    - a. Water quality change
    - b. Saltwater intrusion
    - c. Land subsidence
    - d. Reduced aquifer capacity and recharge
    - e. Reduced vegetation cover
    - f. Increased soil erosion
    - g. Increased penetration of pollutants/contaminants
    - h. Desertification/land degradation\*
    - i. Reduction in stream flow
    - j. Modification of riparian habitats\*
    - k. Changes in sediment budgets
    - l. Depletion of fishstocks and species diversity\*
    - m. Decreased wetland areas\*
    - n. Reduced groundwater recharge
    - o. Reduced capacity to transport sediments
    - p. Increased siltation
    - q. Changes in biological diversity and food webs\*
    - r. Alteration of coastal ecosystems\*
  - Socio-economic Effects
    - a. Damage to infrastructure
    - b. Increased costs for pumping and deepening wells
    - c. Loss of drinking water supply
    - d. Increased potential for upstream/downstream conflicts\*
    - e. Loss of future use options
    - f. Increased cost of alternative water supplies
    - g. Increased vulnerability to sea level rise\*
    - h. Loss of agricultural uses
    - i. Loss of tourism/recreational value\*
    - j. Loss of aesthetic values
    - k. Loss of coastal harbors and inland transport\*
    - l. Loss of hydro-electric power production
    - m. Loss of industrial uses
    - n. Reduced availability of fish for food
    - o. Loss of waste assimilative capacity\*
    - p. Population migration\*
    - q. Potential for conflict\*

**Table 1: Environmental and Socio-economic Effects** (continued)

3. Species depletion or loss
  - Environmental effects
    - a. Loss of biodiversity\*
    - b. Loss of natural productivity
    - c. Effects on adjacent ecosystems\*
    - d. Changes in community structures
    - e. Damage to endangered, threatened or endemic species\*
    - f. Changes in ecosystem stability
    - g. Loss of migratory species using the habitat\*
    - h. Altered migratory patterns\*
    - i. changes in population genome and gene frequencies\*
    - j. Reduction of gene pool of wild stocks
  - Socio-economic effects
    - a. Loss of existing and future income from fisheries, tourism\*
    - b. Loss of protein for human consumption
  
4. Introduction of non-indigenous species
  - Environmental effects
    - a. Long-term changes in population genome and gene frequencies\*
    - b. Reduction of gene pool of wild stocks
    - c. Loss of biodiversity in breeding areas/ecosystems
    - d. Replacement of/competition with indigenous species
    - e. Pest/disease introduction
  - Socio-economic effects
    - a. Increased risks for commercially valuable species\*
    - b. Increased risk of disease

**Table 1: Environmental and Socio-economic Effects** (continued)**III. Transboundary concern: Unsustainable resource use****A. Threat: Excessive exploitation****1. Overfishing (primarily inshore)**

## Environmental effects

- a. Changes in biological community structure\*
- b. Depletion of key commercial species\*

## Socio-economic effects

- a. Reduced economic returns to country
- b. Loss of employment
- c. Conflict between user groups\*
- d. Loss of protein for human consumption/health effects
- e. Loss of import substitution function
- f. Loss of cash income

**2. Destructive fishing (primarily inshore)**

## Environmental effects

- a. Changes in biological community structure
- b. Habitat modification\*
- c. Loss of protected species\*
- d. Decreased productivity
- e. Possible increase in crown-of-thorns starfish
- f. Retarded recovery after natural destructive events

## Socio-economic effects

- a. Loss of tourism/recreational values\*
- b. Loss of earnings/employment
- c. Possible ciguatera outbreaks
- d. Loss of food protein
- e. Loss of coastal protection (reef destruction)
- f. Physical harm to fishers employing the methods
- g. Possible human health effects of tainted/poisoned food
- h. Loss of commercial species

**3. Excessive by-catch and discards (inshore and oceanic)**

## Environmental effects

- a. Changes in food webs favoring scavengers
- b. Changes in biological community structure\*
- c. Loss of protected species\*
- d. Loss of sports species\*

## Socio-economic effects

- a. Loss of income from tourist sport-fishing

- b. Loss of food protein sources
- c. Loss of income from target species (more work for less target catch)

**Table 2: Proximate Root Causes**

**I. Transboundary concern: Degradation of water quality**

**A. Threat: Land-based sources of pollution**

1. Sewage-related liquid and solid microbial pollution
  - a. direct discharge of untreated or poorly treated sewage, animal and hospital wastes into water or onto land
2. Solid waste (domestic, industrial, litter, dredge spoil)
  - a. deliberate dumping
  - b. casual discards
  - c. thoughtlessness
  - d. limited waste disposal options
3. Nutrients (includes sewage and fertilisers)
  - a. sewage
  - b. fertilisers/animal wastes in agriculture
  - c. soil/sediment erosion, leaching, remobilisation
  - d. draining of wetlands
  - e. dredging, damming
  - f. intensification of cash cropping
  - g. water impoundment
4. Sediments
  - a. soil erosion by runoff/aeolian transport
  - b. land/road development (excavation, earthmoving, construction, logging)
  - c. sewage/sewage sludge discharges
  - d. urban waste discharges
  - e. intensification of cash cropping
  - f. dredging
  - g. mining
5. Toxic wastes (domestic, agricultural, industrial, hazardous)
  - a. urban/industrial waste discharge
  - b. leachates from solid waste landfill
  - c. weed/pest control, including antifoulants
  - d. disease vector control
  - e. road runoff
6. Spills
  - a. Inadequate accident minimisation measures
  - b. Inadequate contingency response measures

- c. Human error
- d. Force majeure

**Note:** increased growth and density of population and urbanization is a major proximate root cause common to the issues in Table 2.

**Table 2: Proximate Root Causes** (continued)

- II. Transboundary concern: Degradation of critical habitats**
- A. Threat: Physical, ecological and hydrological modifications of critical habitats
1. Destruction or modification of ecosystems\*
    - a. conversion/use for food, fuel, industry, waste dumping, agriculture, aquaculture, construction, infrastructure (housing, hotels, harbors, ports, marinas, airports, causeways)
    - b. subsistence/survival needs
    - c. poverty
    - d. lack of employment
    - e. upstream activities (agriculture, logging, damming)
  2. Species depletion or loss\*\*
    - a. all of the above under (1)
    - b. destructive fishing practices
  3. Freshwater shortage (ground and surface)
    - a. increased demand from population growth, food production, cash cropping, urbanisation, tourism, industrialisation, life style changes
    - b. urban drainage and impermeability
    - c. rural land use patterns
    - d. agro-deforestation
    - e. impoundments, damming, canalisation
  4. Introduction of non-indigenous species
    - a. Discharge of untreated ballast water
    - b. Deliberate introduction of stock (aquaculture/recreation/pest control)

\*In approximate order of vulnerability: coral reefs, mangroves, lagoons, seagrass beds, wetlands, estuaries, beaches.

\*\*In approximate order of vulnerability: turtles, crocodiles, dugong, certain cetaceans, sharks, spiny lobster, coconut crab, seahorses, seabirds; no order: bêche-de-mer, certain fish, giant clams, green snail, grouper (live), pearl oysters, trochus.

**Table 2: Proximate Root Causes** (continued)

- III. Transboundary concern: Unsustainable resource use**
- A. Threat: Excessive exploitation
1. Overfishing (primarily inshore)
    - a. too many boats and too many fishers
    - b. subsistence/survival needs
  2. Destructive fishing (primarily inshore)
    - a. inappropriate technology
    - b. poor harvest procedures
    - c. need for cash
    - d. traditional fish "drives"
  3. Excessive by-catch and discards (primarily oceanic)
    - a. poor fishing gear selectivity (especially purse seine/longline)
    - b. fishing tactics (e.g., around debris, associated non-target species such as porpoises)
    - c. overfishing of target species
    - d. perishability
    - e. lack of storage facilities
    - f. low economic value



**Table 3: Ultimate Root Causes**

- I. Transboundary concern: Degradation of water quality**
- A. Threat: Land-based sources of pollution
1. Sewage-related liquid and solid microbial pollution
    - a. inadequate regulation of waste disposal
    - b. lack of enforcement
    - c. institutional deficiencies
    - d. inadequate management expertise
    - e. uncoordinated sectoral management
    - f. failure to charge costs of environmental degradation
    - g. lack of capacity to repair/maintain existing systems
    - h. sectoral/fragmented water quality monitoring/assessment
    - i. no reuse of organic waste, sewage, sludge, effluent
  2. Solid waste (domestic, industrial, litter, dredge spoil)
    - a. (a)-(g) above under (1)
    - b. increased use of unnecessary packaging
    - c. customary land tenure conflicts over dump siting
    - d. deficiencies in land-use planning
    - e. no EIA used for dump sites
    - f. no business planning for waste disposal
    - g. deficiencies in or no recycling programmes
  3. Nutrients (includes sewage and fertilisers)
    - a. (a)-(h) above under (1)
    - b. deficiencies in land-use planning
    - c. no EIA for land development
  4. Sediments
    - a. (c)-(h) above under (1)
    - b. (b)-(c) above under (3)
  5. Toxic wastes (domestic, agricultural, industrial, hazardous)
    - a. (a)-(h) above under (1)
    - b. lack of infrastructure to transfer technology
  6. Spills
    - a. Lack of development and implementation of preventive and remedial measures
    - b. Lack of governmental capacity, will or budget

**Table 3: Ultimate Root Causes (continued)**

- II. Transboundary concern: Degradation of critical habitats**
- A. Threat: Physical, ecological and hydrological modifications of critical habitats
1. Destruction or modification of ecosystems
    - a. lack of integrated coastal area/watershed management
    - b. lack of EIA in development planning
    - c. deficiencies in land-use planning
    - d. uncoordinated sectoral management
    - e. lack of enforcement
    - f. national development pressures
    - g. customary land tenure
    - h. loss of traditional management practices
    - i. national trade and investment policies
    - j. lack of waste management
    - k. undervaluation of ecosystem
    - l. lack of involvement of local communities
  2. Freshwater shortage (ground and surface)
    - a. (a)-(f) above under (1)
    - b. inappropriate water pricing
    - c. subsidies and other inappropriate incentives
    - d. inappropriate reservoir operation
    - e. lack of protection of recharge areas
  3. Species depletion or loss
    - a. (a)-(l) above under (1)
    - b. high prices
    - c. open access
  4. Introduction of non-indigenous species
    - a. Failure of regulations re ballast water
    - b. Failure of quarantine regulations
    - c. Inadequate planning
    - d. Uncoordinated sectoral management

**Table 3: Ultimate Root Causes (continued)****III. Transboundary concern: Unsustainable resource use****A. Threat: Excessive exploitation**

1. Overfishing (primarily inshore)
  - a. subsidies and other inappropriate incentives
  - b. high prices
  - c. open access
  - d. lack of integrated coastal/watershed management
  - e. uncoordinated sectoral management
  - f. lack of enforcement
  - g. loss of traditional management practices
  - h. lack of implementation at local/village level
  - i. high extra-regional demand
2. Destructive fishing (primarily inshore)
  - a. (d)-(i) above under (1)
  - b. lack of appropriate harvest gear/technology
  - c. lack of ecological education
  - d. lack of other local income sources
  - e. easy availability of explosives and poisons
3. Excessive by-catch and discards (primarily oceanic)
  - a. lack of research on product marketability
  - b. reluctance to keep/provide data by captains
  - c. inadequate on-board observer coverage

**Table 4: Management Issues**

A. Governance

1. no clearly defined responsibilities and poor coordination among government agencies responsible for different sectors
2. inadequate coordination and delegation of responsibility between local, state, provincial, national and sectoral levels of government
3. inadequate laws and regulations
4. inadequate harmonisation of laws
5. issues of traditional and customary property and user rights and practices
6. deficiencies in stakeholder participation
7. inadequate implementation, monitoring and enforcement
8. inappropriate domestic and international pricing
9. subsidies and perverse incentives
10. national investment policies
11. inadequate operating budgets

B. Understanding

- a) poor public education and awareness of issues and options
- b) insufficient capacity to implement and enforce laws
- c) inadequate understanding of valuation of environmental goods and services in sustainable development planning
- d) inadequate knowledge of technical response options
- e) failure to use current information in decision-making
- f) selecting inappropriate technology
- g) ineffective data interpretation for management
- h) inadequate/insufficient socio-economic analyses and data
- i) inadequate or unreliable data collected through national data and statistical programmes
- j) inadequate pre-operational prediction and planning (e.g., prior comparative analysis of options, risk assessments, environmental/social/economic impact assessments, complete costing
- k) inadequate ongoing and post-operational analysis
- l) inadequate access to information at the regional and international level by governments
- m) inadequate scientific understanding
- n) inadequate or inappropriate advice

**Table 5: Information Gaps**

- I. Transboundary concern: Degradation of water quality**
- A. Threat: Land-based sources of pollution
  - 1. Sewage-related liquid and solid microbial pollution
    - a. Data on current and projected waste volumes
    - b. Data on sources, pathways and impacts of waste
    - c. Data on levels and effects of contaminants in water
  - 2. Solid waste (domestic, industrial, litter, dredge spoil)  
(a)-(c) in (1) above
    - d. Population response to pollution charges
    - e. Likely recycling markets and stability
    - f. Actual, specific training needs
  - 3. Nutrients (includes sewage and fertilisers)
    - a. Relative importance of sources in a given situation
    - b. Limitations of information on incidence and bioavailability of nutrient forms (N and P)
    - c. Lack of precision of comparison among options
    - d. Insufficiently predictable outcomes of management intervention
  - 4. Sediments
    - a. No data on suspended sediments budget in region
    - b. No quantified links between upstream causes and downstream effects
  - 5. Toxic wastes (domestic, agricultural, industrial, hazardous)  
(a)-(c) in (1) above
    - d. No data on production rates, use and location of chemicals
    - e. Difficulty in quantifying relative magnitudes of sources
  - 6. Spills
    - a. scale and timing of causes and effects

**Table 5: Information Gaps (continued)**

- II. Transboundary concern: Degradation of critical habitats**
- A. Threat: Physical, ecological and hydrological modifications of critical habitats
  - 1. Destruction or modification of ecosystems
    - a. Recovery times after use
    - b. Extent of ecological damage after use
    - c. Carrying capacity
    - d. Valuation methods
    - e. Lack of current information on ecosystems and their resources for decision-makers
    - f. Lack of data on which to design and evaluate ICM
    - g. Amount and rate of sea level rise
    - h. Lack of detailed bioinventory
    - i. Effects on women as major inshore gleaners
    - j. Actual physical areas of ecosystems, e.g., of reefs
  - 2. Freshwater shortage (ground and surface)
    - a. Effects of demographic and land-use changes on hydrology
    - b. Regional effects of climate change
    - c. Lack of water resource data
  - 3. Species depletion or loss
    - 1. Insufficient knowledge on seagrass beds, including links to coastal fisheries and areas threatened by coastal developments
    - 2. Insufficient valuation of mangroves
    - 3. Little knowledge about and local expertise in marine mammals in the region: especially effects from subsistence, traditional and commercial harvests, bycatch and collisions with vessels
    - 4. Little data on dugong abundance, distribution and threats
    - 5. Little data on reef fish biodiversity
    - 6. Little data on species from deeper reef and shore systems
    - 7. Very little background biological data on invertebrates
    - 8. Need quantification of effect on mangrove cutting for smoking bêche-de-mer
  - 4. Introduction of non-indigenous species
    - a. scale and timing of causes and effects

**Table 5: Information Gaps (continued)**

**III. Transboundary concern: Unsustainable resource use**

**A. Threat: Excessive exploitation**

**1. Overfishing (primarily inshore)**

- a. Inadequate information on fish resources
- b. Little information on socio-economic aspects, especially in local communities and on women (I)
- c. Little information on population biology and fishery dynamics of target reef-associated finfish (I)
- d. Little documentation on traditional and small-scale shark fisheries (I)
- e. Very little background biological information on invertebrates to allow for stock assessment and determination of sustainable harvests; catch and trade data are absent, incomplete and inconsistent; actual valuation for local fishers expected to be high but needs quantification (I)
- f. Lack of information on species interaction and response to exploitation
- g. Lack of suitable, standardised rapid assessment and monitoring techniques and regional information based on these techniques
- h. Lack of data on economic value of artisanal and subsistence fishery (I)
- i. No basis on which to determine maximum productivity and sustainability level of inshore fisheries (I)
- j. Lack of knowledge of physical areas of ecosystems like reefs make extrapolation from scaling factors based on individual surveys impossible (I)
- k. Need for management rule-of-thumb techniques
- l. Poor understanding of interaction issues and economic consequences
- m. Poor understanding of non-tuna biotic components and system dynamics of the Western Pacific Warm Pool LME
- n. Long-term sustainable financing of international fishery management and research

**2. Destructive fishing (primarily inshore)**

- a. Little quantified data on environmental effects linked to destructive causes
- b. Little data on nature and extent of destructive practices
- c. Little data on relationship between ownership, access and destructive fishing
- d. Little data on role of women in destructive practices

**3. Excessive by-catch and discards (primarily oceanic)**

- a. Prioritising between reducing and using bycatch
- b. Abundance, biology and exploitation status of tuna by-catch species unknown
- c. Little data on by-catch and discard levels

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## Annex 2 Acronyms and Abbreviations

ADB	Asian Development Bank
APEC	Asia-Pacific Economic Cooperation
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species
DWFN	Distant Water Fishing Nation
EEZ	Exclusive Economic Zone
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
EIA	Environmental Impact Assessment
FAO	Food and Agriculture Association
FCCC	Framework Convention on Climate Change
FFA	Forum Fisheries Agency
ForSec	Forum Secretariat
FSPI	Foundation for Peoples of the South Pacific International
GDP	Gross Domestic Product
GEF	Global Environment Facility
GPA/LBA	Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities
ICLARM	International Centre for Living Aquatic Resources Management
ICM	Integrated Coastal Management
ICWM	Integrated Coast and Watershed Management
ICRI	International Coral Reef Initiative
IMO	International Maritime Organisation
IOC	Intergovernmental Oceanographic Commission
IUCN	International Union for the Conservation of Nature and Natural Resources - World Conservation Union
LME	Large Marine Ecosystem
NEMS	National Environment Management Strategies
NGO	Non-governmental Organisation
OFM	Oceanic Fisheries Management
PECC	Pacific Economic Cooperation Council
PICCAP	Pacific Islands Climate Change Assistance Programme
PIDP	Pacific Islands Development Programme
SAP	Strategic Action Programme
SIDS	Small Island Developing States
SOPAC	South Pacific Applied Geoscience Commission
SPACHEE	South Pacific Action Committee on the Human Environment and Ecology
SPBCP	South Pacific Biodiversity Conservation Programme
SPC	South Pacific Commission
SPF	South Pacific Forum
SPOCC	South Pacific Organizations Coordinating Committee
SPREP	South Pacific Regional Environment Programme
STAP	Scientific and Technical Advisory Panel
TCSP	Tourism Council for the South Pacific
TNC	The Nature Conservancy
UN	United Nations

UNCED	UN Conference on Environment and Development
UNCLOS	UN Convention on the Law of the Sea
UNCSD	UN Commission on Sustainable Development
UNDP	UN Development Programme
UNEP	UN Environment Programme
UNESCO	UN Educational, Scientific and Cultural Organisation
USP	University of the South Pacific
WCMC	World Conservation Monitoring Centre
WPAC	World Protected Areas Commission
WWF	World Wide Fund for Nature

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## **Annex 5      The SAP Process**

The United Nations Development Programme (UNDP), SPREP and the Government of Australia co-financed a Global Environment Facility (GEF) Pacific regional training and scoping workshop in Nadi, Fiji, 1-4 August 1995. It was agreed at this workshop that a regional proposal for preparation of a Strategic Action Programme (SAP) to the GEF from Pacific Islands would combine the following activity areas:

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

An early draft of the proposal was endorsed by the 8th SPREP meeting in October 1995. Block B funds were requested from GEF in November 1995. Following further regional and national consultation the proposal was submitted to and endorsed by Heads of Government of

participating island countries at the 1996 27th South Pacific Forum. SPREP was requested by the South Pacific Forum to coordinate implementation of the proposal.

The proposal was approved by UNDP on 19 April 1997. The Chief Technical Adviser commenced work on April 22, 1997. The initiation of the project was announced to participating countries, SPREP National Focal Points, the SPREP collaborating institutions, Pacific Island Countries' (PIC) Missions to the United Nations (UN) and members of the South Pacific Organisations Coordinating Committee (SPOCC) in SPREP Circular No. 523. Participating countries were asked to establish the National Task Force (NTF) and nominate Task Force Coordinators (TFCs) in SPREP Circular No. 524.

A Regional Task Force (RTF) to oversee preparation of the SAP was established, with one representative from each of five of the participating countries (Fiji, Marshall Islands, Samoa, Tonga, Vanuatu), 3 members of and chosen by SPOCC (SPC, SPF, SPREP), 3 GEF Implementing Agencies (UNDP, UNEP, WB), 2 NGOs (IUCN, TNC) and 1 private sector representative (Fiji Dive Operators Association, recommended by TCSP). The ADB and ESCAP also participated.

The RTF met on 5 and 6 June 1997 in Apia. It considered draft regional reviews, draft guidelines for national consultations, and draft terms of reference for the TFCs. The report of the RTF meeting was circulated.

The TFCs met in Apia on 8 and 9 July 1997 to receive a briefing on GEF, the SAP preparation process and objectives and suggested methodology for national consultations. They also received the draft reviews and other materials for the consultations. The report of the TFC meeting was circulated.

The SAP was prepared in accordance with the results of the national consultations. The results, in the form of national reports and targeted project proposals, were endorsed by the SPREP national focal point and were submitted to SPREP.

A preliminary draft executive summary of the SAP was circulated to participating countries, SPREP National Focal Points, PIC Missions to the UN, SPOCC members, RTF and TFCs in SPREP Circular No. 541.

The draft SAP was reviewed and approved by the RTF and the TFCs on 2 and 3 September 1997 at a joint meeting held in Apia. The report of the meeting was circulated.

The SAP was reviewed by the Heads of Government of the South Pacific Forum at their twenty-eighth meeting in Rarotonga on 15-19 September, 1997.



**ANNEX 9: COUNTRY FOCAL POINT LETTERS OF ENDORSEMENT**