

Pacific Regional Report

for the

5-Year Review of the Mauritius Strategy for Further Implementation of the Barbados Programme of Action for Sustainable Development of SIDS (MSI+5)

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Preamble

In accord with UNGA Resolution 63/213 (February 2009) in regard to progress with the Mauritius Strategy for the Further Implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (MSI), ESCAP through its Pacific Operations Centre in conjunction with others is coordinating the preparation of National Assessment Reports and a Regional Review Report for Pacific SIDS together with Timor Leste. This work continued through November to late January leading to a regional meeting, Pacific High Level Dialogue, in Port Vila, Vanuatu, 8-9th February 2010.

These activities were ongoing and in parallel due to time constraints and with a view to ensuring complementarity during and immediately following the High Level Dialogue meeting in Port Vila.

The High Level Dialogue was attended by Ministers of Finance/National Planning from the Pacific SIDS as well as their senior officials. Representatives of international and regional organisations attended as well. The meeting was opened by the Prime Minister of Vanuatu and the Under-Secretary General and Executive Secretary of UNESCAP. It was closed by the President of Kiribati. The Chief Executive Officers and Senior Officials of regional organisations moderated discussions.

The reports will together comprise the submissions from the region to the MSI+5 High Level Review Meeting to be convened in New York in September 2010. They will be submitted through ESCAP to the Special Body on the Pacific to be convened in conjunction with the Commission Meeting in Korea in May, and to the UN Commission for Sustainable Development meeting in May in New York for consideration at a SIDS Inter-Regional Meeting held immediately prior to the SIDS Day which will act as the Preparatory Committee for the High Level Meeting.

This Regional Report and National Assessment Reports and the outcome of the Vila Meeting should also inform preparations for the UNGA high-level review of the Millennium Development Goals, the UNGA high-level session on biodiversity conservation and the 10th Conference of the Parties to the Convention on Biological Diversity, recognising that this MSI+5 review is taking place in this International Year of Biodiversity. These meetings will be convened later in 2010.

The vulnerability of Pacific SIDS is without question, as has been recently demonstrated by the adverse impacts of the current global financial and economic crisis, coming on top of the 2007/2008 food and fuel crises, and the 2009 natural disaster events including the floods in Fiji in January, and the earthquake and tsunami in American Samoa, Samoa and Tonga in September, and the early January 2010 earthquake and tsunami in the Western Solomon Islands impacting an area which is still reconstructing infrastructure following similar events less than three years ago. Also during 2009 there have been two inter-island ferry disasters in Kiribati and Tonga, each with a substantial loss of life.

The MSI 5-year progress review provides an opportunity to assess policy measures to address the adverse impacts of the global crises, including the degree of alignment of these responses with achievement of MDGs and the development of national sustainable development strategies (or the like).

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Executive Summary

The small island developing States (Pacific SIDS) referred to in this report are Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu, and Vanuatu¹.

Without any doubt, as the volume of this report signifies, Pacific SIDS have since 2005 made progress with actions called for in the Mauritius Strategy for further implementation of the Programme of Action for the Sustainable Development of SIDS agreed to in Barbados in 1994 (MSI).

This progress has been made possible primarily through the efforts of the Pacific SIDS themselves together with the direct support of their intergovernmental regional organisations and non-government organisations, but also with the substantial support of development partners. This support is greatly acknowledged.

Furthermore, it must be highlighted that the unprecedented global crises since 2007 have had, and continue to have, a major impact on Pacific SIDS and their efforts to progress national sustainable development. No country has been spared the adverse impacts of the fuel, food and financial crises, though it is a reality that given the diversity amongst the countries some have suffered more than others. Ongoing impacts throughout 2010 are certain and these may extend in some countries into 2011.

The vulnerability of Pacific SIDS is without question, as has been recently demonstrated by the adverse impacts of the current global financial and economic crisis, coming on top of the 2007/2008 food and fuel crises, and the 2009 natural disaster events including the floods in Fiji in January, and the earthquake and tsunami in American Samoa, Samoa and Tonga in September, and the early January 2010 earthquake and tsunami in the Western Solomon Islands impacting an area which is still reconstructing infrastructure following similar events less than three years ago. Also during 2009 there have been two inter-island ferry disasters in Kiribati and Tonga, each with a substantial loss of life.

Whilst the vulnerability, in all its manifestations, of the Pacific SIDS remains, it is also increasing. On the other hand building largely on traditional social systems, the resilience and capacity to cope is lagging behind. The recent natural and human-induced disasters affirm these realities, as do all the predictions in regard to the adverse impacts of climate change. Pacific SIDS may, almost paradoxically, be described as resilient social systems which can succumb to a “knock-out” event at any time.

Reporting during 2009 on progress with the Millennium Development Goals highlights some positive progress having been made to address poverty, hunger, disease, lack of adequate shelter, and exclusion, while promoting gender equality, education, and environmental sustainability. But, the reporting also warns that there is no room for complacency, renewed effort is needed immediately and over the ensuing years leading up to 2015.

Chapters 1, 2 and 3 of this report provide in summary form an overview and current context to the region.

¹ This report refers to the Pacific SIDS by the names in regular use in the region. It should be noted however that within the United Nations and its agencies: (i) Federated States of Micronesia is Micronesia and;(ii) Marshall Islands is Republic of the Marshall Islands. It should also be noted that Cook Islands and Niue are not full members of the United Nations.

Key to this report are Chapters 4, 5, and 6 which review progress in Pacific SIDS with each of the thematic areas of the MSI, the crosscutting issues and elements of implementation.

Chapter 7 provides a summary of progress with the Millennium Development Goals, whilst Chapter 8 provides a brief review of the impacts of the recent global crises.

The final chapter “A Way Forward for the Region” provides a summary of the challenges, trends, and emerging issues. It is anticipated this chapter will serve as a strategy for Pacific SIDS delegations during the MSI+5 review meetings.

Highlights of some 30+ concrete actions taken during the period 2005-2009, good practices, and effectiveness of implementation include the following, it should be noted that they are not prioritised in any way.

- In regard to an effective regional enabling environment, the Forum Leaders (Pacific Islands Forum Leaders: Pacific SIDS including Australia and New Zealand, but excluding Timor Leste) in 2005 adopted the Pacific Plan, to strengthen and deepen regional cooperation and integration.
- The Forum Leaders endorsed the Principles of Aid Effectiveness in 2007, as a set of nonbinding principles designed to fit the Pacific context but modeled on the Paris Declaration on Aid Effectiveness (2005), and including actions and approaches for both Pacific SIDS and development partners.
- In 2009 Forum Leaders adopted the Cairns Compact on Strengthening Development Coordination in the Pacific to bring new determination and an invigorated commitment to lift the economic and development performance of the region.
- Significant new and increased multiyear commitments from development partners have been announced since 2005, in particular from Australia, the European Union, and the GEF.
- Several sectoral/thematic regional strategies and action plans were developed and/or revised, and are referred to in the relevant chapters of this report.
- In 2007, PIFS established policy on “A Consultative Status and Accreditation between the Forum and Pacific Regional Non-State Actors”.
- With a view to increasing private sector participation in, and contribution to, development the Pacific Islands Private Sector Organisation was established in 2005 and its members comprise the national private sector organisations of all Pacific SIDS.
- In regard to effective national enabling environments, all Pacific SIDS have an overarching development plan, many have a long term vision and also include goals, guiding principles or strategic areas. Nauru, Niue, Tuvalu, and Cook Islands have national sustainable development strategies (NSDS) per se approved, whilst other countries are currently reviewing, or intending to review, existing national development plans. Most Pacific SIDS are grappling with how to embed the principles of sustainable development into the overarching national development plan review process without generating a second document.
- Climate Change: At the 2008 Forum meeting, Pacific Leaders adopted the Niue Declaration on Climate Change to highlight the serious impacts of and growing threat posed by climate change to the economic, social, cultural and environmental well-being and security of Pacific SIDS, and committed members to continue to adopt Pacific-tailored approaches to combating climate change, and called on development partners to increase technical and financial assistance, immediate and effective measures to reduce emissions, cleaner use of fuels, and increase use of renewable energy sources.
- In 2009 the Pacific Year of Climate Change was coordinated by SPREP.
- In 2008 the Pacific Year of Coral Reefs was coordinated by SPREP.
- The Forum Leaders approved the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005 – 2015: Building the Resilience of Nations and Communities to Disasters.
- The Pacific Disaster Risk Management (DRM) Partnership Network was established in 2006 and is coordinated by SOPAC. It has been established to provide support to Pacific SIDS in the development and implementation of Disaster Risk Management National Action Plans consistent

- By 2009 DRM National Action Plans have been developed for Vanuatu, Marshall Islands and the Cook Islands. Implementation of the respective plans progresses in these countries. Similar plans are under development in Fiji, Federated States of Micronesia, Tonga and Palau.
- The Pacific Platform for Disaster Risk Management was launched in 2008. The Platform convenes under one umbrella three previously independent meetings, i.e. the Meetings of Regional Disaster Managers, the Pacific DRM Partnership Network, and CEOs of Planning, Finance and Disaster Risk Management. The Platform is providing the formal link of the region to the global ISDR system.
- In 2008, the United Nations International Strategy for Disaster Reduction (UNISDR) established a Sub-Regional Office for the Pacific in Fiji.
- Following global humanitarian reform, humanitarian organisations with a regional capacity to respond in Pacific SIDS agreed to collaborate closely to improve preparedness and response under the banner of the Pacific Humanitarian Team (PHT). The PHT, facilitated by UNOCHA, aims to operate in a coordinated way through humanitarian clusters in support of Pacific SIDS and includes a majority of humanitarian organisations in the Pacific NGOs, donor partners, regional, international and United Nations organisations.
- Waste Management: Development of national and regional waste management strategies (including marine pollution strategies), guidelines and legislation, together with support to administer the chemical cluster of multi-lateral environmental agreements as well as the development of national chemical management strategies coordinated by SPREP.
- Coastal and Marine Resources - Fisheries:
 - In 2007 Forum Leaders meeting adopted the Vava'u Declaration on Pacific Fisheries Resources "Our Fish Our Future".
 - The Western and Central Pacific Ocean Fisheries Commission (WCPFC) was established by the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, and held its inaugural meeting in December 2004 just before the Mauritius Meeting.
 - In 2008 Pacific SIDS which are Parties to the Nauru Agreement (PNA: Federated States of Micronesia, Kiribati, Marshall Islands, Palau, Papua New Guinea, Solomon Islands and Tuvalu) in regard to tuna purse seine fishing licenses agreed to enter into a Third Implementing Arrangement which represents a bold step towards more effective management and conservation efforts, and a new PNA Secretariat is currently being established in Majuro.
 - In coastal fisheries and aquaculture concrete actions included: coastal fisheries science; ecosystem and community-based fisheries management; and support for both freshwater and marine aquaculture, including the agreement of the regional Aquaculture Action Plan, and several national aquaculture plans.
- Extended continental shelf claims: Eight Pacific SIDS, Cook Islands, Fiji, Federated States of Micronesia, Papua New Guinea, Solomon Islands, Palau, Tonga, and Vanuatu, successfully lodged their submissions under Article 76 of UNCLOS for a total of about 1.8 million square kilometres of additional seabed territory before the May 13th 2009 deadline.
- Water and Sanitation: The period 2006-2009 has seen increased support and intervention in the water and sanitation sector in the region. This unprecedented growth has been guided largely by a number of strategic policy instruments developed by the region, and the establishment of the Pacific Water Partnership on Sustainable Water Management.
- Land Resources: A new Centre of Excellence for Atoll Agriculture Research and Development in the Pacific has been established in South Tarawa, Kiribati to become a focal point for Pacific scientists working on the development of technologies to help atoll farmers increase their productivity.
- The Pacific Organic Standard 2008 promotes a holistic approach to development to address many key areas of concern for Pacific SIDS including: economic development; environmental

- Energy Resources: Currently ten Pacific SIDS have endorsed national energy policies and strategic action plans and nearly all Pacific SIDS have adopted strategies for promoting renewable energy such as solar, wind, ocean, wave, geothermal, biomass and hydro power.
- During 2009 the Bulk Procurement of Petroleum Initiative saw significant advancement. Agreement was reached on a government-to-government memorandum of understanding (MOU) outlining the central tenets of how this initiative will be implemented and the relationship of signatories to one another. So far four Pacific SIDS have signed and two others have indicated their intention to sign.
- The region in acknowledging the importance of energy as critical for sustainable economic development convened Pacific Energy Ministers Meetings in 2007 and 2009 where it had been some fifteen years since the previous Energy Ministerial. The communiqués from these meetings are setting priorities for the regional energy programme and guiding the regions energy sector initiatives. A further Energy Ministers Meeting is planned for mid 2010 to review the Pacific Islands Energy Policy.
- In support of tourism, organisations such as south-pacific.travel in collaboration with the private sector and member governments continue to support the creation of a tourism infrastructure helping the region to compete globally, and work has continued to develop the region's 'brand name' and to assist members break into new markets. A Regional Cruise Strategy was completed in 2008.
- Biodiversity: So far, six Pacific SIDS have accessed funding from the UNDP/GEF support of country action on the Convention on Biodiversity and the Programme of Work on Protected Areas Project that was launched in 2007.
- Major conservation, and/or marine protected areas initiatives have included: the Micronesia Challenge launched in November 2005; the Coral Reef InitiativeS for the Pacific (CRISP) established in 2006; the Coral Triangle Initiative launched in 2007; and Kiribati created The Phoenix Islands Protected Area, the world's largest protected marine reserve, in February 2008.
- In late 2004 just prior to the Mauritius Meeting, Forum Leaders endorsed the Forum Principles on Regional Transport Services (FPRTS) in recognition that the provision and maintenance of regular, reliable and competitive air and shipping services is crucial to Pacific SIDS. It recognised changes in the transport sector, including an increasingly competitive market and new international safety and security requirements, had significant implications for aviation and shipping in the Pacific region.
- The Pacific Aviation Safety Office (PASO) was established in 2005, and subsequently the Pacific Islands Air Services Agreement (PIASA) is about to come into force.
- Shipping services in small island states have greatly improved with Kiribati Shipping Services Limited (KSSL) commencing a regular feeder service from Suva to Nauru and Tuvalu in June 2009 and this is expected to complement existing services.
- Implementation of the Regional Digital Strategy (2005) has seen significant progress; the number of Rural Internet Connectivity Scheme (RICS) sites continues to grow across the region; there is continuing roll out of the One Laptop Per Child (OLPC) initiative; and tenders were called in 2009 to support the implementation of South Pacific Information Network (SPIN) which six countries and territories have signed up to.
- Significant progress was made in various areas of the health sector which benefited from ongoing efforts to strengthen collaboration and harmonise inputs, including in 2007 the Ministers of Health endorsing the Vanuatu Commitment in 2007 and the Madang Commitment in 2009 to strengthen the health sector in Pacific SIDS, including addressing food security and the impact of climate change on health, NCDs, HIV/AIDS and other STIs, the Asia Pacific Strategy for Emerging Diseases (APSED) serving as a tool for implementing the revised International Health Regulations (IHR 2005), bulk procurement of pharmaceuticals, and sustainable financing and human resources for the provision of health services.

- The second cycle (to 2013) of the Pacific Regional HIV Strategy, its implementation plan, and the Pacific HIV and STI Response Fund has been formally established and made operational with the disbursement of funding to governments, regional partners and civil society to support activity implementation having commenced. Following the approval and subsequent fund negotiations with the board of the Global Fund to fight AIDS, Tuberculosis and Malaria, Round 7 of the Pacific Islands multi-country proposals have commenced implementation with good progress being made to date in a range of activities across the region.
- Vai Pasifika, established in late 2007, is the e-newsletter of the Pacific Islands Observing Systems and aims to provide stakeholders working within the context of national sustainable development strategies with relevant up to date scientific and technical data. It is released quarterly and links the Pacific Islands Global Ocean Observing System (PI-GOOS), the Pacific Islands Global Climate Observing System (PI-GCOS), and the Pacific Islands Hydrological Cycle Observing System (Pacific HYCOS).
- An Action Plan to assist Pacific SIDS implement the regional model framework for traditional knowledge protection was endorsed in 2008.
- In regard to regional trade, seven Pacific SIDS, Cook Islands, Fiji, Niue, Samoa, Solomon Islands, Tuvalu and Vanuatu have announced readiness to trade under Pacific Island Countries Trade Agreement (PICTA). The rest are at different stages of implementation. With respect to engagements in Pacific Agreement on Closer Economic Relations (PACER-Plus) discussions, a series of informal meetings held over the past year have seen progress. Four Pacific SIDS are members of the WTO: Fiji, Papua New Guinea, Solomon Islands and Tonga. Samoa and Vanuatu are WTO observers and in the process of acceding to the WTO. Regional Trade Ministers have remained engaged in discussions relating to developments in the WTO's Doha Round of Multilateral Trade Negotiations. In 2007, the European Commission initialed an Interim Economic Partnership Agreement with Papua New Guinea and Fiji. This Interim Agreement is open to any other interested Pacific SIDS.
- Education: In 2009 a notable development in the education sector was the completion of a comprehensive review and assessment of the Forum Basic Education Action Plan which revealed that its main delivery vehicle, PRIDE, has had greater impact at the national level since the 2007 Forum Education Ministers' Meeting.
- Knowledge management and information for decision-making: In Pacific SIDS, many existing and new information systems have been developed and/or strengthened in the past 5 years at all levels. Monitoring environmental change has in recent years moved forward a quantum leap with the ability to quantify rates of change at scales appropriate for small islands, digitise and merge spatial historical data. These databases are increasingly accessible "on-line" via user-friendly portals utilising GIS such as the SOPAC GeoNetwork, and the Pacific Regional Information System (PRISM) at SPC.
- The Environmental Vulnerability Index (EVI) was launched by Pacific SIDS at the Mauritius Meeting. An EVI Diagnostic Report and Action Plan has been prepared for each of the Pacific SIDS except Timor Leste. They identify the key issues threatening the environmental support system of each country, as well as areas of existing good resilience that could be preserved to prevent vulnerabilities from developing in the future.
- The Festival of Pacific Arts (FPA), initiated in 1972, held its 10th session in 2008. It is a unique event in that all performances and events are open to the public, free of charge. The Festival is about sharing and exchange of Pacific cultures and its guiding principles and objectives, as established by the Council of Pacific Arts,
- Three Pacific heritage sites were, for the first time, listed in 2008 on the World Heritage list: the Chief Roi Mata domain in Vanuatu; Kuk, one of the world centres of agricultural innovation, in Papua New Guinea, and the lagoon of New Caledonia.
- USP and UNESCO have established a Chair in Teacher Education and Culture, to promote culturally inclusive curriculum development to promote culturally inclusive teacher education.
- The UN Development Assistance Framework (UNDAF) for the Pacific Subregion 2008-2012, estimated at around US\$310 million, represents the first region-wide response to the UN operational reform process, and is a product of several partnerships in development, including

- The UN established the Pacific Regional Centre in Fiji in 2006 The Centre supports the Pacific SIDS in: crisis prevention and recovery; democratic governance; and MDG achievement and poverty alleviation. It is complemented by two centres, one in Bangkok and the other in Colombo.
- In 2005 the UNESCAP Pacific Operations Centre was moved from Port Vila to Suva, and in early 2010 has been upgraded to the UNESCAP Pacific Sub-Regional Office.

Chapter 1: The Pacific Islands Region

The Pacific region, for the purpose of this report, comprises 15 Pacific small island developing States (Pacific SIDS), and includes the 14 island countries who are members of the Pacific Islands Forum, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu, together with Timor Leste (refer footnote 1 at beginning of Executive Summary). All are members of the Alliance of Small Island Developing States (AOSIS). Kiribati, Samoa, Solomon Islands, Timor Leste, Tuvalu and Vanuatu, are also Least Developed Countries (LDCs).

All the Pacific SIDS were represented, many by the Head of Government, at the Mauritius International Meeting on SIDS in January 2005. Later that year, Pacific Leaders meeting at the Pacific Islands Forum adopted the Pacific Plan as a living document (refer Chapter 3) to strengthen regional cooperation and integration, and in response to the many challenges facing Pacific SIDS. It is a coincidence this was the same year in which Pacific Leaders met with their counterparts from other small island developing States and the international community and agreed to the Mauritius Strategy. The Leaders vision in the Pacific Plan is as follows.

The Pacific Plan: Leaders Vision²

Leaders believe the Pacific region can, should and will be a region of peace, harmony, security and economic prosperity, so that all of its people can lead free and worthwhile lives. We treasure the diversity of the Pacific and seek a future in which its cultures, traditions and religious beliefs are valued, honoured and developed. We seek a Pacific region that is respected for the quality of its governance, the sustainable management of its resources, the full observance of democratic values and for its defence and promotion of human rights. We seek partnerships with our neighbours and beyond to develop our knowledge, to improve our communications and to ensure a sustainable economic existence for all.

The latest Pacific Regional Strategy³ 2008-2013 agreed to between the Pacific SIDS and the European Union for access to the 10th European Development Fund describes the region as:

“A different kind of place....the Pacific is the largest geographical entity in the world. It is more accurately considered to be the aquatic equivalent of Eurasia or Africa or the Americas. This concept is important because it explains the asymmetries that must be considered when assessing the benefits and calibrating the expectations of Pacific regionalism. For instance, at one third of the Earth’s surface, in terms of physical geography, the Pacific is the largest entity in the world, but in terms of human settlement, it is by far the smallest, with less than 10 million inhabitants. Achieving economies of scale in such an environment would require the world’s most costly infrastructure (ships, planes, ports, airports, satellite or submarine telecommunications, oil and gas pipelines, etc.). Add to this the effects of diversity: some countries are huge in comparison to others (Papua New Guinea 462 000 km² versus Nauru 21 km²) and while some are resource-rich (Papua New Guinea, Timor Leste), the land area and resource base of others is very limited (Nauru, Kiribati, Tuvalu, and Marshall Islands). The region is also home to almost one-third of the world’s languages.”

As the table below demonstrates, the Pacific SIDS are dispersed over a very large geographical area and differ in size, population, resource base and development constraints and prospects.

A recent ADB report⁴ highlights that despite these quite dramatic overall differences, Pacific SIDS share a particular commonality: their vulnerability. Furthermore, this vulnerability has increased over

² <http://www.forumsec.org>

³ <http://www.ta2rao.org>

the last decade whilst building resilience has not kept pace. Vulnerability in this context is used in its broadest context whether it results from internal or external actions or whether it be economic, social, environmental or governance related.

	LAND AREA (km ²)	EEZ AREA (km ²)	POPULATION (estimate for mid-2009)	GDP/capita (USD)	GDP Growth Rate 2007 (estimated)	Human Development Index
Cook Islands	237	1,830,000	15,636	10,007	0.4	0.829
Federated States of Micronesia	701	2,978,000	110,899	2,183	0.1	0.716
Fiji Islands	18,272	1,290,000	843,883	3,182	-3.9	0.718
Kiribati	811	3,550,000	98,989	656		0.597
Marshall Islands	181	2,131,000	54,065	2,851	2	0.708
Nauru	21	310,000	9,771	2,820	0.2	0.637
Niue	259	390,000	1,514	5,854		0.821
Palau	444	616,000	20,397	8,423	5.5	0.810
Papua New Guinea	462,840	3,120,000	6,609,745	1,062	6.2	0.437
Samoa	2,935	120,000	182,578	2,860	4.7	0.762
Solomon Islands	28,370	1,340,000	535,007	1,100	6.3	0.579
Timor Leste	14,874	70,326	1,155,000	392	16.2	0.489
Tonga	650	700,000	103,023	1,874	-3.5	0.737
Tuvalu	26	900,000	11,093	1,563	3	0.691
Vanuatu	12,190	680,000	238,903	1,908	4.7	0.640
Total	542,811	20,025,326	9,990,503			

Sources:

SPC and SOPAC databases
UN Statistics Division National Accounts Main Aggregates Database
Draft Pacific Human Development Report 2009

It is absolutely necessary to acknowledge at this time that despite Pacific SIDS ongoing efforts, much of which has been with their own limited resources, to respond to calls and commitments through global agendas such as the MDGs and the Mauritius Strategy, their remains a critical issue. That is, many of the hard-earned gains of the past two- three decades maybe eliminated by the adverse impacts of climate change, the immediate impacts of natural disasters, together with the impacts of the recent food, fuel and financial global crises.

In an ever-globalising world, the human and social characteristics continue to be dominated by growing exposure and vulnerability alongside increasing inabilities to respond. A major disadvantage is the small population base tending to lead to a narrow range of on-island resources and skills. Dependence on international trade and limited domestic markets for local products creates vulnerability to global developments and limited employment and livelihood opportunities at national level. Growing pockets of high population density increase the pressure on limited resources, for example overfishing, freshwater depletion, and pollution.

Pacific SIDS additionally contend with relatively costly public administration and infrastructure, particularly transportation and communication, along with limited institutional capacities. Trade is affected because limited export volumes, sometimes from remote locations, lead to high freight costs and marketing difficulties. Isolation influences small island ecology too. Islands often exhibit high levels of biodiversity characterised by many plants or animals indigenous to only one island or island area. The small size of islands, though, means that each species has a relatively small population imposing high risks of extinction and a strong need for protection. Notwithstanding these characteristics, the ecology, culture, uniqueness, and isolation of islands are generating an ever-growing tourism industry.

Despite these challenges and vulnerabilities, small island isolation in Pacific SIDS has also produced resilient island communities. Traditions, cultures and social structures have preserved resilience-

⁴ The Millennium Development Goals in Pacific Island Countries: Taking Stock, Emerging Issues and Way Forward. 2009: A report prepared by ADB in conjunction with the UNDP Pacific Centre

building elements and coping capacity. This strength is founded on extended family values and communal mechanisms that link to national systems. Tight kinship and a highly-localised economy often lead to subsistence livelihoods devoid of larger economic structures. Reliance on each other, community cooperation to ensure that essential systems work, an understanding of their small environment, and a tradition of coping with local resources, have together contributed to building an ethos and psyche of dealing with whatever events occur through community cooperation. Sadly, these indigenous systems of ensuring social safety for everyone are gradually being eroded and they are often at odds with more modern concepts of governance, decentralisation and social welfare.

Given their size, Pacific SIDS can be entirely devastated by a natural disaster, with the sustaining environment, social fabric and resulting livelihoods virtually destroyed. Decades of development effort can be eliminated in a few hours, as demonstrated in by Cyclone Heta in Niue in January 2004, the earthquake and accompanying tsunami in the Western Solomon Islands in April 2007 and again in January 2010, the floods in Western Viti Levu in Fiji in January 2009, and the earthquake and accompanying tsunami of September 2009 in American Samoa, Samoa and Tonga.

Despite a strong understanding of the environment, many Pacific islanders often have little perception of increasing vulnerability, especially due to longer-term changes. People living on small islands generally understand their island, its characteristics and how to build resilience, yet do not have the adaptive capability or sufficient alternative options and resources to cope with significant environmental changes. Future implications are increased vulnerability, less understanding of current and potential risks, and a growing inability to deal with these issues. In recent years, much work has been undertaken by a range of development partners, to strengthen community resilience to disaster risk reduction by building on traditional knowledge and systems, and taking into account the role and contribution of women.

Foremost for all Pacific SIDS in the context of their increasing vulnerability is climate change. Reducing the risks associated with the impacts of climate change including extreme weather and climate variability and accelerated sea level rise is a fundamental developmental challenge faced by Pacific SIDS. This must be urgently addressed in order to contribute to improving livelihoods, economic wellbeing and health, as well as maintaining biodiversity, culture and security.

The adverse effects of climate change and sea level rise present significant risks to the sustainable development of Pacific SIDS and the long-term effects of climate change may threaten the very existence of some of them. Their priorities and needs in the area of climate change are reflected in international documents such as the Mauritius Strategy. These are also reflected in national communications, the outcomes of the United Nations Framework Convention on Climate Change (UNFCCC) Conferences of the Parties, and the outcomes of related international meetings. At the regional level, the priorities and needs of Pacific SIDS have been reiterated for over a decade in relevant documents such as Forum Leaders Communiqués, regional policy frameworks and related action plans together with the strategic plans of the regional intergovernmental and non-governmental organisations. At the national level, Pacific SIDS are also taking action to address climate change through their national sustainable development strategies, or their equivalent, which are increasingly being linked to national budgetary and planning processes. In 2007, the Fourth Assessment Report of the Inter-governmental Panel on Climate Change (IPCC) identified small island states as being among the most vulnerable countries of the world to the adverse impacts of climate change.

The Pacific Islands Framework for Action on Climate Change, 2006-2015, is consistent with the timeframe of the MDGs. It comprises six principles: implementing adaptation measures; governance and decision making; improving our understanding of climate change; education, training and awareness; contributing to global greenhouse gas reduction; and building partnerships and cooperation. The Framework is intended to promote links with, but in no way supersedes, more specific regional and national instruments and plans across specific sectors that link to weather and climate including: water, agriculture, energy, forestry and land use, health, coastal zone management, marine ecosystems, ocean management, tourism and transport.

In summary, the characteristics of small island economies and communities can thus be described as, almost paradoxically, resilient social systems which can succumb to a “knock-out” event at any time.

Chapter 2: Overview of the Political, Economic, Social and Environmental Situation

The Regional Support Strategy 2008-2013 for 10th European Development Fund (EDF)⁵ agreed to by Pacific SIDS and the European Union provides a current and very useful analysis of the political, economic, social and environmental situation of the region. What follows is substantively replicated from that analysis supplemented by input from other sources, including references to gender equality issues, such as gender mainstreaming as all over the world including in the Pacific SIDS, gender equality remains a struggle to achieve and a critical development issue.

2.1 Political Situation

Most Pacific SIDS operate as multi-party democracies with freely elected governments. Being relatively young democracies, most of them face a wide range of development challenges, which include good governance and capacity development of public institutions in particular. There is still a need for enhanced political and social dialogue and consequently state consolidation.

Some constitutional arrangements are under revision (Solomon Islands), some have changed significantly with a high degree of devolution to the provinces (Papua New Guinea) and some are in the process of democratic transition (Tonga). Timor Leste has defended (with the assistance of the international community) its democratic credentials despite major challenges. In April 2009 Fiji abrogated its constitution.

Peace and security: Pacific SIDS have been able to maintain satisfactory levels of national safety and security and to address on their own or by means of regional assistance and cooperation the instances of political instability and conflict that have occurred, notably since 2000.

The main causes of conflict in the region are often related to ethnic differences, land disputes, disparity of economic opportunity, and a lack of confidence in the ability of central governments to resolve provincial differences satisfactorily.

Apart from the case of Timor Leste, peace and security issues have always been dealt with internally by the region. A regional mechanism, the Biketawa Declaration, has been in force since the year 2000. Requests for assistance and mediation under the Biketawa Declaration have been taken up on two occasions: the Regional Assistance Mission to the Solomon Islands (RAMSI) following ethnic tensions in 2003 and the Pacific Regional Assistance to Nauru (PRAN) after near economic collapse in 2003/4.

Land and Conflict: In recent years, concerns have grown about political crises, social unrest, violent conflict and violent criminality in parts of the Pacific region. Issues concerning land have been a prominent feature in many of these conflicts and crises. The conflict on Bougainville, Papua New Guinea had its origins in grievances of landowners over the Panguna mine that was located on their land. In Solomon Islands, tensions resulting from a growing number of Malaitan settlers on customary land in Guadalcanal were part of the causes of conflict between Guale and Malaitan militia groups.

At the community level, conflict related to land is a feature of many Pacific SIDS, and is bound up with the distribution of benefits of economic development on customary land, the need for governments to access land for public purposes, and the migration of people. Conflict related to land at the community level takes place between customary landowners, within or between groups, or between customary landowners and companies, the state, or settlers.

⁵ <http://www.ta2rao.org>.

Possibilities for the prevention of land-related conflict lie in approaches that offer creative solutions to balance ways to encourage access to customary land for economic development and public purposes, with the protection of the security that is offered to people in the region through customary land ownership. In regard to land management and conflict minimisation guiding principles and an implementation plan were agreed to by Pacific Leaders and are include in the Niue Forum Communique 2008.

Governance and democracy: In the last few years there has been overall improvement in governance and democratisation in the region, including in the area of media ownership and control, the increased involvement of civil society and the participation of external observers in electoral processes. However, some of these changes have been top-down and the situation in Fiji, in particular, is extremely complex as regards a return to free elections. The low literacy levels and social vulnerability in the Solomon Islands leave room for the electoral processes to be manipulated. At the opposite end of the scale, in highly literate Tonga, which experienced rioting in 2006, domestic legislation is ongoing to expand democratic suffrage. This was already part of the agenda at the 2008 elections. All in all, the role of parliaments is being strengthened and the governance process is becoming more transparent.

Human rights: Freedom of speech is generally the norm although government relations with the independent media are at times uneasy in Fiji. Delays in implementing United Nations human rights conventions and declarations have been reported.

During 2009, eight Pacific SIDS passed or are in the process of passing rights-based policies including the UN Convention on Eradication of all forms of Discrimination Against Women (CEDAW) and the UN Convention on the Rights of the Child (CRC), and four countries having signed the UN Convention on the Rights of Persons with Disabilities. Disabled Persons Organisations have played a leading role in advancing awareness of disability in Pacific communities and have actively engaged governments to develop policy. Furthermore, a Pacific Regional Strategy on Disability is to be developed, but it remains a concern to note that governments and donors alike still neglect to include disability when reporting on the achievement towards the MDGs.

It is becoming apparent that climate change will have implications for the enjoyment of human rights. The United Nations Human Rights Council recognised this in its resolution 7/23(PDF) “Human rights and climate change” (28 March 2008), expressing concern that climate change “poses an immediate and far-reaching threat to people and communities around the world” and requesting the Office of the United Nations High Commissioner to prepare a study on the relationship between climate change and human rights. Marshall Islands was the only Pacific SID that made a submission in which they state: “No international political or legal body has yet to sufficiently recognise or assure these basic human rights and fundamental freedoms in the context of climate change.” It may be appropriate to establish a regional committee to explore this issue.

2.2 Economic Situation

Macroeconomic performance: Pacific SIDS economies suffer from diseconomies of scale in production and exchange of goods and services, high vulnerability to natural disasters and remoteness from export markets. Most Pacific SIDS have experienced low average growth in output during the past decade while their growth rates have shown large fluctuations. Trade deficits have been on the rise due to declining exports and increasing imports. The challenge of the global economy is particularly high for those countries with limited human resources and technology and poor management skills. Gender inequality also manifests itself in Pacific SIDS in the economic sector in the context of labour force participation.

As reported by the ADB⁶, for 2009, updated economic growth forecasts for the Pacific SIDS have been downgraded because of the global economic crisis. Lower oil prices will provide inflationary relief and will have eased pressures in some countries on the balance of payments in the first half of 2009. But any relief will be temporary and it is important to avoid the emergence of a false sense of security. Economic growth is expected to be down overall in 2009. Overall, the Pacific SIDS economies grew at an estimated 5.1% in 2008. In 2009, overall growth is expected at only 3.0%. An economic contraction (negative growth) is projected in Fiji, Federated States of Micronesia, Palau, Samoa, and Tonga, and economic growth is expected to be low in most other Pacific SIDS. Even if the global economy turns around in 2010, lags mean that economic conditions will be tough for the Pacific SIDS in 2010 and problems may continue into 2011. Only Timor Leste, Papua New Guinea and possibly Vanuatu are expected to show adequate growth rates over 2009. Governments in Papua New Guinea and Timor Leste are now spending revenue saved during the boom period of high commodity prices. This is helping support their economies during 2009 and into 2010. In these two economies, the income growth needed to help lift living standards and reduce poverty will continue for now, albeit at a slower rate in Papua New Guinea. Real estate development and tourism remain firm in Vanuatu, partly because tourists appear to be diverting from Fiji, and this is expected to result in moderate growth in Vanuatu. A key concern is that slow economic growth or an economic contraction will lead to a reversal of hard-won gains in living standards.

With the exception of the Solomon Islands and Tonga, inflation is expected to remain in the low single digits. However, inflation remains a risk in the Melanesian countries due to the heavy inflows they are receiving: aid and forest revenue in the case of the Solomon Islands, commodity revenue for Papua New Guinea and Timor Leste, and property investments for Vanuatu. The economies of Fiji and Tonga, on the contrary, have been contracting in the wake of political instability.

The Smaller Island States (Cook Islands, Kiribati, Marshall Islands, Nauru, Niue, Palau and Tuvalu) have seen their economies grow at less than 3 percent for the last three years, four of them at less than 2 percent. This relative stagnation reflects continued reliance on aid, remittances and Distant Water Fishing Nations (DWFN) fishing access fees. Palau is the relative exception, with 6% growth, mainly because of tourism. Several Smaller Island States (SIS) are still facing fiscal problems, including Kiribati, Marshall Islands (as USA budget aid has been reduced), and Nauru following prolonged mismanagement of its national wealth.

Public revenues across the region could be increased by tackling the underlying problem of tax competition, which is sometimes supported by the existence of an international financial services sector.

It is estimated that economies will need to grow at about 7 to 8 percent per annum to create employment and improve livelihoods.

Key sectoral trends: The relatively faster growth shown by Timor Leste and Solomon Islands reflects rehabilitation of political stability in both countries. In Papua New Guinea palm oil output continues to grow with strong profits and new investment. In Fiji, sugar productivity gains will need to be sustained over the long term as the country competes with other developing countries in the increasingly liberalised EU market. On the other hand, horticultural exports from Fiji, though on a much smaller scale, show rapid growth.

Tourism: This is the largest and fastest growing sector in the Pacific. It is conservatively estimated that the sector contributed USD\$1.5 billion to the region's economy in 2004, excluding contributions from the cruise sector. This is the result of a 50 percent growth rate over the past five years. Assuming that this level of growth could be maintained, the tourism sector could net earnings of nearly US\$2

⁶ ADB Pacific Studies Series 2009: Taking the Helm—A Policy Brief on A Response to the Global Crisis.

billion per year by 2010. The impact of the recent global crises could, of course, result in more time being required to reach this level.

Given the strong growth in cruise tourism (due to retiring baby boomer populations in key markets and the rising cost of oil), it is possible that within the next decade sea may once again overtake air as the preferred method of visiting Pacific SIDS. This is good news for the Pacific SIDS that are not aviation hubs, as adequate capital investment could make them capable of catering for cruise visitors.

South Pacific tourism is dominated by Fiji, which receives about 40 percent of all visitors. It has traditionally also been a very important industry for the Cook Islands and for the three Pacific SIDS north of the Equator. Tourism contributes two thirds of Palau's economy, for example — the largest proportion in the Asia-Pacific region. The sector has also enjoyed growth in recent years in Samoa, Tonga and Vanuatu. Tourism is even being embraced by the bigger 'land-resource states' of Solomon Islands and Papua New Guinea – which was the fastest growing South Pacific visitor destination in 2007.

Small island states, such as Kiribati, Tuvalu, Marshall Islands, Nauru and Niue, are extremely remote but may benefit from niche tourism development in areas such as game fishing (for example Kiritimati Atoll, Kiribati), diving and ecotourism.

Fisheries: Much of the nutrition, welfare, culture, recreation, government revenue and employment of the Pacific SIDS is based on their fish stocks. Tuna fishery is by far the most valuable fishing activity, contributing more than 10% of GDP and over 50% of exports in some Pacific SIDS.

The Pacific is the most important tuna fishing ground in the world. The region supplies an estimated one-third of all landed tuna, 40-60 percent of total supply to tuna canneries, and 30 percent of tuna to the valuable Japanese sashimi market. Over two million tonnes of tuna are caught annually in the Western Pacific tuna fisheries, with a landed value of over US\$3 billion. Almost half of that catch is taken in the waters of Pacific SIDS. However, only some 10% of the total catch is accounted for by Pacific island vessels, with distant water fishing nations such as Japan, Taiwan, Korea, China, the United States and the European Community providing the bulk of fishing effort, in return for licence fees. The greater part of fees is paid to the Micronesian and more western Melanesian countries. For the Micronesian countries, these fishing licence fees represent a significant proportion of government revenues – the last estimates suggest that payments are in the order of more than 30 percent of government revenues in the case of Kiribati and over 20 percent in the Federated States of Micronesia.

Although tuna stocks in the Western and Central Pacific Ocean are generally still in a healthier situation than in other areas of the world, sustainability of some offshore and coastal fisheries is at risk. Fisheries scientists have stated that the current level of fishing of big eye and yellow fin tuna is unsustainable and called for fishing to be reduced by 25% and 10% respectively compared to 2001-2004 levels. In fact, 2005 and 2006 saw the highest and second highest ever total tuna catch. Another threat to sustainability is illegal, unreported and unregulated (IUU) fishing. The level of IUU fishing in the area is estimated to reach up to 15 percent of the total catch in Pacific SIDS waters (valued at a little over US\$1 billion). This is not only an ecological problem at times of dwindling fish stocks but also an economic one, as Pacific SIDS lose an estimated US\$150 million — about twice as much as what is received in licence fees. The Western Central Pacific tuna fisheries region is one of the few where there has been a significant reduction in IUU fishing as a result of improved controls by coastal states, but major challenges still remain and these are expected to increase as a result of overfishing elsewhere in the world.

Coastal fisheries are a major source of national food security and small-scale livelihoods. Although reliable overview estimates are difficult to come by, it is likely that oceanic fisheries and coastal fisheries are currently approximately equivalent in economic importance to island countries, taking the island region as a whole, and counting benefits in terms of import substitution and livelihoods as well as cash. The main difference is that tuna fisheries are relatively new and still have considerable

potential for further development — not so much in expansion of the total catch as in expansion of the Pacific SIDS share in the catching and processing sectors — while the coastal fisheries (apart from aquaculture) are age-old and do not, as a rule, have further commercial development potential. Aquaculture is a potential growth area that needs to be explored further.

Pacific SIDS need to work together to develop the local capacity of the region to catch their own fish and to process these fish within the Pacific SIDS. Only then can the full economic benefits of this resource be fully realised. Regional fisheries organisations must help build this capacity

Forestry: Tropical hardwood forests abound on the main island of Papua New Guinea and its island provinces. Botanically similar forests are found in the Solomon Islands and Vanuatu on a smaller scale. Despite government efforts, logging has continued at rates well above the natural regeneration rates of the forests. Deforestation and land degradation has become part of the social and environmental cost. Current methods make it unlikely that much of the forest will ever regenerate to valuable timber stands, while soil degradation is reducing the productive potential of the land and nearby reefs. At current rates, logging cannot be sustained. However, the cessation of logging is likely to result in a significant drop in income. Reforestation or regeneration will take 30 to 40 years in areas which have been carefully logged. In others there has been widespread damage, with the result that reforestation or regeneration may take 45 to 200 years. Significant under-reporting of logged volumes and values has also reduced the returns in the form of royalties and export tax.

For some of the smaller Pacific SIDS the limited areas of remaining forest constitute that last refuges for many economically and culturally important plants and animals and protection from some of the predicted adverse impacts of climate change-related sea level rises. For many small islands and urban areas on larger islands, agro-forestry systems and trees outside forests offer the same products and services that forests offer to the larger countries. Some countries have increasingly effective systems of conservation areas and/or national parks to protect their forests but few have legislation prohibiting the cutting (or programmes promoting the replanting) of endangered tree species. The result is that forestry can no longer be considered as a potential engine for economic growth in Pacific SIDS economies other than in carefully controlled niche modes.

Agriculture: Agriculture remains the single largest sector in many Pacific SIDS accounting for over 85% of foreign exchange, contributing substantially to total employment (40 – 80%), representing 20 – 40% of gross domestic product (GDP) and over 50% of exports. Subsistence agriculture is still the main source of real income and the main insurance against poverty for the majority of rural, and many urban, communities in Pacific SIDS. It is dominated by diversified small-scale semi-subsistence farm households with few large commercial operations.

In many Pacific SIDS, root crops, such as taro, cassava, sweet potatoes and yams, and trees crops, such as coconuts, bananas and plantains, pandanus, breadfruit, and kava still dominate agriculture production. In many Pacific SIDS, especially the smaller islands and atolls, agro-forestry and tree crops provide most of the food, medicines, construction materials, firewood, tools and countless other products or service that would either be impossible, or too expensive, to replace with imported substitutes.

High population growth rates and increasing urbanisation on islands with limited land and water availability and increasing soil salinity as a result of incursions of seawater, are a reality in the atolls and have serious implications for these fragile ecosystems. In the high volcanic islands farmers are moving away from shifting cultivation, where soil fertility was maintained and erosion controlled, to cropping plots of land every year. This intensified land use results in deforestation, soil erosion, declining yields and a decline in household food security.

The impact of the recent global food crisis is addressed in Chapter 8.2 of this report.

Remittances: Remittances play an increasingly important role in the economies of the Pacific SIDS, contributing towards economic growth and sustaining livelihoods, including meeting education and basic needs. Reduction in remittances is an important negative impact of the recent global financial crisis (refer Chapter 8.1 of this report).

Migration of labour to developed countries covers not only specialised skills such as doctors and engineers but also general trades, such as nurses, seasonal workers, and care-givers. Consequently, the recipients of remittances form a broad spectrum of society, making them very effective in addressing poverty-related issues. There are a good number of Polynesians (predominantly from Tonga, Samoa, Niue and Cook Islands) who, due to historical and cultural ties, reside permanently or temporarily in New Zealand. More recently, a growing number of Fijians have taken security-related contract work. The smaller countries of Kiribati and Tuvalu have a number of seafarers working on marine vessels in Europe and Asia.

Following the New Zealand example, the Australian Government has started a Seasonal Labour Scheme for unskilled Pacific Islanders (for example fruit picking), which could absorb the labour of those without access to or unable to complete education and training. Under the trial up to 2,500 visas will be available over three years for workers from Kiribati, Tonga, Vanuatu and Papua New Guinea.

In 2007, Fiji was one of the top ten remittance earners in the East Asia and Pacific region, with an estimated USD\$150 million. As a percentage of GDP this amounts to 5.8% compared to 32.3% for Tonga, 9.9% for Kiribati, 6.3% for Solomon Islands and 2.8% for Vanuatu. Remittances are also important in Federated States of Micronesia, Marshall Islands and Palau.

Energy: For all Pacific SIDS, energy (fossil fuels / petroleum products) remains one of the largest import components and is very significant in the overall balance of payments. The impact of the recent global energy crisis is considered in Chapter 8.2 of this report.

The region is particularly vulnerable in the context of energy supply where Pacific SIDS are predominantly reliant on the use of imported fossil fuels for their energy and transportation sectors. Currently the price of petroleum products in many of the Pacific SIDS is amongst the highest in the world, and recent economic assessments have indicated that petroleum imports as a percentage of GDP on average are in the order of 18 percent across the region. The direct impact on national income as a percentage of GDP is a decrease of 1.5% for every US\$10 increase rise in the price of world crude oil prices.

On the other hand, in Timor Leste and Papua New Guinea the challenge is about translating oil revenues into real growth opportunities. According to the World Bank, Timor Leste's petroleum reserves are crucial to the country's prosperity and independence. Total petroleum savings amounted to US\$1.4 billion at end June 2007, with approximately US\$100 million in new revenues accruing each month.

In addition, Pacific SIDS are further impacted by their relatively small storage capacities and the dispersed nature of relatively small islands within a large expanse of ocean, making transportation more complex and expensive. Rural and remote communities in the majority of Pacific SIDS are even further disadvantaged due to their remoteness, where the increasing cost of petroleum products is directly reflected in the cost of transport, which then significantly impacts on the delivered cost of products and services. Therefore, energy issues and the energy sector do not stand alone but are an integral part of daily living and can have both positive and negative economic implications.

Energy links strongly to sustainable development and more generally to the cross-cutting issues of climate change and climate variability. In addressing overall social, economic and environmental issues, the direct linkages between energy and food security are also real and growing challenges.

The ongoing emphasis placed on the energy sector by recent ministerial meetings and by the Forum Leaders provides the opportunity to develop a substantial programme of action to reinvigorate and bring about positive change in the energy sector.

2.3 Social Situation

An overview of progress towards the **Millennium Development Goals** is provided in Chapter 7 of this report.

Education: Although the lack of data from some Pacific SIDS makes it impossible to undertake a thorough analysis of the situation of education in the region, the recent ADB/UNDP Pacific Centre MDGs report indicates mixed progress in achieving the MDGs for education. Participation in primary education is relatively high, with net enrolment rates varying from 63% to 98%, thus confirming that many Pacific SIDS have achieved universal access to primary education. There has been mixed progress, however, on increasing the number of children who complete school, with primary school completion rates declining most significantly in Papua New Guinea and Vanuatu, and to a lesser extent in Fiji, but improving in Samoa and Tonga.

Gender parity in primary schools has improved in Tuvalu, Samoa, Niue, Kiribati and Solomon Islands, but slightly worsened in Papua New Guinea and Tonga during 1999 – 2004. An emerging gender trend is that girls stay at school longer and are more successful than their male counterparts in external examinations. This is also reflected in the higher education level at USP, where the enrolment and programme completion rates for girls and women outdo those of their male counterparts. Adult literacy in the Pacific remains a challenge in some of the very few countries in the region with available data, varying between 57 percent in Vanuatu and 99 percent in Tonga and Samoa.

Health: Non-communicable diseases are the major cause of death in the Pacific (75% in 2002): mainly heart diseases, strokes and cancers. Twenty percent of deaths are by communicable diseases, mainly diarrhoeal diseases, tuberculosis, meningitis, malaria, and maternal and perinatal deaths; and 5 percent caused by accidents. Environmental health is an issue in many parts of the region as sustainable access to improved water supplies and sanitation is not universal.

In the Pacific SIDS the annual incidence of diarrhoeal diseases nearly matches the numbers of its inhabitants: 6.7 million cases of acute diarrhoea a year, responsible for annual deaths of 2,800 people, most of them children less than 5 years old. Recent country statistics reveal that, on average, only about half of the total population of Pacific SIDS have any form of improved drinking water or sanitation. According to country coverage statistics provided by UNICEF and WHO (2008), the number of people in the Pacific SIDS with access to some form of improved sanitation rose from 2.9 million in 1990 to 4.0 million in 2006. Despite this achievement, it still barely covered 48 percent of the overall population. The status of drinking water is not much different, with some 46 percent of people currently having any type of improved drinking water reaching, not to mention the fact that only 13 percent of the overall population has access to drinking water piped to the household through a reticulated distribution system. These statistics, coupled with less than optimum management of water resources, merely add to the gloomy outlook in the Pacific SIDS brought about by climate change.

The resources of health systems are skewed towards costly curative services rather than primary or environmental health. Capacity is limited in many countries and there is a chronic shortage of health care workers due to inadequate numbers being trained and migration.

High fertility rates in the region make reproductive health and family planning services regional priorities. While infant mortality has declined throughout the region and generally women have proper prenatal, intra-natal and post-natal care, some countries may not achieve their targeted MDGs by 2015. For instance, the under-five mortality rate in Papua New Guinea has decreased only slightly and remains very high at 93 per 1000 live births.

HIV is low but on the increase in many Pacific SIDS, with Papua New Guinea already reaching generalised epidemic rates (An epidemic is generalised when over 1 percent of the population is affected by the disease). Between 50 000 and 150 000 people have HIV/AIDS region-wide. Prevention remains the first line of defence and is well established in countries such as Kiribati, with a large proportion of their young men working worldwide as seafarers on foreign vessels.

There has been progress in scaling up service provision, including having many people on anti-retroviral treatment; care and support arrangements are being implemented for people living with HIV/AIDS and second generation surveillance (mapping of risk and infection) has been undertaken in some Pacific SIDS.

Urbanisation: Approximately 2.3 million people live in cities and towns in Pacific SIDS. Annual urban population growth rates of over 3-4% in some Micronesian and Melanesian countries means populations double in 15-25 years. Many urban populations are growing at twice the rate of national populations. Urban growth is expected to persist because of high rural-to-urban migration and high levels of fertility. As urban populations grow and rural-urban migration continues poverty continues to urbanise.

The Pacific Urban Agenda⁷ (ESCAP Pacific Operations Centre, 2003) was in 2005 included in the Pacific Plan. A 2007 workshop noted that urban and rural development issues need to be addressed in tandem since migration from rural areas, especially by youths in search of employment, is driving urbanisation within many Pacific SIDS. In recognition of this phenomenon, urban development has been integrated in national sustainable development strategies in some Pacific SIDS. It is important that urban planning and management policies focus on the benefits of urban development on local people and carefully consider the advantages and disadvantages of the perceived solutions to urbanisation. The 2007 workshop made a wide range of recommendations to address pressing urban management, planning and development concerns.

ESCAP together with the Commonwealth Local Government Forum, PIFS, and the UN Human Settlement Programme (UN-Habitat) have agreed to work together to implement the 'Regional Action Framework' over the next five years in support of national initiatives. The support of other development partners will also be crucial. The 'Regional Action Framework' also calls for the establishment of a 'Pacific Urban Management Support Facility' which would organise and convene regional forums to share information, develop capacity, collect data, develop awareness and provide technical support as required.

Gender: Despite gender equality in lower levels of education in most Pacific SIDS, women remain under-represented in technical and professional education and are over-represented in low-paid informal sectors. They are also under-represented in decision-making bodies and high-level positions, including in parliaments where the Pacific continues to have the lowest levels of women's representation.

Gender mainstreaming is a process of consistently incorporating an awareness of and sensitivity to gender issues in all law and policy-making, planning, programmes, projects and budgeting at all levels in order to overcome inequalities between men and women, and boys and girls. This means making women's as well as men's concerns and experiences an integral dimension of any planned action be it in the political, economic or societal spheres so that women can benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality and men and women need to work together to achieve it.

⁷ http://www.unescap.org/EPOC/R3_PacificUrbanAgenda.asp

Recent studies have shown that the experience of physical and/or sexual violence for women in Pacific SIDS between the ages of 15-49 are among the highest when compared with similar WHO studies conducted in other parts of the world. Additionally, there is unequal protection under the law where there are numerous gaps in legislation region wide as this relates to sex discrimination, domestic violence, marital rape, legal and safe abortion, legal age of marriage, and property rights including land.

The Beijing Platform for Action (BPA) agreed to in 1995 by governments and women from all over the world including a strong and vocal Pacific government and non-government delegation provides a global framework for gender equality which includes the Pacific. It covers twelve critical areas of concern that span women's legal and political rights, access to social services such as health and education, access to economic empowerment opportunities include the right to own land and access business finance; and improving institutional mechanisms, for example. across government, for gender equality and the empowerment of women. The BPA is currently undergoing a fifteen year review in which a number of Pacific SIDS are involved. The process will include: participation in a High Level review process for the Asia Pacific region taking place early 2010 at UNESCAP; a review of progress in the region in implementing the BPA (including the Pacific Platform for Action) is being conducted by the SPC in collaboration with development partners which has commenced and to be concluded in early February 2010; and participation in the United Nations Commission on the Status of Women 54th Session in New York in March 2010.

The Pacific Platform for Action (PPA) which Pacific women took to Beijing in 1995 was endorsed by Pacific island governments in 1994 and revised in 2004, is the Pacific SIDS regional framework for achieving gender equality and women's empowerment. It is aligned with the BPA and includes objectives for increasing Pacific women's political participation and eliminating violence against women but also recognises critical emerging issues that are impacting women and families in the Pacific such as: growing poverty and hardship; globalisation and trade liberalisation; HIV and AIDs and the double burden on women of the spread of HIV and AIDS in the Pacific; labour migration and the trafficking of women; peace and security; tradition and religion; media, information, communication and technology and the MDGs. All governments have translated the PPA in some form into their national actions plans and policy for gender equality.

The United Nations Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) which celebrates 30 years of adoption this year and which came into forces in 1981 is another global framework for gender equality. All Pacific SIDS except Tonga, Palau and Nauru have ratified CEDAW and in doing so have a legal obligation to eliminate discrimination against women in all spheres of life including through appropriate legislation. Implementation remains an issue, however many governments are recognising the benefits of CEDAW ratification.

The Pacific Plan includes in its implementation plan for Pillar 2: Sustainable Development, Strategic Objective 8, 'Improved Gender Equality'. Progress indicators currently include: political participation and decision-making power; economic participation and command over resources. However, reporting on these indicators as part of Pacific Plan reporting processes has been less than satisfactory and needs to be improved. A positive development has been the specific reference by Leaders to the issues of increased women's participation in political decision-making processes and the elimination of violence against women at the last three Forum meetings.

At the national level, country constitutions and national development strategies, policies and action plans provide frameworks for improved gender equality and women's empowerment. Almost all countries make reference to gender equality or at least the participation of women in all aspects of national development. There is a vital complementary role for regional policies to address gender issues, and regional bodies should encourage and assist Pacific SIDS fulfil their international and regional gender commitments, particularly in light of the fact that there is a strong commonality of many gender issues between Pacific SIDS and that emerging gender issues are increasingly cross-border in nature. Many gender issues are by nature also best raised at the regional level due to their

sensitivity and complexity, requiring a multifaceted and multi-level response.

There is a strong need to revisit and strengthen frameworks and mechanisms to effectively translate regional gender commitments into implementation at national and local levels. Simultaneously, there is a real need to reconcile existing gender commitments with all other national, regional, and international development plans, such as the MSI.

2.4 Environmental situation

Environment and natural resources: The Pacific Ocean covers one-third of the earth's surface and is one of nature's greatest active carbon sinks, even more so than the Amazon forest. The Pacific Ocean also has an immense biodiversity, much of which is not yet known. It is estimated that as little as 20 percent of the Pacific Ocean's flora and fauna has been properly researched.

Agriculture and fisheries remain important sectors of the regional economy, and together with the growing tourism sector, they are totally reliant upon the maintenance of the natural environment.

Pacific SIDS are characterised by extremes in physical geography, remoteness, exposure and vulnerability, and the environmental profile of the region is characterised by the following.

- High degrees of endemism and levels of biodiversity, but relatively small numbers of species.
- A high degree of economic and cultural dependence on the natural environment.
- Vulnerability to climate change and a wide range of natural disasters.

Biological diversity: Soils and land resources are limited in capacity and ability to accommodate development pressures. Land degradation has emerged as a serious problem in many Pacific SIDS, with coastal land under increasing environmental stress, far more so than rural land away from the coasts. The threat of climate change to land productivity is expected to enhance the need for sustainable land management.

In the last century, forest degradation accelerated rapidly on most islands. The Pacific is now facing a rate of deforestation and forest degradation far exceeding the rate of reforestation. Coastal and lowland forests conversion into large-scale commercial coconut, cocoa and banana plantations has been hastening in parallel. Although some countries have put in place forestry reserves, conservation areas and national parks to protect their forests, few of them have legislation and effective systems promoting good forest governance based on social justice, equity, accountability and transparency. This phenomenon is threatening local and regional biodiversity.

With growing populations in the past century and progress made in resource extraction technologies, commercial threats to native biodiversity have increased dramatically. Despite having the world's highest proportion of endemic species per unit of land area/inhabitants, the biological diversity of the Pacific SIDS is among the most critically threatened at global level. Up to 50 percent of the region's total biodiversity is at risk of becoming extinct — for some islands over 80 percent of species are endemic. Especially the smaller islands are ecologically fragile and effective conservation is put at risk by the introduction of exotic plant and animal species, unsustainable development, population growth and natural disasters.

Coral Reefs: The Pacific region is blessed with its coral reefs, and their ecosystems and biodiversity. They are, however, increasingly under threat from a mix of vulnerability to natural events and the impact of human development processes. One of the greatest threats to coral reefs is the increase of greenhouse gases in the atmosphere. This is causing the ocean temperatures to increase resulting in the die off of coral – a process known as coral bleaching. Also, an increased level of dissolved carbon dioxide in the oceans is causing ocean acidification.

Reef management and conservation in Pacific SIDS cannot be approached in the same way as in the larger and more developed countries. In the Pacific, the coral reef is a primary source of livelihood. It constitutes a way of life. In some Pacific SIDS, changes to its utilisation and exploitation will necessarily involve modifications of socio-cultural norms and practices. The challenge for resource owners and harvesters is to balance the needs of today's generation against the need to preserve some of the resources for future generations – their children and grandchildren.

For Pacific SIDS where the only resource is their sea, and within that their coral reefs, there is no question of diversification. The question is rather what economic activities, and what rate of harvest, will best guarantee economic returns for current generations, while at the same time safeguarding the environment and coral reef ecosystems for future generations.

More than 80 percent of Pacific islanders live in or near coastal areas and draw from the coral reef for their livelihood. The coral reef supports approximately 25 percent of all marine life, including over 4,000 species of fish, providing valuable spawning, nursery, refuge and feeding areas for large varieties of organisms. Coral reefs also play vital roles as natural breakwaters, minimising wave impacts during storms and cyclones. Hence the motto for the Second Pacific Year of the Coral Reef 2008 was "Strong reefs, strong islands."

Coastal environments: Given that most of the region's population is settled in coastal areas, changes in population density combined with new technology and changing development priorities have had a significant impact on coastal environments in the last decade.

Uses of the coastal zone and activities taking place within it (for example coastal construction, port development, sewage and waste disposal, coastal protection, fishing, sewage/waste treatment, agriculture, logging, mining) pose the following threats, amongst others, to marine and coastal resources: eutrophication, soil erosion, sedimentation, degradation and bleaching of coral reefs and mangroves, coastal erosion, physical environmental alterations, and overexploitation of fisheries.

Furthermore, the ocean environment, by far the greatest area in the western and central Pacific, supports the world's largest tuna fishery. Fishery resources clearly represent a major focus for the long-term economic development of the region. High rates of exploitation threaten the sustainability of Pacific fish stocks, however, in particular the coral reef fisheries, which are a critical basis for subsistence fisheries.

Climate change and sea level rise: Climate change is already affecting the Pacific and such is its critical importance it is considered in several places in this report. Climate variations and extremes have disrupted food production, water supply and the economies of Pacific countries. Climate projections for the future, although coarse for islands, are bleak and indicate reduced food security, especially at household level. The primary food sources (agriculture, fisheries and forests) and water will all be impacted by climate change and, in most cases, these impacts will be negative.

Strengthening the adaptation enabling environment (for example legislation and policy adjustments relating to food sources, coordination among and across key stakeholders and research and development) and implementing adaptation measures are considered to be absolute priorities, with the focus on win-win measures. Sea-level rise, increased climate-related natural disasters (storms, floods and droughts) and disruption to agriculture due to changes in temperature, rainfall and winds are considered to be the three greatest anticipated consequences of global warming in the region. Vulnerability to natural disasters is increasing as extreme weather events and associated phenomena are expected to become more frequent and as traditional lifestyles, practices and indigenous knowledge, once applied to mitigate the impact of disaster and to speed recovery, are eroded by social change. Disaster risk reduction is therefore widely considered an important element of any adaptation strategy.

Freshwater resources: The scarcity of freshwater resources poses several problems in the region. Despite high levels of total rainfall, water is sometimes not available in the high islands due to rainfall seasonality and inadequate storage. Localised pollution, excessive sedimentation due to uncontrolled watershed development and water wastage are common problems reported in Fiji, Samoa and Solomon Islands. Water shortages force some atoll communities to use polluted or salty groundwater for drinking and cooking, thus giving rise to serious health problems. The protection, conservation, management of supply/quality of water is expected to become an increasingly important issue in the Pacific given the impact of climate change in increasing rainfall variability.

Climate change and variability cause death and disease through natural disasters such as variable rainfall, cyclones, accelerating storm water runoff, floods, droughts and heat waves, which bring about a reduction in the availability of freshwater and a gradual decrease in water quality. This is especially exacerbated in the Pacific SIDS due to the fragility and vulnerability of the water lenses on atoll islands. Common vector-borne diseases such as malaria and dengue and other major killers such as malnutrition and diarrhoea are also likely to become even more serious if the climate change trends are confirmed over the forthcoming decades.

Land and sea pollution: The main types of pollution within the region are shipping-related pollution, hazardous chemicals and hazardous wastes and solid waste management and disposal. The region's coastal and marine resources are threatened by introduced marine species, shipwrecks, marine accidents and spills, ships' waste and antifouling paints on vessels. Increasing quantities of solid waste, poor control of chemicals imported into the region and the lack of capacity to manage pollutants are primary problems.

All Pacific SIDS share the problems of waste disposal and pollution prevention. These problems have been exacerbated by the small size, remoteness and rapid urbanisation of many islands. Environmental contamination is a consequence of the increasing population pressures. The majority of household waste is recyclable material and organic waste. Unfortunately, only a very limited amount is recycled as there are very limited recycling operators and no market for recyclable material. Waste is generally burned or dumped into the sea or in mangroves. Incidents of dangerous illegal pollutants being discharged have increased. Consequently, non-organic waste management is expected to become an ever more critical environmental challenge in the region. Water disposal and pollution is also impacting adversely on the region's health and tourism potential for sustainable economic development. The atoll nations of Tuvalu, Kiribati and the Marshall islands are particularly constrained by limited land area for use as landfill sites.

Natural disaster prevention and risk reduction: Pacific SIDS rank among the most vulnerable in the world to natural disasters. Between 1950 and 2004, extreme natural disasters, such as cyclones, droughts and tsunamis, accounted for 65 percent of the total economic impact from disasters on the region's economies. Ten of the fifteen most extreme events reported over the past half century have occurred in the last fifteen years.

There is no doubt that disasters in the region are becoming more intense and probably more frequent. Certainly, the number of hurricane-strength cyclones has increased in the southwest Pacific in the past 50 years, with an average of four events now occurring each year. Significant wave heights of recent cyclones have exceeded even climate change model projections.

In a study on the economic and social implications of climate change and variability for selected Pacific islands, the World Bank (2006)⁸ found that, in the absence of adaptation, a high island such as Viti Levu in Fiji, could experience damages of US\$23-52 million per year by 2050 (equivalent to 2-3 percent of Fiji's GDP in 2002), while a group of low islands such as Tarawa, Kiribati, could face

⁸ World Bank Report 2006: *“Not if but When: Adapting to Natural Hazards in the Pacific Island Region”*

damages of more than US\$8-16 million a year (equivalent to 17-18 percent of Kiribati's GDP in 2002).

The recent study by the World Bank (2006) provides a very timely summary in an attempt to promote the development and strengthening of mainstreaming hazard risk management into national, local and community development planning.

Chapter 3: National and Regional Enabling Environment (Section 16 of the MSI)

3.1 National Sustainable Development Strategies (NSDS)

In the Pacific Position Paper prepared for the 2005 Mauritius Meeting, Pacific SIDS called for the support of the international community to strengthen enabling environments at the national level in order to:

- Formulate and implement NSDS as agreed to in the Johannesburg Plan of Implementation 2002, outcome of the World Summit on Sustainable Development.
- Incorporate guiding principles for sustainable development into all sectoral policies.
- Develop appropriate national targets and indicators for sustainable development that can be incorporated into existing national reporting systems.
- Improve administrative and institutional structures to implement strategies, policies and plans.
- Give sustainable development task forces or their equivalent the official authority and validity to permit their continued meeting as interdisciplinary and communally representative advisory bodies. (Barbados Programme of Action: para 49. vii).
- Take stock of the volumes of legislation that affects sustainable development at the national level and improve coordination between legislative frameworks, and develop guidelines for those who must carry out legislative objectives.

A substantial amount of support has been given to Pacific SIDS over the past 4-5 years to assist them with developing and strengthening national enabling environments. That support has been provided by many partners in particular CROP organisations, UNESCAP Pacific Operations Centre, and the UNDP Pacific Centre through the Pacific NSDS Regional Support Partnership. The NSDS Partnership is a regional mechanism established to promote joint planning, support and implementation among relevant regional and international development organizations and partners to improve the formulation and implementation of national sustainable development strategies.

The call for NSDS emerged on the global agenda over two decades earlier. However, at no stage was the intent to replace existing national planning and development strategy tools with a national sustainable development strategy *per se*. The call was more for an “organised strategic approach” (see Chapter 8 of Agenda 21), to ensure that these existing national tools were built upon, and had the principles of sustainable development embedded into future revisions. Pacific SIDS have continued to stress that their engagement in NSDS was more to develop an effective process rather than a document *per se*.

Box 1: Current National Plans and Strategies amongst Pacific Island Countries.

CK	National Sustainable Development Plan (NSDP)	2006-2010
FSM	Strategic Development Plan	2000-2015
Fiji	Strategic Development Plan (SDP)	2006-2008
KI	Kiribati Development Plan	2008-2011
Nauru	National Sustainable Development Strategy (NSDS) Revised in 2009 “Revised 2009 NSDS”	2006-2008 2009-
NI	Niue National Strategic Plan (NNSP)	2009-2013
Palau	Palau 2020 National Master Development Plan	2020
PNG	Medium Term Development Strategy (MTDS)	2005-2010
RMI	Vision 2018	2018
SA	Samoa Development Strategy	2008-2012
SI	Medium Term Development Strategy	2008-2010
TG	National Strategic Development Plan 8	2006/7 2008/9
TV	National Strategy for Sustainable Development	2006-2015
VA	Priorities and Action Agenda	2006-2015

Unfortunately, many governments and individuals have misunderstood the meaning of sustainable development; in particular it has often been confused with, and been taken to be primarily about, environmental management. Planners and decision-makers in Pacific SIDS have been no exception to this misunderstanding.

Box 2: A summary derived from Pacific Island Country presentations at a UNDESA Workshop on National Sustainable Development Strategies, 4-5th May 2006, New York

- There is no one size fits all, no two Pacific Island Countries are alike, and all require capacity strengthening, on a country by country basis. This capacity strengthening is needed at all levels and in all aspects of development or implementation of NSDS (and by inference other similar global initiatives).
- No country supported the notion of two overarching plans and all desire to move ahead with implementation (key at the sector level) as a matter of urgency.
- All countries have an overarching development plan, many have a long term vision and also include goals, guiding principles or strategic areas. Generally these longer term elements focus on improving the livelihoods of people through economic development. In some instances preserving culture, traditions and the environment are mentioned. Tuvalu and Nauru have NSDS documents approved, and Cook Islands and Tonga have draft NSDS ready for approval as their overarching national development plan. Other countries are currently reviewing, or intending to review existing national development plans, and mostly grappling with how to embed the principles of sustainable development into the overarching national development plan review process without generating a second document.
- All countries wanted to secure ownership of their current national planning process whilst at the same time implementing tasks to improve the process, including by 2008 the embedding of sustainable development principles into the national development plan and planning process (as requested by Leaders in the Pacific Plan).
- Countries want to improve the monitoring and evaluation processes, in particular the setting of achievable targets/ and performance indicators that are realistic and timebound, and linking these to international targets especially the MDGs, and regionally as contained in the Pacific Plan. This issue is hampered by lack of reliable data and information.
- Time frames are crucial, including setting long term overarching vision and goals and short term objectives in sectoral plans, and developing appropriate indicators that distinguish outputs and outcomes. Major setbacks caused by national disasters (natural events, civil unrest) can setback development planning efforts by as much as a generation. Political change may also setback progress but more likely on a shorter timeframe (3-5 years).
- There is a need to demonstrate effective horizontal linkages between sectoral policies, including the link to the annual budgetary process, and vertically to the overarching planning document, international and local communities. This highlights not only capacity strengthening, but also important communication strengthening issues.
- In-country consultative processes, including multi-stakeholder consultations, are in place in many countries. There is a problem with “fatigue” (both people and institutional), at all levels, which if not addressed could hinder progress. External expert support appears of little value here as consultations are often in local language.
- Countries need resources and support to complete these tasks and donors/partners need to work at national level with countries using the overarching national development plan as the basis for discussions. This is largely for countries to address bilaterally, but donors must also harmonise in line with country needs.

Thus Pacific SIDS need to take stock of where they are at in relation to their NSDS (Box 1), This is particularly a timely and key issue since in 2005 the Leaders in the Pacific Plan committed to the development and implementation of NSDS by 2008 using appropriate cross-cutting and Pacific relevant indicators (Pacific Plan Initiative 5.1). Furthermore, the linkages at national level between the

NSDS process and global initiatives that have similar intentions, such as the MDGs, should also be re-examined.

Pacific SIDS representatives in 2006 agreed (Box 2) that a separate NSDS document per se is not required and that either existing plans would be re-shaped at the next and successive revision stages, and if considered nationally appropriate the plan would be renamed.

In the Cairns Compact agreed to at the 2009 Forum Leaders Meeting it was reiterated that ultimately development plans were matters for national governments to determine, however to help Pacific SIDS, especially small island states, meet these reporting requirements Australia and New Zealand in consultation with PIFS would develop models for the presentation of national development plans to future Post-Forum Dialogue Meetings, and would assist states and PIFS in preparing these reports by providing appropriate resourcing.

There is a need for sustainable financing including through an increased allocation of domestic resources for environmental protection and adaptation activities and building capacity.

Bearing in mind particularly the call by Pacific Leaders, through the Pacific Plan for the establishment of NSDS or the like, a **challenge** remains to ensure that in regard to improving the national enabling environment, success at the national level might be an outcome that includes, but is not restricted to the following.

- Visible long term national strategic vision, linked to medium term goals/targets, and short term actions.
- Visible, operating linkages of coordination “horizontally” across sectors.
- Visible, operating linkages “vertically” of local to national and to international policy and governance efforts, and that these linkages are supportive.
- Visible and operating national and regional policies developed that address science and technology and the protection of natural resources as tools to support sustainable development and build resilience to the impacts of climate change.
- Streamlined, efficient and effective national effort to link NSDS, MDGs and other related global commitments.
- Genuine partnerships operating between government, development partners, the private sector, the NGOs, and the community at large.
- Sustainable financing including through an increased allocation of domestic resources for NSDS or the like, that contributes to social and economic development and environmental protection and adaptation activities.

In this regard, the NSDS Partnership has assisted in the review and formulation of NSDS for Nauru and Niue and will continue to assist other Pacific SIDS to strengthen their NSDS-based decision making processes. The assistance provided by the NSDS Partnership to Pacific SIDS is based on improving their adherence to the internationally-agreed core principles of an NSDS. These core principles are:

- integration of economic, social and environmental priorities;
- wide participation of stakeholders in the development process;
- country ownership and commitment;
- comprehensive and coordinated policy process;
- targeting, resourcing and monitoring.

3.2 National Commitments to Multilateral Environment Agreements (MEAs)

The table below reflects the current (end 2009) status regarding Pacific SIDS commitments to MEAs as provided by SPREP.

A new capacity building initiative funded by the EU and UNEP and implemented through SPREP has begun aimed at building capacity of member countries in implementing their national commitments under MEAs. The project involves providing technical assistance in cross cutting areas such as in negotiations training, integrated environmental policy and planning, mainstreaming, and information and knowledge management. The project will also provide capacity building relating to the Clean Development Mechanism, land management, chemical and pesticide management.

Table of Pacific SIDS commitments to MEAs as of end 2009

Pacific Developing Member Country	Global Agreements/Conventions														Regional Agreements/Conventions						
	Ramsar	World Heritage	MARPOL	CITES	Migratory Species CMS	UNCLOS	Vienna Convention (Ozone)	Montreal Protocol	Basel Convention	Rotterdam	UNFCCC	Kyoto Protocol	CBD	Cartagena	UNCCD	POPs (Stockholm)	Waigani Convention	SPREP Convention	Whaling Convention IWC	Apia Convention	Pacific Tuna Fisheries Conv
Cook Islands		®	®		A	®	A	A	A	A	®	®	®	S	A	A	®	®		®	S
Federated States of Micronesia		®				®	A	A	A		®	®	®		®	S	®	®			S
Fiji Islands	A	®		A		®	A	A			®	®	®	®	A	®	®	®		®	S
Kiribati		A	®			A	A	A	A		®	A	A	®	A	®	®		A		S
Marshall Islands	A	A	®			A	A	A	A	A	®	®	®	A	A	A	®	®	A		S
Nauru						®	A	A	A		®	®	®	A	A	®	S	®			S
Niue		A				®	A	A			A	®	A	A	A	®	®				S
Palau	A	A		A	A	A	A	A			A	A	A	®	A	S	S	S	A		S
Papua New Guinea	A	A	®	A		®	A	A	A		®	®	®	A	A	®	®	®		®	S
Samoa	A	A	®	A	A	®	A	A	A	A	®	®	®	®	A	®	®	®		®	S
Solomon Islands		A	®	A		®	A	A			®	®	®	A	A	A	®	®	A		S
Tonga		A	®			A	A	A			A	A	A	A	A	®	®				S
Tuvalu			®			®	A	A			®	®	®		A	A	A	S	A		S
Vanuatu		®	®	A		®	A	A			®	A	®		®	®	®				S

® = Ratified; S = Signed; A = Acceded.
 CITES = Convention on International Trade in Endangered Species of Wild Fauna and Flora;
 MARPOL = International Convention for the Prevention from Ships;
 SPREP = Secretariat of the Pacific Regional Environment Programme;
 UNCLOS = United Nations Convention on the Law of the Sea.

Source: Table provided by SPREP

3.3 The Pacific Plan

In 2005 Pacific Islands Forum Leaders launched a new era for Pacific partnership by adopting the Pacific Plan to strengthen and deepen regional cooperation and integration. It was agreed that the Plan will be a living document over at least a 10-year initial period, which, step by step, aims to give practical effect to the Leaders' vision of a region that is "respected for the quality of its governance, the sustainable management of its resources, the full observance of democratic values, and for its defence and promotion of human rights".

Leaders agreed to give effect to their Vision (refer Chapter 1, p8) through the Pacific Plan which *inter alia* would:

- strengthen support for current programmes, develop new initiatives and advocate for the needs of the Smaller Island States, particularly given their limited capacity and fragile and vulnerable environment, including to climate change;
- build strong partnerships between Member countries, Pacific territories, regional and international organisations and non-state organisations.

The Pacific Plan is built on four pillars that are geared towards enhancing:

- Economic Growth;
- Sustainable Development;

- Good Governance; and
- Security for the Pacific through regionalism.

Economic Growth: The key objective is *improved income earnings and livelihoods through better access* to goods, services, employment and other development opportunities. The Plan includes initiatives for better access to markets and goods, trade in services including labour, trade facilitation, enhanced transportation and communication, private sector development and in the key resource sectors of fisheries and tourism.

Sustainable Development: The key objective is *enhanced capacity and resilience* of Pacific people and societies. The Plan includes initiatives for improving not only educational standards but also practical (technical and vocational) skills that are relevant to job markets, in areas such as seafaring, hospitality/training, health care, and peacekeeping and policing. There are also initiatives to enhance the health of Pacific people, and support the fight against HIV/AIDS and STI, non-communicable diseases and other health threats.

Good Governance: The key objective is to support a *safe, enabling, inclusive and sustainable environment* for economic growth and personal development and human rights. It is for this reason that the Plan promotes the development and implementation of national sustainable development strategies; regional support for good governance, particularly in areas such as leadership, human rights, ombudsman functions, audit, transparent administration systems, and participatory decision-making mechanisms that includes the non-government groups, women and youth. The Plan also supports the maintenance of strong Pacific cultural identities and the protection of traditional knowledge and intellectual property rights.

Security: The key objective is to ensure *safety and security of maritime and aviation and borders*. The Plan promotes technical cooperation, regional police training, and other measures relating to drug and weapons control, quarantine, bio-security and safety. Another important dimension of the security and sustainable development and environment relates to prevention, mitigation and adaptation with regard to natural disasters, pollution (through waste management) and climate change and variability and sea level rise.

Reporting to the Forum Leaders and monitoring of progress with implementation of the Pacific Plan is by the Pacific Plan Action Committee (PPAC) which is comprised of representatives of members of the Forum and is supported by the PIFS. At the 2005, 2006, 2007, 2008 and 2009 Forum Meetings “Road Maps” have reinforced the objectives of the Pacific Plan by calling for specific actions that are intended to guide the Pacific SIDS with implementation. These respective actions as they are relevant to the various elements of the Mauritius Strategy are referred to in Chapters 4, 5 and 6 of this report.

Leaders agreed at the 2007 Forum to the following amendment to the Pacific Plan in the international context of the Plan, “The Pacific Plan reflects the region’s priorities which are in line with and support the implementation of international frameworks such as the *Barbados Programme of Action* and *The Mauritius Strategy of Implementation*. As such, the Pacific Plan provides a solid platform for regional cooperation guiding collective positions through the Commission on Sustainable Development and other international forums that advocate the ‘special case’ of Small Island Developing States (SIDS). The collective position of Pacific Islands Forum members in the international arena is a significant tool in garnering support for Pacific SIDS individually and as a group and is recognised and valued by other United Nations members.”

At the 2009 Forum Meeting, Leaders agreed to the **Cairns Compact on Strengthening Development Coordination in the Pacific** to bring new determination and an invigorated commitment to lift the economic and development performance of the region. The key objective of this compact will be to drive more effective coordination of available development resources from both Pacific SIDS and all development partners, centred on the aim of achieving real progress against the MDGs. They also

called on the International Financial Institutions to assist the Pacific SIDS in responding to the global economic crisis, including through supporting better coordination mechanisms.

To realise this objective, the Cairns Compact is based on the following principles.

- A recognition that broad-based, private sector-led growth was essential to achieving faster development progress and that donors should encourage the private sector, including through micro-finance and support for larger-scale private sector projects.
- A recognition that improved governance and service delivery are essential to achieving faster development progress.
- A recognition that greater investment in infrastructure would underpin greater economic development.
- An acknowledgement that country leadership, mutual accountability and mutual responsibility between Pacific SIDS and their development partners are fundamental to successful development outcomes.
- The need to draw on international best-practice as expressed in the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action.
- A revitalised commitment to the achievement of the MDGs in the Pacific.

From 2010, the Post Forum Dialogue will be the pre-eminent mechanism for collective review of progress in strengthening development coordination, to improve development outcomes and ensure effective use of all resources for development. In this context development partners are to be urged to provide an annual report to the PIFS on their efforts in support of the Cairns Compact, including efforts to reduce aid fragmentation, ease the burden of aid administration and improve aid effectiveness, through measures such as increased use of country partner systems, multi-year funding commitments, pooled funding, the delegation of aid delivery to lead donors, and collaborative analytical work.

In the context of the Cairns Compact, at the regional and national levels, Leaders agreed to the following additional practical measures.

- Committing to an annual high level dialogue with national, regional and international representatives of the private sector, to foster the reforms required for faster private sector growth and employment generation.
- The PIFS to coordinate with relevant development partners to develop a “road map” aimed at progressive strengthening of Pacific SIDS’ public expenditure management, procurement, accountability and monitoring systems so they are the best delivery mechanisms for official development assistance.
- The close alignment of regional aid efforts with regional priorities – as identified by Leaders, including through the Pacific Plan and Leaders’ other initiatives on regional trade and economic integration.
- The improvement of Pacific SIDS development data to guide better decision-making.
- Committing to drive a higher-level of development coordination through the Forum Economic Ministers’ Meeting, the Pacific Island Countries-Development Partners Meeting and annual national-level dialogues with development partners.

3.4 The Council of Regional Organisations in the Pacific (CROP)

CROP brings together the Secretariats of eleven intergovernmental regional organisations in the Pacific (see box below). It is chaired by the Secretary-General of the PIFS. With the exception of PIFS, the organisations are generally technical and/or educational in nature, with their own governance and legal arrangements, including governing councils that reflect a range of membership comprising not only independent states but also territories.

Pacific Regional Organisations whose Secretariats are members of the Council of Regional Organisations of the Pacific (CROP) and their mandates

Fiji School of Medicine (FSchM): To provide quality health professional education, training and research for the Pacific. It offers academic programmes in medicine, dentistry, environmental health, radiography, medical laboratory technology, nutrition and dietetics, pharmacy and public health.

Forum Fisheries Agency (FFA): To support and enable our members to achieve sustainable fisheries and the highest levels of social and economic benefits in harmony with the broader environment.

Pacific Community (SPC): The Pacific Community helps Pacific island people in its 22 Pacific island member countries and territories position themselves to respond effectively to the challenges they face and make informed decisions about their future and the future they wish to leave for future generations by supporting the sustainable development and management of natural resources; human and social development and broad-based economic development in particular through provision of appropriate policy, technical, scientific, research and training assistance and advice in the sectors under its jurisdictions including agriculture, aquaculture, fisheries, forestry, culture, demography and population, education, gender, health, human rights, media, youth, transport, energy, information and communication and infrastructure with the aim of improving the region's economic, social and environmental wellbeing

Pacific Islands Applied Geoscience Commission (SOPAC): To contribute to sustainable development, reduce poverty and enhance resilience for the peoples of the Pacific by supporting the development of natural resources, in particular non-living resources, investigating natural systems and the management of vulnerability through applied environmental geosciences, appropriate technologies, knowledge management, technical and policy advice, human resource development and advocacy of Pacific issues.

Pacific Islands Development Programme (PIDP): To contribute to the processes of sustainable development through research, education and dialogue and advance cooperation and understanding between Pacific islands and Pacific rim nations.

Pacific Islands Forum Secretariat (PIFS): To service the annual Forum meeting of the heads of Government of the independent and self-governing countries of the Pacific, and to foster regional cooperation and integration, particularly on economic and trade matters, as directed by the Forum.

Pacific Power Association (PPA): To enhance the performance of power utilities in the region through a cooperative effort by maintaining a partnership among the Active Members.

Pacific Regional Environment Programme (SPREP): 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.

South Pacific Board for Educational Assessment (SPBEA): To provide quality service to its members, promote self reliance in the area of educational assessment and to encourage member countries to keep abreast with current developments in the area of educational assessment.

South Pacific Travel: To provide service to its member countries and promote cooperation in the marketing and development of tourism in the South Pacific.

University of the South Pacific (USP): To provide for the needs of the Pacific region for cost effective and internationally recognised higher education and training at all levels; and to ensure that such education and training is sensitive and relevant to the diverse island cultures and environment; and to promote social and economic advancement and good governance among Pacific communities.

CROP is not a legally constituted body but exercises an advisory function on key policy and operational issues and aims to maximise opportunities for sharing and pooling the region's human, financial and natural resources. Coordination has been institutionalised through sectoral working groups. The member organisations of CROP are an extension of national capacity and are often key in delivering services at national level. Boosting the technical and managerial capacities of Pacific SIDS

is essential for them to be able to continue to develop in a sustainable way and to fully meet the commitments arising from the international agreements they are party to.

The regional institutional framework of CROP is currently being reviewed under the direction of the Leaders with a view to improving delivery of the Pacific Plan.

3.5 Non-State Actors

The Pacific Plan provides for effective and enhanced engagement between Pacific SIDS, and their Non-State Actors (NSAs), which are active at both regional and national levels. For the purpose of this report NSAs will be considered as “civil society in all its forms according to national characteristics” and is consistent with the definition agreed to by Pacific SIDS and the European Union in the Cotonou Agreement.

Some Pacific SIDS have many small national NSAs, for example Tuvalu has over 40 registered with the Tuvalu Association of Non Government Organisations. Within the region a number of region-specific NSAs are now active, and in addition a number of international NSAs have substantial regional offices supporting regional work programmes.

There is a wide diversity amongst the NSAs. Some are large and have substantial capacity whilst others are small and have very limited capacity. Accordingly there is a diversity at all operational levels including governance, financial accountability, institutional management, and work programme management and delivery. This inhibits some NSAs to effectively deliver services through implementation of multi-country projects.

Notwithstanding some of the problems identified above, it is accepted that in many situations NSAs have a much more focused and directed contact at the community level, and are potentially a very effective partner in delivery of services that are people-focused and may have an immediate benefit in improving livelihoods and lifestyles.

In 2007, PIFS established a policy on “A consultative status and accreditation between the Forum and Pacific Regional Non-State Actors”. This policy is overseen by a Forum-led Consultative Status Committee to which aspiring organisations must apply. For the purposes of this policy, the term NSA means a non-profit, voluntary group such as a Non Government Organisation (NGO); Civil Society Organisation (CSO); Community Based Organisation (CBO) and Faith Based Organisation (FBO), organised at a regional level. The guiding principle for the granting of consultative status is to enable the Forum to secure expert information or advice from organisations having special competence and enable regional organisations that represent important elements of public opinion to provide perspectives to the subjects for which consultative arrangements are made.

Furthermore, such NSAs should be headquartered in a Forum member state; have an established presence in at least one third of the Forum member states; be legally registered as an NSA and/or charitable trust; must possess efficient technical expertise and quality services to support the implementation of regional initiatives at the national level; be actively involved in the implementation of regional initiatives in service delivery and/or advocacy at national levels; be organised and led in a democratic and transparent manner; and have been established for at least three years.

Currently NSAs granted consultative status are: Council of Pacific Education (COPE), Pacific Disability Forum (PDF), Fiji Women’s Crisis Centre (FWCC), Foundations of the People of the South Pacific (FSPI), Greenpeace, Pacific Foundation for the Advancement of Women (PACFAW), Pacific Concerns Resource Centre (PCRC), Pacific Islands Association of NGOs (PIANGO), Pacific Islands News Association (PINA), Pacific Conference of Churches (PCC), Pacific Network on Globalisation (PANG), South Pacific and Oceania Council of Trade Unions (SPOCTU), World Wildlife Fund South Pacific Programme (WWF-SP).

PIANGO is a regional organisation comprising an association whose members are national NGO umbrella groups. As such it does not implement regional projects, rather implementation is done by its members at the national level. Regional coordination amongst the NSAs needs strengthening in order to support programme/project development, implementation, monitoring and evaluation.

Other regional NSAs who are not currently holding consultative status, who are active in the region include: Birdlife International Pacific Regional Programme, the Commonwealth Local Government Forum Pacific Project, Conservation International (CI), International Union for Conservation and Nature (IUCN Oceania Regional Office), Live and Learn, and The Nature Conservancy (TNC).

With a view to increasing **private sector** participation in, and contribution to, development, the Pacific Islands Private Sector Organisation (PIPSO) was established in 2005 and its members comprise the national private sector organisations of all Pacific SIDS. PIPSO recognises that sustainable development in the region will only come about through functioning and effective partnerships involving governments, civil society, regional organisations and development partners. It has successfully hosted the inaugural Pacific Islands Business Forum attended by a broad range of stakeholders including PIFS, UNDP Pacific Centre, regional business leaders and Ministers responsible for trade and business development from Fiji, Kiribati, Nauru, Niue, Samoa, Solomon Islands and Vanuatu. Among topics discussed were ways of promoting greater regional economic integration, trade agreements and linking goods to markets.

Chapter 4: The Thematic Areas (Sections 1 – 10 and 17 of the MSI plus para 84)

This chapter reviews progress in the region with the various thematic or sectoral areas of the Mauritius Strategy. Chapter 20, para 84 of the Strategy, on implementation highlighted the agreed most urgent sustainable development challenges for SIDS. These were in relation to: climate change adaptation and sea-level rise; energy; intellectual property rights and development; biodiversity; culture and development; natural and environmental disasters; marine resources; agriculture and rural development; HIV/AIDS; transport and security; sustainable production and consumption; and information and communication technology.

Particular attention should be paid to those relevant chapters below in order to appreciate the progress made by the region on these agreed most critical areas.

4.1 Climate Change and Sea-Level Rise

At the 2009 Forum meeting, Pacific Leaders reaffirmed that climate change is the greatest current challenge and adopted a Call to Action to world leaders for a successful outcome from the December 2009 Copenhagen COP15 for the United Nations Framework Convention on Climate Change (UNFCCC). They also agreed to support the June 2009 UN General Assembly Resolution A/RES/63/281 on climate change and its possible security implications which was an initiative of Pacific SIDS at the United Nations.

Pacific SIDS reaffirm their support for the position of the member states of AOSIS in their preparations for the COP15 of the UNFCCC, and thereby express their strong disappointment with the outcome from the Copenhagen Meeting in December 2009. Pacific SIDS thereby emphasise the importance of urgent progress towards a fair and meaningful outcome in 2010 which should *inter alia* result in the following.

- Use the avoidance of adverse climate change impacts on SIDS as one of the key benchmarks for assessing its appropriateness, consistent with the precautionary principle and the principle of prevention;
- Adopt a package of mitigation activities, now, up to and beyond 2012 that provides for the following.
 - Long-term stabilisation of atmospheric GHG concentrations at well below 350ppm CO₂-equivalent levels.
 - Global average surface temperature increases to be limited to well below 1.5° C above pre-industrial levels.
 - Global GHG emissions to peak by 2015 and decline thereafter.
 - Reductions in global GHG by more than 85% below 1990 levels by 2050.
 - Annex I parties to the UNFCCC to reduce their collective GHG emissions by more than 45% below 1990 levels by 2020, and more than 95% below 1990 levels by 2050, given their historical responsibility.
 - A significant deviation from business as usual by developing countries through measurable, reportable and verifiable nationally appropriate mitigation actions in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner.
- Provide SIDS with new, additional, predictable, transparent and adequate sources of grant-based financing to fully meet the adaptation needs of these particularly vulnerable countries, and ensure for SIDS that access is timely, direct, prioritised and simplified.
- Call for an urgent and significant scaling up of the provision of financial resources and investment that is adequate, predictable and sustainable to support action on mitigation in developing country Parties for the enhanced implementation of national mitigation strategies; including positive incentives, the mobilisation of public- and private-sector funding and investment and facilitation of carbon-friendly investment choices.

- Ensure that renewable energy and energy efficiency form essential pillars of future mitigation actions by all countries, taking into account national circumstances.
- Establish a mechanism to address loss and damage from climate change comprised of a disaster risk component, insurance, and compensation funds, to help SIDS manage the financial and economic risks arising from climate impacts; to assist in the rapid recovery and rehabilitation from climate related extreme weather events and to address unavoidable damage and loss associated with the adverse effects of climate change.
- Provide support to SIDS to enhance their capacities to respond to the challenges brought on by climate change and to access the technologies that will be required to undertake needed mitigation actions and to adapt to the adverse impacts of climate change, noting the obligations of Annex 1 countries under the UNFCCC in this regard.

The Copenhagen outcome highlights that an enormous amount of work remains to be done and the challenge for 2010 is to ensure that the political and public profile on SIDS created in Copenhagen can be translated into a binding and ambitious international agreement on climate change that is supportive of the needs of vulnerable countries. In view of the substantial resources pledged by the developed countries, the Pacific SIDS need to remain engaged in the international process for the design and development of the various financing mechanisms to ensure appropriate access to and maximum utilisation of these resources to support national actions to combat climate change.

In recognising climate change as a key priority for the region, Forum Leaders through the Pacific Plan have acknowledged its growing threat to national development and security affecting the social and economic interests of all Pacific SIDS. The region continues to intensify the implementation of adaptation and mitigation measures to better respond to the threats posed by climate change. Supported by SPREP, SOPAC and SPC, work has continued to focus on both policy and implementation with a strong emphasis on mainstreaming climate change into national development planning and a focus on related areas such as disaster risk reduction and management, renewable energy, food security, and water conservation management.

The Pacific Island Leaders adopted in 2005 the Pacific Islands Framework for Action (PIFACC) 2006-2015 which established a series of principles on climate change for the region. These principles include: implementing adaptation measures; governance and decision-making; improving our understanding of climate change; education, training and awareness; contributing to global greenhouse gas reduction; and partnerships and cooperation.

SPREP was directed to develop an Action Plan to implement PIFACC, by establishing a set of national and regional activities that would meet the key principles of PIFACC. To assist with monitoring implementation SPREP has reinvigorated the Pacific Climate Change Roundtable (PCCR) that will allow Pacific SIDS to gauge the degree to which national and regional actions have met those key principles. The 2009 PCCR held in the Marshall Islands provided an invaluable opportunity for countries, regional and international partners and other stakeholders to consider key regional issues and establish areas of priorities to support members in addressing climate change issues. Among the key outcomes of the 2009 PCCR include recommendations for the following.

- To undertake a mid-term review of PIFACC to ensure any gaps or issues are addressed, including ecosystem-based approaches, adaptation technology, links with mitigation and disaster risk management, and community-based approaches.
- To strengthen the functioning of PCCR, including its governance structure and funding mechanisms.
- To conduct a study to assess existing regional funding mechanisms and explore the feasibility of establishing a single Pacific adaptation facility.

In support of climate change the 2009 Pacific Plan reporting period saw the following actions.

- Work continued on implementing mitigation and adaptation measures. This work was greatly assisted by the SPREP managed Pacific Adaptation to Climate Change (PACC) project approved by the GEF with access offered to US\$13.125 million for adaptation work in the region.
- National Adaptation Programmes of Action (NAPA) have been developed for Kiribati, Samoa, Tuvalu and Vanuatu under the GEF LDCs Fund, with the Solomon Islands NAPA nearing completion. There has been a request to extend the NAPA process to non-LDC Pacific SIDS.
- The Kiribati Adaptation Project (Phase 2 Implementation) supported by the World Bank and New Zealand continued to develop and demonstrate the systematic diagnosis of climate-related problems and the design of cost-effective adaptation measures, and integrate climate risk awareness and responsiveness into economic and operational planning.
- SPC and WHO are working with Pacific SIDS to improve the capability of national health laboratories to undertake diagnostic work of diseases that may worsen with extreme climate events. This work involves developing strategic policy and practical responses to address the social determinants of health that are affected by climatic events but are outside the remit of health departments or ministries such as the environment, food, housing, water and sanitation.
- Continued implementation of climate change adaptation and vulnerability assessment research and training among rural communities through USP.
- Discussions on linking disaster risk management with climate change work commenced at the Pacific Platform for Disaster Risk Management and Pacific Climate Change Roundtable. The Roundtable agreed on developing a climate change portal that would incorporate a matrix of past, present and planned climate change activities in the region.
- Work continued on improving the capacity of Pacific SIDS to engage in the ongoing UNFCCC negotiations for a post-2012 global climate change agreement. This included a range of workshops and technical assistance provided to Pacific Government delegations during UNFCCC negotiations. SPREP continued to act as regional information coordinator between the AOSIS Chair and climate change focal points in Pacific SIDS.
- The adoption of a climate change declaration during the Forum-EU Ministerial troika meeting.
- The Pacific Environment Community Initiative agreed at the 5th Pacific Island Leaders Meeting with Japan (PALM 5).
- An SPC-German Technical Cooperation (GTZ) project 'Adaptation to Climate Change in the Pacific Islands Region' (ACCPIR) commenced work in Fiji, Tonga and Vanuatu.

The Global Environment Facility Pacific Alliance for Sustainability (GEF-PAS) programme, approved by the GEF Council in April 2008, includes a focus on climate change adaptation (US\$30.39 million) and mitigation measures (US\$14.7 million). One such major regional initiative approved under the GEF-PAS is the Pacific Adaptation to Climate Change (PACC) project. In addition, an Adaptation Fund was established by the UNFCCC COP in Bali in December 2007. An Adaptation Fund Board has been elected (Tuvalu is the Pacific SIDS representative). A significant **challenge** is that the Adaptation Fund is not made operational and its implementation delayed owing to competing interests and mandates among and between relevant stakeholders. This could be further complicated by a lack of unity among Adaptation Fund Board Members on appropriate approaches. The considerable time it is taking the Adaptation Fund Board to develop relevant application procedures will continue to slow access down as will over-regulation or overly complex guidelines.

Through the International Climate Change Adaptation Initiative, Australia is to invest US\$137 million over three years from 2008-09 to meet high priority climate change adaptation needs primarily with a focus on Pacific SIDS and Timor Leste, and this will be coordinated through the Australia-Pacific Climate Adaptation Platform which is working closely with Pacific SIDS, regional and international organisations, and other donors to ensure assistance targets key adaptation priorities and is delivered in an effective and coordinated manner. The overarching objectives of the Initiative are as follows.

- Establish a sound policy, scientific and analytical basis for long-term actions to help developing partner countries adapt to the impacts of climate change.
- Increase understanding in partner countries of the impacts of climate change on their natural and socioeconomic systems.

- Enhance partner country capacity to assess key climate vulnerabilities and risks, formulate appropriate adaptation strategies and plans, and mainstream adaptation into decision-making.
- Identify and help finance priority adaptation measures to increase the resilience of partner countries to the impacts of climate change.

Key activities in Pacific SIDS and including Timor Leste, currently implementing under the Initiative are as follows.

- The Pacific Climate Change Science Programme.
- The Asia-Pacific Community-based Adaptation Small Grants Programme which is providing funds to implement priority adaptation measures at the local level.
- The Pacific Future Climate Leaders Programme which is working to build a group of Pacific leaders with a greater understanding of climate change and tools to enhance resilience.

The Pacific Islands Global Climate Observing System (PI-GCOS) is a multipartner regional programme hosted by SPREP with the objective of improving climate monitoring capacity in the Pacific SIDS region. The PI-GCOS Implementation Plan details several projects ranging from research and policy development, technical capacity building in observation networks and enhancement of operational early warning systems ([www:pi-gcos.org](http://www.pi-gcos.org)). Information sharing is linked to two other observing systems in operation in the region through the Vai-Pacifika Newsletter (refer Chapter 5.1).

The South Pacific Sea Level and Climate Monitoring Project (SPSLCMP) was initiated in 1991 by Australia in response to concerns raised by Pacific SIDS over the potential impacts of global warming on climate and sea levels in the South Pacific. A total of 12 high precision sea level gauges are currently managed by the project, with the ultimate goal of generating an accurate record of variance in long-term sea level for the region. Other key services include routine tide predictions for major port areas, provision and management of a high quality sea level data-set, and regular reports on trends in sea level behaviour across the region and in individual Pacific SIDS. The project is currently in its fourth phase which will conclude at the end of 2010, a fifth phase is being planned. SOPAC is the coordinating regional organisation.

Strengthening Meteorological Services: Accurate scientific information as well as targeted research on Pacific tailored solutions is the basis of climate change work in the region with vulnerability increasing as extreme weather events become more common.

Access to regular, timely, and quality weather and climate information is of extreme importance to peoples across the Pacific. Safety in maritime transport and the aviation industries depends highly on actions taken in response to weather conditions. It is also of importance to agriculture and fisheries productivity, and industries such as tourism, and in predicting the availability of water for human consumption.

Systematic observation of climate change in the region is carried out by the Pacific Climate Observing System, the Pacific Ocean Observing System and the Pacific Hydrological Cycle Observing System with a view to attaining a sustainable level of capacity in Pacific SIDS to be able to assess and monitor the status and trend of climate change related information and hazard warnings needed to support national strategies and planning.

The regional meteorological service provides important information on climate change and the need for its strengthening has been recognised. SPREP has engaged an independent team of consultants to carry out the regional review on ways to do this.

As mentioned in other parts of this report and given the impacts of climate change on many sectors, there are a number of other regional activities by CROP organisations addressing the climate change issues facing the region. SPC is leading scientific research to assess the vulnerability of fisheries and aquaculture to climate change in the Pacific, to determine the: (i) observed and projected changes to

Pacific atmospheric climate and oceanography, (ii) effects of these changes on the ecosystems that support fisheries, and (iii) projected changes in fish stocks.

SPC researches, develops and maintains an increasing diversity of crops to provide PIC farmers with as many options as possible to respond to climate change and safeguard food security. This collaborative work is developing a 'climate ready' collection of crops and varieties from the region and elsewhere that are resilient to marginal conditions and are salt and drought tolerant, and has a particular focus on application in atoll environments.

Natural and agro-ecosystems, and the biodiversity that they support, are the frontline in adaptation to climate change in the Pacific given the reliance of the island community and national level economies on the natural and cultivated resources that they contain. There is a need to ensure that island ecosystems can continue to support the needs of human communities and are better able to withstand future changes. Ecosystem-based adaptation approaches recognise the role of natural infrastructure alongside built infrastructure. Healthy ecosystems not only provide protection from extreme weather events, but also provide critical ecosystem services such as food, disease control, and fuels essential for reducing livelihood vulnerability and strengthening the adaptive capacity of communities.

A climate change and food security initiative coordinated through an expert group comprising SPREP/SPC/USP/FAO has been initiated with the objective of identifying practical approaches to build resilience of food production systems to climate change, particularly by diversifying the options for growing crops and harvesting fish. Other issues of relevance to the region that the expert group identified include the need to step up investment in science and technology for food and agriculture, undertake vulnerability analyses for all food production sectors, provide incentives for economic growth to increase the options for achieving food security, and mainstream climate change adaptation into national policies, strategies and programmes related to agriculture, forestry and fisheries. They also highlighted the need to maintain biodiversity and apply an ecosystem approach.

Media training in improving climate change knowledge for journalists and the general public was carried out by SPREP in 2008 and 2009, in partnership with Canada, UNESCO and the Pacific Islands News Association. Many reporters received training at SPREP, and some were selected to attend UNFCCC events in Poznan in 2008 and Copenhagen in 2009. This initiative was deemed a success and helped raise the profile of climate change issues and decisions being made. The impacts of the training were felt throughout the Pacific region with an increased amount of climate change reporting to help build awareness on climate change issues.

While a number of regional organisations and programmes were engaged in providing capacity building and training related to climate change initiatives, in terms of more formal training this was being provided by USP through its postgraduate courses and research on climate change impacts, vulnerability and adaptation, and mitigation to strengthen the overall cadre of qualified Pacific islanders in climate change issues.

As a way forward, at the 2008 Forum meeting, Pacific Leaders adopted the **Niue Declaration on Climate Change** to highlight the serious impacts of and growing threat posed by climate change to the economic, social, cultural and environmental well-being and security of Pacific SIDS, and that current and anticipated changes in the Pacific climate, coupled with the region's vulnerability, are expected to **exacerbate existing challenges** and lead to significant impacts on the environments of Pacific SIDS, their sustainable development and future survival of the people including their ability to continue to live on their native land and preserve their culture. The Niue Declaration on Climate Change:

- commits Forum members to continue to develop Pacific-tailored approaches to combating climate change, consistent with their ability to actively defend and protect their own regional environment, with the appropriate support of the international community;
- commits Forum members to continue to advocate and support the recognition, in all international fora, of the urgent social, economic and security threats caused by the adverse impacts of climate

- requests SPREP working in cooperation with other regional and international agencies and bilateral climate change programmes, to continue to meet the individual needs of its member countries through its mandated role of: (i) strengthening meteorological services, (ii) consolidating and distributing information on climate change, (iii) strengthening adaptation and mitigation measures, and (iv) increasing Pacific SIDS capacity to manage their engagement in the UNFCCC; and to secure new and additional financial and technical resources to do this work;
- encourages the Pacific's development partners to increase their technical and financial support for climate change action on adaptation, mitigation and, if necessary, relocation, while welcoming the pledged increases in resources to address the climate change challenge; and to ensure their assistance aligns with regional and national priorities and supports existing regional and national delivery mechanisms in accordance with the Pacific Aid Effectiveness Principles 2007, and the Paris Declaration on Aid Effectiveness 2005;
- encourages the Pacific's development partners to increase investment in and support for Pacific SIDS efforts to move towards alternative and renewable energy sources, which reduce the emissions of our region and improve energy efficiency, as well as help to address the growing unaffordability of fuel;
- calls on international partners to assist Pacific SIDS development by undertaking immediate and effective measures to reduce emissions, use cleaner fuels, and increase use of renewable energy sources;
- agrees that the high sensitivity and vulnerability of Pacific SIDS to climate change, including its exacerbation of climate variability, sea level rise and extreme weather events, means that adaptation is a critical response for Pacific SIDS, and requires urgent support from regional agencies and development partners alike;
- encourages all Pacific SIDS to act on the ability and information they have now, with the assistance of development partners, to continue to address the impacts of climate change through 'no regrets' or 'low regrets' actions in affected sectors that are already facing development challenges, including food and water security, health, and the capacity to deal with extreme events such as tropical cyclones, flooding and droughts, thereby simultaneously delivering on sustainable development aims;
- agrees that the exacerbating effects of climate change in the region will require Pacific SIDS to incorporate adaptive strategies into their national sectoral planning, and that this integration will require a high degree of whole-of-government coordination and leadership;
- directs PIFS to work with relevant CROP agencies and Forum members to support the implementation of the commitments made in this Declaration, consistent with the Pacific Plan, the Pacific Islands Framework for Action on Climate Change 2006-2015, and other existing regional and international initiatives, including examining the potential for regional climate change insurance arrangements, and building regional expertise in the development and deployment of adaptation technologies.

Leaders in the 2008 Forum Communique agreed that national action plans for climate change should be developed and implemented and climate change should be mainstreamed into national development planning drawing on the Pacific Islands Framework for Action on Climate Change and the associated implementation plan, and directed CROP organisations to ensure the following.

- Joint programming intensified with the aim of advancing the implementation of regional frameworks and action plans, in particular, the Pacific Islands Framework for Action on Climate Change and the Disaster Risk Reduction and Disaster Management Framework for Action, to better assist members develop adaptation measures in response to the effects of climate change.
- The collection and analysis of scientific, social and economic information and traditional knowledge in a manner that will allow for appropriate and informed decision making by members.
- Sustainable financing options identified at national, sub-regional and/or regional levels to support climate change adaptation and mitigation by members.

- The issue of climate change be considered where possible or necessary in other regional meetings such as ministerial and officials' meetings including partnerships for water resources and disaster risk reduction.

At the UNFCCC COP14 in 2008 developing countries called for ecosystem-based adaptation to be a critical part of a post-2012 climate change agreement. In 2009 and with SPREP input, the Forum Leaders in the context of the Pacific Plan priority initiative on climate change called for enhancing the resilience of ecological systems and associated biodiversity and providing ecosystem services with a focus on the impacts of climate change in line with the Year of Biodiversity in 2010. In response to this call, SPREP is working on a proposed initiative built around the inter-related issues of ecosystem services and livelihoods and climate change for consideration under Australia's International Climate Change Adaptation Initiative.

To support the Niue Declaration and work emanating from PIFACC and the PCCR, significant pledges of financial and technical assistance have been received in the region in addition to those from Australia and the GEF referenced above. These include the EU Global Climate Change Alliance, Japan Cool Earth Initiative, as well as initiatives by a range of traditional and new development partners and multilateral financial institutions. There is a renewed interest in assisting the region on climate change issues, but the pledges now need to be realised and put into action, including through cost-effective solutions to protect the natural environment.

4.2 Natural and Environmental Disasters

Pacific SIDS remain highly disaster prone with all island countries threatened by a variety of environmental and natural hazards of geological and meteorological origin including earthquakes, volcanic eruptions, tsunamis, cyclones, river and coastal flooding (including permanent coastal inundation due to sea level rise), landslides, and droughts. In particular, there is deep concern over the current and future adverse impacts of climate change. In the past decade social, including health and pollution hazards, and civil unrest have also increased as a result of population increase, urban drift, uneven wealth distribution and political pressures. Tropical cyclones are the most frequent cause of disasters in the region, but other hazards have the potential to cause greater losses as recent tsunamis have demonstrated.

The most recent major events occurred in April 2007 when a magnitude 8 earthquake and tsunami occurred in the western Solomon Islands costing the country an estimated US\$90 million equivalent to 90% of the year's operating budget; in January 2009 flooding in western Viti Levu, Fiji, families and small businesses in sample areas in Nadi and Ba alone lost an estimated US\$160 million (7% GDP); and in September 2009, the magnitude 8 earthquake and tsunami in American Samoa, Samoa and Tonga, a result of which the Samoa Government estimated the losses at US\$104 million (more than 5% GDP); and in January 2010 when a magnitude 7.2 earthquake and tsunami occurred again in the western Solomon Islands for which costs are still to be assessed. All except the latest event included loss of lives.

Immediately following the Mauritius Meeting, the Pacific SIDS participated actively in the Second World Conference on Disaster Reduction held in Japan. Subsequently, a Pacific Disaster Risk Reduction and Disaster Management Regional Framework for Action 2005 – 2015: Building the Resilience of Nations and Communities to Disasters, was developed and has been now endorsed by Pacific Forum Leaders. This framework emphasises the need for mainstreaming disaster risk management into national development planning for strengthening the capacity of Pacific SIDS to prepare for, respond to, and recover from disasters. The framework also recognises disasters as including not only those resulting from natural hazards, but also social, environmental, and technological hazards.

The Pacific Disaster Risk Management (DRM) Partnership Network was established in 2006 and is coordinated by SOPAC. It is primarily a collaborative and cooperative mechanism of support for

Pacific SIDS in relation to DRM capacity building within the context of the Framework. It comprises an “open-ended, voluntary” membership of international and regional organisations, government representatives, and NGOs, with comparative advantages and interests in supporting Pacific SIDS towards mainstreaming DRM through addressing their disaster risk reduction and disaster management priorities.

In support of disaster risk reduction and disaster management, the UNDP Pacific Centre working with other partners such as SOPAC, have also continued to work on developing and implementing Pacific Disaster Net which was launched online in 2008, a regional disaster risk management database providing information and baseline material on natural disasters to support better preparation and response. Complementary to this work was the EU-funded Project on Reducing Vulnerabilities of Pacific ACP States. This activity acquired satellite imagery combined with bathymetry data and topography to provide essential baselines for hydrodynamic modelling for sea-level rise incursion, storm wave impacts and tsunami impacts and inundation. The imagery sets provide an effective tool for visualising the impacts of natural hazards on coastal areas and is useful for development planning for high-risk areas.

In 2008, the United Nations International Strategy for Disaster Reduction (UNISDR), established a Subregional Pacific Office in Fiji. The office covers 17 UN Member States and Territories of the Pacific Sub-Region and operates under the UNISDR Regional Office for Asia and the Pacific in Bangkok. The overarching role of the Sub-Regional Office is to support Governments in their efforts to implement the Hyogo Framework for Action in close collaboration with United Nations Resident Coordinators, United Nations Country Teams operating out of Apia, Fiji and Papua New Guinea, and Regional Intergovernmental Organisations, such as SOPAC, SPC, and SPREP. UNISDR supports national and regional efforts to mainstream disaster risk reduction into development policy and programming; fosters an integrated approach towards disaster risk management and climate change adaptation; co-convenes the Pacific Platform for Disaster Risk Management jointly with SOPAC which met for the first time in 2009; and supports the documentation of progress and exchange of lessons learned and good practices in the Hyogo Framework implementation at the regional/national level.

Following global humanitarian reform, humanitarian organisations with a regional capacity to respond in Pacific SIDS agreed to collaborate closely to improve preparedness and response under the banner of the Pacific Humanitarian Team (PHT). The PHT, facilitated by UNOCHA, aims to operate in a coordinated way through humanitarian clusters in support of Pacific SIDS and includes a majority of humanitarian organisations in the Pacific NGOs, donor partners, regional, international and United Nations organisations. In 2008 six clusters were prioritised for establishing strengthened coordination arrangements in the Pacific: Health and Nutrition, Water, Sanitation and Hygiene (WASH), Emergency Shelter and Camp Management, Protection, Information Management and Logistics. Since then, Pacific SIDS have experienced a number of disasters, where also the Education and Early Recovery clusters have been operational, for example, the Fiji Floods (January 2009), the Solomon Islands Floods (February 2009) and the Samoa Tsunami (October 2009). The Samoa Tsunami response was also the first time in the Pacific that the clusters were officially activated at the global Inter-Agency Standing Committee level.

UN Disaster Assessment and Coordination teams were deployed in response to the tropical cyclones in the Cook Islands (2005), Tropical Cyclone Percy in Tokelau (2005), the Earthquake and Tsunami in Solomon Islands (2007), the High Sea Swell Floods in Papua New Guinea (2008) and the Samoa Tsunami (2009).

National Action Plans for mainstreaming Disaster Risk Management have been developed for Cook Islands, Marshall Islands and Vanuatu, and are being developed for the Federated States of Micronesia, Fiji, Palau, Samoa and Tonga led by SOPAC. In addition numerous initiatives under the

New Zealand's Regional Environment and Natural Disasters Programme continue which target water and assisting preparedness for disaster response with Pacific SIDS, SOPAC, and FSPI.

Early Warning Systems and Emergency Communications in Pacific SIDS: A recent global survey of early warning systems by the ISDR reports that considerable progress has been made in developing the knowledge and technical tools required to assess risks and to generate and communicate forecasts and warnings, particularly as a result of growing scientific understanding and the increased use of modern information and communication technologies. However early warning systems especially in developing countries lack basic equipment, skills and financial resources and are for certain hazards are even non-existent. A major **challenge** is to integrate the knowledge and insight of relevant social and economic communities into the predominantly technically based existing systems. One of the key findings of the survey is that the weakest elements in early warning systems are the dissemination of warnings and the preparedness to respond.

The Pacific DRR and DM Framework for Action 2007 for early warning systems calls for effective, integrated and people-focused early warning systems that are able to communicate information that is understood over vast ocean distances both within and between countries and to generally isolated populations. Furthermore, the Framework calls for planning for effective preparedness, response and recovery with key national actions to establish functional emergency communications systems to coordinate response and recovery actions. For example the Pipol Fastaem (People First, PFnet) is a wireless HF band rural community email service operating in the Solomon Islands which assists isolated communities in times of disaster. Efforts are being undertaken to integrate national and regional warning systems into a global network supporting improved safety and security, such as that operated by the Pacific Tsunami Warning Centre.

The role of **insurance** as a financial tool for risk reduction against the impacts of natural disasters in Pacific SIDS has been raised as an option and considered for over a decade at all levels, international, regional and national. The Caribbean Catastrophe Insurance Risk Facility was established in 2007. In the Pacific a catastrophe insurance pilot scheme was carried out in Port Vila in 2003, which highlighted the work that needs to be done in each country as a prerequisite to developing a regional insurance scheme. This will require input from a wide range of disciplines including urban planning, geotechnical engineering, social development, asset valuation, insurance broking, and numerical modelling. In regard to reducing underlying risk factors financial risk sharing schemes should be considered particularly insurance and reinsurance and other financial modalities for risk transfer. In order to do this two broad activities are suggested in the Pacific DRM and DM Framework 2006-2015.

- At the national level the development of financial risk-sharing mechanisms, particularly insurance, reinsurance and other financial modalities against disasters.
- At the regional level support the development of financial risk-sharing mechanisms, particularly insurance, reinsurance and other financial modalities for risk transfer.

In 2003 FEMM agreed to encourage priority being given to the implementation of national risk management strategies, including appropriate enabling public policy, the use of the private insurance market where feasible, and expenditure on hazard assessment and risk management; and urge donors to support the collection of information on hazards facing, and vulnerability of Pacific SIDS. In order to further the assessment of the viability of national and/or regional financial risk-sharing mechanisms an appropriate activity is needed and this could be facilitated by the Pacific Disaster Risk Management Partnership Network. A World Bank feasibility study on the development of catastrophe risk financing options for the Pacific commenced in 2008 and work continues in 2009 and further into 2010.

Despite progress, significant **challenges** remain for effective DRM in Pacific SIDS. Critically, there has conventionally been a tendency to treat natural disasters as a humanitarian rather than a development issue. While the human cost of natural disasters cannot be overstated, it does mean that resources dedicated to actions tend to flow to post disaster activities ('disaster management'), rather than towards heading off disasters in the first place ('disaster risk reduction'). Investment in disaster risk reduction specifically is doubly difficult to secure because the potential benefits may not become

visible in the immediate. Further, those benefits may be difficult to discern since they exist only as disasters that ultimately never occurred. This tendency to focus on disaster management unnecessarily drains government departments of scarce resources. Combined with already stretched national resources, the effect is that it can be difficult to persuade national governments – or international donors with competing interests – to invest in DRM.

Ironically, evidence indicates that investments in disaster risk reduction and disaster management in Pacific SIDS can actually result in massive savings to governments, not to mention avoiding the physical and emotional hardship faced by families enduring disasters. In Fiji, for example, SOPAC estimated that more than US\$150 million was lost in earnings by early 2009 flooding in western Viti Levu. This loss of earnings is a matter of national economic concern because it means considerably lower income tax from which to base national spending. Disaster risk reduction is therefore a national economic imperative.

Another **challenge** remaining is the need to increase disaster mainstreaming. First, there is a lack of recognition by government agencies that disaster risk reduction or mitigation can increase government income by avoiding losses. Second, sectoral plans as a minimum must be ‘disaster-proofed’ to avoid disaster and or mitigate future losses. Given the pervasive nature of disasters, an ‘all hazard approach’ to disaster risk management is critical. Support by national planning agencies and Treasuries would facilitate this effort considerably. At the same time work at the national level efforts to link the activities being promoted through the regional frameworks for climate change and disaster risk reduction should be streamlined.

4.3 Management of Wastes

Pollution from solid, hazardous/toxic or nuclear wastes is widely recognised as one of the major threats to sustainable development in Pacific SIDS and has a direct influence on the quality of people’s lives. To date little has been achieved. Without adequate measures to combat the growing sources and extent of pollution, coupled together with the lack of land area, adequate mechanisms and appropriate technologies for the safe disposal of these wastes, the efforts of Pacific SIDS to maintain buoyant and healthy societies, to stimulate development and new investment and a sustainable future for their people may be permanently undermined.

Increasing quantities of solid waste, the lack of controls on chemicals imported into the region and the lack of capacity to manage the range of pollutants are of immediate concern for Pacific SIDS. In addition to land-based activities, the region’s coastal and marine resources are threatened by introduced marine species, shipwrecks, marine accidents and spills, ships’ waste and antifouling paints on vessels. The transboundary nature of much marine pollution requires a coordinated and comprehensive approach to both assessment and control.

In regard to waste management, a broad range of activities have been implemented to fulfill the requirements of the Pacific Plan with a particular focus on solid, hazardous and maritime waste management. Key have been the following activities.

- Support to Pacific SIDS in the development of waste management strategies, guidelines and legislation.
- Support to Pacific SIDS to administer the chemical cluster of multi-lateral environmental agreements as well as the development of chemical management strategies, and the development of GEF funding proposals to support management of hazardous wastes.

SPREP with support from Australia has convened the second Scientific and Technical Advisory Committee meeting and the first Steering Committee Meeting for the Pacific Regional Centre for the joint implementation for the Waigani 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 (1995) and the related global Basel Convention.

In 2009 Forum Leaders recognised the special circumstances pertaining to the continued presence of radioactive contaminants in the Marshall Islands and called on the US to live up to its full obligations on the provision of adequate compensation and commitment to its responsibility for the safe resettlement of displaced populations, including the full and final restoration to economic productivity of all affected areas.

In 2006 Forum Leaders last reiterated their concerns about the risks of economic loss in an incident involving the shipment of radioactive materials through the Pacific, and restated their view that in the event of losses directly attributable to such an incident, there is an imperative on the shipping states not to leave the countries suffering those losses unsupported. To date little has been done.

Activities continue to facilitate greater collaboration between organisations like SPREP, SOPAC, and SPC, Pacific SIDS, and donors to support the improvement of “on island” waste management. Future initiatives need to focus on the following.

- Institutional activities by all key stakeholders, including policy development, capacity building, information exchange, public education and awareness.
- Development and/or enhancement of waste minimisation activities such as recycling, so as to reduce the quantities of wastes produced at the national level.
- Improvement and upgrading of existing waste management and disposal systems.

A major **challenge** remains due to the lack of commitment by governments of Pacific SIDS and other stakeholders such as the private sector, to prioritise the management of waste or develop and implement plans of action in response to poor waste management.

Pacific Ocean Pollution Prevention Programme (PACPOL): PACPOL is implemented by SPREP with resources from the International Maritime Organisation (IMO). Shipping is a significant source of marine pollution. At the global level recent marine spill incidents and the new threat of invasive marine species continue to highlight the need to address the environmental impacts of shipping. It remains a challenge for Pacific SIDS to meet their obligations under recent IMO legal instruments such as the Convention on Antifouling Systems; the Protocol on Hazardous and Noxious Substances; the Bunkers Convention and most recently the Ballast Water Convention and the Ship Wreck Removal Convention. The activities of PACPOL should be considered alongside those for shipping (refer Chapter 4.10).

Pollution from Shipping: The provision of model legislation that provides enabling legislation for all IMO and other shipping/fishing related international legal instruments has been implemented. This recognised that all Pacific SIDS have little or no legal drafting capability and has been a major reason why they have been unable to implement measures to allow them to meet their convention obligations or was a primary factor in their not becoming a party to the international legal instruments. This model legislation has been adapted to suit domestic arrangements and passed in the Cook Islands, Tonga and Tuvalu. Samoa is the latest to have enacted marine pollution legislation in 2008. Fiji and Vanuatu are advanced in their legal drafting process.

Marine Spills: Activities seek to assist Pacific SIDS in meeting their obligations under various international conventions and protocols including the SPREP Pollution Emergencies Protocol, the Pacific Islands Regional Marine Spill Contingency Plan (PACPLAN) and national Marine Spill Contingency Plans (NATPLANS). With the exception of Fiji, Niue and Papua New Guinea there are no significant stockpiles of marine spill equipment in Pacific SIDS. SPREP has formulated a Regional Marine Spill Equipment Strategy that recommends what is needed for each country and the associated financing, maintenance, replacement and training requirements. SPREP recently delivered equipment with funding from IMO to Tonga, Samoa and the Cook Islands. Federated States of Micronesia, Marshall Islands and Palau have recently placed orders to purchase oil spill equipment.

Ships Waste Management: A particular concern in the region is that the fishing fleets operating in

the region are distant water fleets. As such Pacific SIDS are reliant for much of the enforcement on the respective flag states commitment to their obligations. These fleets spend extended periods at sea or anchored within lagoons and there remain questions in regard to the disposal of the onboard waste.

Port Operations: There are two main types of ports in the region the large commercial ports that are run either by the private sector or port authorities and the smaller social service ports that are not run along commercial lines by the government. PACPOL and the Pacific Countries Ports Association (PCPA) are working together to implement Port Marine Spill Contingency Plans.

Invasive Marine Species: Invasive marine species from shipping in particular ballast water but also hull fouling is a major threat. Bigger faster ships have increased the potential for the introduction of invasive marine species carried in ballast water. Activities to date within the region have been limited to raising awareness. PACPOL has formulated a Regional Strategy on Shipping Related Invasive Marine Pests in the Pacific that was approved at the 2006 SPREP Meeting.

World War II Wrecks: In September and December 2001 there was a significant marine spill incident at Ulithi Atoll, Yap, Federated States of Micronesia. The spill was from the USS Mississinewa a sunken WWII US Navy tanker. Subsequently SPREP and SOPAC drew up a Regional Strategy to address WWII wrecks in the region. In 2003 SPREP was directed to cease work on this matter and leave it to Pacific SIDS to handle on a bilateral basis with the country owning the wreck. Pacific SIDS raised this issue repeatedly during negotiation of the Mauritius Strategy in 2005 but met with strong opposition from Japan and the US. This special case of the World War II Wrecks warrants revisiting.

4.4 Coastal and Marine Resources

Marine protected areas, marine conservation, coral reefs and mangroves are dealt with in the biodiversity chapter.

The coastal and marine resources and environments of Pacific SIDS have always underpinned the subsistence economies that still characterise many countries and have also been, and will continue to be, one of the most important sources of economic development in the region. Whilst marine and coastal resources offer enormous development benefits for the region, there are a number of constraints. In particular in the area of sustainable fisheries especially coastal fisheries as there is a high percentage of 'open access' to the resource, limited scientific and management data, poor awareness of the resources, substantial impacts from over exploitation nationally and by international stakeholders, limited funds for national based research, and poor capacity to monitor the EEZ.

Changes to ocean and coastal ecosystems caused by intensifying human activities continue to impact on environmental quality and community well-being. These impacts include declining fishery productivity from over harvesting, destructive fishing, and loss of habitat; reduced access of traditional users to fishing grounds and other areas; increasing environmental damage due to shoreline development, unregulated and unmonitored sand mining, pollution and invasive species; serious decline in migratory transboundary species such as whales, turtles and dolphins; and damage to tropical marine ecosystems from global climate change. These impacts are exacerbated by fragmented management, lack of coordination and poor institutional frameworks, lack of awareness on better coastal and ocean management practices and limited technical expertise and equipment.

Fisheries resources remain a key driver for sustainable economic growth in the region, especially for the smaller Pacific SIDS. Despite the considerable work undertaken to date, the **challenge** remains for urgent and continued efforts to support both tuna and coastal fisheries to secure current and future economic benefit and food security for Pacific island people.

Three regional organisations provide the support for Pacific SIDS in the fisheries sector FFA, SPC, and the Western and Central Pacific Ocean Fisheries Commission (WCPFC), and are strongly supported by Australia, New Zealand and the EU. The first two are longstanding members of CROP (refer Chapter 3), whilst the latter was established by the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. The objective of the Convention is to ensure, through effective management, the long-term conservation and sustainable use of highly migratory fish stocks in the western and central Pacific Ocean. The WCPFC held its inaugural meeting in December 2004 just before the Mauritius Meeting in January 2005.

The 2007 meeting of Forum Leaders meeting adopted the **Vava'u Declaration on Pacific Fisheries Resources "Our Fish Our Future"** in which Leaders reaffirmed the importance of fisheries to the economies of all Forum members especially the Pacific SIDS, and committed themselves to the following actions.

- Promoting domestic fisheries, in particular the development of national tuna industries, in the context of a phased introduction of rights-based management arrangements supported by an appropriate management and regulatory framework; maintaining regional solidarity in managing the region's tuna stocks; strengthening their support for the FFA, SPC and other regional fisheries bodies as they intensify their efforts in applying a long-term strategic approach to Pacific fisheries, and to tuna species in particular, to ensure that these resources are effectively managed so as to provide enduring economic, social and cultural benefits; and upholding and strengthening the existing regional and national arrangements, agreements and conservation measures that protect this essential resource.
- Conservation and sustainable management of highly migratory tuna resources by: fully implementing without delay the conservation and management measures developed and endorsed by the WCPFC; seeking the urgent adoption of additional measures by the WCPFC to address over-fishing of bigeye and yellowfin, including a reduction in longline catches and addressing purse seine fishing, and specific steps to reduce the catch of juvenile bigeye and yellowfin; developing and implementing, with the assistance of the FFA, a comprehensive regional monitoring, control and surveillance strategy; and continuing support as appropriate for the current tuna-tagging initiative of the SPC, including the aspiration that it expand to cover the rest of the Pacific.
- Protection of high seas biodiversity and the conservation and management of non-highly migratory fish stocks in the Pacific Ocean.
- Effective participation in the negotiations to deliver a best-practice South Pacific Regional Fisheries Management Organisation in view of the longer-term strategic significance and the possible interaction of the high seas pelagic stocks with tuna resources governed by the WCPFC.
- Development and management of coastal/inshore fisheries and aquaculture to support food security, sustainable livelihoods and economic growth for current and future generations of Pacific people.

Regional Ocean Fisheries: The western and central Pacific Ocean tuna fisheries represent the world's most valuable tuna stocks. They have a total landed value of around US\$2 billion/year and an estimated market value of US\$6–8 billion/year. About half of this annual catch is taken from the EEZs of Pacific SIDS. Annual licensing fees for the predominantly foreign fishing fleets provide revenues of about US\$60–70 million to the region. As a consequence responsible and effective stewardship is a priority, recognising the scientific advice that over-fishing of two key species –bigeye and yellowfin tuna – now places stock levels in jeopardy.

Ongoing support to Pacific SIDS provided principally by FFA and SPC includes the following actions.

- National-level institutional strengthening.
- Assessing and building the viability of domestic fishing operations.
- Strengthening national policies and in particular rolling out the ecosystem-based approach to fisheries management.

- Progressing scientific work assessing the health and population sizes of key oceanic tuna species.
- Improving regional monitoring, control and surveillance efforts with multi-lateral surveillance programmes continuing.
- Providing training in various technical areas.
- Implementing strengthened and innovative management measures at the sub-regional level.

A notable achievement in 2008 in regard to the Vava'u Declaration was the agreement by the Pacific SIDS which are Parties to the Nauru Agreement (PNA: Federated States of Micronesia, Kiribati, Marshall Islands, Palau, Papua New Guinea, Solomon Islands and Tuvalu) in regard to tuna purse seine fishing licenses to enter into a Third Implementing Arrangement, which represents a bold step towards more effective management and conservation efforts. This sends a strong message about their commitment to addressing over-fishing of tuna stocks in the Pacific. A PNA Secretariat is currently being established in Majuro.

Over 2009 concrete actions have continued to strengthen national tuna industries targeting improvements to their effectiveness and viability, focused on monitoring, control and surveillance of the high seas through the development of a regional strategy, and addressing the importance of fisheries as a principle source of food security in the Pacific.

There was strong expression of regional solidarity in the 2008 WCPFC meeting which saw FFA members strongly influencing its outcomes. While still too early to assess impact, the ability to maintain a whole-of-region position through this forum to reduce over-fishing of bigeye and yellow fin tuna saw the adoption of measures that included: a cut of 10% in long-line fishing in 2009; closure of the high seas and EEZs to fishing using Fish Aggregating Devices (FADs) for 2 months in 2009 and 3 months in 2010 (July-September); prohibition of purse seine fishing vessels from throwing juvenile fish back to sea; agreement to close two high seas pockets from January 2010 (details of which will be finalised, including consideration of closing all high seas pockets, by the WCPFC next year); and future 100% coverage of purse seine fishing vessels with observers.

There remains a **challenge** to maximise sustainable returns from fisheries by fully developing and implementing ecosystem-based fisheries management planning frameworks; encouraging effective fisheries development, including value-adding activities; and collaboration to ensure legislation and access frameworks are harmonised. Furthermore there is a **challenge** to strengthen Pacific SIDS engagement in sustainable fisheries and to maximise the flow on benefits from both domestic fisheries and foreign fishing operations in the region acknowledging the comparatively low returns on the resource being achieved by Pacific SIDS. While slowly changing, Pacific SIDS domestic tuna industries account for less than 30% of the value of tuna harvested in the region's EEZs and a much smaller portion of the high seas catches.

Domestic tuna industries face **challenges** as a result of increased costs, especially for transportation and associated fuel costs. These impacts have been made worse by depressed long-line tuna prices. Compliance with sanitary and phytosanitary (SPS) measures remains a **challenge** in the fishery sector in the region. The recent findings of the European Commission's Food and Veterinary Office inspections carried out in Fiji, Papua New Guinea and the Solomon Islands confirm that more effort is needed to bring the region's SPS systems up to compliance with international standards. The most common deficiencies relate to the legislative framework and standards, enforcement mechanisms, laboratories and other infrastructure. These are affecting the successful integration, diversification and competitiveness of the fisheries sector, and they could undermine the important contribution and role of fisheries as a whole towards rural development, and in turn growth and employment. These issues will continue to pose a major threat to Pacific SIDS enjoying the economic benefits a well managed and robust industry can offer.

In considering rights-based systems, there is no one size fits all approach. Individual Pacific SIDS will have to face the **challenge** of developing their own approach tailored to suit their specific fisheries management objectives. Fundamentally, fishing rights in management must be well understood.

Implementing a rights-based management system in the Pacific will require some careful planning and consideration. In order to put a rights-based system in place, Pacific SIDS need to undertake a number of steps. These include:

- defining the application of rights;
- developing criteria for the identification of rights' holders;
- characterising the nature of these rights;
- defining their limits; and
- developing an appropriate institutional framework to support the rights-based approach.

A critical **challenge** remains as a result of the continuing proliferation of illegal, unregulated and unreported (IUU) operations across the Pacific. Of particular concern is the confirmation by SPC that conservation and management measures introduced by the WCPFC to date, are unlikely to adequately protect current tuna stocks from over exploitation. Both bigeye and yellowfin tuna in particular, are being fished at unsustainable levels exceeding minimum standards for limit reference points as agreed under the United Nations Fish Stocks Agreement.

In regard to **deep sea bottom trawling**, Forum Leaders in 2006 reiterated their concerns regarding the destructive fishing practices on sensitive marine ecosystems such as seamounts, cold water corals and thermal vents in the Western Tropical Pacific Island Area (WTPIA) and in other areas of high seas in the WTPIA and adopted the Declaration on Deep Sea Bottom Trawling to Protect Biodiversity in the High Seas to manage this method of fishing and to protect biodiversity in the high seas until an appropriate environmental impact assessment has been carried out, effective conservation and management measures are implemented to protect affected ecosystems, and effective monitoring, control, surveillance and enforcement measures are in place to ensure that the measures are properly implemented and adhered to.

The South Pacific Regional Fisheries Management Organisation will be the key international forum used to determine the protection of deep sea biodiversity and future management of non-highly migratory fish stocks on the high seas in the Southern Pacific region and will ensure adequate protection is afforded to the biodiversity and non-highly migratory fish stocks of the Western Tropical Pacific Islands Area. Ongoing negotiations continue on developing a South Pacific Regional Fisheries Management Organisation. Technical assistance and advice to Pacific SIDS has been and will continue to be provided by the FFA through the development of briefing documents to assist its members attending these negotiations.

The main **challenge** for Pacific SIDS in providing effective participation in the South Pacific Regional Fisheries Management Organisation negotiations is that the fisheries currently under consideration in the process, particularly trawling, are high latitude fisheries that do not occur in the high seas of the tropical Pacific SIDS region. Furthermore, the cost of participation is high – not so much in travel costs, but rather in the time senior officials spend developing regional and national briefings and attending meetings – all of which takes away from scarce human resources

Ongoing assistance has been provided to Pacific SIDS in all areas of **coastal fisheries** and **aquaculture** including the following actions.

- Coastal fisheries science, assessment and statistics, including the completion of national reef fisheries status reports, and a major regional overview of reef fisheries.
- Ecosystem and community-based fisheries management, including the joint development by SPC and The Nature Conservancy of a regional framework for the application of the ecosystem approach to Pacific SIDS coastal fisheries management, based on the principles established by FAO and building upon the framework used by FFA in applying the ecosystem-based approach to oceanic fisheries management, and the agreement of a set of Regional Coastal Fisheries Management Policies.
- Support for both freshwater and marine aquaculture, including the agreement of the regional Aquaculture Action Plan, and several national aquaculture plans.

- Fisheries development and training with a focus on inshore tuna fishing operations and the use of low-cost coastal fish aggregating devices to reduce fuel usage and increase food-fish landings by small-scale fishers.
- Forecasting and analysis have also commenced of the fish required by all Pacific SIDS for food security until 2030 together with consideration of steps required to meet any shortfalls in supply identified.

The main **challenge** to the development and management of coastal fisheries and aquaculture lies in the limited institutional capacity of many Pacific SIDS, particularly in monitoring coastal fisheries. Risks to coastal fisheries themselves lie not just in potential overfishing arising from population growth and commodity exports, but also coastal ecosystem degradation, which creates **challenges** that will need to be addressed by an ecosystem-based approach to coastal fisheries management that takes account of other human impacts as well as fishery impacts on coastal fishery ecosystems. In the long term, climate change is expected to alter the nature of coastal fisheries.

In regard to **maritime boundary definition** a major concrete action has been the Pacific Islands Regional Maritime Information System hosted by SOPAC, it has continued to be updated and maintained. Currently, it contains baseline information from maps, and satellite imagery, as well as the computed critical basepoints, and the extrapolated notional maritime boundaries for American Samoa, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Tokelau, Tuvalu and Vanuatu.

Eight island members (Cook Islands, Fiji, Federated States of Micronesia, Papua New Guinea, Solomon Islands, Palau, Tonga, and Vanuatu) successfully lodged their submissions under Article 76 of UNCLOS for a total of about 1.8 million square kilometres of additional seabed territory before the May 13th 2009 deadline. The extended continental shelf territory does not include the water column. Rather these claims if successful, give countries sovereign rights to explore and possibly exploit non-living resources from the seabed, subsoil (for example, oil, gas and minerals) and associated sedentary living organisms (for example, bio-prospecting or research for new active compounds for medical and industrial use). A major **challenge** remains despite the initial submission of the claims, and governments cannot afford to consider the matter closed. Partial submissions will need to be completed, and all claims must be successfully defended when reviewed by the UN Commission on the Limits of the Continental Shelf. The defence of claims will rely heavily on a current and detailed understanding of Article 76 criteria for these submissions. This will need to be supported by a thorough understanding of the seafloor geology and geomorphology. This major challenge will be compounded by the lengthy timeframe involved and the UN agencies involved should be urged to make all efforts to speed up the process.

Pacific SIDS must not overlook, the major **challenge** that a successful claim will bring, including obligations to ensure the responsible management and governance of these new seafloor territories and their potential resources

In so far as **seabed mineral resources** are concerned extensive work has continued in recent years within the Bismark Sea area of the EEZ of Papua New Guinea, and initial exploratory work is underway in the Valu Fa Ridge area of the Tonga EEZ. Nautilus Minerals is the first company to commercially explore the ocean floor for high grade gold-copper-zinc-silver seafloor massive sulphide deposits and is positioned to become a world leader in underwater exploration and mining. The company's main focus at present is the Solwara 1 Project, in the Bismark Sea. Nautilus also has interest in major crustal structures in the EEZs of Tonga and Fiji that have been the subject of study by marine scientific researchers over the past 15 years with a number of high grade systems identified.

A particular **challenge** exists in respect to the provision of national regulatory frameworks for sustainable seabed mineral mining in Pacific SIDS. Existing legislative instruments that govern the Territorial Sea, EEZ, and continental shelf of individual Pacific SIDS generally lack robust legal frameworks governing seabed mineral resources and are silent on the management of these resources,

and are often designed primarily to administer the ocean's living resources in this context particularly demersal fisheries. Furthermore, the active mineral and mining legislation is applicable only to onshore exploration and exploitation with little or no attention to offshore areas.

Pacific Islands Global Ocean Observing System (PI-GOOS) is a regional programme which aims to assist development in Pacific SIDS via improved uptake and use of data and information from global and regional oceanic and coastal observing systems. Implementation of the programme is through capacity building at the local and regional level, and via the delivery of useful observation related products to the relevant national level Government departments ([www: pi-goos.org](http://www.pi-goos.org)). An important collaborating partnership with PI-GOOS is the Argo float project. The project to date has deployed approximately 660 floats (out of a total of over 3000 world wide) in the waters of Pacific SIDS, each providing a profile to 2000m water depth of temperature and salinity every 10 days. Through these measurements, Argo observes the ocean's role in the storage and transport of heat and freshwater, which are fundamental elements of the climate system. Argo reveals seasonal to interannual variability in the oceans due to atmosphere/ocean climate phenomena such as El Niño. Information sharing is linked to two other observing systems in operation in the region through the Vai-Pacifika Newsletter (refer Chapter 5.1).

Stakeholders in Pacific SIDS, particularly at regional level continue their efforts to implement the Pacific Islands Regional Ocean Policy and its accompanying Integrated Strategic Action Plan. The Policy and Plan which is incorporated into the Pacific Plan needs reviewing and should this take place, at this time will emerge the opportunity to carry out a regional stock take of achievements and emerging needs.

In a geographic context broader than just Pacific SIDS, and intended to include the Pacific Rim countries, the recently established IUCN Regional Office for Oceania based in Fiji initiated in 2008 a project entitled "Pacific Ocean 2020 Challenge" intended to galvanise support to address the emerging reality that the Pacific Ocean is an ocean nearing a crisis. It will seek to focus global attention, build new partnerships, and generate the necessary commitments, to address threats to the world's largest natural resource – The Pacific Ocean - by 2020.

4.5 Freshwater Resources

For Pacific SIDS the conservation and management of watersheds, groundwater and collection and storage of rainwater are critical to sustaining human settlement especially on the smaller islands. Historically however, there has remained the problem of poor supply and quality of freshwater resources, a lack of adequate sanitation, and a limited capacity to deal with these issues. At the national level there are often a multitude of agencies that deal with water and the fragmented management of this resource is compounded with a lack of overarching policy, outdated laws, and poor administration capacity.

The period 2006-2009 has seen increased support for, and intervention in the region's water and sanitation sector. This unprecedented growth has been guided largely by a number of strategic policy instruments developed by the region over the last eight years, through a broad series of coordinated and comprehensive consultations. They include the Pacific Wastewater Policy and Wastewater Framework for Action (2001); the Pacific Regional Action Plan on Sustainable Water Management (2002) and the Pacific Framework for Action on Drinking Water Quality and Health (2005). In 2006 water, sanitation and hygiene challenges facing the region were incorporated into the Pacific Plan.

The lead regional organisation is SOPAC, but the establishment of the Pacific Water Partnership on Sustainable Water Management has ensured a more coordinated and strategic approach to water and sanitation activities in the region. The Partnership enables Pacific SIDS and development partners to: identify successful previous activities and therefore improve the sustainability of subsequent interventions; reduce and prevent duplication of activities; link country requirements to development

programmes (and vice versa); and augment existing and proposed activities nationally and regionally. A new interactive information portal has been established which will assist Pacific SIDS, the Pacific Water Partnership and SOPAC to share information and news on sustainable water management (www.pacificwater.org).

There have been several major multi-year concrete actions initiated.

Pacific Hydrological Cycle Observing System (Pacific HYCOS): Commenced in 2007 with funds provided through the European Union's Water Facility the Pacific HYCOS Project is implemented by SOPAC jointly with the World Meteorological Organisation (WMO), with UNESCO, and the Fiji Meteorological Office as Associate Partners. Pacific HYCOS will assist Pacific SIDS address a common serious problem, a lack of capacity and related infrastructure at the national level for hydro-meteorological data collection and storage.

The Project Regional Centre is based at SOPAC, and to date has focused on in-country project implementation through installation of new technologies and hydrological equipment, in-country training and capacity development; provision of a national hydrological database, GIS system and ongoing technical support. Pacific HYCOS support covers the three main island water resource types: surface water, groundwater and rainwater harvesting.

The predominantly surface water countries are Cook Islands, Federated States of Micronesia, Fiji, Palau, Papua New Guinea, Samoa, Solomon Islands, and Vanuatu. They have progressed relatively well with installation of rain gauges and stream flow measuring stations for water resources assessments of major rivers. A major **challenge** remains, due to reduced national capacity constraints most of these countries have yet to fully implement installation and undertake field activities on a regular and robust basis to enable the measurement of stream flows, drought sequences and floods. Data rescue of historic data has recovered much of the hydrological data in countries into a well supported regional database. The review of these historic datasets however, indicates that the data is of generally poor quality. In-country training has been provided by experts at the Project Regional Centre as well as by consultants commissioned to deliver against specific project actions. A significant concrete action has been the installation of the Rewa flood forecasting and warning system in Fiji in late 2008.

Support for groundwater dependent countries of Kiribati, Marshall Islands, Nauru, Niue, Tonga and Tuvalu has focused on consolidation of monitoring procedures and developing consistent and reliable data sets. Additional technical support to Niue has allowed a groundwater tracer investigation to be undertaken to benefit both the understanding of groundwater and assist in determining the risk to water supply surface contamination. In Kiribati and the Marshall Islands the focus has been on developing sustainable monitoring schedules and practices and providing country personnel with tools to collect reliable datasets and analyse and report on the information gathered.

For rainwater harvesting dependent countries, Tuvalu and Nauru, GIS databases have been developed to optimise rainwater harvesting capture and storage.

Water quality monitoring continues to be an important component in most groundwater and rainwater dependent countries, with a real **challenge** being the need for simple, reliable and robust sampling and analysis.

A Pacific HYCOS website (www.pacific-hycos.org) has been established, and information sharing is linked to two other observing systems in operation in the region through the Vai-Pacifika Newsletter (refer Chapter 5.1).

Water Quality Monitoring: The Water Quality Monitoring (WQM) capacity building programme is funded by NZAID and is jointly implemented by SOPAC, WHO and the USP Institute of Applied

Sciences. The main objective of the programme is to build sustainable national capacity for monitoring the quality of drinking water, surface water, ground water and coastal waters.

Four pilot countries (Cook Islands, Marshall Islands, Niue, and Vanuatu) have been provided with basic water testing equipment and in-country training on best laboratory practice. With the support of the WQM programme, the laboratory of the Marshall Islands Environmental Protection Agency (EPA) was recently certified by laboratory assessors of the US EPA, under their support programme for EPAs in the North Pacific. Both the Vanuatu Department of Water Resources laboratory and the Niue Department of Health water laboratory are now well equipped with basic water testing equipment while the Department of Water Works in Cook Islands is in the process of establishing an appropriate laboratory infrastructure through WQM efforts. In addition an electronic water quality database has been developed to assist countries with better management and analysis of water quality data and results linked to a regional back-up database.

Rainwater Harvesting: A pilot project has been established in two communities in Vava'u, Tonga and based on lessons learned guidelines have been developed on rainwater harvesting. Outcomes of the demonstration project including a Manual on Participatory Approaches in Rainwater Harvesting; Guidelines for Rainwater Harvesting Projects and a Demonstration Video are being used in different countries with translation in other languages (Tongan, Tuvaluan). Rainwater harvesting asset condition surveys of domestic infrastructure have been supported in Nauru and Tuvalu. SOPAC became a founding member of a rainwater harvesting partnership, which is led by UNEP, and is liaising with International Rainwater Catchment Systems Association (IRCSA) and UNEP to further promote rainwater harvesting as an option for domestic water supply.

Integrated Water Resources Management (IWRM): Whilst many Pacific SIDS have made progress with regards to realising their national objectives for sustainable development and achieving the MDGs and targets, such endeavours have generally been made through sectoral approaches. In doing so the competitive demands of different sectors have become difficult to manage, with increasing stress placed upon water resources as pollution increases and populations continue to grow thus increasing demand on already fragile water resources. The IWRM Programme provides a cross-sectoral, multi level approach to water resources management which also provides an entry point to addressing other inter-related sectors such as health and land management. Two projects comprise the Pacific IWRM Programme and include: the European Union (EU) Water Facility Funded "IWRM National Planning Programme"; and the GEF-funded "Sustainable Integrated Water Resources and Wastewater Management Project in Pacific Island Countries". The GEF funded Pacific IWRM demonstration programme is being executed by SOPAC and implemented by UNDP and UNEP. Following a vigorous country driven project design phase, the project was approved for funding by the GEF in April 2008 for USD10.7M, to be implemented over the period 2009 to 2013.

The IWRM National Planning Programme will provide policy improvement and institutional support to help Pacific SIDS in the development and delivery of national IWRM plans in line with the MDG targets. It will enable all Pacific SIDS to develop policy, strategy and actions for water reform for IWRM with National Water Committees. Countries are at varying stages of consultation and development of policy, strategy and legislation.

Technical assistance to date has included the following:

- An economic assessment was carried out to develop a Water Sector Investment Plan (WSIP) in alignment with the ongoing EU Water Sector Support Programme (WaSSP) in Samoa to support submissions for future water interventions.
- Kiribati is being provided with technical assistance to develop a National Sanitation Policy following on with work previously done through the Programme for Water Governance in developing a National Water Policy and coordinating structures guiding its implementation as well as on-going and future work being done through the ADB Pacific Regional Infrastructure Programme (PRIF) and the Kiribati Adaptation Programme (KAP).

- A benefit cost analysis / economic assessment was carried out in Niue to define cost options for water supply to present to cabinet.
- In-country support has been provided on the IWRM Planning Process to national staff responsible for coordinating the planning process in-country in the Marshall Islands, Niue, and Tonga. Support has also been provided to National Water and Sanitation Committees with national consultation processes in the Solomon Islands and Fiji.
- Sub-regional training focussing on working towards building bridges between stakeholders at the national level and fostering multi-sectoral relationships using an IWRM approach has been adopted as a process to achieve this for the Federated States of Micronesia, Marshall Islands and Palau. Training covered effective communication, leadership and consensus building, negotiation, and creative strategies to develop an inclusive and wide ranging IWRM programme for each country and was carried out by SOPAC in partnership with the East-West Centre in Hawaii.

Water Demand Management Programme: SOPAC and the Pacific Water and Wastes Association (PWWA) are implementing the NZAID funded Pacific Water Demand Management (WDM) Programme in six pilot countries (Cook Islands, Federated States of Micronesia, Marshall Islands, Niue, Solomon Islands, and Vanuatu). The purpose of the programme is to improve the capacity for water demand management in Pacific urban water utilities. In-country support is being provided to establish System Loss Management Plans in each of the pilot countries. The programme is assisting the pilot countries to acquire both “hardware” such as water meters, leak detection equipment or bulk water-saving devices for incentive or rebate schemes, as well as “software” which include training, community education materials and technical expertise.

Pacific Drinking Water Safety Planning: The Pacific Drinking Water Safety Planning (DWSP) Programme is a joint initiative of the World Health Organisation (WHO) and SOPAC. The programme, now in its second phase and funded by AusAID, is focusing on promoting a risk management approach for the provision of safe water supply through pilots in four member countries (Cook Islands, Palau, Tonga and Vanuatu). The first phase of the programme (2005-2007) developed Drinking Water Safety Plans for individual urban and rural water supplies in all pilot countries. Under the second phase (2008-2010) of the programme, associated improvement schedules are being implemented for various water supply systems including: water supply of Nuku’alofa as well as rural supplies on Tongatapu, in Tonga; at Luganville and Mele in Vanuatu; at Koror-Airai in Palau; and on Rarotonga, Cook Islands.

The New Zealand Ministry of Health, through its Pacific SIDS assistance programme funded under the New Zealand Government Agencies Fund is providing additional in-kind support to the DWSP programme with the strengthening of technical aspects of the programme through the mobilisation of drinking water safety planning experts from New Zealand.

Public awareness programmes are being conducted by in-country NGOs including the Tonga Community Development Trust, the Palau Conservation Society, Live and Learn Environmental Education in Vanuatu, and the National Environment Services in Cook Islands.

Replication of Water Safety Planning is being supported as part of the second phase in Fiji, Marshall Islands, Niue, Samoa and the Solomon islands. Guidelines have been developed based on the lessons learned from the first phase which are guiding further application of the DWSP concept throughout the region.

Wastewater Management Training: A training course for wastewater management has been jointly developed by UNEP's Global Programme for Action for the Protection of the Marine Environment from Land-based Sources of Pollution (GPA/UNEP) and the UNESCO-IHE Institute for Water Education. The wastewater training course addresses one of the Guiding Principles of the Pacific Wastewater Policy and Framework for Action and is being implemented by a consortium of SOPAC, USP-Institute of Applied Sciences, International Oceans Institute, UNESCO-IHE, GPA/UNEP and UN Department of Ocean Affairs and Law of the Sea (UN/DOALOS).

The first series of training courses held in Suva, Guam and Port Moresby have been followed up through additional courses in Kiribati and Tonga. Through course evaluations the training materials have been modified and delivered in Fiji with the Water and Sewerage Department and the Ministry of Health, and in the Cook Islands with the National Environment Service and the Ministry of Health.

Pacific Island Climate Update: The Pacific Island Climate Update (ICU) project is implemented by SOPAC, in collaboration with SPREP and the New Zealand National Institute of Water and Atmospheric Research (NIWA) and supported by NZAID. The main output of the ICU process is the publication of a monthly seasonal climate bulletin for the Pacific region with a primary goal of assisting Pacific SIDS to make informed planning and management decisions across a range of sectors through the provision of timely and accurate seasonal climate forecasts. The ICU bulletin is published by NIWA, previously both in print and online, and distributed to end users across the Pacific region. Since 2009, the print version has ceased in order to devote more resources to develop an improved online presence and accessibility. At the 13th Regional Meteorological Services Directors' meeting in Nadi in May 2009, Directors noted the crucial contribution by the ICU in developing and building climate forecasting capacity in the region.

Pacific Water and Climate: Following the outcomes of the Pacific Dialogue on Water and Climate, the Asian Development Bank (ADB) supported the Pacific Resource Centre on Water and Climate to continue to improve the capacity in water resources management to cope with the impacts of increasing variability of the world's climate, by establishing a platform through which policymakers and water resource managers have better access to and make better use of information generated by climatologists and meteorologists.

Through the Pacific Resource Centre on Water and Climate, SOPAC provided a joint contribution with the Caribbean Environmental Health Institute to the preparation of a session at the 5th World Water Forum through a perspective document on adaptation to climate change in water resources and water services in the Caribbean and Pacific SIDS.

Climate and Meteorological Data: Under a joint initiative between SOPAC, SPREP and NIWA and funded by the New Zealand Ministry of Environment (NZMoE) funding support is being provided to rescue, preserve and digitise historic climate observations from Pacific SIDS. Progress to date has been to assess the data available and to provide a listing of daily climatological and rainfall records that are archived in NIWA's climate database, as well as sites for which daily data are still to be archived. The NIWA climate database has 716 Pacific island sites of which there are 524 locations where daily observations of weather and climate are made.

Pacific Partnership Initiative on Sustainable Water Management: The partnership is a unique model for regional project implementation and members of the partnership are playing active roles either through participation in national activities or regional support programmes. Whereas visible and measurable outcomes such as the newsletters and action matrix have been useful outcomes of the Coordination Unit, the less visible, but arguably more important function of the Partnership has been the increased project coordination and donor harmonisation. www.pacificwater.org.

World Water Day: World Water Day activities are coordinated annually by SOPAC and Live and Learn Environmental Education (LLEE), and include the production of organised relevant educational materials for raising awareness on how water connects people and how water management is everybody's responsibility.

Pacific WASH Coalition: As a member of the global Water Supply and Sanitation Collaborative Council (WSSCC), SOPAC has mobilised partners in the region to coordinate activities in the Pacific region on water supply, sanitation and hygiene (WASH) and established the "Pacific WASH Coalition". Partners in the coalition include the Foundation of the Peoples of the South Pacific International (FSPI), the Fiji School of Medicine (FSMed), Live and Learn Environmental Education

(LLEE), the World Health Organisation (WHO), the United Nations Children's Fund (UNICEF) and the International Federation of Red Cross (IFRC). Increasing interest in water and sanitation support provided to the region by donors and other organisations resulted in a large number of overlapping interventions. The Coalition meets regularly to ensure that work carried out is well coordinated to optimise outputs and avoid duplication. The Pacific WASH Coalition utilises existing partnerships established under the Pacific Partnership Initiative on Sustainable Water Management and builds on ongoing work programmes and activities in member countries.

With many of these current activities being project-funded a real **challenge** will be to secure adequate financial resources to continue into the future.

4.6 Land Resources

For most Pacific SIDS communities, even on the smaller atolls, from 20 to up 90% of their real income (cash plus non-cash incomes) comes from the land and terrestrial biodiversity, agriculture and forestry. In most Pacific SIDS mining for aggregates is a major activity for supporting construction of buildings, roads and other infrastructure. The source of the aggregate is often from quarries or from river beds, but for lowlying coastal areas and atolls mining of the beaches and nearshore reef areas is practiced. Mining for metals (gold, copper, nickel) which contribute to exports is currently confined to Papua New Guinea and Fiji, and Nauru for phosphate.

Sustainable Land Management: Integrated land resources management is being promoted to address land degradation in the Pacific. The approach considers technical, physical, sociological, economic, and political issues in making land use decisions to achieve the most efficient and non-destructive long-term use of resources, including through developing appropriate adaptation methods in lowlying coastal areas to combat soil salinity resulting from increased frequency of saltwater incursions and rising sealevel. Essentially, it is a package of technologies that, individually or in aggregate, contributes to sustainable land management.

Efforts to raise the capacity of Pacific SIDS to deal with sustainable land management issues within the context of the UNCCD continued through the implementation of a GEF/UNDP medium-sized Sustainable Land Management Programme for fourteen Pacific SIDS and is coordinated by SPREP. This programme involved development of a resource mobilisation strategy to assist with the on-going implementation of sustainable land management programmes and initiatives; training on the application of the environmental economics toolkit developed by the UNCCD Global Support Unit to assist countries with decision-making for land use planning; and share lessons and best practices on approaches to progressing work on mainstreaming sustainable land management and national action plans into national sustainable development strategies and plans.

Land degradation is a problem in many Pacific SIDS where land resources are the basis for subsistence and commercial economic activities. Regional support to Pacific SIDS is provided and coordinated principally by SPC, SPREP, USP and the FAO Sub-Regional Office for the Pacific Islands in agriculture and forestry, and through SOPAC for mining. These agencies are the core group that forms the CROP Land Resources Working Group.

The objectives of the CROP Working Group are to progressively work towards an integrated approach to land resource management; share information and seek out areas of common interest for collaboration, and raise the profile of land resources management and community level activities in it as a development issue to underpin economic growth in Pacific SIDS. The working group assists regional organisations and partners to coordinate efforts and combine skills and resources to support Pacific SIDS develop and implement strategies, action plans and programmes pertaining to land resources management.

Traditionally the indigenous people of Pacific SIDS have had, and retain, a strong affinity with their land. Within Pacific SIDS, land ownership remains predominantly (83%-100%) vested with the customary owners and, often held communally. The ongoing conflict in respect of Pacific land tenure systems (refer Chapter 2) is both an impediment to, and provides unique opportunities for, poverty alleviation and sustainable environmental development of land.

Land policy reform is increasingly on the agenda in the Pacific region. Papua New Guinea, Vanuatu, Solomon Islands, Samoa, Tonga, Timor Leste and others are all undertaking or considering ways of strengthening their land systems. And the growing push for reform is not coming from governments alone. Customary landowners in many countries recognise that their present and future livelihoods depend on sensible and sustainable management of traditional lands. Land is crucial for food security, shelter, cultural identity, community development, social cohesion and economic wealth. It is central to the growing regional challenges of urbanisation, migration, population growth, resource-related conflicts and - in some cases - political instability and state fragility.

National and local land policy reform efforts in the Pacific have the potential to be supported and complemented by three ongoing regional activities: (i) the Land Management and Conflict Minimisation (LMCM) agenda; (ii) the Pacific Urban Agenda (refer Chapter 2.3); and (iii) the Pacific Land Programme. Regional activities are able to take advantage of economies of scale in service delivery mechanisms and facilitate information-sharing and coordination in relation to land issues that are of common concern to countries and communities in the region. A regional programme has the potential to support a wide range of people who have a strong interest in land issues, including local landholders (including land owners and land users) as well as land practitioners, broadly defined to include professional, technical and administrative personnel as well as civil society and customary groups.

In regard to the LMCM agenda, starting in 2006 PIFS undertook research into the linkages between land management and conflict minimisation in Pacific SIDS. The results of the research are contained in a synthesis report published in 2008 called "Improving Access to Customary Land and Maintaining Social Harmony in the Pacific." The Forum also developed twelve Guiding Principles and an Implementation Framework to provide guidance to Pacific SIDS, which were endorsed at the Leaders meeting in 2008. The leaders provided the Secretariat of the Pacific Community (SPC) with the mandate to develop a regional initiative to support national land reform efforts. The regional initiative will be implemented by SPC.

In regard to the Pacific Land Programme, in 2008, the Australia announced a \$54 million budget initiative for a second phase of its Pacific Land Programme which was established in 2006 to support Pacific SIDS strengthen land systems. The first phase of the program involved the development of an analytical report "*Making Land Work*." This report explores different policy options to reconcile customary land and development and identifies some broad principles for how the Australian Government can assist countries in the region. The second phase of the programme will run for an initial four years and, in addition to the existing bilateral programmes in Papua New Guinea, Solomon Islands and Vanuatu, includes plans for a regional initiative. Since 2007 there has been a significant level of consultations to explore the potential scope of a regional land initiative. In July 2009 AusAID and SPC agreed to undertake a joint design mission to take forward the respective regional programs through a regional land initiative.

To ensure productive access to and use of land, a **challenge** for Pacific SIDS remains the need for national land reform that is both based on and sensitive to continuing customary ownership, by facilitating a better interface between indigenous and western science and information to ensure sustainable land use.

Agriculture and Forestry

Several major concrete actions have been undertaken in recent years in agriculture and forestry.

In July 2008, a new **Centre of Excellence for Atoll Agriculture Research and Development in the Pacific** was established in South Tarawa, Kiribati to become a focal point for Pacific scientists working on the development of technologies to help atoll farmers increase their productivity. Nil or almost no land resources coupled with infertile coralline soils and long spells of dry weather make any form of agriculture very difficult. As a result, atoll communities face problems in maintaining food security and eating a balanced diet. Research activities will be undertaken with the full participation of farmers themselves. The centre will emphasise the use of participatory methods to engage target groups to promote local produce and to revive production of traditional food. It will also emphasise gender equity and seek the involvement of women and youth in agricultural and fisheries production.

Initial research **challenges** for the Centre will include documenting some of the proven technologies used in the region; for example, banana circles in Kiribati, coconut hydroponics in French Polynesia, and indigenous agroforestry systems such as pulaka pits. The Centre will also source appropriate and transferable technologies developed on atolls in other regions, such as the Maldives and in the Caribbean. The centre's research areas will include soil improvement, rainwater harvesting and irrigation, crops adapted to atoll conditions including saltwater incursions, pest and disease control, improved local livestock breeds, waste management, and improved agroforestry systems. Technologies developed or refined at the Centre will be tested by farmers in Tarawa and on the outer atoll islands of Kiribati and other Pacific atolls using established outreach approaches such as farmer field schools.

To ensure that farmers have sufficient genetic diversity to meet future challenges, the Centre for Pacific Crops and Trees (CePaCT), which holds significant in vitro collections of the major root and tuber crops of the Pacific, established in 1998 in Suva continues its work. The CePaCT is known internationally for the largest in vitro collection of taro (over 850 accessions) collected from the Pacific and southeast Asia, for which it has recently received long-term funding support from the Global Crop Diversity Trust. Not only is traditional agrobiodiversity conserved in the CePaCT but also improved diversity sourced from international institutes, such as the International Potato Centre (CIP) in Peru. This access to diversity from overseas is vital to ensure that food and nutritional security requirements will be met in the coming years. The CePaCT actively distributes this planting material to Pacific SIDS, and in recent years, over 6,000 plants have been distributed. A "climate-ready" collection consisting of crops and varieties with climate-tolerant traits, such as drought and salt tolerance is currently a major focus of work in the CePaCT. Research is on-going and includes developing micropropagation systems for root, tuber and tree crops to support the supply of planting material and developing technologies for evaluating and improving salt and drought tolerance.

Within CePaCT, a tree seed facility is currently being established that will facilitate the efficient and safe exchange of important tree germplasm in the Pacific. A new action plan for the conservation, management and utilisation of forest genetic resources in the Pacific was endorsed by the 2008 Heads of Agriculture and Forestry Services meeting, which clearly identifies poor access to tree germplasm as one of the main constraints to the effective conservation and sustainable use of Pacific SIDS forest genetic resources. Movement and deployment of appropriate tree germplasm will become an increasingly important component of Pacific SIDS strategies for adapting to climate change, especially for coastal and watershed protection and food security. The establishment of the tree seed facility comes at a time when some wild and improved germplasm for several important tree species are now becoming available from various sources in some Pacific SIDS, including recently established plantations, and there is a desire to exchange these between interested countries.

Livestock is an important agricultural focus for Pacific SIDS, and is mainly to meet family and social obligations. Cattle, pigs and chickens are the three main types of livestock raised in the Pacific. Unlike cattle, free-ranging pigs and chickens are mostly unimproved but highly adaptive breeds. A **challenge** remains that the knowledge of local domestic livestock for food and agriculture is not well documented. Many local breeds in the region have not yet been sufficiently identified or characterised, and this lack of information prevents the limited available funds from being applied to appropriate conservation, sustainable use and development projects. Ongoing support to Pacific SIDS from SPC and FAO will ensure the fair and equitable sharing of benefits deriving from improved knowledge of Pacific animal genetic resources for food and agriculture.

With globalisation of the world economy and its markets resulting in increased competition among countries, the **Pacific Agricultural and Forestry Policy Network (PAFPNet)** launched in 2006 is helping broaden stakeholders' participation in regional and national policy development. The network encourages the participation of community groups, such as women's and youth groups, churches and NGOs. It will accelerate regional harmonisation and rationalisation of standards and grades for trade, and will naturally forge closer alliances and cooperation between the Pacific SIDS and other regions of the world.

The **Facilitating Agricultural Commodity Trade (FACT)** project is an EU-funded programme that operates within the Land Resources Division of SPC. FACT aims to assist selected commercial ventures and producer groups to become export-oriented and market driven enterprises that consistently supply overseas markets with competitive products and to sustainably increase quality and range of exports of agricultural and forestry products. The overall objective is to promote and increase trade in agricultural and forestry products from Pacific SIDS. FACT complements efforts aimed at enhancing regional cooperation and integration: this includes facilitating the integration of Pacific SIDS into the regional and global economies. Further it also promotes sustainable increase in quality and range of exports of agriculture and forestry products within and out of the region.

Pacific SIDS need a thorough understanding of the implications of climate change, specifically **Clean Development Mechanism (CDM) forestry**. They also need to learn skills so they can better handle international, regional and national negotiations on CDM forestry. Closer collaboration among Pacific SIDS and relevant agencies and programmes will help enhance understanding of climate change issues and can prepare for the bundling of individual projects necessary to ensure that benefits accrue to small and large countries alike. As a first step, a regional awareness workshop was convened in early 2008.

The SPC/GTZ Regional Programme on Adaptation to Climate Change in the Pacific Island Region (ACCPIR) is assisting a number of Pacific SIDS strengthen their capacities to cope with the adverse impacts of climate change and to avoid deforestation as a fundamental element for sustainable management of land based natural resources

The **Pacific Islands Network for Taxonomy (PACINET)** is designed to build taxonomic capacity in Pacific SIDS for sustainable development. It is a joint programme of SPC, SPREP and USP. Taxonomic capacity is having the human resources to identify, describe, name and classify the unique biodiversity found in all Pacific SIDS landscapes including rainforests, grassland, freshwater systems, atolls, coral reefs and the deep ocean.

In an effort to boost **food security** in Pacific SIDS in the face of climate change, and that communities are not put at risk through a lack of diversity of crops adapted to climate extremes, SPC is undertaking to collect, conserve, and make available crop varieties with traits such as drought and salt tolerance, thereby assisting communities to better manage the anticipated effects of climate change.

A brief on Climate Change and Food Security in the Pacific⁹ was prepared for Pacific SIDS delegations to the Climate Change meeting in Copenhagen, December 2009, to raise awareness of the imminent impacts of climate change on food security in Pacific SIDS and to urge participants to respond to the **challenge** associated with the importance of mainstreaming food security in climate-related policies, strategies and programmes.

The Second Regional Conference of Ministers of Agriculture and Forestry Services held in Apia, Samoa, September 2008 on the theme of 'Food security, nutritional balance and sustainable management of natural resources' identified the following broad **challenges**.

- Governments, communities and development partners need to work together to address food security, and the adverse impacts of climate change.
- Ensure a higher priority in national budgets and regional programmes towards developing agriculture and forestry, in order to secure the financial and human capacity necessary to respond to changing needs.
- Support the SPC Land Resources Division Strategic Plan 2009-2012 as an integrated approach to guide delivery of services.
- Recognise the potential benefits of greater involvement of Pacific youth and women in the agriculture sector, and support the development and implementation of a Pacific Youth in Agriculture Strategy.
- Recognise the contribution that trade makes to food security. The increasing fuel and food prices results in differing impacts on food security because of the diversity within the region, for some of the larger countries, this presents opportunities, yet for others, such as the countries with limited land and reliance on imported foods, significant challenges exist. Support needs to be targeted at investment and strengthened public-private sector partnerships; agro-biodiversity, traditional crops and production systems; and strengthening customary food security mechanisms.
- Strengthen support to expand trade in island agricultural and forestry products, including promoting the Pacific Organic Standard.

The **Pacific Organic Standard 2008** promotes a holistic approach to development to address many key areas of concern for Pacific SIDS including: economic development; environmental protection; improved health; and opportunities for Pacific SIDS smallholder farmers to link into global export markets. It is especially noteworthy that the Standard encompasses such pressing issues for the Pacific region as climate change, and recognition of culture, traditional practice and social justice. It is traditional in the sense that the majority of producers to this day use tried and tested practices handed down from generation to generation that are generally in harmony with the environment and with modern organic principles. It is new in that Pacific SIDS are starting to understand the benefits of certification for obtaining access to external markets, and the need for research and training to develop the sector and generate much needed livelihoods for their people.

Despite much progress, many **challenges** still remain and are identified in the SPC Land Resources Division Strategic Plan 2008-2012 These include the following.

Challenges for land use and planning: Pacific SIDS have identified sound land-use policies and practices, and improvements in soil management, as pivotal requirements in promoting sustainable and integrated management of land resources and ensuring that land is allocated to maximise sustainable benefits. Smaller Pacific SIDS, especially atoll islands, face special difficulties in improving their soils, managing water resources for agriculture and improving food security.

Effective management can help to maintain the productivity of land resources, strengthen food security, safeguard the environment, and increase tourism and revenue. Improved land information, evaluation and

⁹ FAO, SPC, USP, and SPREP 2009: Climate Change and Food Security in the Pacific

geographical information systems (GIS) are required to support informed decision making by policy makers, land users and owners. Improved awareness and education regarding the environmental, social and economic implications of different land-use practices can also facilitate improved management.

Land administration and management in Pacific SIDS are often based on narrow sectoral interests, which can lead to conflict, resulting in mismanagement and disputes. There is increasing recognition that integrated land-use planning and management are key factors in minimising land-use conflicts.

There is a need to create mechanisms to facilitate the active involvement and participation of communities and people at local level in land management. The formation of land-care groups, where both tenants and landowners can discuss issues that affect their livelihoods, can help to create partnerships and trust among stakeholders and minimise conflict over land.

Challenges for CROP Production: The economic viability of crop farming in Pacific SIDS, as elsewhere, largely depends on the efficiency of production. Production efficiency is achieved and sustained when farmers adopt good husbandry practices and have access to a wide range of effective crop protection services, coupled with skills, information and knowledge. Climate change adds a new dimension to crop production, highlighting the need for diversification of production systems. Farmers, extension workers, and researchers will have to strive to be one step ahead to ensure sustainable crop production.

Opportunities for expanding agricultural production vary, depending on the specific circumstances in individual Pacific SIDS. Some have rapidly growing populations and there are significant opportunities to expand production for the domestic market. In Pacific SIDS where there is with a strong tourism sector, opportunities exist for supplying hotels and associated facilities with fresh produce and substitutes for current imports, but the necessary linkages and systems must first be in place.

In some Pacific SIDS, increasing population limits the availability of land for cultivation and the temptation to mine the land is overwhelming. This practice, which is born out of necessity, results in a downward spiral in soil fertility. It gives the farmer little flexibility for diversity or sustainable rotations as the whole farm must be used to produce basic foodstuffs and meet other needs. Crop systems are required that take this constraint into account.

Priority needs for crop protection in smaller Pacific SIDS are to prevent incursions of exotic pests, diseases and weeds and other invasive species that negatively impact on agroecosystems, and to manage pests that threaten food security, using integrated pest management regimes with minimal pesticide use. With the predicted changes in climate, incursions of new pests and diseases are more likely and may be more extensive. The challenges to addressing pest, disease, weeds and other invasive species issues/threats in Pacific SIDS is the ongoing lack of or low levels of national capacities and capabilities (trained and skilled personnel, financial and infrastructure), the lack of an aware and concerned public that is able to detect crop protection problems early before impacts become severe.

Pacific SIDS are grappling with the issue of adopting biological control as a tool in fighting invasive pests in agriculture, forestry and environmentally important systems. In the Pacific 300–500 plant species could be regarded as invaders, with about 150 species classified as aggressive. For example, *Mikania micrantha*, often called “mile-a-minute weed” because it can grow as fast as one meter per month, is one of these aggressive weed species that is found in most Pacific SIDS. Biocontrol uses highly evolved and host-specific natural enemies to lower the population of pests affecting agriculture and the natural ecosystem. Pacific SIDS can share more information between agriculture, forestry and biodiversity conservation groups to better address biocontrol work, as well as looking at strategies implemented in other regions in the use of biocontrol agents to fight invasive plants and pests. A

workshop in November 2009 developed a regional strategy for implementing biological control work in the Pacific.

For atoll Pacific SIDS, basic needs take precedence. They include developing productive atoll farming systems; improving the profile of agriculture and agroforestry to attract youth and women; and identifying new varieties of food crops for local consumption. This need for a different approach to the requirements of atoll communities has been demonstrated by the launching of the Centre of Excellence for Atoll Agriculture Research and Development.

Challenges for genetic resources: Diversity is an essential tool for farmers in meeting the challenge of revitalising local food production within an environment of climate change. There is a need to evaluate and utilise traditional diversity effectively and efficiently so that species and varieties with useful characteristics are made available quickly for farmers to use. This same process can also identify potential crops for domestic, regional and overseas markets. The region has a wealth of underutilised species yet to be evaluated.

Mechanisms must be put in place to ensure access to global diversity to strengthen the resilience of food production in the region. This interdependence will become stronger with Pacific SIDS having to manage climate change and increase food production at the same time. The region cannot rely on the genetic diversity within its borders to manage all these challenges.

Access to diversity is often taken for granted by policy-makers and donors, to the extent that funds are not readily available for conservation of germplasm collections. It is assumed that the diversity will be available for use when required. This situation is improving, but there must be recognition of the increasing importance of diversity to sustaining food production now and in the future.

Protection of agrobiodiversity, which also includes soil and general biodiversity and pollinators, is fundamental to ensuring the sustainability of agriculture in a time of rapid environmental, biotic and socio-economic change. Knowledge of the role of agrobiodiversity in the various production systems in Pacific SIDS is lacking. Research is needed to determine which management practices result in higher levels of agrobiodiversity, thereby increasing agricultural sustainability.

Challenges for animal health and production: The Pacific SIDS suffer from a shortage of trained veterinarians which has resulted in a deterioration in the health and welfare of animals. A paraveterinary training programme, such as at SPC, is vital in building capacity in Pacific SIDS to address this skills shortage. Over time, the programme will extend its support by including more production-oriented topics.

More Pacific islanders are becoming involved in intensive livestock production systems, increasing their exposure to potential health risks from diseases transmitted from animals to humans, (for example leptospirosis and avian influenza). Capacity needs to be built and/or strengthened at the national level to develop, test and implement emergency response plans to deal with potential disease outbreaks of emerging and reemerging diseases. Improving the health, welfare and general management of farm and other domestic animals is vital in minimising the risks.

Most Pacific SIDS assign low priority to the development of their domestic livestock sector. Developing this sector could reduce spending of foreign earnings on imports of animal products, consumption of which is steadily increasing, driven in some Pacific SIDS by increased tourism. Productivity improvements are possible by developing breeds adapted to conditions in Pacific SIDS and through training programmes for livestock farmers. Identification of locally grown raw materials for feed could also lead to productivity improvements.

The pressure on land and water resource in smaller Pacific SIDS means that livestock waste can have a severe impact on the environment if good husbandry practices are not followed. A set of comprehensive waste management practices developed by SPC are available to enable livestock waste to be used as organic manure.

Challenges for forestry: Forests and trees help protect areas of human settlement and agricultural land by controlling soil and coastal erosion and providing a steady supply of clean water. They protect maritime resources, including coral reefs and mangroves from sedimentation. Forests and trees also contribute to global biodiversity resources due to an extremely high incidence of endemic species, the occurrence of which may be limited to a single island. Despite their crucial role in these ecosystems, the importance of forests is often not well understood or acknowledged by stakeholders, including decision-makers. Sustainable management of forestry resources in Pacific SIDS faces serious challenges including the conversion of natural forest land for agriculture and other purposes; over exploitation and degradation (soil erosion, choking out of useful species by invasive species) of forest areas by unregulated commercial logging; land tenure conflicts that hamper long-term oriented management; and lack of effective enforcement of environmental standards, especially in logging operations.

Forests have economic and cultural significance and play a critical role in sustaining livelihoods and contributing to poverty reduction. Loss or degradation of forests and trees due to unsustainable harvesting of timber and non-timber products are serious concerns for all Pacific SIDS. Such practices cause significant loss of forest biodiversity with many tree species of economic and traditional value already lost or bordering on extinction. Forests and trees also play an important role in protecting the environment and biodiversity. Current international negotiations on climate change have highlighted the role of forests and trees in mitigating the impacts of climate change, both in preventing emissions of carbon dioxide into the atmosphere and sequestering carbon from the atmosphere. There is an urgent need to build the capacities of Pacific SIDS to take advantage of opportunities for potentially new sources of funding for forestry arising out of climate change mitigation efforts.

Carbon storage in the forests of Pacific SIDS represents a commodity that the international community is willing to pay for as part of international efforts to reduce global emissions. The Clean Development Mechanism (CDM) is an instrument that enables developed countries with emission reduction targets under the Kyoto Protocol to purchase credits from developing countries for projects that generate emissions reductions or carbon storage. Eligible activities in the forestry sector include reforestation but currently avoided deforestation (protection of currently standing forests that might otherwise be logged) is not eligible.

Biofuel projects are also eligible for CDM project funding and represent an opportunity for Pacific SIDS to reduce their carbon emissions and their dependence on imported fossil fuels. However, increasing interest in using food crops for biofuels production needs to be carefully assessed for its potential impact on food security. SPREP continues to provide technical support, capacity building and advice to Pacific SIDS on these issues including REDD, biofuel and CDM opportunities.

Strengthened support is needed for Pacific SIDS' efforts to address these challenges by strengthening their capacity to implement sustainable forest management and develop appropriate forestry and agroforestry policies, strategies and legislation. Support is also needed for capacity building in Pacific SIDS to research and develop new income generating opportunities from the sustainable use of forest and forest-related products.

Challenges for biosecurity and trade facilitation: Rules to gain market access pose considerable challenges for Pacific SIDS. The most immediate challenge facing the region is the ability of Pacific SIDS to facilitate trade between themselves, as envisioned in PICTA.

A major barrier to trade facilitation is that the legislative framework under which most biosecurity (quarantine) services operate is often archaic and requires modification to provide legislative cover for the multitude of functions required by various international treaties and conventions. The operating processes and procedures of most biosecurity services either need to be developed or revised. To ensure effective coordination between agencies, the working relationships between the various areas of biosecurity (animal, plant, aquatic and environment) need to be developed and strengthened at national, regional and international levels.

Increased movement of people, goods and services in the region poses important challenges for biosecurity (quarantine) services in the Pacific SIDS. The increased movement proportionately increases the potential introduction of invasive species, pests and diseases to the islands and thus threatens their agriculture, environment and livelihoods. Pacific SIDS must ensure strong protection of their borders to minimise and/or mitigate potential risks and facilitate the movement of people, goods and services with the limited resources available. It is also critical that Pacific SIDS are prepared to deal with incursions by invasive species, pests or diseases. The main concern for agriculture trade and trade facilitation is the lack of capacity of Pacific SIDS to operate within an international trading regime based on global rules. Building the capacity and ability to influence trade (facilitation) or participate in the rulemaking process, together with capacity to implement is needed.

Mining

Aggregates: Sand and gravel are an important resource supporting development in Pacific SIDS. Aggregates are required for many activities including construction of private houses, government and commercial buildings, infrastructure (airports, harbours, roads, landfill and reclamation). In some Pacific SIDS sand is traditionally used to cover gravesites. Aggregate mining provides jobs, as well as indirectly supporting others (for example construction workers and sub-contractors). A wide variety of aggregates (and quality) occur in the Pacific SIDS ranging from hard, compact igneous rocks in volcanic islands (good quality) to highly porous and easily abraded coral detritus and marine organism fragments found in atoll islands (poor quality). On the higher islands aggregates are sourced from quarries or from river channels. On atolls, and coastal lowlands of the high islands, beach sand mining and reef flat mining/dredging is common. These activities have been a major cause of coastal erosion in many Pacific SIDS and the detrimental environmental impacts can be significantly reduced by the identification of alternative onshore and/or offshore aggregate sources with less risk.

A major **challenge** is to ensure sustainability and minimising adverse impacts of aggregate mining including through the operation of robust monitoring programmes, whilst at the same time ensuring affordability. Pacific SIDS need to ensure accurate and timely records are kept of volumes of aggregate mined, the sources, and the costs. For example, recent work by SOPAC on South Tarawa atoll, Kiribati has shown no accurate records exist and yet it is well known aggregate mining has been detrimental for at least two decades for the major source has been the beaches and nearby reef flats. Estimates of current prices range from US\$50 -100/cubic metre depending on whether aggregate (sand or gravel) is removed from the beaches, dredged from the lagoon, or imported from Fiji. With current consumption estimated at 50,000 cubic metres/year and increasing, a dredging operation costing US\$2.5 million/year will be feasible and affordable. A suitable site with sufficient resources has been identified on the lagoon floor and careful environmental monitoring should ensure a sustainable operation.

Nauru is also examining the feasibility of exporting crushed coral limestone from the mined out phosphate areas for use as aggregate in nearby countries dominated by atoll islands.

Mines and mineral deposits: Mining of phosphate commenced in Nauru and Ocean Island (Banaba, Kiribati) one hundred years ago, and still continues in Nauru. Papua New Guinea boasts some world-class gold and copper mines and other metalliferous deposits. New Caledonia has significant nickel deposits and mines. Fiji has a large potential copper deposit at Namosi, as well as one operating gold mine at Vatukoula. The Solomon Islands has been operating (though currently not operating) its first gold mine, Gold Ridge, and there are promises of further lucrative deposits. The economic significance of mineral exploitation in some Pacific SIDS is reflected in the related export earnings. For example, in Papua New Guinea the minerals sector (without oil and gas) accounted for 48.5% (1999) and 63.5% (2008) export earnings, the Solomon Islands about 25% (1999) and 1.4% (2008), and Fiji with estimated 7.4% (1999) and 2.1% (2008).

The significant drop in the mining sector export earning in the Solomon Islands is largely due to the closure of Gold Ridge Mine in June 2000. This will certainly change once production resumes in late 2010/early 2011. Similarly for Fiji, the new Vatukoula Gold Mine is struggling to boost production and the gold ounces won in 2008 is less than a third of the 1999 gold production. However, the gold price has a major part to play in offsetting the low production, with an average US\$1000/oz in 2009 compared to about US\$300/oz in 1999.

Political will and national capacity is lacking in implementing legislative and policy intent governing sustainable exploration and development of mineral resources. Often this can result in missed opportunities and under-utilisation of the resources. It can also allow the private sector to set the standards they desire, which may result in weaker environmental standards than are socially optimal. A haze of confusion and uncertainty confound mining companies in the absence of enforceable legislative policy and mineral protocol, which should clearly detail occupational health and safety and environmental management, government authorisations, fiscal and compensation requirements. Uncertainty is a cost to the private sector and the resultant 'risk' is a disincentive to investment in country.

Poor extraction management often results in watershed contamination, environmental degradation and loss of biodiversity, problems which are particularly acute in coastal zones of small islands.

Challenges in the mining and minerals sector include the following.

- Improve national capacity for policy and legislation formulation, negotiations with transnational corporations and evaluation of mineral sector projects. This includes environmental impact assessment, compliance, rehabilitation reclamation and environmental bonds, and compensation.
- Ensure full cost-benefit analysis and environmental impact assessment (EIA) are undertaken, taking into account social and environmental costs and risks, before the grant of any mining licence, ensuring that the competing uses of the area to be affected are fully investigated and the mitigation of adverse impacts are included in the project design.
- Establish fair and transparent compensation systems that fully compensate all natural resource loss (including water, forest, and land resources), environmental damage, disamenity costs, recreational loss, and socio-cultural effects. This can be non-monetary as well as in monetary terms.
- Progress, legislate, and manage national mineral policy frameworks and environmental management plans. Enforceable mineral policy and legislation are both necessary for a country to maximise the benefits it receives from its natural endowments. Fiscal policy should include a taxation and incentive scheme that provides a competitive environment for investors, whilst ensuring fair return to the country for the exploitation of a non-renewable resource.
- Develop institutional capacity in Pacific SIDS to deal with mining tenement issues, mine company selection, closure, institutional weaknesses, environmental issues related to mining and raising of land 'owner' awareness.
- Develop national and regional mineral databases, assess and evaluate mineral and aggregate resources.

- Build sustainable development capacity in the mineral sector through training, promotion and raising of community awareness.
- Increase stakeholder participation in all forms of discussions/negotiations regarding access to and exploitation of mineral sector projects.

4.7 Energy Resources

Energy remains a key priority area within the region since almost all Pacific SIDS remain highly dependent on imported fossil fuels for energy, with oil imports averaging 14-20% of foreign exchange earnings, for example Fiji currently spends close to US\$1 million/day on imported fuels. Pacific SIDS have suffered the full impact of the recent global fuel crisis (refer Chapter 8).

Pacific SIDS are supported in the energy sector by three intergovernmental organisations with substantive energy programmes, SOPAC, SPREP and PPA. The International Union for Conservation of Nature (IUCN Oceania) through funding from the Italian and Austrian Governments is now coordinating the implementation of a major energy-ecosystem-livelihood focused programme currently in six Pacific SIDS; Marshall Islands, Palau, Samoa, Tonga, Tuvalu and Vanuatu. The support generally being sought is on the implementation of national energy policies and/or the development of strategic action plans (including for renewable sources), and incorporating conservation aspects as well as ensuring that the implemented activities will be sustainable and will ultimately lead to the improved livelihoods through supporting income generating activities.

At the global level nine Pacific SIDS (Fiji, Kiribati, Nauru, Palau, Papua New Guinea, Samoa, Timor Leste, Tonga, and Vanuatu) are already members of the International Renewable Energy Agency established in 2009.

As the Pacific SIDS have continued to develop, their demand for fossil fuels has also increased in particular for transportation and electricity production. Given their distance from markets and metropolitan centres, and considering, too, the dispersed multi-island characteristic of many Pacific SIDS, transportation remains central to their development. Transport is thus the fastest growing consumer of petroleum, with fuel costs for transport to remote islands especially high. High energy costs contribute to price inflation of all domestic goods and services, including food. Various renewable energy and energy efficiency measures have been implemented in the Pacific SIDS but the rate of growth in petroleum consumption is still faster than that of renewable energy and energy efficiency. This is due to lack of knowledge about renewable energy and energy efficiency potentials, lack of local technical expertise with weak institutional capacity, insufficient market development initiatives, policies which are ineffective and/or are biased towards fossil fuel, inadequate awareness programmes and the absence of inadequate financing and investment opportunities, including the possible establishment of national sustainable capital funds for renewable energy and energy efficiency.

There is a wide sectoral variation in the consumption of commercial energy throughout the Pacific SIDS. Whilst the greatest proportion of commercial energy is consumed in the transport sector, the second major use is in the generation, transmission and distribution of electricity, and then, to a lesser degree, government, commerce, industry and agriculture.

There are still many communities in the Pacific SIDS, however, which continue to rely heavily on traditional energy sources. About 75% of the Pacific peoples live in rural and remote areas and are still relying on fuelwood as their dominant supply of energy and this reduction in forest cover including loss of mangroves remains a threat to the extensive and fragile biodiversity of the region.

Electricity in the smaller Pacific SIDS is apparently subsidised, thus there is a need for effective regulatory frameworks, some Pacific SIDS (for example Fiji, Tonga and Vanuatu) have set up utility regulators to independently address the needs of government, the consumers, and the utilities.

Currently twelve of the Pacific SIDS have endorsed national energy policies and strategic action plans: Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Federated States of Micronesia is currently in the process of developing its policy, and Palau has endorsed an energy conservation strategy. A Regional Energy Policy was first developed in 2002, in 2004 it was revised and an associated Action Plan developed. Together they identify the critical policy and implementation actions for the regional energy sector.

Nearly all Pacific SIDS have adopted strategies and targets for promoting renewable energy (RE) such as solar, wind, ocean, wave, geothermal, biomass and hydro power. These include: Cook Islands 30% RE by 2010; Fiji 100% electrification (60% renewable and 40% non-renewable) by 2016; Kiribati providing RE electricity to the 70% of its rural population who do not yet have access to it; Marshall Islands 20% RE by 2020; Nauru 30% RE by 2015; Niue 100% RE; Samoa 20% by 2030; Tonga 50% RE by 2011; and Tuvalu 100% RE by 2020.

The **challenge** is to translate the targets into a road map with clear actions and milestones to achieve the targets, for example as in Tonga. Issues to be addressed include the lack of knowledge about renewable energy resources potentials, lack of local technical expertise with weak institutional capacity, insufficient market development initiatives, policies which are ineffective and/or are biased towards fossil fuel, inadequate awareness programmes and the absence of inadequate financing and investment opportunities, including the possible establishment of national sustainable capital funds for renewable energy development.

There is much potential for the further development of renewable energy sources in the Pacific as has been demonstrated by the Pacific Islands Greenhouse Gas Abatement through Renewable Energy (PIGGAREP) Project which focuses on the productive uses of renewable energy thereby reducing the growth rate of GHG emissions from fossil fuel use in the Pacific through the removal of the technical, market, institutional, financial, policy and awareness barriers to renewable technologies. It consists of various activities whose outputs will contribute to the reduction in GHG emissions/air pollution and support the sustainable development effort of the Pacific SIDS, including the promotion of small scale industrial development in remote and rural areas.

The Pacific SIDS have a high and relatively constant supply of solar energy. Direct solar energy is currently used in many Pacific SIDS for water heating, crop drying and processing. The use of small-scale solar photovoltaic power to provide electricity in rural areas and remote islands with low load densities also appears to have been successful, but more work on financing and institutional arrangements is required to effectively promote further commercialisation. The Kiribati Solar Energy Company and the Haápai Solar Electrification Programme in Tonga have been successfully operating as Renewable Energy Service Companies. Kiribati is managing more than 2000 installations while there are more than 500 in Tonga. While the use of solar photovoltaic has mostly been for stand alone solar home systems, grid-connected PV demonstration projects ranging from 20 – 50 kW have been installed in Federated States of Micronesia, Niue, Palau and Tuvalu.

The production of cleaner alternative energy sources such as biofuel from sugarcane, coconuts or other biomass products is being researched and pursued. In addition to becoming the major income source in the case of copra, and the only cash income for most, and thereby having a cushioning effect on the rising fuel costs, their use will also assist in combating land degradation by planting these “energy crops” on degraded or unused land. Emerging biofuels policies in Fiji and Vanuatu will promote planting on degraded lands, and reducing net emissions of GHGs.

There are practical examples in some Pacific SIDS, for example in Vanuatu, of the use of coconut oil for power generation. The village of Port Orly in Santo is using a generator that is fuelled with 100% copra oil. Furthermore, the 4 MW Tagabe power station in Port Vila is using copra oil at a mix of 25% copra to 75% diesel. In the Marshall Islands currently there are twelve vehicles and a tugboat in Majuro using coconut oil as fuel. Work on developing mini-electricity systems continues including for mini copra driers, mills and presses to process the copra into oil on the outer islands.

Hydropower resources for electricity production are extensive but only in a few Pacific SIDS, for example, Fiji, Papua New Guinea, Solomon Islands, Samoa and Vanuatu, but many island countries have small hydropower capacity ranging from a few watts to kilowatts.

On a small scale, sporadically around the region, and from time to time, biogas for cooking has been produced from animal and human waste. There seem to be traditional/cultural barriers with this technology (as with composting toilets). However, biogas can also be produced from agricultural products such as bananas and taro using simple methods developed in South Asia.

On a large scale, a number of proposals to develop waste-to-energy facilities in Pacific SIDS have been developed and submitted to potential donors/investors for their consideration. The waste-to-energy technology is perhaps the solution to meeting some of the region's increasing energy requirements, reducing the need to import petroleum products, and at the same time dealing with the increasing quantities of waste. Whilst it seems to have worked well at research and development project level, the interest of the private sector developers has been quite reserved, as there is a large initial investment required. In Fiji, a local independent power production company in mid-2009 signed a multi-million-dollar power-purchase agreement with the Fiji Electricity Authority to produce around 10 megawatts of electricity for the national grid from waste and rubbish, and thereby result in savings of around US\$8million for Fiji Electricity Authority in diesel costs per year.

A **challenge** thus remains for more efficient and wide-spread dissemination of information on renewable energy technologies and practices in Pacific SIDS in order to promote the knowledge of existing possibilities in alternative energy development. Also required is continuous technical advice and training to carry out financial and socio-economic analyses to ensure that the particular choice of renewable energy gives optimum return to the small economies. It would be of further benefit to share lessons learnt and best practices in other SIDS regions.

Energy issues are addressed in the Pacific Plan and are to be assessed in the context of the percentage of the population with access to electricity, and the percentage of the region's electricity that is generated from renewable energy. The targets are yet to be set.

In 2009 Forum Leaders observed that renewable energy offers the promise of cost effective, reliable energy services to rural households and will provide a contribution to global greenhouse gas mitigation efforts. They also acknowledged the role that renewable energy targets can play in driving the transition of national energy sectors to a low carbon future.

The 2009 Pacific Energy Ministers' Meeting directed a pathway for more effective coordination of the regional energy sector and encouraged the necessary actions that would facilitate investment in sustainable renewable energy technologies and in energy efficiency and energy conservation initiatives.

The **challenges** remain and are contained in the revised Pacific Islands Energy Policy and associated Action Plan. At the same time national energy policies and plans should be completed and supported by institutional measures. Furthermore, energy issues should be incorporated into national development policy and all other sector policies in order to address the cross-sectoral nature of energy. A recent assessment suggests that integrating energy with economic imperatives will require the following actions.

- An understanding of national budget allocation processes which in turn will provide direction to the integration of energy into national sustainable development priority areas.
- The integration of energy into national priority sectors of education and health.
- A demonstration of how the energy sector and its activities can enhance the delivery of these services.
- The demonstration of energy as an essential component of priority services (e.g. energy and health; energy and education; energy and water supply).

Of all of the key **challenges** identified at the 2007 Energy Ministers Meeting, the consequences of not securing an affordable and reliable energy supply are most dire. Heavy reliance on fossil fuels continues to stunt Pacific economies. Urgent efforts are needed to address both supply-side and demand-side efficiencies. As the price of fossil fuels remains high, so to does the pressure on many member governments to meet short-falls through subsidies. Should this pressure continue, it may affect the future viability of some of the Pacific SIDS. The costs of meeting this challenge however will be very significant, as was the case of the Marshall Islands (refer Chapter 8) in the context of the impact of the global fuel crisis),

Work supported by SOPAC, SPREP, PPA and PIFS since 2007 continues to strengthen and implement the following actions.

- Develop robust national energy policies with efforts to integrate energy into economic planning.
- Develop strategic energy work plans under respective national energy policies.
- Achieve greater supply-side and demand-side energy efficiency through training and national assessment and audits of energy use.
- Support of power utilities to better manage the data that links into national energy balances.
- Develop innovative incentive models such as that in Palau which has seen home owners receive subsidies for the number of energy efficiency measures they incorporate in their homes from the National Development Bank of Palau.
- Continue work on the implementation of various renewable energy activities, including through the Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP).

The 2009 Regional Energy Ministers Meeting decided that regional and donor coordination delivery of energy services to Pacific SIDS be strengthened and delivered through one energy agency and through one programme contributing to the development of a stronger energy sector and improved service to member countries, and in this context it was noted that there was a need to ensure that energy policy and climate change policy remained separate where environmental aspects are managed by SPREP and energy sector activities by SPC so as to ensure that the socio-economic aspects of energy were adequately addressed.

The Regional Energy Ministers and Officials Meetings in 2007 and most recently in 2009 called for the following specific actions to address the **challenges** in the energy sector and national and regional levels. These will be further considered by the Energy Ministers in 2010, noting that the first three were considered higher priority in 2009 when compared with 2007.

- Strengthen human capacity development initiatives to support national and regional energy programmes including gender mainstreaming and with a focus on development of apprentice schemes for power utilities and alternative energy technologies.
- Support the development and/or strengthening of national actions that would facilitate investment in sustainable renewable energy technologies and in energy efficiency and energy conservation initiatives, including focus on minimum energy performance standards and labeling.
- Review and as appropriate strengthen national capacity in energy data and information gathering and collation, management, dissemination and, analysis on economics, social and environment to better inform national and regional energy planning and policy choices.
- Incorporate into national energy policy and action plans, and regulatory frameworks priority actions to: encourage private sector participation; include economic analysis of options and funding requirements and responsibilities; safeguard the environment and livelihoods; and encourage investment in maintaining ecosystem services that support energy development in order to ensure that energy initiatives are progressed.
- Encourage greater involvement of CROP organisations to assist Pacific SIDS set voluntary, realistic renewable energy and energy efficiency targets consistent with national development plans and priorities and, share experiences and expertise particularly, on emerging opportunities and lessons learned, including in relation to innovative financing models.

- Encourage support for the development of biofuels production and use where economically viable, and acknowledge the need to consider energy and agriculture impacts (particularly food security), as well as the assessment of impacts on the environment.
- Review the Pacific Islands Energy Policy and its associated Action Plan, and support its further implementation.
- Strengthen gender mainstreaming into national and regional energy initiatives in line with the Pacific Energy and Gender Network Strategic Action Plan (PEGSAP) 2009 - 2014.

Energy and Gender: The nexus between energy and gender has been promoted through the Pacific Energy and Gender Network (PEG) established in 2003 by SOPAC and key stakeholders. As a result considerable progress has been made in understanding the importance of integrating a gender sensitive approach into energy policies and practices in the region. The PEGSAP was reviewed in 2009 and a revised PEGSAP 2009-2014 prepared and endorsed by energy officials and ministers in 2009. The PEGSAP sets out strategies and activities with the primary goal of “gender equity in all aspects of energy development”.

Energy Data and Information: Pacific SIDS continue to suffer from a lack of human capacity to establish and maintain up to date and accurate energy data and information in national energy databases, and there remains a need for significant additional inputs on a recurrent basis. In addition, at the regional level the efforts of all stakeholders need to focus on ensuring regional energy databases are up to date and accurate noting in particular that energy data not only benefits the energy sector but is also currently very much in demand as Pacific SIDS prepare their next green house inventories and national communications.

Energy and Capacity Building: In addition to the provision of technical advice and assistance to Pacific SIDS there remains an ongoing need to continue to provide training and capacity building across the national energy sectors. This is offered generally as part of the various energy programmes and projects implemented within the region. More specifically, USP four years ago established a renewable energy group with the aim of guiding the region towards 'clean and green' energy and preserving the natural environment. The activities of this group include teaching at undergraduate and postgraduate levels, carrying out lab-based and field-based research in a number of areas relevant to the region and working with the energy departments of the governments to promote renewable energy in the region. The group members are also involved in assessing all forms of renewable energy resources available in the region.

Petroleum Advisory Services: During 2009 the petroleum advisory service previously located within PIFS was relocated to SOPAC where the data and information service has been re-established. It is proposed that this service will be strengthened over 2010 and the former Fuel Price Monitor Newsletter re-established.

The Bulk Procurement of Petroleum Initiative: This initiative was accorded high priority by the Energy Ministers in 2009. The 2009 Pacific Plan reported that following a number of years of slow progress, the reporting period saw a significant advancing of the bulk procurement of petroleum initiative. Greatly helped by the New Zealand funded Auckland 2008 October meeting of national petroleum authorities, CROP, sectors experts and industry, agreement was reached on a government-to-government memorandum of understanding (MOU) outlining the central tenets of how this initiative will be implemented and the relationship of signatories to one another. This success was followed by support at the October 2008 Forum Economic Ministers Meeting which saw three Pacific SIDS, Cook Islands, Nauru and Tuvalu sign the MOU. The MOU has since been signed by Niue at the 2009 Pacific Energy Ministers Meeting with the Governments of both Tonga and Solomon Islands having indicated that they intend to sign the MOU.

PIFS, having developed the MOU, has continued to progress the initiative with the launching of the first phase of the Pacific Petroleum Project. This will see the establishment of a Project Implementation Unit (PIU). This Unit will be contracted following an internationally open and

competitive tender process and tasked to deliver a range of milestones including a risk assessment, procurement strategy and ultimately a commercial contract for tender. This first phase will continue to take the initiative forward in advance of the formal establishment of a Project Committee.

4.8 Tourism Resources

In Pacific SIDS, the positive effects of tourism growth can be spread to help diversify the economic base and contribute directly to poverty alleviation. Tourism can reduce disparities among groups, as well as provide acceptable employment opportunities for the disadvantaged. It also provides an opportunity for the arts and traditions in communities to be revitalised. Tourism development can also create new business opportunities for entrepreneurs of small and medium-sized enterprises, and financing for infrastructure development can be justified more easily in areas away from main commercial centres.

In practice, the main **challenge** for the government, private sector, and policy makers in Pacific SIDS is to plan and manage tourism development effectively in order to ensure sustainability. However, this leads to yet another set of challenges. Many stakeholders with divergent interests must be brought together to reach a common understanding of the balance between present and future benefits, the negative impacts and how to minimise them, and the interrelationship between human activities and the natural environment. Multistakeholder participation in open and transparent processes is therefore critical in achieving sustainable development.

Sustainable tourism development is a special challenge for island destinations. The narrow economic base of most islands usually means that there is a high level of dependence on outside sources for goods, services, inputs and infrastructure related to the tourism industry. Some stakeholders may see tourism as the universal economic development solution. However, all stakeholders must see to it that local island culture and ways of life are safeguarded and the environment protected. The active participation of local communities in tourism policy-making, planning, management and monitoring can help to ensure support at the local level and appropriate distribution of the socio-economic benefits, and to ensure that negative impacts are monitored and minimised.

There is a need to develop a knowledge base on the contribution (socio-cultural, economic and environmental) of the different kinds of tourism, (for example cruise ship, five-star resorts, backpacking, dive tourism). This should not only be a subject for market research, but much more generally of research to increase overall understanding of tourism's various contributions to the different Pacific SIDS and to sustainable development. At present, this kind of information is seriously lacking.

There is a need to make careers in tourism attractive, so that island nationals get involved at all levels. At present the tourism industry in the region appears largely disinterested in providing valid career paths for local graduates. USP is attempting to create such a career path with its new B.Com in Hotel Management, but the test will come when the industry is asked to deliver on its year's placement for all students in this programme.

In support of tourism, organisations such as south-pacific.travel in collaboration with the private sector and member governments continue to support the creation of a tourism infrastructure helping the region to compete globally. Over the reporting period work has continued to develop the region's 'brand name' and to assist members break into new markets.

By 2007, just over 1.3 million visitors were coming to the region, and while more than 40% went to Fiji, the industry was also growing in other countries in the region. These figures seem impressive, but they need to be placed in a wider context. First, between 2000 and 2008, the annual increase in tourism arrivals in Oceania was only 1.8%, less than most other regions. Secondly, from 1985 to 2008, the growth of tourism in Pacific SIDS (141%) was lower than the global average (177.1%) or for

Oceania as a whole, which includes Guam, and Palau. Thirdly, across Pacific SIDS there have been considerable differences in tourism fortunes. While Fiji and French Polynesia remain the most popular destinations, the latter's growth rate has been poor and Fiji's tourism development has been stunted by a series of coups and frequent political unrest. By contrast, the Cook Islands, Samoa, and Vanuatu are becoming increasingly popular destinations. Indeed, even during 2009, when global tourism was hit by the global financial crisis, along with Solomon Islands and Tonga, they have bucked regional and international trends by increasing their tourism arrivals.

A Regional Cruise Strategy was completed in 2008 and is now being promoted. A noticeable benefit has been the increase in cruise liner visits to Pacific SIDS which has seen for example, visits to Suva increasing from 40 to 80 cruise liners over 2007 and 2008 and visits to Port Vila increasing from 80 to 120 cruise liners for the same period.

The current tourism policy **challenges** should include the following.

- Increasing visitor arrivals in line with sustain able growth levels.
- Increasing the value of and understanding of the economic contribution, retention and equal distribution of the tourist dollar.
- Increasing resource owner's participation in the tourism industry, including through the participation in education and training programmes.
- Promoting human resources development in the tourism industry, including through the establishment of valued career path training programmes supported by the industry at recognised centres.
- Promoting sustainable ecotourism development and public awareness at all levels of the society.

4.9 Biodiversity Resources

In Pacific SIDS there is still deep concern in regard to the impacts on biodiversity of increasingly inappropriate land and resource use, and of the unintended consequences of these uses, which continue to be an impediment to sustainable development in the region. The biodiversity capital of the region continues to be lost due to a wide range of causes, including the introduction of invasive alien species, habitat loss and degradation, overexploitation of natural resources, pollution, natural disasters and changes to climate and sea level.

This remains a serious problem facing the region, as Pacific people continue to depend heavily on biological resources which are still administered through customary systems of resource tenure to support their way of life as well as to provide a foundation for their economic well-being. Use of natural resources for subsistence, social and medicinal purposes is an essential expression of the culture of the region.

SPREP has been a strong advocate for the critical role that biodiversity conservation can play as a fundamental safeguard and insurance policy for the Pacific SIDS. It has conducted various capacity building activities around the region on the use of ecosystem-based management approaches as an effective environmental management and planning tool to underpin sustainable development in the region.

IUCN Red List of Threatened Species: The threatened status of animals and plants is one of the most useful signs for assessing the condition of an ecosystem and its biodiversity. The IUCN Red List of Threatened Species (IUCN Red List) is widely recognised as the most comprehensive, apolitical approach for assessing and monitoring the status of biodiversity. The 2008 IUCN Red List includes assessments for 3769 species (animals and plants) found in 24 Pacific island countries and territories. Of the species assessed: 1060 are threatened with extinction (177 listed as Critically Endangered, 213 Endangered, and 670 species as Vulnerable); 123 are Extinct and 12 Extinct in the wild; 394 are Near Threatened; 534 are Data Deficient; there is insufficient information to determine their threat status; and 1605 are of Least Concern, generally speaking these species have a low probability of extinction.

Because of the small land area and the reliance on biological resources, the **challenge** is to integrate the protection of essential ecosystem processes and constituent biodiversity elements into the context of sustainable use. Biological diversity of an area can only be protected with the full involvement of the people living in the area, which is limited by access to financial and technical resources to support effective increased biodiversity conservation efforts at a village level. It can also only be protected with the full engagement of key decision-makers and use of decision-making processes at higher levels that effectively consider and address the consequences of proposed actions on the living things that underpin the systems that are being exploited.

To address the issue of conservation prioritisation SPREP is collating key datasets from many sources, then cataloging, mapping, and analysing in GIS. These datasets include maps and locality records of target species (for example species that trigger the key biodiversity area KBA criteria), and contextual data layers that are available, such as bathymetry, habitat maps, political and traditional boundaries, and management units (including existing marine managed areas MMAs, and marine protected areas MPAs).

National Biodiversity Strategic Action Plans (NBSAPs) have been prepared for most Pacific SIDS. A review of them identifies a number of common **challenges**.

- Community – empowerment, awareness, involvement, ownership and benefits.
- Protection of traditional culture and practices; indigenous property rights.
- Improving knowledge, research, education, public awareness.
- Developing and managing protected areas, habitats.
- Species conservation – terrestrial, coastal and marine.
- Management of invasive species.
- Capacity building and training, governance.
- Sustainable economic development, sustainable use of resources.
- Mainstreaming conservation.
- Lack of financial resources.
- Waste management.
- Climate change.

Pacific Forum Leaders in their 2006 Communiqué reaffirmed their commitment to the sustainable management of natural resources and the use of locally managed and protected areas as a mechanism to enhance and contribute to sustainable development and as such to the implementation of the Pacific Plan. They encouraged Members to consider substantial and specific commitments to the conservation and sustainable management of marine and terrestrial resources. To help implement these commitments Leaders called on the international community to support Pacific SIDS efforts in determining the value of conservation to sustainable development and livelihoods; to match financial commitments already made to conservation and sustainable livelihoods in Pacific SIDS; and to assist in the development and resourcing of realistic financial plans in support of the conservation and sustainable use of their natural resources.

So far, six Pacific SIDS (Federated States of Micronesia, Kiribati, Papua New Guinea, Samoa, Solomon Islands, and Tonga) have accessed funding from the UNDP/GEF support of country action on the Convention on Biodiversity and the Programme of Work on Protected Areas Project that was launched in 2007.

The Action Strategy for Nature Conservation and Protected Areas in the Pacific 2008-2012 charts a course for conservation practice in the Pacific at all levels. The underlying theme of the Strategy is – *‘Empowering people, communities and institutions’*, and the objectives are as follows.

- Ensure conservation has a development context that recognises, respects and supports sustainable livelihoods and community development aspirations.
- Identify, conserve and sustainably manage priority sites, habitats and ecosystems.

- Protect and recover threatened species and species of ecological, cultural and economic significance.
- Manage threats to biodiversity, especially climate change impacts and invasive species.

SPREP has joined with other organisations to sign a charter which reflects a code of practice contained in the Action Strategy. The Roundtable for Nature Conservation, a membership-based network of donors, NGOs and regional agencies, exists to promote, facilitate and monitor progress on the Action Strategy.

SPREP continues to support Pacific SIDS meet their obligation under the Convention on Biological Diversity (CBD). A project to help Pacific SIDS implement the CBD Programme of Work on Protected Areas (PoWPA) was approved by the GEF in March 2007. The project's goal is to assist countries to achieve effective national systems of protected areas in accordance with their commitments under the PoWPA. The project operates as a grant programme, and is expected to disburse up to US\$ 9.0 million of GEF resources and leverage co-financing to assist countries in their protected area implementation plans. Eight Pacific SIDS have received support from this project; Fiji, Kiribati, Federated States of Micronesia, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.

SPREP, along with the Bishop Museum in Honolulu, the Pacific Science Association and the Indo-Pacific Conservation Alliance, with financial support from the MacArthur Foundation, undertook a Climate Change and Biodiversity in Melanesia (CCBM) Study focused on climate impacts on marine systems in Solomon Islands and Vanuatu, but also included some terrestrial areas. All current and available management policies and programmes were identified as were impediments to, and opportunities for, successful biodiversity conservation and management in the face of projected climate change and related effects. Additionally, a detailed socio-economic assessment was conducted of the impacts of climate change on important economic sectors, such as tourism and subsistence coastal fisheries. A final integrated vulnerability assessment report was produced in 2009, including a set of recommendations for policymakers and managers in developing and implementing development and conservation strategies that reflect an appropriate and robust understanding of expected climate change. The final assessment will be used to support future revisions of the Action Strategy for Nature Conservation, the Pacific Islands Framework for Climate Change, and other conservation plans and strategies.

The **Coral Reef InitiativeS for the Pacific (CRISP)** established in 2006 aims to develop a vision for the future of coral reefs and the communities that depend on them and to introduce strategies and projects to conserve their biodiversity, while developing the economic and environmental services that they provide both locally and globally

The goal of the **2008 Pacific Year of the Reef** campaign, coordinated by SPREP, was to continue to build awareness and encourage Pacific SIDS to take action to reverse the degradation of coral reefs and build their resilience to adverse natural factors such as climate change. The most tangible and enduring results of the regional campaign were activities implemented by the ten participating teams of the regional youth 'challenge coral reef' competition for 13-18 year olds. Funds were provided to teams of secondary school students in Cook Islands, Fiji, Kiribati, New Caledonia, Samoa, Solomon Islands, Vanuatu, and Wallis and Futuna to implement activities that they had designed to help save a reef. Their chosen plans of action included community consultation and education visits, shore clean-ups, coral planting, placing signs at marine managed areas, developing an underwater trail for swimmers and divers, improving waste disposal practices in communities and at well-used beaches, and coral and mangrove planting. By providing small grants through the CRISP programme for national activities, SPREP enabled national coordinators to promote appropriate messages and action for coral reef conservation that met local needs. These all contributed to the campaign objective of encouraging action for coral reef conservation in the region.

The South Pacific has experienced a remarkable proliferation of Marine Managed Areas (MMAs) in the last decade. These protected areas, implemented by over 500 communities spanning 15 independent countries and territories represent a unique global achievement. The approaches being developed at national level are built on a unique feature of the region, customary tenure and resource access, and make use of, in most cases, existing community strengths in traditional knowledge and governance, combined with a local awareness of the need for action, resulting in what have been most aptly termed Locally Managed Marine Areas (LMMAs). The main driver in most cases is a community desire to maintain or improve livelihoods, often related to perceived threats to food security or local economic revenue. In Pacific SIDS, conservation and sustainable use are often seen as inseparable as part of the surviving concepts of traditional environmental stewardship. The extent of this shift towards community-based resource management in Melanesia and Polynesia is unprecedented on a global scale.

Mangroves: SPREP in conjunction with UNEP (2006) highlighted Pacific Islanders value mangroves as a resource for a wide range of goods and services, including their role in supporting seafood important for their diets, protecting coastlines and development from coastal hazards, supporting good water quality, and providing natural materials used in traditional practices such as dye from mangrove bark used in tapa and to treat textiles, nets, and fish traps. The annual economic values of mangroves, estimated by the cost of the products and services they provide, have been estimated to be between US\$200,000- 900,000 per hectare. The range of reported costs for mangrove restoration is around US\$ 220,000 per hectare. The existence of functional links between coastal ecosystems, including mangroves, seagrass beds, and coral reefs, means that degradation of one habitat type will adversely affect the health of neighbouring habitats.

The Pacific SIDS, while containing only three percent of the global mangrove area, support unique mangrove communities and provide valuable site-specific services and products. Papua New Guinea has the highest global mangrove diversity and hosts over 70 percent of the region's mangrove area. Mangroves decline in diversity from west to east, reaching a limit in American Samoa. There is little information available on trends in the extent and health of mangroves in the region.

The responses of mangrove wetlands and other coastal systems to global climate change effects other than sea level rise, such as increased air and sea-surface temperatures, changes in precipitation and salinity, and changes in storminess, are less certain and not well understood. In addition to climate change effects, mangroves and other coastal ecosystems face numerous other threats, ranging from logging and filling for development, to disease outbreaks.

In partnership with the Ramsar Convention Secretariat, SPREP has continued to provide support to the five Pacific SIDS who are Ramsar Parties. In addition assistance has been provided to other Pacific SIDS to progress their joining the Ramsar Convention.

The conservation of wetland ecosystems has been promoted across the region through media awareness, and through the coordination of national World Wetlands Day 2008 celebrations.

Priority **challenges** include the following.

- Strengthen management frameworks that regulate coastal activities and develop a plan for adaptation to mangrove responses especially to climate change effects. This requires developing the capacity to: (i) conduct site specific mangrove vulnerability assessments and incorporate this information into land-use and master planning; and (ii) increase resistance and resilience to change, in particular climate change, effects by reducing and eliminating other stresses that degrade mangroves.
- Continually develop and augment a mangrove conservation ethic through outreach and education. Mangrove management frameworks will only be effective if local communities and management authorities recognise the value of mangrove conservation.

IUCN Oceania is to implement a new project titled Mangrove Ecosystems for Climate Change and Livelihood (MESCAL), in five Pacific SIDS: Fiji, Samoa, Solomon Islands, Tonga and Vanuatu over the period 2010-2013. The primary goal of MESCAL is to help reverse recent trends in the loss of mangroves, increase resilience of the people of the Pacific to climate change, and provide natural insurance against the effects of climate change and extreme events.

Marine Protected Areas have been established with the largest being that in the Kiribati. In February 2008, Kiribati created the world's largest protected marine reserve, it is more than double the area Kiribati originally pledged to protect at the CBD- COP in Brazil in 2006. The Phoenix Islands Protected Area, covering 410,500 km² (by comparison the Great Barrier Reef is around 345,000 km²), is one of the planet's last intact coral archipelagos and is threatened by over-fishing and climate change. Studies have found more than 120 species of coral and 520 species of fish, some new to science. The area also has some of the most important sea bird nesting sites in the Pacific, large fish populations and sea turtles, and includes extensive seamount and deep-sea habitats, tuna spawning grounds and as yet unsurveyed submerged reef systems.

Kiribati says it needs money to pay for surveillance against illegal fishing as well as develop a trust fund, possibly as large as \$US100 million to pay for running costs and compensate the government for lost income from commercial fishing licenses. Kiribati intends to allow subsistence fishing by local fishing communities, but it is crucial to protect the area from overfishing because healthy reefs and fishing grounds will help the area better withstand the impacts of climate change. The reefs are already facing the threat of warming seas, which has caused repeated coral bleaching around Kiribati. Parts of Kiribati, too, are already suffering from the effects of rising seas, including coastal erosion in the vast archipelago and salt water intrusion into freshwater supplies.

Conservation initiatives include major projects such as the Coral Triangle Initiative and the Micronesia Challenge led by international NGOs including The Nature Conservancy (TNC) and the World Wildlife Fund for Nature (WWF).

The Coral Triangle Initiative launched in 2007 covers all or parts of the exclusive economic zones of Indonesia (Central and Eastern), Timor Leste, the Philippines, Malaysia (part of Borneo), Papua New Guinea and the Solomon Islands. Defined by areas containing 500 or more species of coral, the Coral Triangle, sometimes referred to as the "Amazon of the Seas", is the epicentre of marine life abundance and diversity on the planet. It has more than 600 coral species in some areas (more than 75% of all known coral species), 53% of the world's coral reefs, 3,000 fish species, and the greatest extent of mangrove forests of any region in the world. According to scientists, these marine biological resources are at risk, threatened by a range of factors, such as over-fishing, destructive fishing practices, pollution and climate change. This new initiative will address these threats and ensure long-term benefits from the marine biological resources of the region.

The biological resources of the Coral Triangle directly sustain the lives of over 120 million people living within this area, and benefit millions more worldwide. Primary human benefits include the following.

- Livelihoods, income, and food security, particularly for populations living along coastlines within the region.
- Total annual value of coral reefs, mangroves and associated natural habitats within the Coral Triangle are estimated at US\$2.3 billion.
- Tuna spawning and nursery grounds support a multi-billion tuna industry, and provide for millions of consumers worldwide.
- Healthy marine resources contribute to a growing nature-based tourism industry in the region.
- Healthy reefs systems and mangroves protect coastal communities from storms and tsunamis, reducing future reconstruction costs and the need for international aid.

In November, 2005, the Micronesia Challenge was launched to effectively conserve 30 percent of nearshore marine resources and 20 percent of forest resources by 2020. The Challenge countries are:

Federated States of Micronesia, Guam, Marshall Islands, Northern Marianas and Palau. They represent nearly 5 percent of the marine area of the Pacific Ocean and 7 percent of its coastlines. The Nature Conservancy is working closely with the governments of Micronesia and partners to support the Challenge's launch and implementation.

4.10 Transportation and Communication

Transport remains a key for Pacific SIDS, it is a priority area for Forum Leaders under the Pacific Plan, and two major shipping disasters in the region in 2009 have refocused attention on the transportation sector and the risks associated with it.

In 2004 just prior to the Mauritius Meeting, Forum Leaders endorsed the Forum Principles on Regional Transport Services (FPRTS) in recognition that the provision and maintenance of regular, reliable and competitive air and shipping services is crucial to Pacific SIDS. It recognised changes in the transport sector, including an increasingly competitive market and new international safety and security requirements, had significant implications for aviation and shipping in the Pacific region. Furthermore, Pacific SIDS have limited technical support. The FPRTS contains six principles promoting good governance, transparency, and accountability, and aims to serve as a guideline to Pacific SIDS in their pursuit for greater service delivery to improve the efficiency, effectiveness and sustainability of both air and shipping services.

However, despite substantive efforts, five years later the provision of reliable and effective air and maritime services remains a **challenge**, in order to reduce trade costs and decrease the barriers that distance places on the Pacific.

The importance of the transport sector as a facilitator of economic growth continues to be hampered by gaps in services and supporting infrastructure, particularly in the Cook Islands, Kiribati, Marshall Islands, Nauru, Niue, Palau and Tuvalu. Noting its significance, a continued focus through regional and sub-regional approaches to improve shipping and aviation services, aviation liberalisation, safety and security as well as the physical infrastructure that supports these sectors remains an essential need for all Pacific SIDS. Progress in this area will also assist with tourism, a key economic driver for the region.

Air transport: Actions to implement the FPRTS have seen institutional and regulatory reforms take place throughout the region, albeit at varying stages across Pacific SIDS. The Pacific Aviation Safety Office (PASO) was established in 2005, as a result of the Pacific Islands Civil Aviation Safety and Security Treaty, and Pacific SIDS members include: Cook Islands, Kiribati, Niue, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. The hiring of inspectors and completion of required audit manuals and other related documents for safety oversight signify a major move towards full operation of the office which will assist members meet International Civil Aviation Organisation (ICAO) requirements and standards more easily. PASO has commenced work in support of a number Pacific SIDS and is fully operational. In addition to this work, the remaining ratification to bring the Pacific Islands Air Services Agreement (PIASA) into effect has been secured with Niue having signed and now ratified the agreement. Its coming into force will assist members access increased economic benefits through air transport liberalisation. Along with this work in the aviation sector, examination of the possibilities of a sub-regional air services arrangement continues.

There remain **challenges:** to address the reticence of the benefits of air service liberalisation among governments not having signed PIASA; in terms of security, while considerable work has been done to improve standards more work remains to ensure compliance with ICAO standards. Funding concerns continue to create some anxiety for the longer-term. While this has in part been alleviated in the short-term by donor support, greater members' contributions remains the only sustainable longer-term funding option to support the core functions and operations of PASO.

Shipping: In the region shipping can be divided into three main types: domestic, international or transit shipping. Vessels involved can be categorised as merchant (containers, tankers), passenger (ferries, cruise liners), military, yachts and pleasure craft, and fishing vessels. Fishing vessels are different in that they follow no set route, as they will go wherever the fish run. As such they will often venture into unfamiliar and at times uncharted waters.

2009 has seen significant success in two areas, these being strengthened ports and administration standards and improved shipping services to the region's small island states.

With preparations greatly assisted by SPC's Regional Maritime Programme, audits on member administrations and ports conducted across the Pacific have confirmed that maritime services, safety, security and international standards in shipping are currently being met around the region.

Small island states shipping services have greatly improved with Kiribati Shipping Services Limited (KSSL) commencing a regular feeder service from Suva to Nauru and Tuvalu. Facilitated by SPC and PIFS, these services commenced in June 2009 and are expected to complement existing services. Discussions are underway on the possibility of expanding this service to include Wallis and Futuna.

The success of this initiative has not gone unnoticed at higher political levels with Small Islands State Maritime Ministers at their third meeting in Tonga directing work to assess the possibilities of commencing a similar service on routes between Samoa, Tokelau, Cook Islands, Niue and American Samoa. These Ministers further directed work to continue assessing the possibilities and practicalities of a purpose built donor supplied ship, and the establishment a Central Pacific Shipping Commission comprising Kiribati, Marshall Islands, Nauru, Tuvalu, and other interested states and territories such as Federated States of Micronesia, Palau and Wallis and Futuna. To be modelled on the Micronesian Shipping Commission, the Ministers directed SPC and PIFS to develop a draft framework for their consideration that would guide the establishment of such a Commission.

A broader meeting of Regional Ministers for Maritime Transport was convened in May in Tonga. During the course of this meeting a range of **challenges** were considered, among them, the effects of growing international piracy, seafarer employment, training requirements and international legal issues.

The growth in cruise shipping in the region prompted SPC's Regional Maritime Programme to complete a study on the security risks posed by cruise vessels operating in Pacific waters. The security of pleasure vessels was also analysed and recommendations were made in the completed report on border security risks posed by oceangoing pleasure craft. These recommendations included the need to address the following **challenges**.

- Enhance coordination of maritime statistics.
- Develop legal frameworks for ocean-going pleasure craft.
- Establish standard reporting formats for use throughout the Pacific for ocean-going pleasure craft.

Improved legislation, infrastructure, navigation aids and hydrography are required to facilitate and sustain increases in shipping traffic but there is a lack of funding.

With two major shipping accidents in the region in 2009, one in Kiribati and the second in Tonga, there is an urgent **challenge** for accident investigation guidelines to be developed, long range identification tracking to be promulgated, and the regional agreement on search and rescue to be translated into tangible assistance with a database of contacts and incidents.

Land transport: In most Pacific SIDS land transport has been growing steadily and most report an increase in the number of vehicles in use. While lead additives have been phased out in most Pacific SIDS, air pollution from older vehicles remains an issue. Furthermore, many Pacific SIDS report that the growth in vehicle use due to lifestyle changes has caused congestion on roadways intended to accommodate less traffic. A sub-regional project on Environmentally Sustainable Transportation in the

Pacific Islands has been developed and submitted for funding to the GEF as a medium-sized project. The project is aimed at reducing greenhouse gas emissions from the transport sector in the three participating Pacific SIDS (Fiji, Samoa and Vanuatu).

Information and Communications Technologies (ICTs): Over the past years actions to support ICTs in the region have been given a significant boost with the hosting of a successful ministerial meeting in Tonga in February 2009. Considering a range of issues, Ministers agreed to address the **challenges** associated with: ensuring affordable domestic and international connectivity in the Pacific; continuing reforms to policy, regulatory and financial frameworks; addressing cyber-security and ICT applications; making use of ICT technology to better respond to disasters; and prioritising human resource development across the sector which has seen the agreement to establish a Regional Regulatory Resources Centre with assistance from the World Bank.

Other key ICT activities supporting the ongoing implementation of the Regional Digital Strategy (2005) have seen continuing and significant progress. The number of Rural Internet Connectivity Scheme (RICS) sites continues to grow across the region with: 15 pilots sites delivered; 10 activated; and 8 carrying traffic in addition to the 24 commercial sites having already been delivered. This is in addition to the continuing roll out of the One Laptop Per Child (OLPC) which over the reporting period saw 5 sites commence operations and 1400 laptops delivered (out of a total of 5,000) to Nauru, Niue, Papua New Guinea, Solomon Islands and Vanuatu. Papua New Guinea committed to a national rollout of OPLC units with 10,000 to be disbursed over 2009 and a further commitment that every primary school child will have access to this technology by 2015. At the time of writing, eight additional sites were ready for commissioning across the region in Cook Islands, Federated States of Micronesia, Marshall Islands, Samoa, Tokelau, Tonga, Tuvalu and Vanuatu.

Tenders were called in 2009 to support the implementation of South Pacific Information Network (SPIN) which six countries and territories have now signed up to. This follows a World Bank commissioned study which confirmed submarine cable technology was a viable option for most of the Pacific and the SPIN initiative represented a reasonable commercial proposal. To better facilitate access to this initiative, conditions for signing and access to various options under contract have been made more flexible.

4.11 Health

The vision of “Healthy Islands” agreed to by Ministers of Health for the Pacific SIDS at their inaugural meeting in 1995 underscores the ultimate goal of achieving better health for the people of the Pacific islands. Pacific SIDS are in a unique situation which presents opportunities for cross-border and regional approaches to common health system challenges, including early warning and notification systems for disease outbreaks, the management of medicine supplies, and the need to provide specialist medical services. Furthermore, common approaches should lead to greater efficiency and effectiveness, and make it easier to interest external partners and donors.

The 2009 Pacific Plan reported significant progress was made in various areas of the health sector which benefited from ongoing efforts to strengthen collaboration and harmonise inputs. In 2007 Ministers of Health endorsed the Vanuatu Commitment to strengthen the health sector in Pacific SIDS, and likewise in Madang in 2009 which highlighted the challenges associated with the bulk procurement of pharmaceuticals, and sustainable financing and human resources for the provision of health services.

The Pacific remains **polio free**, and nearly all countries have embarked on **measles elimination**. Coverage rates for the first rounds of measles immunisation have been approaching 95%. But there are still problems in the remote areas of Papua New Guinea and in some remote island groups elsewhere in the Pacific. Even with these obstacles, measles elimination is feasible by 2012. In Fiji, high measles immunisation coverage and the efficient dissemination of information by the Pacific Public Health

Surveillance Network were credited with quickly containing a major epidemic in 2006 and preventing its spread to neighbouring countries.

Most Pacific SIDS are in the process of deciding whether to include **hepatitis B vaccinations** as part of their regular immunisation programme. Pacific SIDS are making some progress in implementing **mental health** activities. Samoa has a national mental health policy and supporting legislation. Cook Islands has established a new mental health division, and the Marshall Islands has established a mental health programme targeting suicide prevention. Other countries have expressed the need to further develop their capacity for mental health.

Pacific SIDS have expressed the need to prioritise **environmental health** issues. These include safe water supply, sanitation, climate change, and clinical and solid waste disposal. A number of Pacific SIDS have implemented activities for medical waste disposal. Samoa has a safe water strengthening programme, and Tuvalu has started a programme of regular water testing.

Dengue was identified as a major communicable disease problem in the region resulting in significant morbidity and severe economic losses, particularly for tourism. But since the meeting of the Ministers of Health for the Pacific SIDS in 2005, the proposed regional dengue initiative has not materialised. The **challenge** to establish effective surveillance systems is recognised as a key issue related to dengue, as well as other new and emerging diseases. There has been some success in implementing vector control for dengue.

A **challenge** remains with **malaria** which needs to be monitored more closely in some countries such as Solomon Islands and Vanuatu where it is endemic although good progress has been recorded in Solomon Islands.

Noncommunicable Diseases (NCDs): NCDs are overwhelming the Pacific with some estimates attributing 3 out of every 4 deaths in the Pacific to lifestyle diseases. The WHO STEPwise approach to surveillance (STEPS) has been adopted in Pacific SIDS as a simple, standardised method for collecting, analysing and disseminating NCD data. The economic cost of NCDs for most Pacific SIDS is huge, and leads to a reduced quality of life for the workforce. NCDs diseases have great influence in determining the wealth of a nation, and most Pacific SIDS do not have the capacity to deal with the **challenges** this problem presents. The increasing NCD burden will not only lead to premature death and disability for thousands of people, but could also threaten to overwhelm health resources and services already stretched thin.

- STEPS data has provided for the first time a comprehensive data set on NCD risk factors, which can be used to formulate policy and initiate activities. Plans should not remain on the shelf. Resources continue to be a problem, but capacity for implementation and the lack of innovative approaches are real constraints.
- There is clear need to communicate more effectively the risk of unhealthy lifestyles. Even though a large information base exists, it is not getting to where it is needed. Social marketing may be one way to improve communications. Messages such as “Eat Local” need to be linked to local situations. Part of the problem is food of little nutritional value marketed by multinational companies.
- Health staff should set the example for healthy lifestyles.
- Some Pacific SIDS, recognising the importance of improving health promotion, have established health promotion foundations funded by alcohol and tobacco taxes, direct government contributions or other sources.
- Human resources are key in the battle to control NCDs.

In an effort to address the **challenges** associated with the impacts of NCDs a Joint Management Committee has been established by SPC and WHO to oversee the **Pacific NCDs Framework**. With activities initiated in five countries, this Committee comprises SPC, WHO, country representatives and donor partners. The importance of addressing the NCDs epidemic should not be understated.

Influenza Pandemic: An influenza pandemic is a global epidemic caused by a new subtype of the influenza virus. Pacific SIDS are not free from the threat of pandemic influenza, and need to further strengthen their preparedness.

- Most Pacific SIDS have a national pandemic preparedness plan, but some indicated the need to harmonise plans across different sectors. These include the animal and human health sectors but also other essential sectors such as food supply, energy and communications.
- Although some Pacific SIDS have carried out exercises to test their plan, most have not.
- Training of core staff is needed.
- Early detection and reporting are keys for a successful response.
- Non-pharmaceutical public health interventions, such as social distancing and institutional closures, are the most important part of any response to a pandemic. While antiviral drugs may be important, they are not the mainstay of an intervention.

The Asia Pacific Strategy for Emerging Diseases (APSED) can serve as a tool for implementing the newly revised International Health Regulations (IHR 2005) which are a global legal framework for preventing and responding to the international spread of diseases which entered into force in June 2007. All Pacific SIDS have designated their National IHR Focal Point and have expressed a challenge to strengthen their capacity for detection and response to outbreaks including through the following.

- A country should be able to detect a public health event and report it in a timely manner, timeliness is essential for a successful response.
- Effective and practical means of communications in the Pacific are necessary to comply with IHR.
- Currently, the response capacity in many Pacific SIDS is not sufficient. However, there are existing systems available such as the Global Outbreak and Alert Network (GOARN) and the Pacific Public Health Surveillance Network (PPHSN).
- Sharing information early is important, as is collaboration for laboratory confirmation. There are existing mechanisms, such as PacNet and LabNet hosted by SPC, which can be used to support these activities.

In addition, and in response to the H1N1 global pandemic, the Pacific Regional Influenza Preparedness Project continues to play a key role in preparing countries to deal with the possible spread of the H1N1 virus across the Pacific. This work has focused on countries' surveillance systems and their laboratory testing procedures to detect any suspected cases. Strongly supported by SPC, WHO, AusAID and NZAID, this work has also sought to position Pacific SIDS to better respond to a range of other possible pandemics such as Avian Flu.

Pacific HIV Strategy: Pacific SIDS, with the exception of Papua New Guinea where HIV prevalence is as high as 2.5%, are still considered to have low HIV prevalence rates and as such have not experienced great social impact. The conditions which have led to rapid HIV transmission elsewhere also exist in the Pacific, including the following.

- The high proportion of young people and other vulnerable populations.
- Significant movement of people into, through, and out of the region.
- High rates of other sexually transmitted infections (STI) and teenage pregnancy.
- Gender inequality and gender-based violence, low rates of condom use and high rates of other STIs.
- Limited economic opportunities and weak economies.

The current **challenge** is to ensure the success of the second cycle (to 2013) of the Pacific Regional HIV Strategy, its implementation plan, and the Pacific HIV and STI Response Fund has been formally established and made operational with the disbursement of funding to governments, regional partners and civil society to support activity implementation.

Following the approval and subsequent fund negotiations with the board of the Global Fund to fight AIDS, Tuberculosis and Malaria, Round 7 of the Pacific Islands multi-country proposals have

commenced implementation with good progress being made to date in a range of activities across the region. Such activities have included the procurement of specialist medical supplies and equipment as well as training a range of health professionals. Technical assistance and support is being provided by SPC, WHO, UNFPA and UNAIDS. The Global Fund is currently supporting programmes fighting malaria, HIV and tuberculosis in the Pacific Region worth a total commitment of more than US\$32 million. SPC, the principal recipient for all Pacific SIDS multi-country grants, has been responsible for implementing Global Fund supported programmes battling the three diseases in eleven Pacific SIDS since 2003. These countries include Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Recently signed grants to fight tuberculosis and HIV/AIDS now also see the inclusion of Nauru and the Marshall Islands as beneficiary countries.

Other key **challenges** include the development of targeted STI communication strategies in many Pacific SIDS and the establishment of a 'Universal Access Policy Framework' to ensure adequate supplies and distribution of condoms and the availability of treatment for HIV and other STIs throughout the Pacific. A regional technical assessment of counseling and testing services in several Pacific SIDS has been completed to identify priority issues to be addressed to scale up such services. In addition, the first phase of the validation of HIV testing algorithms in low HIV prevalence settings in the Pacific has begun with the newly established Pacific HIV Testing Taskforce.

The 2009 Pacific Health Ministers Meeting reaffirmed their commitment, as a human right and a principle of equity, to the goals of preventing HIV transmission and achieving universal access to support for people living with HIV.

Food Fortification: Vitamin and mineral deficiencies (VMD) are a public health problem in many Pacific SIDS. VMD can co-exist in populations that are overweight or under-nourished. In particular:

- Nutritional anaemia is the most prevalent VMD disorder found in most Pacific SIDS. Anaemia affects the cognitive development of children, reduces adult productivity, increases the risk of pregnancy complications and maternal mortality, and impairs immune response. Although specific information on the causes of anaemia in the Pacific are limited, the main causes are thought to be deficiencies of iron, folic acid and other B vitamins and, in some cases, vitamin A and other micronutrient deficiencies. In many Pacific SIDS, parasitic infections, such as hookworm and malaria, are another important cause.
- Iodine deficiency disorders have been documented in Fiji, Papua New Guinea and Vanuatu, while this deficiency is clinically suspected in Solomon Islands and Samoa. Iodine deficiency seriously constrains mental and physical development and productivity.
- Vitamin A deficiency has been reported as a public health problem in Kiribati, Papua New Guinea, the Federated States of Micronesia and the Marshall Islands.

There is a **challenge** to support the establishment of a regional food fortification programme supported by a Pacific Fortification Partners Group, whose first step would be to establish regional fortification standards for selected foods, considering not only iron and folate, but also iodine, vitamin A and fluorine deficiencies.

Human resources for health: The shortage of health workers is a chronic problem for Pacific SIDS mainly due to the inadequate numbers of health workers being trained. The shortage is compounded by the migration of health workers. The average health worker density for all Pacific SIDS is about 3 per 1000 population, compared to much higher densities of more than 10 per 1000 population in developed countries such as Australia and New Zealand.

The education system in some Pacific SIDS does not equip students with basic sciences, mathematics and English levels needed for entry into health professional education and training courses. Other common human resources for health (HRH) issues in Pacific SIDS include imbalances in the skill-mix and distribution of workers; lack of effective HRH planning and management compounded by unreliable and inadequate workforce information management systems; low salaries and wages; poor

working environments; limited monetary and non-monetary incentives; and the lack of professional development, especially for workers in rural remote areas. In most Pacific SIDS, national health workforce strategies and plans are not sufficiently implemented or effectively coordinated among partners and stakeholders. There are certain aspects of HRH, including a regional code of practice for recruitment of health workers, in which a regional approach may be beneficial in view of the unique circumstances of Pacific SIDS.

There is an urgent **challenge** to address the skill mix imbalances within and between occupational groups in Pacific SIDS. Although the majority of the health workforce in the region are nurses (more than 50% in most Pacific SIDS), the numbers are not sufficient to meet the primary health care needs of the majority of people, who live in rural areas. Due to a small populations, limited health technology, scarcity of equipment and supplies, and the lack of support services for delivery of clinical specialised care in many areas, nurses and mid-level practitioners have been trained to provide basic diagnostic and curative services that would normally be handled by doctors. This reliance on nurses and mid-level practitioners as frontline workers appears to be suitable and appropriate for most Pacific SIDS.

Pacific SIDS governments should support the Pacific Code of Practice for the Recruitment of Health Workers, and its application and use in their countries. They also should provide support for the monitoring and evaluation at a regional level of the implementation of the Code. Pacific SIDS should also take necessary actions to implement the WHO Regional Strategy on Human Resources for Health 2006–2007.

The Pacific Open Learning Health Net (POLHN) established in 2003, is recognised as a valuable contributor to capacity-building in the region. A number of countries in recent years have set up POLHN centres and look forward to an expanded selection of courses.

Chapter 5: Cross-cutting Issues (Sections 11 -15 and 18– 19 in the MSI)

5.1 Science and Technology

Specific reference is made in this chapter of the Mauritius Strategy to the role of the SIDS Unit in regard to establishment and maintenance a SIDS roster of experts and to the critical support mechanism that SIDS Net provided. The Pacific SIDS are deeply concerned that neither of these functions has been effective over the past 5 years, and strongly recommends that UNDESA secure funding to re-activate these functions. In this regard Pacific SIDS note paragraphs 15 and 16 of UNGS Resolution 63/213 which calls for support for strengthening the SIDS Unit and revitalising SIDS Net, and acknowledges the recent announcement that Spain is to support SIDS Net.

This section of the Mauritius Strategy also addresses the need to incorporate appropriate science and technology into national sustainable development strategies.

Vai Pasifika, (<http://www.sopac.org/Vai+Pasifika>) is the joint e-newsletter of the Pacific Islands Observing Systems and aims to provide stakeholders working within the context of national sustainable development strategies with relevant up to date scientific and technical data. The newsletter first published in December 2007, is released quarterly and links the Pacific Islands Global Ocean Observing System (PI-GOOS), the Pacific Islands Global Climate Observing System (PI-GCOS), and the Pacific Islands Hydrological Cycle Observing System (Pacific HYCOS). By bringing together information resources for these observing systems it is hoped to encourage a more unified approach to observing the Pacific ocean/climate/water ecosystem.

This section of the Mauritius Strategy also the provision for the promotion and protection of traditional knowledge and practices. The Pacific Regional Framework (2002) in regard to Traditional Knowledge and Expressions of Culture comprising a Background Note, draft Model Law and Explanatory Memorandum, was developed to assist Pacific SIDS with legal protection in the face of increasing exploitation and inappropriate commercialisation of their traditional knowledge and expressions of culture. Elements of this framework can be used as necessary. It is reflective of developments at the international level such as in the World Intellectual Property Organisation (WIPO) and United Nations Educational, Scientific and Cultural Organisation (UNESCO). The Model Law establishes a new range of statutory rights for traditional owners of traditional knowledge and expressions of culture. It provides a basis for Pacific SIDS wishing to enact legislation for the protection of traditional knowledge and expressions of culture.

An Action Plan to assist Pacific SIDS implement the regional model framework for traditional knowledge protection was endorsed in 2008. It provides the basis for work in traditional knowledge over the next two years and will have a sub-regional focus for the time being to deliver assistance to selected Pacific SIDS: Cook Islands, Fiji, Kiribati, Palau, Papua New Guinea and Vanuatu. The programme is based on a partnership between PIFS, SPREP, SPC and WIPO.

Several Pacific SIDS are undertaking initiatives to protect and promote traditional knowledge, for example Tuvalu in its National Sustainable Development Strategy 2005-2015 there is recognition of the need to: promote traditional knowledge and expressions of culture; revive and promote traditional skills and knowledge; and document traditional skills and knowledge. Tuvalu also calls for the improvement of science in the school curriculum as a means of providing support for science development at the national level.

5.2 Graduation from Least Developed Country (LDC) Status

The LDCs in the region are six in number. They include five Forum island members, Kiribati, Samoa, Solomon Islands, Tuvalu, and Vanuatu, together with Timor Leste. The vulnerability of Pacific SIDS

particularly in relation to climate change tends to suggest that graduation from LDC status should be put on hold, given that it is very evident that one climate change event could destroy the economy of an entire state.

The issue of graduation from LDC status, and the need for a smooth transition in such circumstances, is a national issue and reference should be made to the respective national assessment reports for further consideration of graduation.

5.3 Trade: Globalisation and Trade Liberalisation

Increased trade and economic integration key for Pacific SIDS, and as such is central to the Pacific Plan and remains a priority. The integration of the region's economies presents significant opportunities to raise living standards for all Pacific SIDS. The continuing focus on trade and economic integration has been evident with both economic and trade ministers respectively continuing to work on ways to achieve success in these areas.

Pacific Islands Countries Trade Agreement (PICTA)

In taking the step toward establishing a regional free trade agreement through PICTA, the Pacific SIDS recognise that regional economic integration is also part of a strategy for integration with the world economy. Economic integration with close neighbours and with other compatible partner economies has the potential to assist Pacific SIDS economies prepare for opening to global competition. Regional economic integration can also provide a basis for Pacific SIDS partners to coordinate their international economic policies, thereby assisting Pacific SIDS to operate effectively in the international economy.

The PICTA entered into force in 2003 and six Pacific SIDS, namely Cook Islands, Fiji, Niue, Samoa, Solomon Islands, and Vanuatu have commenced trading under the Agreement. Five Pacific SIDS - Kiribati, Nauru, Papua New Guinea, Tonga and Tuvalu have completed their notification requirement under the Agreement and are expected to announce readiness to trade under PICTA once they have put in place legislative changes to implement the Agreement. The Federated States of Micronesia has signed the Agreement and is at the ratification process while Palau and the Marshall Islands are yet to accede to PICTA. PIFS continues to provide technical assistance to members to assist in the implementation of the Agreement.

In particular, efforts continue to focus on trade in services and labour mobility more generally, the latter seeing the region's Education Ministers' turn their attention to addressing the portability of qualifications across the Pacific.

The trade-in-services agreement being negotiated is part of the region's vision of broadening the PICTA which currently covers trade in goods only, to also include trade in services. Trade in services among the Pacific SIDS is already taking place and the approach taken to formalise the existing dynamics through a PICTA trade in services Agreement is a logical step, with the expectation that more investments will flow into the Pacific SIDS. The key objectives of the PICTA trade in services Agreement are to improve transparency and certainty of the existing regulations, and encourage Pacific SIDS' suppliers in selected services sectors.

This is a powerful tool to channel reforms in critical services areas where processes of deregulation and liberalisation are being undertaken. The binding of these domestic reforms in a regional agreement ensures that they are not discretionarily reversed. This would send positive signal to investors, encouraging them to see the Pacific Islands as a regional market rather than a series of individual markets, thus more attractive for undertaking investment decisions on a larger scale.

The Pacific SIDS are currently also negotiating the facilitation of temporary movement of natural persons within the Pacific SIDS. Individuals from Pacific SIDS who possess one of the qualifications

listed in the Agreement would be given automatic right to unrestricted entry to the territory of other Parties to the Agreement for a defined period. Skilled and semi-skilled professions would be subject to freer movement within the Pacific SIDS once the agreement is concluded.

PACER Plus negotiations

A series of informal meetings held over the last 12 months has seen progress in PACER Plus. The outcome of the Forum Trade Ministers' Meeting, June 2009, suggests the commencement of negotiations of a broader regional trade and economic cooperation arrangement over the coming months.

Ministers affirmed that PACER-Plus provides the Pacific with a significant opportunity to develop a truly innovative trade and economic agreement that takes account of the different stages of development of each Forum member. Ministers stressed the importance of progressing PACER-Plus as a means of underpinning the economic security of the region through capacity building, market liberalisation and building resilience to shocks such as the current global financial crisis.

Australia and New Zealand have demonstrated considerable recognition of the challenges remaining and announced a funding contribution for the establishment of the Office of Chief Trade Adviser to be initially housed and supported by PIFS prior to its long-term establishment in Vanuatu. Reflecting the strong engagement at ministerial and officials levels over 2008-2009, Trade Ministers recommended to Forum Leaders that PACER-Plus negotiations commence after the conclusion of the Forum Leaders Meeting in August 2009. This decision responds to the direction given by Leaders at Niue in 2008.

Multilateral Trade Negotiations

Four Pacific SIDS are Members of the WTO: Fiji, Papua New Guinea, Solomon Islands and Tonga. Samoa and Vanuatu are WTO observers and in the process of acceding to the WTO. At the same time, because of its central importance in the international trading system and the formulation of rules governing trade, events in the WTO remain of great interest to all Pacific SIDS.

Regional Trade Ministers have remained engaged in discussions relating to developments in the WTO's Doha Round of Multilateral Trade Negotiations. The Office of the Forum Representative in Geneva caters for the needs of the Pacific SIDS, especially those which are WTO Members and Observers. To date, the Forum Office has operated under the overall aegis of the Secretariat and largely funded by the European Union, although it is generally agreed that Pacific SIDS WTO Members and Observers should steadily take ownership of the Office through making increasing contributions to the operation of the Office.

EU and Pacific SIDS Economic Partnership Agreements (EPAs)

ACP States and the EC agreed under the Cotonou Agreement to negotiate new WTO-compatible trading arrangements, removing progressively barriers to trade between them and enhancing cooperation in all areas relevant to trade. The EPA negotiations commenced in September 2002.

On 29 November 2007, the European Commission initialed an Interim Agreement with Papua New Guinea and Fiji. The agreement enables both countries to benefit from significantly improved market access to the EU as from 1 January 2008 stimulating investment and growth in Papua New Guinea and Fiji due to new trade opportunities in sectors of interest to these countries, in particular fishery products. This Interim Agreement is open to any other interested Pacific SIDS. Negotiations are ongoing on a comprehensive EPA, containing arrangements for trade in goods and services, development co-operation, fisheries, trade related rules and other aspects with the Pacific SIDS.

During 2009 the following additional activities took place in regard to economic integration and trade.

- Australia announced a Pacific Seasonal Worker Pilot Scheme. This scheme is expected to create more economic opportunities for those Pacific SIDS (Kiribati, Papua New Guinea, Tonga and Vanuatu) included in the pilot scheme.

- The strengthening of the private sector in the region with PIPSO working closely with national private sector organisations.
- In one of the region's key economic drivers, tourism, south-pacific.travel continued its efforts to build the capacity of small and medium enterprises in the sector and working with stakeholders to address ways to overcome a number of current constraints in the aviation sector that will better facilitate access to the region.

Challenges however remain. Among them, the slow pace at which regional trade agreements are being implemented, the continued need to develop private sector participation in the formal economy and much needed regulatory reform. A continued focus on trade and economic integration is required to underwrite the desire to strengthen the region's economic growth and with it the improved livelihoods of the people.

During 2009 the implementation of regional trade agreements continued at a positive, but slow pace. The lack of capacity among Pacific SIDS to engage on a range of trade issues has been hampered by the ongoing **challenge** of developing national positions on various issues as well as the ability to translate regional commitment into supporting national legislation.

5.4 Sustainable Capacity Development and Education for Sustainable Development

Pacific SIDS continue to require support to address the serious **challenges** they face in capacity development in policy and strategy formulation and implementation. They are attempting to address these challenges through an integrated approach including NGOs, the private sector and government.

In 2007 there were several achievements reported; SPBEA progressed work on strengthening standards and a regional qualifications register, PIFS completed a mapping exercise as a first step in efforts to standardise regional training programmes in nursing, and the Pacific Regional Initiatives for the Delivery of basic Education (PRIDE) Project implemented by USP continued to support Pacific SIDS especially with strategic planning in education. Australia progressed the implementation of the Australia- Pacific Technical College (refer Chapter 6 Capacity Development) while PIFS completed a regional study on technical and vocational education and training.

Enhancing the involvement of youth and increased participation in sport has seen modest but solid progress across the respective initiatives. SPC continues to lead in support for youth under the Pacific Plan having completed a region-wide mapping exercise on youth activities. This is complemented by the work of a number of other stakeholders including the Honiara-based Commonwealth Youth Programme and the ongoing work of UNICEF around the region.

The work of USP in the area of sport has seen the awarding of a number of all-rounder sports scholarships in the reporting period and growing private sector involvement through sponsorship of sporting initiatives.

Education: In 2009 a notable development in the education sector was the completion of a comprehensive review and assessment of the Forum Basic Education Action Plan which revealed that its main delivery vehicle, PRIDE, has had greater impact at the national level since the 2007 Forum Education Ministers' Meeting. The findings of the Review were endorsed by Forum Education Ministers at their March 2009 meeting with Ministers further endorsing the newly developed Pacific Education Development Framework and work to harmonise regional standards. The new framework will replace the Forum Basic Education Action Plan and target two areas, education for all and training for employment to better assist economic growth. Work to harmonise regional standards will target teachers and eventually principals. This will be supported by ongoing efforts to develop regional standards for literacy, numeracy and life-skills with both utilising the expertise of organisations such as SPBEA, UNESCO, UNICEF and USP.

5.5 Sustainable Production and Consumption

This chapter of the Mauritius Strategy called for countries to facilitate the implementation of a 10-year framework on sustainable consumption and production called for in the Johannesburg Plan of Implementation. The Marrakech Process is a global process to support the elaboration of that 10-Year Framework of Programmes, led by UNEP and UNDESA with active participation of national governments, development agencies, and civil society. This framework is currently expected to be presented at the 2010 UN Commission on Sustainable Development. The framework has three goals: to assist countries in their efforts to green their economies; to help corporations develop greener business models; and to encourage consumers to adopt more sustainable lifestyles.

Shortly after the Mauritius Meeting in 2005, Pacific SIDS together with other members of the ESCAP region adopted Green Growth or environmentally sustainable economic growth for the improved well-being of all, during the Fifth ESCAP Ministerial Conference on Environment and Development (MCED) in March 2005. This meeting was attended by officials from eleven Pacific SIDS including Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Tonga and Vanuatu. The Green Growth approach is considered a viable strategy for achieving sustainable development in the region. Due to the inherent conflict between fulfilling MDG1 and MDG7 in Asia-Pacific, there is a need for increased eco-efficiency of production and consumption in order to achieve sustainable development. As the situation in the region illustrates, it is now an urgent **challenge** to find ways to ensure that the old paradigm “grow first, clean up later” is replaced by an integrated approach that enables economic growth to support and reinforce sustainability rather than undermine it.

In 2010 the intention is to extend the promotion of Green Growth through the ESCAP Pacific Operations Centre and initiate activities in Pacific SIDS. The Green Growth approach is a new policy focus which is aimed at helping countries in the region to achieve real progress towards sustainable development and poverty reduction through the following.

- Improving environmental sustainability (the way environmental resources are used).
- Enhancing environmental performance (the way environmental resources are managed by reducing pollution and improving ecosystem protection).
- Promoting environment as an opportunity for economic growth and development.

5.6 Knowledge Management and Information for Decision-Making

This chapter of the Mauritius Strategy explores the needs of SIDS and the opportunities presented as a result of the rapid new developments in ICT, in particular the establishment, access to, and use of information systems to facilitate improved decision-making.

In Pacific SIDS, many existing and new information systems have been developed and/or strengthened in the past 5 years at all levels. Various they have been linked into global information systems such as national weather service data into the WMO databases, and health statistics into WHO databases. Increasingly the Pacific SIDS have gained access at the national level to these global information systems and have benefited from the knowledge and information gained for example in improved early warning for climate variability (El Nino forecasting) and early warning for natural hazards such as the Pacific Tsunami Warning Centre for tsunamis. Increasingly data collected from remote monitoring sites is telemetered via satellite and in many instances is now available in-country in real time. Examples include automatic weather stations in remote locations, ocean and lagoon water quality monitoring, and volcano surveillance.

Several CROP organisations, in particular those with strong technical work programmes are working with Pacific SIDS to establish geographic information systems for a wide variety of sectoral and

multisectoral applications. SPC and SOPAC are key examples. USP has well developed courses in geographic information systems technology.

Monitoring Environmental Change: Monitoring environmental change has in recent years moved forward a quantum leap with the ability to quantify rates of change at scales appropriate for small islands, digitise and merge spatial historical data such as air photos, maps with on the ground surveying. Digital satellite images of very remote islands are now accurate in large scale/small area format often with resolution down to a few centimetres. Large digital meta-databases now exist for spatial data including satellite and air photo imagery and remotely-sensed data collected from both onshore mapping (vegetation mapping), coastal surveys (erosion and accretion), and offshore bathymetric mapping (water circulation, and fish habitat mapping). These databases are increasingly accessible “on-line” via user-friendly portals utilising GIS such as the **SOPAC GeoNetwork**. SOPAC GeoNetwork established in 2008 allows the sharing of geographically referenced thematic information. Its purpose is: to improve access to and integrated use of scientific information held by SOPAC; to support decision making in the Pacific SIDS; to promote multidisciplinary approaches to sustainable development; and to enhance understanding of the benefits of geographic information.

The Pacific Regional Information System (PRISM): The SPC has been long involved in the search for a workable, cost effective, simple to use socio-economic database for the region. Past attempts to establish, and maintain, a regional socio-economic database have not been successful. One of the main reasons for this was the National Statistical Offices (NSOs) felt, justifiably, that they were not getting anything in return for supplying the data. The concept of PRISM is, simply, to give NSOs the tools and the skills to develop, publish and maintain their own Internet websites containing key statistical indicators, statistical summaries, reports, concepts definitions and other documentation for the statistical indicators. The information from the NSO Internet websites is then compiled into the SPC PRISM website. The PRISM website contains additional resources for users such as regional summaries; templates for developing indexes for international trade imports data; and comparison data such as exports from Australia, New Zealand and the United States to Pacific SIDS.

Environmental Vulnerability Index (EVI): Launched by Pacific SIDS at the Mauritius Meeting, the EVI developed by SOPAC in collaboration with others especially UNEP, demonstrated for the first time in a quantitative manner the nature and scope of the natural environment as it is vulnerable to the effects of economy, society and natural hazards. It is quantitatively robust and highly relevant to policy at all levels and ready for use by countries to determine how well it describes their vulnerability. It responds to the Barbados Programme of Action as it captures the environmental vulnerability of SIDS and their ecological fragility. The EVI is based on 50 indicators for estimating the vulnerability of the environment of a country to future shocks. These indicators are combined by simple averaging and reported simultaneously as a single index, a range of policy-relevant thematic sub-indices, and as a profile showing the results for each indicator. Simple averages across indicators are used because they can be easily understood and more complex models do not appear to offer any advantages to the expression or utility of the index. This overview with drill-down structure means that in addition to an overall signal of vulnerability, the EVI can be used to identify specific problems. The EVI has been designed to reflect the extent to which the natural environment of a country is prone to damage and degradation. It does not address the vulnerability of the social, cultural or economic environment, nor the environment that has become dominated by those same human systems (such as cities and farms) because these are included in the economic and social vulnerability indices which are needed separately to identify trade-offs.

An EVI Diagnostic Report and Action Plan has been prepared for each of the Pacific SIDS except Timor Leste. They identify the key issues threatening the environmental support system of each country, as well as areas of existing good resilience that could be preserved to prevent vulnerabilities from developing in the future. In these reports, the EVI is used to provide clear guidance for addressing issues of vulnerability, including policy directions, specific actions and/or amounts of change needed to effect changes in vulnerability, and projects that could be implemented in support of sustainable conditions. These reports identify the highest priority issues that need to be addressed to

build the environmental resilience of countries and by the most efficient means. It is also expected that the application of the EVI will assist each country to meet internationally agreed reporting and goals including MDG7 on environmental sustainability.

The **challenge** for Pacific SIDS is now to fully utilise these “state-of-the-art” information systems to ensure they are knowledge-based management tools underpinning better decision-making required for effective operational national sustainable development strategies.

5.7 Culture

Issues related to intellectual property are dealt with in Chapter 5.1.

Culture, understood in its epistemological, heritage and industrial dimensions, is central to political, economic and social life and well being in the Pacific region. People are engaged daily in a range of cultural activities and practices which provide meaning, generate resources and influence the flow of events locally, nationally and regionally. The **challenge** is to demonstrate this to policy makers: governments, regional institutions, donor and funding agencies and partners in such a way that culture is understood as an asset and integral part of development.

SPC works with Pacific SIDS at different levels through: (i) providing the means for valuing culture through the generation of quantitative and qualitative data, and incorporating culture effectively into all relevant documents and frameworks such as the Pacific Education for Development Framework; (ii) raising the profile of culture as a tool for development – including the instrumental ‘cultural industries’ approach; and (iii) promoting the cultural sector and expressions of culture, not focusing on consumption but rather on participation, exchange, sharing and enhancing memory and knowledge preservation and generation.

Valuing culture through heightened visibility: A large part of SPC’s work is geared towards making visible the socio-economic and political value of culture. This is mainly being done through data generation – the first step of the process – but generating data itself requires thinking carefully about methodology and content. Three projects which SPC is involved in do this directly are as follows.

- Commissioning of a Valuing of Culture study which focuses on how to understand and articulate the contribution of culture to the four pillars of the Pacific Plan.
- Generation of cultural data by inputting cultural questions into population censuses and household surveys, thus developing cultural statistics through existing statistical and demographic exercises.
- Development of cultural indicators for all Pacific SIDS through contribution to the development of international cultural indicator exercises, for example the cultural indicator suite currently being developed by UNESCO.

Raising the profile of the cultural sector: This involves assisting Pacific SIDS to develop cultural policies and strategies. So far only Papua New Guinea has implemented a cultural policy which is now under review. Other countries are in the process of drafting policies. SPC has secured EU funding to carry out a mapping, planning and policy process in six countries. This will begin in 2010 and include the mobilisation of government ministries and departments, civil society, communities, the private sector, including cultural operators and entrepreneurs, cultural/arts bodies, artists and artisans and academia. Engagement of all stakeholders in a national and local dialogue and decision-making process culture is considered essential.

A second initiative is the marketing of the cultural industries geared towards promoting the livelihoods of artists and artisans, and protecting their knowledge and skills. At present artists have little recognition; their work remains unprotected and poorly commercialised; and they have limited access to financing and opportunities for exchange and sharing. There is no coordinated approach to promoting and commercialising Pacific heritage and contemporary arts. One of the principal

challenges has been the identification, pulling together, and organising of the sector so that producers of cultural goods and services, meet their markets and as a result: are able to benefit financially from their skills and earn a regular income; have well organised linkages with cultural institutions, cultural operators, and private sector organisations, including in the tourism sector, and regional and international organisations which can support the cultural industries; and contribute actively to the development of the medium, small and micro enterprises in the culture sector.

A focus of the project will be on structuring the cultural industries and developing a marketing strategy for the cultural industries with the EU and other regions of the world, including to the Caribbean and Africa. At present, little has been done at the regional level in spite of successful individual initiatives by small cultural enterprises and through regional civil society groupings such as the Pacific Arts Alliance. As a result the Pacific has difficulty responding efficiently to new market opportunities. The project complements the PIFS-led Implementation Plan on Traditional Knowledge Development (Chapter 5.1). Other partners include: the Pacific Arts Alliance; the Pacific Islands Museum Association; representatives of private sector and trading organisations such as the Pacific Islands Private Sector Organisation (PIPSO), the Pacific Islands Trade and Investment Commission (PITIC); representatives of the EC Delegation for the Pacific, the ACP Secretariat, the South Pacific (dot) Travel, CARICOM; and the newly established Pacific Craft Council, which is the Pacific arm of the World Craft Council.

Cultural expressions and heritage, skills and knowledge: The Festival of Pacific Arts (FPA), initiated in 1972, held its 10th session in 2008 plays a strong role in this. It is a unique event in that all performances and events are open to the public, free of charge. The Festival is about sharing and exchange of Pacific cultures and its guiding principles and objectives, as established by the Council of Pacific Arts, are the following.

- Encourage awareness of a collective voice.
- Foster the protection of cultural heritage.
- Explore the creation of dynamic new arts.
- Cultivate global awareness and appreciation of Pacific arts and cultures.
- Promote traditional languages in the region.
- Value the wisdom of elders.
- Support the aspiration of the youth.
- Advocate a culture of peace through dialogue with the cultures of the Pacific.
- Promote cultural development within social, economic and political development at the national level.
- Encourage the indigenous peoples of the Pacific to continue their efforts for recognition.

SPC in 2009 commissioned an evaluation of the Festival to examine: the economic, social and cultural benefits devolving from the FPA nationally and regionally; how the Festival can contribute to greater awareness about the links between culture and sustainable development nationally and regionally; and the extent to which the FPA contributes to poverty reduction through the creation of cultural goods, for the elite and village sectors of the market.

The evaluation suggested the need to better articulate the relationship between culture and sustainable development through the Festival by demonstrating that it has an impact on poverty, through identifying the contribution that arts make to the economy of Pacific SIDS.

Three Pacific heritage sites were, for the first time, listed in 2008 on the World Heritage list: the Chief Roi Mata domain in Vanuatu; Kuk, one of the world centres of agricultural innovation, in Papua New Guinea, and the lagoon of New Caledonia. Pacific SIDS are gradually beginning to sign on to the UNESCO Convention on Intangible Heritage with commitments from Vanuatu and Fiji, while Papua New Guinea has become a party. Heritage is not yet thought of as a resource by governments and often even by communities who do not pay much attention to this dimension of culture, and the linkages between heritage and tourism have yet to be developed. The Pacific Islands Museum

Association and ICOMOS Pasifika continue to coordinate heritage opportunities, training and events but the region continues to struggle to develop this sector

At a World Heritage meeting held November 2009 in Maupiti, Tahiti, Pacific members signed on to a Declaration on the Ocean, and made commitments to advancing heritage preservation and promotion. The declaration is significant in development terms because it signifies a process in re-uniting the Pacific through a common and shared bond, the Ocean, and understanding the ocean as provider in all its dimensions: cultural, spiritual, political, social and economic. It establishes the direct links between the cultural and the socio/economic as understood by indigenous people and is a powerful statement about meaning beyond the instrumental.

There remains a considerable work to be done in the area of heritage and arts education, and the way culture is viewed in education, development and policy.

USP and UNESCO have established a Chair in Teacher Education and Culture, to promote culturally inclusive curriculum development to promote culturally inclusive teacher education; encourage the development of curricula for multicultural literacy; encourage learning from indigenous education; and promote capacity building of indigenous scholars and researchers through development and use of Pacific frameworks for teaching and research.

SPC and the Council of Pacific Arts are in the process of developing a Regional Cultural Strategy which seeks to bring closer the culture and education sectors. Although there has been much progress with integrating mother tongue/vernacular languages at the primary level particularly, there is still a need to increase cultural content and methods in schools, the ideal being for culture to underpin the education system. Culture is taught mainly through lifeskills and national studies but it is not at the heart of teaching (for example Samoa and Tonga), so there remains a significant challenge of linking culture to development. Furthermore, human resources are lacking in the area of cultural management.

Chapter 6: Implementation (Section 20 in the MSI)

6.1 Access to and the provision of Financial Resources

Between 2001 and 2007 total aid to the region in real terms has remained relatively stable in the order of US\$1-1.3 billion/year. This is illustrated by the tables below which must be regarded as indicative not exhaustive as data for some donor partner countries including China, Japan and Taiwan are missing.

Indicative Net Aid to the Pacific SIDS in 2007

	Net ODA (US\$ millions)	ODA/capita (US\$)	ODA (%GDP)
Cook Islands	9.3	461	4
FSM	114.9	1 035	49
Fiji	57.5	69	2
Kiribati	27.1	285	35
Marshall Islands	52.1	894	35
Nauru	25.6	2 912	113
Nauru	25.6	2 912	113
Niue	14.8	5 514	88
Palau	22.3	1 108	14
Papua New Guinea	320.9	51	5
Samoa	37.5	207	7
Solomon Islands	246.1	497	63
Tonga	30.9	302	12
Tuvalu	11.7	1 197	44
Vanuatu	56.7	251	13
Regional Aid	138.7		
Pacific Aid Total	1,165.9	136	9
Timor Leste	278.3	262	70

Indicative Sources of Aid to Pacific SIDS (excluding Timor Leste) 2007

Development Partner	Total (US\$ millions)	Percentage
Australia	649.3	55.7
Canada	8.2	0.7
France	16.7	1.4
Japan	70.3	6.0
New Zealand	120.9	10.4
United Kingdom	5.4	0.5
United States	171.7	14.7
Other bilateral	2.8	0.2
European Union *	71.2	6.1
Global Fund	10.8	0.9
IFIs	9.9	0.8
UN and other multilaterals	28.8	2.5
Total	1,165.9	100

Source: AusAID 2009: Tracking Development and Governance in the Pacific

* The EU Office in Suva advises that this figure quoted in the AusAID Report should be US\$143/year.

Shortly after the Mauritius Meeting the Paris Declaration on Aid Effectiveness 2005 was agreed to, and was followed with the Accra Agenda in 2008. For the Pacific SIDS region the Pacific Aid Effectiveness Principles were developed in 2007 and closely mirror the Paris Declaration.

Pacific Aid Effectiveness Principles (2007): These legally nonbinding principles and accompanying supplementary notes derive from the Paris Declaration on Aid Effectiveness (2005). They have been considered widely across the Pacific region, and are designed to fit the Pacific context. The Pacific Aid Effectiveness Principles, like the original Paris Declaration, include actions and approaches for both Pacific SIDS (countries/recipients) and development partners (donors). References to the relevant section in the Paris Declaration, and related monitoring indicators, have been included.

- **Principle 1:** Country leadership and ownership of development through an accountable and transparent national development planning and financial management system/mechanism which is adequately resourced from the national budget - including longer term operation and maintenance of donor sponsored development (*Paris Declaration Section 14, 19; Indicator 1, 2*)
- **Principle 2:** Multi-year commitments by development partners and countries aligned nationally identified priorities as articulated in national sustainable development strategies, or the like, with agreement on performance indicators and monitoring and evaluation mechanisms (*Paris Declaration Section 16, 26; Indicators 3, 5, 7*)
- **Principle 3:** Greater Pacific ownership of regional development, Development Partners' Pacific Regional Strategies designed and formulated with the Pacific Plan and other Regional Policies as their corner stone (*Paris Declaration 14, 15; Indicator 1*)
- **Principle 4:** Pacific Development Partners and Countries pursue a coordinated approach in the delivery of assistance. Encouraging harmonisation will be a priority for both. (*Paris Declaration 32 – 42; Indicators 9, 10*)
- **Principle 5:** Strengthened institutional mechanisms and capacity in countries to enable increased use of local systems by development partners. (*Paris Declaration 17, 21, 22-24, 31; Indicator 4, 6, 8*)
- **Principle 6:** (i) Provision of technical assistance (TA), including in aid coordination/management, in such a way that ensures that capacity is built with tangible benefits to the country to support national ownership. Provision of an appropriate level of counterpart resources through established procedures and mechanisms; (ii) Short term TA, that address local skills gaps to conduct studies, are culturally sensitive. (*Paris Declaration 22-24; Indicator 4*)
- **Principle 7:** Use of an agreed monitoring and evaluation framework that will ensure joint assessments of the implementation of agreed commitments on aid effectiveness. (*Paris Declaration 43-46; Indicator 11*)

This chapter of the Mauritius Strategy makes particular reference to simplifying and improving access to the GEF.

GEF- Pacific Alliance for Sustainability (GEF-PAS): The GEF- Pacific Alliance for Sustainability Programme agreed to in 2007 is a new partnership with Pacific SIDS which will include GEF agencies, regional organisations, NGOs and others based on their comparative advantages, operating through concrete national programmes on the ground. The World Bank has been chosen to take the lead role in the development of the GEF-PAS initiative, working together with the GEF Secretariat and supported by SPREP. The total GEF funding available for this programme for three years is US\$ 98,837,920 million, including projects in the focal areas of Biodiversity (\$37,715,220), Climate Change Adaptation (\$30,392,000), Climate Change Mitigation (\$14,700,000), International Waters (\$10,722,950), and Persistent Organic Pollutants (\$5,307,750).. Compared to the US\$86 million that the region has received in the past 15 years from the GEF, this is a nearly six-fold increase on an annual basis. It will work through four areas of concern.

Biodiversity: The programme will focus on management of coastal and marine protected areas; prevention, control and management of invasive alien species; and conservation and sustainable use of forest resources. The programme could include a regional approach to managing invasive alien species, in support of the South Pacific Regional Invasive Species Strategy. It could focus on marine biodiversity conservation through protected areas, and offer targeted support for conservation and sustainable use of forest resources for example in countries such as Palau, Federated States of Micronesia and Marshall Islands through the Micronesia Challenge and countries such as Papua New

Guinea and others with globally significant forest biodiversity. Initiatives are anticipated with all Pacific SIDS.

Climate Change: The programme will have a two-pronged approach which includes some mitigation and provides a strong focus on adaptation. Support for mitigation could be through renewable energy projects in appropriate countries and, in larger countries, through projects focusing on energy efficient buildings. Regionally, these two initiatives would help reduce the cost of imported fossil fuels. More critical however will be support for climate change adaptation. Adaptation funding from the GEF, including the climate change adaptation funds, will support the Pacific SIDS work to identify and implement suitable adaptation measures, including the integration of adaptation into core development sectors such as agriculture and food security, access to drinking and irrigation water, health, and disaster risk management. Moreover it will establish a process to climate proof your critical infrastructure so that climate-related risks become an integral part of your national strategic planning.

International Waters. Programme support will be two-pronged. First to build on activities within the *Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*. Secondly, to establish an integrated water management system including surface and groundwater in all the Pacific SIDS, with consideration of water harvesting and waste water management, and differentiated approaches in highly water-stressed lowlying islands (atolls) and in volcanic mountainous islands.

Programme support will also be provided to tourism and solid waste management. Efforts to identify solid waste management activities similar to what Australia is supporting on toxic waste management can be considered as a joint intervention in international waters and land management focal areas.

By the end of 2009 approximately 95% of the indicative total amount for the GEF-PAS had been approved. The approved GEF-PAS Programme Framework also allowed for the establishment at SPREP of a Monitoring and Evaluation Coordination Unit for the umbrella programme.

The GEF-PAS umbrella programme is funded from the GEF-4 replenishment, which comes to a close in 2010. Preliminary consultations had been initiated in 2008 and 2009 among GEF Secretariat, GEF Council and donors on an approach and strategy for resourcing GEF-5. These consultations would continue and were expected to culminate with an agreed framework arrangement in 2010.

There remains a **challenge** that Pacific SIDS may not have the capacity to develop acceptable project proposals for GEF-PAS consideration and approval or, in the event such proposals are approved, lack the capacity to implement them. In addition, there remains a concern that the rules governing the GEF-PAS are overly complex and cumbersome as are the procedures for vetting project proposals. This could further delay project implementation.

6.2 Science and Development and Transfer of Technology

This chapter of the Mauritius Strategy addresses the need to ensure access to appropriate technologies. Not only should this be the case, but also the technologies should be affordable both in terms of capital cost and ongoing maintenance. Much work is carried out in this regard at regional, national and local levels and local entrepreneurship is encouraged, particularly in the resource use sectors including agriculture, forestry, fisheries, water, and renewable energy. As necessary, specific mention is made in the relevant chapters of this report.

6.3 Capacity Development

The Global Islands Partnership (GLISPA), launched in Mauritius, is an important network to facilitate communication and share lessons among SIDS.

The SIDS Universities Consortium was set up by a group of universities of SIDS including USP (University of the West Indies, University of Mauritius, University of Malta, and University of the Virgin Islands). The aim/mission was to "enhance the capacity of graduate education institutions in SIDS to provide practical, high quality education, research and development, and outreach across SIDS, to assist SIDS with the required individual, institutional and systemic capacity needed to implement the Barbados Programme of Action". It was set up in 2005. The Secretariat is based at the University of the West Indies.

The Consortium has received Spanish funding for capacity building development through an Education for Sustainable Development for Small Islands Developing States Project. The Consortium partners have agreed on their respective roles at strategic and implementation levels as well as partner modalities for Component 1 - Virtual Training and Education for Sustainable Development. This will be virtual PostGraduate Diploma, Masters and short-term training programmes. The Consortium partners have also agreed that training of the workforce in strategic areas of sustainability is a vital component of this project.

The project is to begin in the first quarter of 2010 and last for 2 years

Work on the Pacific Regional Qualifications Register (PRQR) has been substantially advanced by SPBEA over the past two years, visits to National Qualifications Accreditation Authorities have commenced along with the establishment of regional and international networks. It must be acknowledged that whilst this register was first considered in 2001, many developments have occurred at the country and regional levels. These include the development of various forms of: national qualifications frameworks/authorities in Fiji, Samoa, Tonga, and Vanuatu. Also established have been links with qualifications frameworks from outside the region such New Zealand.

Once fully implemented, the Register will enable greater portability of qualifications and better facilitate labour mobility giving the initiative's particular importance when viewed against regional trade initiatives such as PICTA.

Efforts to address technical and vocational education and training (TVET) in the region received a significant boost with the establishment of a working group among stakeholders. The informal sector is the dominant segment of the labor market in most Pacific SIDS and it is where most school-leavers will have to find work. Training for the informal sector has to become the top priority.

PATVET (Pacific Association for Technical and Vocational Education and Training) was established as a legal entity in 2007 and is hosted by SPC, to advocate, influence and promote, lead and set standard for TVET in the Pacific. Pacific SIDS members include: Cook Islands, Fiji, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. It is recognised that there is an urgent need for it to support the work of PATVET in the following three areas (i) regional inventory of TVET institutions in the Pacific (ii) a regional qualification register and (iii) a regional qualifications framework.

Attention to TVET was given further prominence in the 2008 with Leader's calling for improved quality and access to TVET, focusing on both formal and non formal modes of training for better and resilience of Pacific people and societies and to improve their income earning and livelihoods. Similarly, the overarching Pacific Regional Human Resource Development (HRD) Plan or the Pacific Education Framework (PEDF) has TVET and Non Formal Education as two of the six national priorities for regional interventions endorsed by Forum Ministers of Education in March 2009.

The Australia-Pacific Technical College in 2007 opened its doors to the first students, fulfilling the Government's commitment to provide US\$140 million for world-class vocational education and training in the Pacific. The first student intake offered training in tourism and hospitality to fill critical skill shortages and boost employment opportunities and economic growth in the region. The college is

intended to boost essential skills in a range of vocations including automotive, construction, manufacturing and electrical trades, tourism and hospitality, health and community services. The internationally recognised courses are offered at training centres in Fiji, Papua New Guinea, Samoa, and Vanuatu.

Over the past years the Australia Pacific Technical College has consolidated itself with some 1140 students enrolled in its four campus countries. Scholarships have been awarded to students from 10 Pacific SIDS. As of 30 March 2009, 304 students had graduated from the College, which is itself currently undergoing a mid-term review to assess its effectiveness and future possibilities beyond its current funding envelope.

6.4 National and International Governance including trade and finance

Within the framework of the Pacific Plan of which one of its four pillars is governance, work supporting efforts to improve governance is done within a complex network of relationships, roles and responsibilities. Varying from country to country within the region, competing visions of sovereignty, sometimes codified in laws and constitutions, sometimes the product of strong cultural traditions and shared visions of statehood only add to this complexity.

In support of achieving stronger governance recent activities have include the following.

- Efforts to improve standards of accountability and integrity continue with ongoing work to strengthen the Pacific Association of Supreme Audit Institutions (PASAI) Secretariat. This Secretariat is responsible for supporting the sub-regional audit support programme being implemented in Kiribati, Nauru and Tuvalu.
- Work to strengthen Ombudsman functions through the Pacific Ombudsman's Alliance, including the assessment of possible sub-regional models for complaints handling in the smaller Pacific SIDS.
- Raising the awareness of the importance of Freedom of Information and ongoing efforts to fully consider the development of draft legislation to support this, including supporting infrastructure such as records keeping and records management.
- The Pacific Leadership Programme has witnessed considerable effort in the forward planning and design of a work programme to strengthen leadership in the region, and has seen careful effort to consider 'fit-for-purpose' approaches and develop a flexible strategy for engaging current and future leaders at national and local levels, and thereby seeks to focus on building both the skills and values for ethical and effective leadership.
- Ongoing support to strengthen statistics capabilities in the region utilising National Statistics Offices.
- The development of a regional human security framework for conflict prevention, supported by the recent 2008 Forum Regional Security Committee, is progressing by analysing case studies on human security in Federated States of Micronesia, Kiribati, Samoa, and Vanuatu.
- Work by PIFS, the Oceania Customs Organisation, and Pacific SIDS to implement practical options for further regional approaches including in the areas of training, model legislation, post-clearance audit and information technology, and to determine the viability of targeted customs services at sub-regional levels.
- Under the PIFS Land Management and Conflict Minimisation Project, ten studies have been commissioned which will result in the completion of a comprehensive analysis identifying ways to strengthen land tenure systems among Pacific SIDS in ways that minimise future conflict and facilitate economic development, whilst at the same time addressing national political and social situations.

In regard to **regional and international security** issues, among the benefits witnessed to date have been improvements in the region's maritime security, the strengthening of the Pacific Transnational Crime Network and increasing collaboration, through for example, the implementation of joint

activities between the Australian Anti-Money Laundering Assistance Team (AMLAT) and the United States Government funded Pacific Anti-Money Laundering Project (PALP), while enhancements in regional threat assessments will empower nations to advance regional recommendations and ease the burden created by transnational criminal activity.

Efforts have been underway to improve the ability of Pacific SIDS to comply with necessary international standards. Under SPC's Regional Maritime Programme assistance has been directed to enable countries in the region gain or retain their 'white list' accreditation, signifying compliance with internationally accepted maritime safety standards. All Pacific SIDS have complied with the International Ship and Port Facility Security Code. Ongoing work is however required to maintain compliance and this will be supported by a continuing programme of audits and other work to assist in maintaining the relevance and accuracy of necessary information. Other activities with a regional security emphasis have seen, the opening of a transnational crime units at national level as well as groups ranging from judicial to border security personnel having benefited from training and targeted capacity building efforts. In the case of the former, the training has focused on anti-money laundering and combating the financing of terrorism the latter, on improving expertise in assessing and verifying travel documentation.

6.5 Monitoring and Evaluation

The Pacific SIDS intend to respond positively and engage with the 5-year review of the Mauritius Strategy for further implementation of the Barbados Programme of Action for SIDS as called for by UNGA RES 63/213. This regional report provides part of that response and it will be supported by national assessment reports and a strong Pacific SIDS presence during the review process meetings.

Nonetheless there is the challenge of a capacity constraint, as with the Pacific Plan. The 2007 report on initial progress with the implementation of the Pacific Plan expresses concern that the gathering of information in support of the initiatives of the plan remains difficult, particularly with respect to country-level reporting. Assessment of the available information, much of which has been provided by the region's technical and donor agencies, suggests that significant work continues around the region in support of the Pacific Plan and the implementation of regional and sub-regional solutions to assist the Pacific address continuing and emerging challenges. This is balanced with legitimate and ongoing questions over capacity. The funding of desk officers in the smaller Pacific SIDS by PIFS and the continuing deployment of such resources in other Pacific SIDS, is one example that has significantly improved the flow of information.

By doing so, a clearer picture should emerge of the strengths and weaknesses and ultimately where and how assistance should be channelled. However, the lack of reporting from a number of Pacific SIDS hampers broader efforts to assist in planning, coordination and the ability of the region to provide clear and consistent advice on needs and priorities, both current and emerging.

One possible solution is to launch a stand alone monitoring and evaluation exercise. Four years into the implementation of the Pacific Plan, the region is entering a period where enough work has been done to allow for the determination and assessment of the qualitative impact of the implementation of initiatives.

6.6 Role of the United Nations Agencies in the Pacific

The UN System has three Sub-Regional Offices in the Pacific located in Fiji, Samoa and Papua New Guinea, led by UN Resident Coordinators who are representatives of the UN Secretary General in country. The UN Office in Fiji covers ten Pacific SIDS, the Samoa Office covers four and Papua New

Guinea has its own office. The UN Offices work together with UN Country Teams to coordinate the work of UN agencies, funds and programmes¹⁰ active in the region.

The UN Development Assistance Framework (UNDAF) for the Pacific Subregion 2008-2012, represents the first region-wide response to the UN operational reform process, and is a product of several partnerships in development, including between the Sub-Regional Offices and the various agencies, funds and programmes. While the UNDAF is intended to guide the majority of the work of the UN a minority of activities fall outside its objectives. The UNDAF aims to achieve the following priorities or outcomes.

- Equitable economic growth and poverty reduction.
- Good governance and human rights.
- Equitable social and protection services.
- Sustainable environmental management.

UN Joint Presence in the Pacific: Based on June 2009 estimates by the UN Development Group's Regional Directors Team for Asia and the Pacific, there are 185 international staff deployed in the region by the UN system and in addition to that 32 United Nations volunteers. The UN team in the Pacific contributes to the delivery of diverse regional and country programme portfolios with the resource volume for 2008/09 biennium estimated at US\$241.5 million, of which US\$78.8 million are core UN resources and US\$162.7 are non-core resources.

While the UN programme portfolio is dispersed across all Pacific SIDS, most of the UN staff work from Samoa, Papua New Guinea and Fiji, with a growing staff contingent also in Solomon Islands. Several other Pacific SIDS have been advocating for establishment of additional UN offices across the Pacific. In response to this initiative, three organisations of the UN system - UNDP, UNFPA and UNICEF - formed a partnership to upgrade their offices in Solomon Islands to a Joint UN Presence and to establish new Joint UN Presences in other Pacific SIDS. In September 2006 their proposal was endorsed by the UN Secretary-General.

The UNDP-, UNFPA- and UNICEF-led initiative on the UN Joint Presence Offices in the Pacific was operationalised mostly in 2008 and operates now on the basis of reciprocity. Joint UN Presence Offices have been established: Palau, Solomon Islands, and Tuvalu and ones yet to be formally launched in Nauru (UNDP lead agency); Kiribati and Vanuatu (UNICEF lead agency); and Federated States of Micronesia and Marshall Islands (UNFPA lead agency). There are 73 UN staff, both national and international, working in the new Joint UN Presences: 39 in Solomon Islands, 19 in Vanuatu, 11 in Kiribati, and 1 each in Marshall Islands, Federated States of Micronesia, Palau and Tuvalu.

The new Joint UN Presence offices are already playing a vital role in strengthened communications between UN and the host governments and for delivery of development and humanitarian assistance. Several of the presences are spearheading design of joint UN programmes in areas such as local governance and MDG monitoring. In addition, it is expected that Joint UN Presences will support respective Pacific SIDS governments in strengthening their aid management systems and overall aid effectiveness.

Kiribati One UN Fund: Kiribati is now the first country in the Pacific where the UN with assistance from its regional development partners has established a One UN Fund mechanism. This One UN Fund mechanism allows development partners to provide multi-year financing to the UN at the agencies, funds and programmes level, thus ensuring that the UN will upscale its efforts to achieve concrete development results as envisaged in the new Kiribati Development Plan (2008-2011).

¹⁰ FAO, ILO, UNAIDS, UNDP (including the Pacific Centre), UNDSS, UNEP, UNESCAP, UNESCO, UNFPA, UNICEF, UNIFEM, UNISDR, UNOCHA, UNOHCHR, UNOPS, WHO, and WMO.

In 2008, the UNCT in Fiji agreed on all arrangements and set up the necessary UNDAF Implementation Plan that forms the foundation of the Kiribati One UN Fund. The Kiribati One UN Fund arrangements have to take specific note of the remoteness, difficult operating environment and UN Joint Presence in Kiribati is led by UNICEF, on behalf of UNDP and UNFPA. After clearance by the Joint Strategy Meeting with the Government and development partners in-country in October 2008, the ToR for One-Fund for Kiribati, MoU and SAA documents were finalised in February 2009. The Kiribati One UN Fund was formally established in July 2009 when ILO, UNDP, UNESCO, UNFPA, UNICEF, UNIFEM and WHO signed the MoU. It received an amount of US\$500,000 from the Expanded Delivering as One Funding Window in August 2009 and the above seven agencies submitted various proposals for funding which were later endorsed by the Government of Kiribati.

The UNDP Pacific Centre: The Centre, currently with a staff of 16 advisers, became operational in early 2006 and specifically focuses on the fifteen Pacific SIDS while two Regional Centres in Bangkok and Colombo focus on a range of thematic areas and cover all countries in Asia and the Pacific.

The Pacific Centre services the two UNDP Multi-Country Offices based in Fiji and Samoa, the Papua New Guinea Country Office and the recently established sub-office in Solomon Islands. The Pacific Centre is designed to support UNDP Country Offices build capacity through technical and policy advisory support to the governments, civil society and regional organisations in the Pacific as well as the delivery of regional initiatives promoting regional cooperation and integration. The Pacific Centre adds value to the UN's presence in the Pacific by helping build the capacity of UNDP offices; by supporting the work of other UN agencies; and by promoting partnerships with regional inter-governmental organisations and regional NGO umbrella organisations that encourage south-south cooperation as well as the development of knowledge products and tool kits. The Centre also seeks to ensure that the development challenges of the Pacific are recognised globally and that the successes, best practices and lessons learned in the region are shared within and beyond the Pacific.

The Centre's programmes are structured around three core thematic areas: (i) MDG Achievement and Poverty Reduction; including support for HIV and AIDS response and environment and energy; (ii) Democratic Governance; and (iii) Crisis Prevention and Recovery. The Centre has also initiated two new supporting projects, in Financial Inclusion and Support for Civil Society Organisations. Human rights and gender equality have been mainstreamed through all the Centre's programmes

The ESCAP Pacific Sub-Regional Office, formerly the Pacific Operations Centre (EPOC): EPOC was relocated from Port Vila to Suva in 2005 to enable more effective collaboration with regional partners. The Centre aims to strengthen its working relations with key development partners of Pacific SIDS, including donor governments, subregional organisations and UN Specialised Agencies and Bodies in the Pacific. EPOC is contributing towards the overall UNDAF. The mission of the Centre was restated to focus on supporting Pacific SIDS in their efforts to attain their MDGs through the implementation of the Mauritius Strategy. EPOC's work focuses on: conducting research on economic and social issues relevant to policy makers; promoting regional cooperation and sharing knowledge and good practices; providing regional advisory services on economic and social policies; building institutional capacity through training workshops; assisting policy implementation through pilot projects.

Current work areas of focus include: sustainable development strategies; poverty alleviation and employment generation; the Pacific Urban Agenda; disability in the Pacific; and Pacific connectivity.

EPOC was upgraded in early 2010 to the ESCAP Pacific-Subregional Office to enhance the profile of ESCAP in the Pacific.

International Strategy for Disaster Reduction (ISDR) Subregional Pacific Office: In 2008, the ISDR established a Sub-Regional Pacific Office which is co-located with the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) in Fiji.

6.7 Role of the Regional Organisations (refer back to Chapter 3)

The Mauritius Strategy acknowledges the important role played by regional organisations in the implementation and monitoring of the Strategy. In the region the Council of Regional Organisations in the Pacific (CROP) acts to coordinate the activities of the various work programmes of its members, and by extension with the work programmes of other regional bodies. Details of the members of CROP are given in Chapter 3. The CROP members are key to the delivery of the Pacific Plan which recognises the importance at the global level of the Mauritius Strategy for further implementation of the Barbados Programme of Action for Sustainable Development of SIDS.

Chapter 7: Progress with the Millennium Development Goals (MDGs)

In the Pacific, regional reports were produced by ADB¹¹ in 2003, as well as SPC/UNDP/¹² in 2004. The first reported by country and the second by the MDGs. Subsequently several national reports have either been completed or are in draft, and a timely update was provided at the workshop on, “The Millennium Development Goals (MDGs) in the Pacific Island Countries: Taking Stock, Emerging Issues and Way Forward” held in March, 2009, in Nadi, Fiji Islands. The workshop report highlights that while there have been some gains across the region, there is difficulty in tracking progress from a regional perspective. This is largely due to uneven performance towards the goals among and within the Pacific SIDS, and also a lack of consistent and refined time-series data to support findings. During 2009, two reports^{13,14} provide summary updates on progress in the region with the MDGs. One of these reports published by the ADB is more optimistic.

In the 2008 and 2009 Pacific Islands Forum Communiqués, Pacific Leaders noted that the region has to date shown mixed progress towards the achievement of the MDGs, and agreed at their recent meeting in August 2009 there was an urgent need to establish a new development compact for the Pacific, “*The Cairns Compact on Strengthening Development Coordination in the Pacific*”, given the need to improve development outcomes, address the impact of the global economic downturn, and strengthen long-term economic resilience. The key objective of this compact will be to drive more effective coordination and use of available and projected development resources from both Pacific SIDS and all development partners, centred on the aim of achieving real progress against national development goals including the MDGs. At the national level, through the establishment of many partnerships, all Pacific SIDS have taken up the challenge of tackling the MDGs. Various task force committees have been setup to facilitate the establishment of institutional mechanisms and frameworks to permit monitoring progress towards meeting the MDGs.

The recent summary by the ADB of available MDG data for Pacific SIDS, provided by the UNDP Pacific Centre and SPC, highlights the “patchy” nature of the current data. However, in the following table there is a genuine intent at fair ranking through reference to “on track”, “slightly off track” or mixed progress, “off track” and “weak data”. The numbers in the table reflect the number of MDGs, and for each country the total equals eight.

Overall, whilst the table may indeed fairly reflect the current realities and expectations, caution is recommended given that the MDGs in Pacific SIDS are still very much “work in progress”.

Notwithstanding some positive signs there is no room for complacency. In terms of the MDGs themselves, the two goals for which two or more countries appear to be “Off Track” are MDG 6 on combating HIV/AIDS, malaria and other diseases, and MDG 7 on ensuring environmental sustainability. Progress with other goals may be “Off Track” but it is not possible to be certain as data is lacking.

Since the first regional reports in 2003 and 2004, concerns relating to the data have continued to be highlighted. Targets and indicators need to be relevant to the Pacific SIDS, data need to be readily gathered and easily understood. Appropriate data remain at best “patchy”. In several Pacific SIDS there is a substantial cause for concern as, in a variety of different areas, the suggested indicators show trends towards worsening outcomes rather than improvement. The recent workshop emphasised that

¹¹ ADB 2003: Millennium Development Goals in the Pacific; Relevance and Progress

¹² SPC/UNDP 2004, Pacific Regional Millennium Development Goals Report.

¹³ ADB 2009: The Millennium Development Goals in Pacific Island Countries: Taking Stock, Emerging Issues and Way Forward. A report prepared by ADB in conjunction with the UNDP Pacific Centre.

¹⁴ AusAID 2009: Tracking Development and Governance in the Pacific

consistent, quality, and internationally-comparable data is vital to inform policy-development and policy responses.

A 2009 Summary of available MDG data for Pacific SIDS

	“On Track”	“Slightly Off Track”, and/or Mixed Progress	“Off Track”	“Weak Data”
Cook Islands	8			
Palau	7	1		
Samoa	8			
Niue	7	1		
Tonga	7	1		
Tuvalu	4	3	1	
Marshall Islands	3	4	1	
Solomon Islands	3	2	1	2
Tokelau	3	1		4
Fiji Islands	2	5	1	
Vanuatu	2	5		1
FSM	2	4		2
Kiribati	1	3	4	
Nauru		4	2	2
Papua New Guinea		2	6	

Source: ADB 2009: The Millennium Development Goals in Pacific Island Countries: Taking Stock, Emerging Issues and Way Forward. A report prepared by ADB in conjunction with the UNDP Pacific Centre with data supplied by SPC.

The MDGs workshop held earlier this year also highlighted several gaps in the efforts of Pacific SIDS to achieve the MDGs, including low levels of economic growth, lack of policy, strategy, and resources, and of course implementation. The workshop highlighted a key gap is the fact that most Pacific governments have not estimated the cost of basic service delivery to their people. Therefore there is a need to improve the use of public expenditures by managing resources available for service delivery better, to ensure efforts are aligned with achievement of the MDGs. This is necessary, even if it is a given that at any one time, governments have MDG-related programmes in place that are financed by public funds.

The recent workshop further highlighted governance and its critical role in the creation of an enabling environment for progress. In particular, many Pacific SIDS focused on issues around integrating modern and traditional governance systems.

For many in the Pacific region the definition of poverty has been problematic. This is closely linked to the problem of capturing the essential caring and sharing and traditional social-safety net structure of the extended family with the high dependence on subsistence fishing and farming as a basis for food security. Over recent years dialogue at all levels has produced a working definition of Pacific Poverty which reflects these essentials and focuses on “hardship”.

Pacific Poverty: An inadequate level of sustainable human development, manifested by:

- A lack of access to basic services such as health care, education and clean water.
- A lack of opportunities to participate fully in the socio-economic life of the community.
- A lack of access to productive resources and income generation, and support systems (rural credit capital, markets, skills) to meet the basic needs of the household, and/or customary obligations to the extended family, village community and/or the church.

Since the earlier reports in 2003 and 2004 by the ADB and SPC/UNDP much has been said, and critics would say little progress has been made. What needs to be done remains the same, but what is

needed for success is the immediate implementation of a “Strategy for Change” that articulates actions particular to the uniqueness of the Pacific SIDS.

The ADB 2009 report re-emphasises much of what has already been said but in a present day context. Three general and long term policy recommendations to support the improvement of Pacific SIDS performance in achieving the MDGs relate firstly to leadership and direction from the Pacific Leaders through the Pacific Plan and the new Cairns Compact for Strengthening Development Coordination, secondly economic growth and development including “pro-poor” policies, and thirdly to good governance and leadership including conflict resolution.

In the short to medium timeframe specific policy recommendations to support the improvement of Pacific SIDS performance in achieving the MDGs relate firstly to in-country capacity building, secondly improving the data collection and monitoring, and thirdly to the integration of the MDGs into national budget and development processes.

The report concludes that it cannot be over-emphasised that despite some successes, overall progress has been too slow. Now is the time to accelerate progress towards the MDGs and acknowledge that for many of the Pacific SIDS, many of the goals are within reach by 2015, with strong political commitment and sufficient sustained resources. In regard to resources, the Pacific SIDS already receive high amounts of aid per capita, and in the context of sufficient sustained funding the ADB 2009 report emphasises that this is not a case for more resources. Rather, it is a call for the more effective and efficient use of existing resources, including improved coordination between donor partners and Pacific SIDS, and within Pacific SIDS themselves.

Chapter 8: Impact and Responses to the Recent Global Crises

8.1 The Global Economic Crisis

Much has been written over the past year since late 2008 on the impact on Pacific SIDS of the global economic crisis¹⁵. At first the immediate impacts were minimal as the Pacific SIDS economies were largely shielded as the region's banking system raises most of its own funds from within the region. However, at the Forum Economic Minister Meeting in late October 2009 (FEMM 2009)¹⁶ it was very evident that there were serious negative impacts, and these were expected to worsen into 2010 before improvement emerges. Furthermore, immediate actions were needed to mitigate the impacts.

Key areas impacted have been as follows.

- Reduced export commodity income; for example exports of timber from Papua New Guinea though the country had experienced a commodity price boom in recent years.
- Reduction in value and yield from government owned offshore trust funds: Marshall Islands, Palau, Federated States of Micronesia, and in particular Kiribati and Tuvalu that hold substantial stocks experienced declines of 20-30%.
- Superannuation and Retirement Schemes that have investments offshore such as Papua New Guinea and Solomon Islands, though others that have funds invested locally such as Fiji are protected.
- Reduced income from remittances particularly for Federated States of Micronesia, Fiji, Marshall Islands, Palau Samoa, and Tonga.
- Reduced demand for Pacific SIDS labour including seafarers (Kiribati and Tuvalu) as a result of decline in overseas markets.
- Reduced income from tourism as a result of reduced spending power in overseas markets particularly in the northern Pacific, Fiji, and Cook Islands, although Samoa and Vanuatu seem to be stable.
- Decline in access to and affordability of international finance.
- Slow down in aid flows.

FEMM 2009 records that besides lower economic growth, the impact of the global financial crisis in Pacific SIDS is likely to be lower income - for both households and national governments which is likely to limit the ability of governments to provide basic services, create jobs, and support vital infrastructure. It is expected that households will have reduced access to basic goods and services, and that this has the potential to increase poverty levels among vulnerable groups like women, children, people with disabilities, and the poor. This likely worsening of social outcomes threatens the recent progress made by Pacific SIDS towards achievement of national and international goals including the MDGs. The global recession is also exposing underlying structural weaknesses in many Pacific SIDS, and this is exacerbating the impacts of the economic downturn, thereby constraining the ability to effectively respond to the impacts of the recession.

FEMM 2009 agreed the importance of the following areas of economic policy response.

- Promoting and safeguarding macroeconomic stability.
- Strengthening public financial management to protect core services and the most vulnerable.
- Improving competitiveness through the implementation of economic and financial reform.

¹⁵ For example: (i) ADB 2008: *Navigating the Global Storm*; (ii) ADB 2009: *Taking the Helm*; and (iii); *Surviving the Global Recession: Strengthening Economic Growth and Resilience in the Pacific* Joint Australia/New Zealand Report 2009

¹⁶ http://www.forumsec.org/_resources/articles/files/2009_FEMM_Action_Plan_Final.pdf

- Working in a coordinated way with development partners to give the region its best opportunity to weather future shocks and provide a platform for sustainable growth.

FEMM 2009 also stressed the importance of timely, appropriate and coordinated responses from development partners in support of the efforts of Pacific SIDS to address the impacts of economic shocks, and endorsed possible types of assistance to be considered by development partners.

- Project and infrastructure lending on more accessible basis and with an increased grant element, including through new multi-partner mechanisms such as the Pacific Region Infrastructure Facility.
- Budget support in targeted areas, which will implement priorities of Pacific SIDS contained in their national development plans.
- Balance of payments support to help Pacific SIDS under protracted distress to alleviate excessive economic stress as they attempt to improve adaptability of their economies.

The joint Australia-New Zealand report suggests the following components for a strategic response to the global economic crisis.

Safeguarding macroeconomic stability through the following.

- A sustainable fiscal policy and public sector debt position.
- A sustainable balance of payments position and comfortable level of external reserves.
- A competitive exchange rate.
- Low inflation.
- Sustainable draw-downs for Pacific SIDS dependent on offshore trust accounts for budgetary revenues.

Strengthening budgetary management, protecting core services, and assisting the vulnerable through the following.

- Reprioritised budgeted expenditure and reduced expenditure on lower priority items; to reduce or redirect expenditure in line with a sustainable fiscal position.
- Protecting and strengthening core service delivery, particularly in health, education, and basic economic services.
- Strengthening the effectiveness of revenue collection.
- Strengthening the efficiency and effectiveness of public expenditure.
- Improving financial management and accountability in the budget process.

Improving competitiveness and broad-based growth and resilience through the following.

- Reforming the operation of inefficient and loss-making state-owned enterprises and improving their accountability within budget processes.
- Introducing competition and appropriate regulation in sectors where monopoly service provision is not delivering service outcomes required.
- Reducing government involvement in economic activities and delivery of services better able to be delivered by the private sector.
- Strengthening the role of non-government actors (private sector, churches and community groups) to deliver services effectively in partnership with government.
- Addressing red tape and reducing the costs of doing business for the private sector.
- Improving the legal and regulatory environment.

Strengthening development coordination and effectiveness through the following.

- Ensuring responses follow established aid effectiveness principles and practice, as set out in the Paris Declaration 2005, the Pacific Aid Effectiveness Principles 2007, and the Accra Agenda for Action 2008.

- Using individual country policy frameworks to engage with development partners (donors and development finance institutions) so development assistance is better coordinated and supports country-led responses to the global recession.
- Development partners prioritising and repositioning their support in response to country requirements.

8.2 The Global Fuel and Food Crises

Since the Mauritius Meeting in January 2005, world oil prices which were at the time US\$40-50 per barrel have both risen and fluctuated dramatically. During the course of mid-2007 through mid-2008 the price of oil on the international markets rose by almost 100%, and peaked at just over US\$140 per barrel mid-2008 (Current price US\$76 December 2009). Although partly mitigated by the fall in the value of the US\$ against regional currencies, this big increase in oil prices has had a significant impact on prices in the Pacific SIDS where transport costs have a large influence on cost of living at all levels.

By way of example, in July 2008 the Marshall Islands government declared a state of “economic emergency” over the energy crisis, and in an attempt to avert a potential shut down of power to a population of 54,000 people. Despite power charges having quadrupled over the previous two years income generated was only US\$1.3 million/month compared with the actual costs of US\$2.8 million/month to run the diesel generators in the two main urban areas and on three outer islands. Whilst there was diesel “on island” for two months, US\$8.5 million was needed immediately to pay for the latest shipment and provide a down payment for the next shipment. Government could not raise these finances, and future predications indicated an annual shortfall of between US\$17-21 million, equating to 20% of the national budget.

SPC reports that many Pacific SIDS reported the lowest fishing catches ever in 2008 as boats could not afford the fuel to go fishing.

Similarly, there have been sharp increases in the price of wheat and rice, both staple and imported food items for many Pacific SIDS. Over the one-year period to March 2008 the world wheat price rose by 130% and for rice 98%. These rises have had a major impact on consumer price indices, and of course on the ability of consumers to meet the costs of basic food needs. This is especially true of those in urban centres where access to home-grown foods is limited. In addition to this, the costs of many local food items have risen sharply in recent years. In September 2008, for example, there was a severe rice shortage in Nauru (population around 10,000) and the minister responsible under the new Prices Regulation Act imposed both price and quantity restrictions on the sale of rice. These restrictions were effective in ensuring the orderly distribution of rice at non-inflated prices to the community.

A statement by SPC at the UN-sponsored World Food Summit in 2008, in Rome, emphasised that over the past few decades Pacific islanders have become increasingly reliant on imported staples such as rice, flour and noodles and are vulnerable to global price increases as a result. This is especially true for atolls where limited land, water and poor soils make it difficult to grow much beyond breadfruit, taro and coconuts. Reliance on imported food has also caused deterioration in the diets of Pacific islanders and rates of obesity and diabetes are amongst the highest in the world. The current crisis could lead to further deterioration if consumers respond by switching to cheaper, lower quality food items. However, the current crisis also presents the Pacific with an opportunity. Many Pacific SIDS are blessed with a rich diversity of traditional staples such as taro, cassava, sweet potatoes, breadfruit and yams which are not as important in global trade as some of the imported commodities on which the Pacific has come to rely. Increased production of these local foods could help to limit the impact of rising prices. Pacific leaders are responding to the current situation by calling on people to grow more local foods. President Manny Mori of the Federated States of Micronesia maintains that ‘for too long our children have been fed on rice as staple food because of the convenience of preparation and storage. We have neglected our responsibility and even contributed to their lower health standards by failing to teach them to appreciate the natural food and bounty of our islands’. Fiji has launched a

'Plant Five a Day' campaign in an effort to encourage more people to plant in their gardens. Samoa has launched "Talomua or First Harvest" to encourage planting of food crops.

In the context of the Pacific Plan and food security, SPC has carried out an assessment of the impacts of climate change on food security and in particular on fisheries and aquaculture, PIFS has carried out work on trade-related issues, and planning has commenced for a Regional Food Summit scheduled for 2010.

The impacts of these crises in the region, and in particular on children and women as most vulnerable groups has been reported by UNICEF in conjunction with the UNDP Pacific Centre ¹⁷

Global price rises in fuel and food are manifested by: high inflation rates; increased transportation costs; increased share of GDP going to food and electricity generation and away from social services; difficulty in maintaining balance of payments; reduced financial reserves; increased cost of electricity; rationing of electricity (for example in Solomon Islands where rationing reached 48 hours in some places); temporary closure of schools for non-payment of bills (Kiribati); decreasing level of remittances from relatives living outside Pacific SIDS; increased child labour; less borrowing from micro-finance institutions implying reduced disposable incomes; and increased prices of domestic foods.

Global fuel and food price increases on households and nations will result in: a continuous struggle to meet essential daily or weekly living expenses – leading to possible violations of many human rights; competing needs that may favor purchase of fuel and cheap, substandard food at the expense of education, health care, and nutritious foods; increasing hardship and poverty; further declines in remittances from seafarers and relatives abroad; increased migration to urban areas, including squatter settlements – accompanied by further reductions in income generating activities and employment opportunities; potential for civil unrest and political instability; and retarded socio-economic development.

Specific impacts on women and children are likely to be: decreased quantity and quality of food (skipped meals etc); micronutrient deficiencies – increasing vulnerability to illness and death; low birth weights, underweight, stunting and wasting – high risks to death; increased student drop-outs (no fees, cannot afford lunch, have to engage in income generating activities, etc); increased child abuse and exploitation; pressure on fragile health and education systems (government withdrawing funds from social services to economic sectors) with women and children most affected.

In seven Pacific SIDS, Federated States of Micronesia, Kiribati, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu, almost 50% of household expenditure among low income households goes on food, even in rural areas. As food prices increase, a number of scenarios may unfold including: households divert expenditure away from such items as school fees and health care towards food; and/or households consume less food, less frequently; and/or households turn to cheaper, less nutritious products (if these are available); and/or households increase subsistence food production (if this is feasible – unlikely in urban areas).

8.3 The Global Crises in Summary

A revealing summary of the broad impact of the fuel, food, financial crises is provided by the UNICEF and UNDP Pacific Centre 2009 Report.

¹⁷ *Situation Reporting: Food Price Increases/Nutrition Security in the Pacific Islands*: UNICEF Report, July 2008 and: *Protecting Pacific Island Children and Women during Economic and Food Crises: Working Edition One for Advocacy, Debate and Guidance* UNICEF and UNDP Pacific Centre July 2009

In the Pacific, only Timor-Leste, Papua New Guinea and possibly Vanuatu will continue to sustain positive economic growth while other Pacific economies will slow down or contract. It is possible that the full impact of the global economic crisis has not yet been felt in the Pacific. On the positive side, this gives countries a small window of opportunity to put together more thoughtful and effective policies. On the negative side, this means that the impacts may be even larger in 2010 than in 2009. Even if the global economy picks up in the second half of 2010, as the most recent forecasts suggest, lags mean that economic conditions will be tough in the Pacific in 2010 and it may take until 2011 for the Pacific economies to fully recover.

The transmission channels of the crisis to the Pacific are broadly similar to other parts of the world (reductions in exports, remittances, etc.). In addition, countries with trust funds invested in international financial markets have seen the value of their funds drop which will likely reduce income streams to national budgets. The close association with the economies of Australia and New Zealand also means that downturns in these two countries will negatively affect several Pacific SIDS.

There are substantial levels of poverty and hardship in the Pacific with one in four households and almost one-in-three of the population already below the respective national poverty lines. Early indications are that levels of poverty are set to increase due to the economic crisis and other factors specific to particular countries.

Those most likely to experience the greatest degrees of hardship and poverty will be: (i) the young, (ii) the old, (iii) people living with disabilities, (iv) those who had no source of regular income, or (v) those with no access to adequate land on which to grow food for consumption and/or sale. Households headed by women and the elderly will be very vulnerable and children in female-headed households are likely to be especially disadvantaged.

The economic crisis might also create new categories of those facing hardship and poverty including: the urban poor who rely on purchasing their food; small-holder and subsistence farmers; front-line workers if their salaries are either reduced or not adjusted to keep up with higher commodity prices; low-skilled workers, internal-migrants, and immigrants; communities or groups who have been excluded from access to productive resources, decent work and social security, or displaced due to environmental degradation, disasters, or discriminatory land-use policies.

The central lesson

In every previous economic crisis it is the poorest people in developing countries who suffer the most and not enough is done to help them. They are forced to respond with measures that keep them poor and lower future income-earning potential, resulting in persistent poverty. The impact on children and women as particularly vulnerable groups is key.

Likely impacts on Pacific island children

- Around 18,000 children under five years of age still die every year in the Pacific region (13,000 in Papua New Guinea, 2,500 in Timor Leste, and 2,500 in the other Pacific SIDS)—50 deaths a day; one death every 30 minutes. Four out of five of these children are under one year of age. Unless reversed, the economic crisis could result in an increase of between 400 to 800 Pacific island child deaths annually—two more deaths every day than is currently the case. By 2015, an additional 5,600 Pacific children under five could have died if the crisis persists; this equates to about the same number of all reported child deaths in all natural disasters occurring in the Pacific since 1950 (excluding Timor Leste). Globally, girl children are more at risk in economic crises.
- More Pacific island children will become more malnourished, with long-lasting consequences.
- Government health expenditures will likely decline in real per capita terms. Even where health is prioritised within the overall budget, real health spending per capita may still fall. The demand on public services will increase at a time when funding for such services will diminish. Where health insurance schemes exist, households may no longer be able to afford health insurance or may become ineligible. Where private health care systems exist, users may switch from the private

- The gains in education made by Pacific SIDS are now under threat. More Pacific island children may not enroll, drop out of school or experience declines in the quality of education. If education budgets decline, teacher salaries may be delayed and public money for new school buildings, school repairs and school inputs such as teaching supplies may be greatly reduced compromising quality. Where students incur some direct schooling costs, however small, poorer students may be pressed to forego schooling to earn income or to substitute for adult home production. Large youth populations combined with school drop-outs already make youth employment a major concern for this sub-region with the crisis only set to increase levels of youth unemployment. If enrollments and learning levels deteriorate during the crisis, Pacific SIDS may lose a competitive head-start when the global economy recovers. There are also sinister long-term impacts of deteriorating education outcomes affecting future economic growth
- Abuse and exploitation of and violence against women and children, while difficult to measure, rise under conditions of economic stress. Evidence of severe forms of child labour are scarce and there are reportedly few street children in the Pacific, but the current crisis could propel children from school into the labour force (especially boys) or to shoulder more household tasks (especially girls).
- Child workers already make up an estimated 19% of the labour force in Papua New Guinea and 14% in Solomon Islands. Recent research across a range of Pacific SIDS suggests various forms of child abuse, violence and exploitation exist alongside significant levels of sexual violence against children. There is also evidence that parental neglect of children is on the rise. There is a significant danger that hidden impacts—hazardous work, increases in violence and decreases in nurture, care and emotional wellbeing—may not be addressed, owing to their invisibility.
- The global crisis may adversely affect HIV and AIDS prevention programmes in the Pacific with the most adverse effect on prevention efforts among high risk groups—most at risk and especially vulnerable adolescents, sex workers, military personnel, maritime workers, and men who have sex with men.

Likely impacts on Pacific island women

- More Pacific island women will die in childbirth. Maternal mortality is already a serious concern across the Pacific. Universal access to high quality obstetric care at birth must be accelerated if maternal mortality is not to worsen.
- The impact of the crisis will be felt by both men and women, but not necessarily in the same manner.
- Empirical data on the impacts of financial crises on women is limited but evidence to hand indicate women are more vulnerable. Mounting evidence shows that gender inequality leads to major losses in economic efficiency and human development.
- Access to micro-credit schemes may diminish, further compromising women's businesses and their ability to cope during difficult times.
- During difficult times, families often rely on women to take care of the sick, elderly and the extended family, even when women are already engaged in paid-work.

Chapter 9: A Way Forward for the Region

The purpose of this chapter is to provide a summary of the challenges, trends, and emerging issues. It is anticipated this chapter will serve as a strategy for Pacific SIDS delegations during the MSI+5 review meetings.

This Regional Report and National Assessment Reports and the outcome of the Vila Meeting should also inform preparations for the UNGA high-level review of the Millennium Development Goals, the UNGA high-level session on biodiversity conservation and the 10th Conference of the Parties to the Convention on Biological Diversity, recognising that this MSI+5 review is taking place in this International Year of Biodiversity. These meetings will be convened later in 2010.

Vision of this Strategy for a Way Forward (Taken from the Leaders Vision in the Pacific Plan)

Pacific SIDS believe the region can, should and will be a region of peace, harmony, security and economic prosperity, so that all of its people can lead free and worthwhile lives. We treasure the diversity of the Pacific and seek a future in which its cultures, traditions and religious beliefs are valued, honoured and developed. We seek a Pacific region that is respected for the quality of its governance, the sustainable management of its resources, the full observance of democratic values and for its defence and promotion of human rights. We seek partnerships with our neighbours and beyond to develop our knowledge, to improve our communications and to ensure a sustainable economic existence for all.

Purpose of this Strategy for a Way Forward

To contribute, through the MSI+5 review process, and related high level meetings taking place during 2010 to developing and strengthening ongoing and new commitments from the international community to assist Pacific SIDS with further implementation of the MSI, including the new and emerging issues, at all levels in the Pacific Region, and with particular emphasis at the national level.

General Statements

We, the Pacific SIDS, share a common unique identity, and reaffirm that we have a responsibility for the stewardship of our large Pacific Ocean, small and often very small islands, and resources. Our ecosystems contain high biological diversity that has sustained the lives of Pacific communities since first settlement. They contain the most extensive coral reefs in the world, unique landforms, globally important fisheries, significant on land and seabed mineral resources, and high numbers of endemic species. We believe our region may also contain many undiscovered resources of potential use to humankind. Threats to the natural resource base are also diminishing the ability of Pacific SIDS to respond effectively to the impacts of climate change. The meeting agreed that measures necessary to build up the resilience of ecosystem services will be integral to achieving developmental goals.. To safeguard Pacific communities and maintain the health of our ecosystems, in perpetuity, it is imperative that we apply the precautionary approach as outlined in the Rio Declaration, Principle 15.

We acknowledge the acceptance by the international community of the “special case for SIDS” and the support we have had over past years in assisting us to address our needs in this context. However, we wish to emphasise that the “special case” has not diminished, in fact our social, economic and environmental vulnerability is increasing whilst our capacity to build resilience is not. We therefore seek a renewed commitment by the international community at all levels in partnership with us to address this overarching commonality embedded in the “special case” for sustainable development

through enhanced implementation of the MSI and addressing the new and emerging issues, especially those resulting from the recent global fuel, food and financial crises.

We reiterate that sustainable development of our region is fundamental to the well-being of our future generations and is a responsibility we undertake to continue to embrace. This is reflected, and must be acted upon, in our national development plans and the Pacific Plan. We recognise that there is a need to strengthen self-reliance, build on internal strengths, and commit domestic resources to strengthen our capacity for national action.

We express deep concern that relative poverty is increasing in some parts of the region and includes the poverty of hardship, noting that abject poverty is increasing and must be addressed especially in urban areas and squatter settlements. We undertake to renew and strengthen our efforts to work towards the achievement of the MDGs.

We reaffirm the special role played by women, youth and the disabled in sustainable development, and the importance of ensuring through targeted interventions, resources and monitoring and evaluation frameworks that decision-making processes for sustainable development demonstrate gender equality and are inclusive of disadvantaged groups.

We re-emphasise the need to build on Pacific traditions and to strengthen the use of culture and history in the development of strategic planning processes for sustainable development.

We recognise the need for greater support from and coordination with the international community for better implementation of actions at the national level through implementation of the Pacific Aid Effectiveness Principles (2007). In this context we recognise our responsibility for establishing robust national monitoring and reporting procedures, however in many instances we lack the national capacity and seek the support of the international community to assist us in streamlining these national reporting responsibilities so we can use one robust process to fully cater for the requirements of all our development partners.

We recognise that any blue print for sustainable development should be a living document, in particular to incorporate new and emerging issues and concerns, and we are happy to present this Pacific Regional Assessment Report as a comprehensive summary of the needs for further work in the region towards further implementing the MSI.

Challenges, Needs and Priorities for further Implementation of the MSI

What follows is a summary of challenges, needs and priorities gathered together from the previous substantive chapters of this voluminous report. Readers are referred to the relevant sections of the report for further details.

Strengthening of National Enabling Environments

Bearing in mind particularly the call by Pacific Leaders, through the Pacific Plan, for the establishment of national sustainable development strategies (NSDS) or the like, a challenge remains, and to ensure that in regard to improving the national enabling environment Pacific SIDS need the support of the international community to progress this work. Success at the national level might be an outcome that includes, but is not restricted to the following.

- Visible long term national strategic vision, linked to medium term goals/targets, and short term actions.
- Visible, operating linkages of coordination “horizontally” across sectors.
- Visible, operating linkages “vertically” of local to national and to international policy and governance efforts, and that these linkages are supportive.

- Visible and operating national and regional policies developed that address science and technology and the protection of natural resources as tools to support sustainable development and build resilience to the impacts of climate change.
- Streamlined, efficient and effective national effort to link NSDS, MDGs and other related global commitments.
- Genuine partnerships operating between government, development partners, the private sector, the NGOs, and the community at large.
- Sustainable financing including through an increased allocation of domestic resources for NSDS or the like, that contributes to social and economic development and environmental protection and adaptation activities.

Immediate and Sustained Response to the recent Global Crises

Recognising that besides lower economic growth, the impact of the global financial crisis in Pacific SIDS is likely to be lower income - for both households and national governments which is likely to limit the ability of governments to provide basic services, create jobs, and support vital infrastructure, and this likely worsening of social outcomes threatens the recent progress made by Pacific SIDS towards achievement of national and international goals including the MDGs, a challenge is for each of the Pacific SIDS to establish and implement a strategic response to the global economic crisis, supported as necessary by CROP organisations and development partners, that includes actions to:

- Safeguard macroeconomic stability.
- Strengthen budgetary management, protecting core services, and assisting the vulnerable.
- Improve competitiveness and broad-based growth and resilience.
- Strengthen development coordination and effectiveness.

The Millennium Development Goals

Now is the time to accelerate progress towards the MDGs and acknowledge that for many of the Pacific SIDS, many of the goals are within reach by 2015, with strong political commitment and sufficient sustained resources, and the more effective and efficient use of existing resources.

Three general and long term policy challenges to support the improvement of Pacific SIDS performance in achieving the MDGs are the following.

- Leadership and direction from the Pacific Leaders through the Pacific Plan and the new Cairns Compact for Strengthening Development Coordination.
- Economic growth and development including “pro-poor” policies.
- Good governance and leadership including conflict resolution.

In the short to medium timeframe specific challenges to support the improvement of Pacific SIDS performance in achieving the MDGs are the following.

- In-country capacity building.
- Improving the data collection, processing, and monitoring.
- Integration of the MDGs into national budget and development processes.

Climate Change

Of key importance following the disappointing outcome of UNFCCC negotiations at Copenhagen in 2009 the Pacific SIDS need to ensure that the political and public profile created in Copenhagen can be translated into a binding and ambitious international agreement on climate change. Furthermore, Pacific SIDS need to ensure they remain engaged in the international process for the design and development of the various new financing mechanisms to ensure appropriate access to and maximum utilisation of these resources to support national actions to combat climate change.

Ongoing challenges remain to develop and strengthen actions at all levels to fully and effectively implement the initiatives called for in 2008 by Pacific Leaders in the Niue Declaration on Climate Change which highlights the serious impacts of and growing threat posed by climate change to the economic, social, cultural and environmental well-being and security of Pacific SIDS, and that current

and anticipated changes in the Pacific climate, coupled with the region's vulnerability, are expected to exacerbate existing challenges. These challenges included necessary actions to:

- develop Pacific SIDS-tailored approaches to combating climate change including cost-effective solutions to protect the natural environment;
- advocate and support the recognition, in all international fora, of the urgent social, economic and security threats caused by the adverse impacts of climate change and sea level rise to the territorial integrity and continued existence as viable dynamic communities;
- continue to meet the individual needs of Pacific SIDS through: (i) strengthening meteorological services, (ii) consolidating and distributing information on climate change, (iii) strengthening adaptation and mitigation measures, and (iv) increasing Pacific SIDS capacity to manage their engagement in the UNFCCC; and to secure new and additional financial and technical resources to do this work;
- increase technical and financial support for climate change action on adaptation, mitigation and, if necessary, relocation,
- increase investment in and support for Pacific SIDS efforts to move towards alternative and renewable energy sources,
- undertake immediate and effective measures to reduce emissions, use cleaner fuels, and increase use of renewable energy sources;
- adaptation is a critical response for Pacific SIDS, and requires urgent support from regional agencies and development partners alike, including though timely access to mechanisms such as the Climate Adaptation Fund of the Kyoto Protocol;
- continue to address the impacts of climate change through 'no regrets' or 'low regrets' actions in affected sectors that are already facing development challenges, including food and water security, health, and the capacity to deal with extreme events such as tropical cyclones, flooding and droughts;
- incorporate adaptive strategies into their national sectoral planning, and that this integration will require a high degree of whole-of-government coordination and leadership.
- support the implementation of the commitments of the Niue Declaration, consistent with the Pacific Plan, the Pacific Islands Framework for Action on Climate Change 2006-2015, and other existing regional and international initiatives in particular the Kyoto Protocol, including examining the potential for regional climate change insurance arrangements, and building regional expertise in the development and deployment of adaptation technologies.

Natural and Environmental Disasters

Significant challenges remain for establishing effective disaster risk management in Pacific SIDS. Support is needed to fully and effectively implement the actions called for in Pacific Disaster Risk Reduction and Disaster Management Regional Framework for Action 2005 – 2015, and drawing on the strengths and the opportunities provided through the Pacific Disaster Risk Management (DRM) Partnership Network to do so. These efforts should ensure disaster risk management is mainstreamed and sectoral plans as a minimum must be 'disaster proofed' through, an 'all hazard approach' to disaster risk management.. At the same time work at the national level efforts to link the activities being promoted through the regional frameworks for climate change and disaster risk reduction should be streamlined.

Early warning systems in Pacific SIDS lack basic equipment, skills and financial resources and are for certain hazards are even non-existent. A major challenge is to integrate the knowledge and insight of relevant social and economic communities into the predominantly technically based existing systems, and address one of the weakest elements, the dissemination of warnings and building preparedness to respond in often remote communities.

Waste Management

A major challenge remains due to the lack of commitment by governments of Pacific SIDS and other stakeholders such as the private sector, to ensure the management of waste is prioritised through the development and implementation of strategies and plans of action.

Fisheries

Develop and strengthen actions at all levels to fully and effectively implement the initiatives called for in 2007 by Pacific Leaders in the Vava'u Declaration on Pacific Fisheries Resources "Our Fish Our Future"...which reaffirmed the importance of fisheries to the economies of all Pacific SIDS, and committed to the following actions.

- Promoting domestic fisheries, in particular the development of national tuna industries.
- Fully implementing without delay the tuna fishery conservation and management measures developed and endorsed by the WCPFC.
- Protection of high seas biodiversity and the conservation and management of non-highly migratory fish stocks in the Pacific Ocean.
- Effective participation in the negotiations to deliver a best-practice South Pacific Regional Fisheries Management Organisation to ensure sustainable deepsea bottom trawling.
- Development and management of coastal/inshore fisheries and aquaculture to support food security.

Actions are also needed to ensure compliance with sanitary and phytosanitary measures of overseas markets for fish.

Extended Continental Shelf

A major challenge remains despite the submission of the claims and governments cannot afford to consider the matter closed. Partial submissions will need to be completed and all claims must be successfully defended when reviewed by the UN Commission on the Limits of the Continental Shelf. This major challenge will be compounded by the lengthy timeframe involved and the UN agencies involved should be urged to make all efforts to speed up the process.

Seabed Mining

A particular challenge exists in respect to the provision of national regulatory frameworks for sustainable seabed mineral mining in Pacific SIDS since existing legislative instruments that govern the Territorial Sea, EEZ, and continental shelf of individual Pacific SIDS generally lack robust legal frameworks governing seabed mineral resources and are silent on the management of these resources.

Water and Sanitation

Whilst there has been a period of unprecedented growth in support of water and sanitation activities in the region there remains a real challenge to secure adequate financial resources to continue into the future as many of these activities are project funded. These activities are supported by a number of strategic documents including the Pacific Wastewater Policy and Wastewater Framework for Action (2001); the Pacific Regional Action Plan on Sustainable Water Management (2002) and the Pacific Framework for Action on Drinking Water Quality and Health (2005). There is also a need to further develop and strengthen the Pacific Water Partnership on Sustainable Water Management to ensure the continuation of a coordinated and strategic approach to water and sanitation activities in the region.

A particular challenge remains in regard to developing and strengthening national capacities for hydrological services, as most Pacific SIDS have yet to fully implement installation and undertake field activities on a regular and robust basis to enable the measurement of stream flows, drought sequences and floods, together with carrying out regular simple, reliable and robust water sampling and analyses.

Agriculture and Forestry

To ensure productive access to and use of land, a challenge for Pacific SIDS remains the need for national land reform that is both based on and sensitive to continuing customary ownership, by

facilitating a better interface between indigenous and western science and information to ensure sustainable land use.

Address the broad challenges identified in the Second Regional Conference of Ministers of Agriculture and Forestry Services 2008 including the following.

- Governments, communities and development partners need to work together to address food security, and the adverse impacts of climate change, including through recognising the special circumstances of the new Centre of Excellence for Atoll Agriculture Research and Development in the Pacific, and support for the Pacific Regional Food Summit in 2010.
- Ensure a higher priority in national budgets and regional programmes towards developing agriculture and forestry, in order to secure the financial and human capacity necessary to respond to changing needs.
- Support an integrated approach to guide delivery of services and meeting the many challenges identified.
- Recognise the potential benefits of greater involvement of Pacific youth and women in the agriculture sector, and support the development and implementation of a Pacific Youth Strategy.
- Recognise the contribution that trade makes to food security, and target support at investment and strengthened public-private sector partnerships; agro-biodiversity, livestock, traditional crops and production systems; and strengthening customary food security mechanisms.
- Strengthen support to expand trade in island agricultural and forestry products, including promoting the Pacific Organic Standard.

Mining

A major challenge is to ensure sustainability of aggregate mining whilst at the same time ensuring affordability. Pacific SIDS need to ensure accurate and timely records are kept of volumes of aggregate mined, the sources, and the costs.

Challenges in the minerals mining sector include the following.

- Improve national capacity for policy and legislation formulation, negotiations with transnational corporations and evaluation of mineral sector projects.
- Ensure full cost-benefit analysis and environmental impact assessment (EIA) are undertaken.
- Establish fair and transparent compensation systems that fully compensate all natural resource loss.
- Progress, legislate, and manage national mineral policy frameworks and environmental management plans.
- Develop institutional capacity in Pacific SIDS to deal with mining tenement issues.
- Develop national and regional mineral databases.
- Increase stakeholder participation in all forms of discussions/negotiations regarding access to and exploitation of mineral sector projects.

Energy Resources

Develop a coordinated programme of action to delivering renewable energy and energy efficiency into the region. This should take into consideration the Regional Energy Ministers and Officials Meetings in 2007 and most recently in 2009 that called for the following specific actions to address the challenges in the energy sector and national and regional levels.

- Strengthen human capacity development initiatives to support national and regional energy programmes including gender mainstreaming and with a focus on development of apprentice schemes for power utilities and alternative energy technologies.
- Support the development and/or strengthening of national actions that would facilitate investment in sustainable renewable energy technologies and in energy efficiency and energy conservation initiatives, including focus on minimum energy performance standards and labelling.

- Review and as appropriate strengthen national capacity in energy data and information gathering and collation, management, dissemination and, analysis on economics, social and environment to better inform national and regional energy planning and policy choices.
- Incorporate into national energy policy and action plans, and regulatory frameworks priority actions to: encourage private sector participation; include economic analysis of options and funding requirements and responsibilities; safeguard the environment and livelihoods; and encourage investment in maintaining ecosystem services that support energy development in order to ensure that energy initiatives are progressed.
- Encourage Pacific SIDS to set voluntary, realistic renewable energy and energy efficiency targets consistent with their national development plans and priorities and, share experiences and expertise particularly, on emerging opportunities and lessons learned, including in relation to innovative financing models.
- Encourage support for the development of biofuels production and use where economically viable, and acknowledge the need to consider energy and agriculture impacts (particularly food security), as well as the assessment of impacts on the environment.
- Review the Pacific Islands Energy Policy and its associated Action Plan, and support its further implementation.
- Strengthen gender mainstreaming into national and regional energy initiatives in line with the Pacific Energy and Gender Strategic Action Plan 2009 2014.

Tourism

In the tourism sector the main challenge for the government, private sector, and policy makers in Pacific SIDS is to plan and manage tourism development effectively in order to ensure sustainability. However, this leads to yet another set of challenges. Many stakeholders with divergent interests must be brought together to reach a common understanding of the balance between present and future benefits, the negative impacts and how to minimise them, and the interrelationship between human activities and the natural environment. Multistakeholder participation in open and transparent processes is therefore critical in achieving sustainable development of the tourism sector

Biodiversity

Because of the small land area and the reliance on biological resources, the challenge is to integrate the protection of essential ecosystem processes and constituent biodiversity elements into the context of sustainable use. Biological diversity of an area can only be protected with the full involvement of the people living in the area, which is limited by access to financial and technical resources to support effective increased biodiversity conservation efforts at a village level. It can also only be protected with the full engagement of key decision makers and use of decision making processes at higher levels that effectively consider and address the consequences of proposed actions on the living things that underpin the systems that are being exploited.

National Biodiversity Strategic Action Plans (NBSAPs) have been prepared for most Pacific SIDS. A review of them identifies a number of common challenges.

- Community – empowerment, awareness, involvement, ownership and benefits.
- Protection of traditional culture and practices; indigenous property rights.
- Improving knowledge, research, education, public awareness.
- Developing and managing protected areas, habitats.
- Species conservation – terrestrial, coastal and marine, and agrobiodiversity.
- Management of invasive species and genetically modified organisms.
- Capacity building and training, governance.
- Sustainable economic development, sustainable use of resources.
- Mainstreaming conservation.
- Lack of financial resources.
- Waste management.
- Climate change.

Transport

Despite substantive efforts, the provision of reliable and effective air and maritime services remains a challenge, in order to reduce trade costs and decrease the barriers that distance places on the Pacific.

For aviation there remain challenges: to address the reticence of the benefits of air service liberalisation among governments not having signed PIASA; in terms of security, while considerable work has been done to improve standards more work remains to ensure compliance with ICAO standards. Funding concerns continue to create some anxiety for the longer-term.

For shipping a broader range of challenges include, the effects of growing international piracy, seafarer employment, training requirements and international legal issues. Due to the growth in cruise shipping in the there are emerging needs to address the following challenges.

- Enhance coordination of maritime statistics.
- Develop legal frameworks for ocean-going pleasure craft.
- Establish standard reporting formats for use throughout the Pacific for ocean-going pleasure craft.

With two major shipping accidents in the region in 2009, one in Kiribati and the second in Tonga, there is an urgent challenge for accident investigation guidelines to be developed, long range identification tracking to be promulgated, and the regional agreement on search and rescue to be translated into tangible assistance with a database of contacts and incidents.

Communications

As called for at the Communications Ministers Meeting in 2009 there is an urgent need to address the challenges associated with the following.

- Ensuring affordable domestic and international connectivity in Pacific SIDS.
- Continuing reforms to policy, regulatory and financial frameworks.
- Addressing cyber-security and ICT applications.
- Making use of ICT technology to better respond to disasters.
- Prioritising human resource development across the sector recognising the contribution to be made from the establishment of the Regional Regulatory Resources Centre.

Health

Dengue is identified as a major communicable disease problem in the region resulting in significant morbidity and severe economic losses, the challenge to establish effective surveillance systems is recognised as a key issue related to dengue, as well as other new and emerging diseases.

In an effort to address the challenges associated with the impacts of NCDs support is needed for the Joint Management Committee to oversee the Pacific NCDs Framework.

In an effort to address the increase in HIV/AIDS and other STIs, the current challenge is to ensure the success of the second cycle (to 2013) of the Pacific Regional HIV Strategy, its implementation plan, and the Pacific HIV and STI Response Fund established and made operational with the disbursement of funding to governments, regional partners and civil society to support activity implementation. Other key challenges include the development of targeted STI communication strategies in many Pacific SIDS and the establishment of a 'Universal Access Policy Framework' to ensure adequate supplies and distribution of condoms and the availability of treatment for HIV and other STIs throughout Pacific SIDS.

There is a challenge to support the establishment of a regional food fortification programme supported by a Pacific Fortification Partners Group, whose first step would be to establish regional fortification standards for selected foods, considering not only iron and folate but also iodine, vitamin A and fluorine deficiencies.

There is an urgent challenge to address the skill mix imbalances within and between occupational groups in Pacific SIDS. Although the majority of the health workforce in the region are nurses (more than 50% in most Pacific SIDS, the numbers are not sufficient to meet the primary health care needs of the majority of people who live in rural areas.

There remain challenges associated with the bulk procurement of pharmaceuticals, and sustainable financing for the provision of health services.

Science and Technology

The Pacific is deeply concerned that neither SIDS Net, nor the SIDS Roster of Experts functions of the SIDS Unit of UNDESA have been effective over the past 5 years, and strongly recommends that UNDESA secure funding to re-activate these functions in addition to that recently announced by Spain.

There is a challenge to fully utilise the new initiative Vai Pasifika, the joint e-newsletter of the Pacific islands climate, ocean, and water observing systems which aims to provide stakeholders working within the context of national sustainable development strategies with relevant up to date scientific and technical data.

Support is needed for the Action Plan to assist Pacific SIDS implement the regional model framework for traditional knowledge protection which was endorsed in 2008.

Trade

The integration of the region's economies presents significant opportunities to raise living standards for all Pacific SIDS, challenges however remain. Among them, the slow pace at which regional trade agreements are being implemented, the continued need to develop private sector participation in the formal economy and much needed regulatory reform. The lack of capacity among Pacific SIDS to engage on a range of trade issues has been hampered by the ongoing challenge of developing national positions on various issues as well as the ability to translate regional commitment into supporting national legislation.

Sustainable Capacity Development and Education for Sustainable Development

Pacific SIDS continue to require support to address the serious challenges they face in capacity development in policy and strategy formulation and implementation through an integrated approach including NGOs, the private sector and government. In particular support is needed to fully implement the new Pacific Education Development Framework and work to harmonise regional standards. The new framework targets two areas, education for all and training for employment to better assist economic growth. Work to harmonise regional standards will target teachers and eventually principals. It will be supported by ongoing efforts to develop regional standards for literacy, numeracy and life-skills.

Support is also needed to fully develop and implement the Pacific Regional Qualifications Register (PRQR).

Sustainable Production and Consumption

It is now an urgent challenge to find ways to ensure that the old paradigm "grow first, clean up later" is replaced by an integrated approach that enables economic growth to support and reinforce sustainability rather than undermine it. This should include support for such initiatives as Green Growth a policy focus which is aimed at helping countries in the region to achieve real progress towards sustainable development and poverty reduction through the following.

- Improving environmental sustainability (the way environmental resources are used).
- Enhancing environmental performance (the way environmental resources are managed by reducing pollution and improving ecosystem protection).
- Promoting environment as an opportunity for economic growth and development.

Knowledge Management and Information for Decision-Making

The challenge for Pacific SIDS is to fully utilise the “state-of-the-art” geographic information systems (GIS) they now have access to, in order to ensure these knowledge-based management tools underpin better decision-making required for effective operational national sustainable development strategies. These meta-database geographic information systems include but are not restricted to online systems such as: The SOPAC GeoNetwork; The Pacific Regional Information System (PRISM); and The Environmental Vulnerability Index (EVI).

Culture

The challenge is to demonstrate to policy makers: governments, regional institutions, donor and funding agencies and partners that culture is an asset and integral part of development. In order to achieve this support is needed for the development and full implementation of the Regional Cultural Strategy which will address the range of cultural issues of importance to the Pacific including (i) providing the means for valuing culture through the generation of quantitative and qualitative data, and incorporating culture effectively into all relevant documents and frameworks such as the Pacific Education for Development Framework; (ii) raising the profile of culture as a tool for development; and (iii) promoting the cultural sector and expressions of culture, focusing on participation, exchange, sharing and enhancing memory and knowledge preservation and generation.

Access to and the Provision of Financial Resources

The Pacific Aid Effectiveness Principles, like the original Paris Declaration, include actions and approaches for both Pacific SIDS (countries/recipients) and development partners (donors). There remains a challenge to maximise the benefits through full and effective implementation of the seven principles.

There remains a challenge that Pacific SIDS may not have the capacity to develop acceptable project proposals for GEF-PAS consideration and approval or, in the event such proposals are approved, lack the capacity to implement them. In addition, there remains a concern that the rules governing the GEF-PAS are overly complex and cumbersome as are the procedures for vetting project proposals. This could further delay project implementation