

SIDS Expert Meeting on oceans, held at the University of the South Pacific Marine Science Center, Suva, Fiji, from 24 to 26 May, 2004.

1. Introduction
2. Background to the meeting – the concept paper
3. Discussions
4. Recommendations for the International Meeting
5. Annex: List of presentations
6. Annex: List of participants

Section 1: Introduction

The meeting was opened by the coordinator, Dr. Leonard Nurse, who briefly explained the purpose of the meeting, before introducing Dr. Russell Howorth, Deputy Director of the South Pacific Applied Geoscience Commission (SOPAC). Dr. Howorth welcomed the participants and the Acting Minister of Foreign Affairs of Fiji. The Minister called on the meeting to produce positive outcomes for SIDS. He lamented the fact that far too often meetings and workshops such as this raise hopes and aspirations without producing the requisite results. He emphasized that tangible outcomes for developing our oceans are necessary and our dependence on the oceans means that our stewardship must be above reproach. The Acting Minister reiterated that Fiji supports the objectives of the meeting, and strongly endorsed the view that piecemeal approaches to oceans governance must be replaced by a more integrated approach. He further noted that since SIDS were heavily dependent on the oceans for survival, we must strike a judicious balance between resource use and conservation.

The meeting heard welcoming remarks from Prof. Wayne Hunte, Pro-Vice-Chancellor, Research, University of the West Indies (UWI). He emphasized the importance of oceans issues for the Caribbean region, and that the mandate of UWI is to develop training relevant to the region, as well as to find the modalities for ensuring that such training facilitated improved management of ocean resources. He shared the view that long-term sustainable development for SIDS is totally dependent on oceans management. It was also noted that UNCLOS recognizes the dependence of SIDS on the oceans, and to that extent he exhorted SIDS to manage existing resources more effectively, and take advantage of ‘new’ resources as they became available.

The final remarks were given by Professor Albert Binger, Director of UWICED, who expressed his gratitude to the University of the South Pacific (USP) for hosting the meeting, noting that the last time a meeting was held at USP the outputs were significant. He observed that the current energy situation with the price of oil at \$40 is of major concern to SIDS, and noted that SIDS were not yet effectively exploiting the ocean as an energy source. He further stated that the high price of energy was hurting our countries, and was a major disincentive for our economic growth. He opined that it was now necessary for SIDS to solve their energy problems through the use of renewables, such as wind, wave, solar and ocean thermal energy conversion (OTEC). Through this meeting the participants were encouraged to seek to promote the energy resources of the oceans as a means of achieving sustainable development solutions. Like previous speakers, Prof. Binger reminded the participants that the production of goods and services in SIDS is dependent on the efficient management of our oceans and coastal resources.

The closing ceremony was chaired by Dr. Leonard Nurse, who thanked all participants for their contributions, before officially closing the meeting.

Section 2: The Concept Paper

The main concept paper was developed by Dr. Biliiana Cicin-Sain, University of Delaware, and was presented by her colleague and co-author Christy Loper, University of Delaware.

It was observed that the oceans and seas surrounding Small Island Developing States (SIDS) constitute one of their most valuable assets, furthermore SIDS have strong traditional and cultural links to the ocean. SIDS, by virtue of their size and consequently limited terrestrial resources, are highly dependent on coastal and marine areas for their very survival. Almost without exception, the coastal areas of SIDS have therefore become the primary locus of settlement, with a heavy concentration of socio-economic activities and associated infrastructure. This trend has led to a largely ad hoc and unplanned approach to the management of coastal and ocean resources in SIDS, that has been characterized by such undesirable features as over-exploitation, habitat degradation, species endangerment and loss, premature foreclosure of viable use options, conflict and inequitable access among competing resource users.

Thus, a pressing concern for SIDS is the sustainable management of their marine and coastal resources, especially in the face of emerging and existing global, anthropogenically-induced threats such as global warming, the transboundary movement of hazardous waste and other contaminants, the impact of alien invasive species on island biodiversity, and the challenges associated with meeting the obligations of international agreements, conventions and protocols relevant to ocean governance.

A series of case studies were presented by: John Agard, Selwin Hart, Thomas Goreau, Cristelle Pratt, Albert Binger, Glyne Bannister, Wayne Hunte, Leonard Nurse, Leslie Walling, Randy Thaman, Kanyathy Koshy, Wong Poh Poh, Rosemary Taufatofua, and Vina Ram-Bidesi.

Section 3: Discussions

The meeting agreed to forward for consideration by the Alliance of Small Island States (AOSIS) a series of recommendations relating to ocean issues in general as well as some specific issues pertaining to the negotiations document for the International Meeting in Mauritius.

The participants were unanimous in their view that the importance of the oceans to SIDS cannot be overstated, and reiterated the need to ensure that tangible outcomes are derived from the International Meeting and the review process for meeting SIDS expectations and aspirations, given that the sustainable development of SIDS is largely dependent on harnessing the resources and services of the oceans.

The meeting observed that UNCLOS has presented SIDS with a unique opportunity by allowing for a 200-mile Exclusive Economic Zone to be claimed. However, this EEZ will not become a practical and legal reality, unless EEZ delimitation and submission of charts is concluded speedily by SIDS. It was therefore emphasized that technical and financial assistance was urgently required, in order for this work to commence. Similar assistance was also required to facilitate the work of SIDS in developing their continental shelf claims, as appropriate.

It was advised that *legal delineation* of the EEZ is but the first step, and that all SIDS should also commence an assessment of needs and opportunities within the EEZ. In this regard the meeting called on the international community, in particular the Distant Water Fishing Nations who benefit greatly from fishing in SIDS EEZs, to assist SIDS in developing and implementing such assessments.

The experts acknowledged that there is great value in establishing national and regional high-level coordination offices on ocean issues and recommended that the valuable lessons learned

from the development of the Pacific Islands Regional Ocean Policy should be applied in the other SIDS regions, with the assistance of regional organizations and the international community. In particular, the agencies of the UN system engaged in capacity development as well as technical agencies responsible for oceans issues, were urged to become more active in assisting SIDS in harnessing their ocean resources.

Because of the similar concerns of the SIDS regions, and given the variety of experiences, it was agreed that the development of an on-going inter-SIDS dialogue on oceans issues should be urgently promoted. It was recommended that an appropriate forum and format should be developed by AOSIS in cooperation with the SIDS regional organizations, in conjunction with SIDSNet. At the national and regional levels it was recognized that there is a need to establish linkages between national freshwater and coastal managers. These should be actively engaged in any exchange or dialogue on SIDS and oceans.

The meeting agreed that it was vitally important to set the stage for integrated approaches by establishing vision statements for incorporating oceans in the national sustainable development agendas. Implementing a holistic approach to oceans requires SIDS to consider the benefits of integrated islands systems management, which in turn requires a great deal of research to support a better understanding of specific local conditions.

It was further observed that there was also value in creating a checklist of tasks and threats for discussion and comprehension at the village levels, to be utilized during local level consultations. Social aspects of sustainable development should also be fully incorporated. Participants lamented the fact that few countries are willing to put a lot of their own money into activities required to underpin sustainable development, such as education. They were all in agreement that it was necessary to develop and nurture meaningful partnerships to realize the vision for long term sustainable development.

The meeting acknowledged that attitudes towards traditional knowledge vary from country to country and region to region, and noted that it was unfortunate that in some places people are not willing to try to understand the environment through the application of traditional knowledge. To that extent, the meeting identified a need to ensure that there was an infusion of traditional knowledge into contemporary training, so as to better equip students in SIDS with the skills to pursue and implement more sensible and appropriate decisions.

The meeting also considered that there were possible issues relating to quality control, before all traditional knowledge can be effectively incorporated into modern training. While there were many excellent examples discussed whereby traditional practices had been shown to have a scientifically supported basis, there were also some traditional practices that may need re-examination. Against this background, it was argued that there was a need to have a national funding mechanism and research facilities dedicated to sustainable development research, that would also cover issues relating to traditional knowledge. It was noted that very few SIDS have specific dedicated funds for research and development, to facilitate better decision making for sustainable development. In this regard, there is a need to ensure that the regional based expertise is properly utilized.

The meeting highlighted the need to overcome the problem of lack of long term funding and affirmed that SIDS governments have to exercise greater care and be more discriminating in their requests to international funding organizations. It was observed that the entire education system in SIDS needed to focus a bit more on explaining processes, in order to leverage wider national support. It was agreed that the Ocean Futures Society coral reef education project was an

excellent example of how this could be achieved. There was also a call for SIDS to recognize that the oceans could be both '*friend and foe*', and that this reality needed to be taken into consideration in the design of national sustainable development strategies. The recommendation to develop checklists for discussing problems at the community level community, with some feedback mechanism to government, was thought to be a useful tool in this regard.

As a general issue for ongoing discussion within AOSIS, the meeting noted the need to address the serious matter of the usage of GDP as the main indicator of growth in SIDS. Many aspects of SIDS economies render the use of GDP a meaningless and inaccurate measure of growth, often masking the real situation in SIDS, as well as in other small economies. Issues such as transportation costs and per capita expenditures are not fully exposed by the use of GDP, and there may be a need to consider alternatives such as *purchasing power parity*, adjusted for economic and environmental vulnerability.

Experts agreed that while the establishment of *protected areas* can be an important tool for coastal and marine resources management, there is often confusion about the scientific basis for delineating a particular area. The group therefore identified an urgent need for establishing a more rational and scientific approach to the problem. A suggestion was made to request the regional organizations to write a handbook on the best practices relating to the setting up and management of marine protected areas (MPAs).

With respect to the exploitation of SIDS fisheries, the meeting made it clear that it was necessary to consider these resources as much more than simply the value of the catch, and in this regard recommended an urgent re-assessment of the catch fees levied on foreign fishing vessels. It was also noted that monitoring and surveillance was one of the greatest challenges facing SIDS, and expressed strong support for the vessel monitoring system implemented in the Pacific (VMS), which seeks to deter poaching, in order to achieve better compliance with catch agreements. It was however acknowledged that some difficulties still remain in exercising control over those fishing vessels that enter illegally without VMS equipment.

There was some preliminary discussion on the subsidy structures applied by the distant water fishing nations (DWFNs). For example, it is public knowledge that Japan provides indirect subsidies to its fishing industry, while the United States 'guarantees' payment for almost 70% of the costs of access of their fishers to SIDS EEZs. To ensure that SIDS are not disproportionately disadvantaged by such arrangements, the group of experts recommended that a full analysis of these structures should be undertaken, in the context of WTO rules on subsidies.

Mangroves constitute an important coastal resource for many SIDS. They can provide some degree of coastal stability and protection (including during extreme events, e.g. floods), and have an important role to play in climate change adaptation strategies. However, the group recognized that the potential negative effects of climate change combined with other human-induced pressures, may seriously undermine the ability of mangroves to adapt. It was stressed that mangroves were an integral component of the coastal system, and thus could not be managed effectively in isolation from other ecosystems to which they were linked. The meeting therefore agreed that any management strategy proposed for mangroves must take cognizance of critical linkages with both the watershed on the landward side, and the marine and coastal zone. Participants also noted that empirical evidence has demonstrated that meaningful co-management and stakeholder involvement, including the sharing of benefits, were essential elements in any strategy for the management of these ecosystems. The successes achieved in the Turks and Caicos Islands and in the OECS support this observation.

The meeting was informed about a study on mangroves in Belize that demonstrated the value of the mangroves as a nursery for certain species of fish. It was therefore agreed that where protected areas were proposed, a full inventory of the range of services and functions performed by the mangroves (e.g. nurseries; trapping of silt; filtering of pollutants from the watershed; fuel; cultural and traditional practices, such as the making of dye) should be taken into consideration. It was acknowledged that there were constraints to the exploitation of mangroves as tourist attractions, principally because of their swampy nature. However, it was pointed out that where the 'natural' filtering of silt and contaminants was efficient, the maintenance of small mangrove sanctuaries for small-scale conservation and recreation purposes was possible. In this context, the example of mangrove replanting in Eritrea for conservation and recreation was highlighted.

The discussion also emphasized the need to find non-traditional ways of integrating resource users into the management process, such as training spear fishermen to become tour guides. For successful implementation of these kinds of initiatives, an innovative education programme based on ongoing dialogue among stakeholders, would be essential.

In 2005 the General Assembly of the United Nations will consider a resolution to have the Caribbean Sea designated as a "Special Area in the context of sustainable development". The concerns of the Caribbean SIDS that led to the resolution are of equal interest to other SIDS regions, as they face similar challenges. Caribbean SIDS are proposing that the Caribbean Sea should be considered a 'Special Area' not only in the context of 'Garbage' as presently designated under MARPOL 73/78, but also under other forms of degradation or pollution (e.g. the transshipment of hazardous waste) that can jeopardize the region's critical living and non-living marine resources. Failing this, the Caribbean's capacity to meet the needs of the present generation without compromising the needs of future generations will be placed at severe risk. Destruction of the resources of the Caribbean Sea will not only be a loss to the Caribbean but also to those other countries that now profit by their operations in the Caribbean. An impoverished Caribbean will likely place greater burdens on wealthy countries. Agenda 21 recognized this interdependence and advocates compensatory and remedial measures such as financing, transfer of technology and information exchange to SIDS and other developing countries.

The experts engaged in wide-ranging discussions on tourism, a vital economic sector in many SIDS. While accepting that all 'risks' associated with tourism cannot be eliminated, it was affirmed that considerable resilience can be built by engaging in anticipatory planning to mitigate some of the potential negative effects. The group therefore underscored the need for countries to examine and eliminate the specific impediments that prevent proactive action. In addition, it was agreed that sustainable development in SIDS could not be achieved by engaging in the further expansion of mass tourism alone. Equally, the group of experts cautioned against the temptation to exploit critical marine and coastal resources in an unsustainable manner, under the guise of ecotourism. Prompt action was therefore needed to integrate tourism with other productive sectors, in order to achieve more balanced and sustainable growth. The group felt strongly that if the profile of tourism is to be raised as a tool for sustainable development, SIDS would need to design and implement appropriate policies to harmonize the sector with all other areas of national development. One key requirement would be the empowerment of local communities, to better manage and more equitably share in the benefits.

While the meeting did not focus specifically on marine and ocean technologies¹, it was agreed that SIDS-SIDS collaboration on use and application of such technologies was vital. It was agreed that where appropriate technologies and methods had been successfully applied, the information should be systematically compiled and shared with other SIDS. Again, SIDSNET was identified as an effective mechanism for disseminating such information.

The meeting supported a recommendation to AOSIS that there should be a comprehensive re-evaluation of the roles of the international and regional agencies, charged with ocean management. Fundamental concerns were expressed about some of the provisions in various international statutes (e.g. UNCLOS, MARPOL, Basel) that govern the oceans, shipping and ocean transport in general. This would provide an opportunity for AOSIS to (i) identify the various vested interests (ii) target the most appropriate forums in which to raise the various issues and concerns (iii) utilize the enormous political and institutional assets that are available, and (iv) coordinate an overall strategy, that includes broadening the partnership through collaboration with other concerned states. However, it was noted that such issues can only be satisfactorily resolved through more active participation by all SIDS. The meeting concurred that SIDS-SIDS partnerships are needed to promote the sharing of experiences and best practices in oceans management. A first step would be to recommend that the Pacific Regional Ocean Policy be presented to other AOSIS Members for information, and that joint statements be prepared for presentation to the UNICPOLOS, to be held in June 2005.

Section 4: Recommendations for the International Meeting to review the implementation of the Barbados Program of Action in regards to sustainable development and oceans

Rationale:

1. SIDS depend on healthy oceans

All SIDS are heavily dependent on healthy marine habitats for most of their fisheries, protein intake, tourism, sand supply, shore protection, marine biodiversity, and other benefits. Their marine energy resources could provide all the renewable power they need, if they were properly developed and not wasted. SIDS marine resources have been devastated almost everywhere in recent years from combinations of coral heatstroke from global warming, new diseases, land-based sewage and fertilizer nutrients, silt from eroded deforested watersheds, global sea level rise, over-fishing, toxic chemicals on land and in the sea, and direct physical damage from destructive fishing, dredging, boat anchors, tourism, reef harvesting, and increased storm wave intensity.

2) Our marine resources are quickly vanishing

Renewable marine resources in SIDS are vanishing, endangering food supplies, tourism income, and shorelines. This forces communities to harvest species previously regarded as 'unexploitable' or inedible, causing steadily increased fishing pressure on offshore banks and remote reefs, which are the only remaining sources of new corals and fish for impoverished coastal ecosystems. These critical nurseries must be protected. Some effective strategies and methods to reverse course and nurture our reefs back to life are already available, but require sustained implementation by SIDS with tangible support from the international community.

3) SIDS are likely to be the first and most seriously impacted by global climate change

SIDS are among the most vulnerable countries of the world to global warming and sea level rise. The impact of these phenomena on vital marine and coastal systems in SIDS (e.g. corals, seagrasses, fish and other marine life, mangroves, beaches) will be enormous. Even if greenhouse

¹ At the time of this workshop, an expert meeting on the role of science and technology in SIDS was already at an advanced stage of planning.

gas emissions were to be substantially reduced and stabilized, there is already an irreversible ‘commitment’ to further global warming and sea level rise, that will have disastrous consequences for SIDS. The only effective solution is a combination of urgent, meaningful reduction of emissions in developed countries, and the equitable allocation of resources for countries such as SIDS to reduce their vulnerability and enhance their resilience.

4) Restoration is essential for maintaining ocean resources

Without large-scale restoration of degraded habitats to make them capable of supporting productive fish, shellfish and other living marine resources, the future status of nutrition in SIDS will be jeopardized. Restoration of degraded reef and coastal habitats on a scale that makes a difference must be the number one environmental and ocean management priority of SIDS. There must be a long-term commitment to such programmes, as the rate of habitat degradation is increasing in SIDS, and some habitats require long lead times before restoration gains are achieved.

Proposed actions:

6) some technologies already exist to restore reefs and fisheries and protect shorelines

New ‘biorock’ technologies developed in SIDS and so far applied in almost round 20 islands, has the potential to increase the resilience of corals by increasing growth rates and survival, and restoring fish habitats to a healthy and productive state. This technology also has the potential to ‘grow’ natural breakwaters for reducing wave erosion, at a fraction of the cost of engineered structures. Large-scale research and training programs are critically needed to further evaluate and apply this and other such appropriate technologies in SIDS.

7) The technology already exists for large-scale ocean energy production in SIDS

Ocean currents and temperature gradients contain a vast storehouse of energy that is largely untapped. The tidal currents that flow predictably through the reef passes of all Pacific and Indian Ocean islands could potentially provide all their energy needs of these SIDS. This can be accomplished through the application of already existing turbine and thermal energy technology that languishes undeveloped and unapplied where it is most needed. Ocean thermal energy conversion (OTEC) is one such technology that can exploit the ocean as a viable, integrated source of energy and fresh water in SIDS.

8) SIDS must develop their own capacity to solve their problems

In the coming years and decades SIDS will be confronted by a wave of global changes, the magnitude of which they have never faced, and with which they are largely ill prepared to cope. SIDS must strengthen their internal capacity to design and implement strategies that are appropriate and relevant to their circumstances. SIDS must strenuously and consistently resist the temptation to apply ‘*solutions*’ that are known to have failed elsewhere. SIDS ‘*development*’ has often been allowed to be determined by externally propelled programmes, that are short-term in focus, lacking in understanding of the key local factors required to inform the solutions, and devoid of meaningful stakeholder participation. All future coastal and marine management programmes in SIDS must therefore avoid these pitfalls, at all costs.

9) SIDS leaders must demonstrate meaningful commitment in Mauritius, and enlist the assistance of the international community

An immediate tangible commitment is mandatory on the part of leaders to ensure that existing research, development, and training institutions are strengthened, and established where they do not now exist in SIDS. Part of the mandate of these institutions must be the adaptation, refinement and application of new and existing technologies and methods required for better ocean and coastal management. Given the dependence on the ocean, sustainable management of

marine and coastal resources is a *sine qua non* for ensuring a better quality of life in SIDS. The meeting in Mauritius must be urged to pursue major new international funding for this effort, and the international community must grasp the opportunity to play a meaningful role in a truly global partnership.

Annex 1:

The following presentations are all available on www.sidsnet.org:

John Agard: The Caribbean Sea as a sustainable development area

Glyne Bannister: Financing options for marine projects in SIDS

Albert Binger: What is Ocean Thermal Energy Conversion?

Rajesh Chandra and Randy Thaman: The University of the South Pacific and opportunities for collaboration - the role of USP in providing a foundation for conservation and environmentally sustainable development in the Pacific SIDS

Selwin Hart: Political and diplomatic challenges for the Caribbean Sea Resolution in the United Nations General Assembly

Leonard Nurse (with Robert L. Bascom): Coastal engineering design considerations for the Caribbean

Cristelle Pratt: Pacific Islands Regional Ocean Policy – towards implementation

Leslie Walling: Climate Change Adaptation Planning in the Caribbean

Leslie Walling: Climate change and the ecosystem – mangroves

Rosemary Taufatofua: Marine and ocean tourism in the Pacific – an overview

Randy Thaman: Threats to the conservation and sustainable use of marine biodiversity in Pacific small island developing states – the need for understanding and partnerships

Annex 2:
List of Participants

John Agard
Department of Life Sciences
UWI
Trinidad and Tobago

Edward Anderson
USP
Suva, Fiji

Glyne B. Bannister
Corporate Strategies and Project Implementation
Signature Management Inc.
Barbados

Albert Binger
Director
UWICED
Jamaica

Ambassador Vinci N. Clodumar
Permanent Mission of Nauru to the UN
New York, NY 10017
USA

Jone Draunimasi
Ministry of Foreign Affairs and External Trade
Suva, Fiji

Tom Goreau
President, Global Coral Reef Alliance
Cambridge, MA 02139
USA

Selwin C. Hart
1st Secretary
Permanent Mission of Barbados to the UN
New York, NY 10017

Russell Howorth
Deputy Director
SOPAC
Fiji

Wayne Hunte
Pro Vice Chancellor (Research)
UWI
Barbados

Kanyathy Koshy
USP
Suva, Fiji

Christy Loper
University of Delaware
Newark, DE 19711
USA

Leonard Nurse
CERMES
UWI
Barbados

Cristelle Pratt
Director
SOPAC
Fiji

Vina Ram-Bidesi
USP
Suva, Fiji

Espen Ronneberg
Inter-regional Advisor
for Small Island Developing States
Division for Sustainable Development
Department of Economic and Social Affairs
United Nations

Ambassador Isikia R. Savua
Permanent Mission of Fiji to the UN
New York, NY 10017
USA

Basil Sutherland
Utility Consultant
EMPA Consulting
St. Lucia

Rosemary Taufatofua
Development Advisor
University of Queensland
Brisbane, Australia

Randy Thaman
USP
Suva, Fiji

Leslie Walling
Caribbean Community Climate Change Center
Belize

Wong Poh Poh
Department of Geography
National University of Singapore

Amena Yauvoli
Adviser, Sustainable Development Division
SPREP
Apia, Samoa