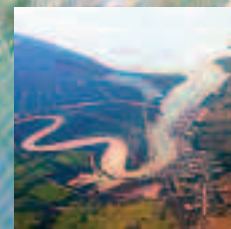
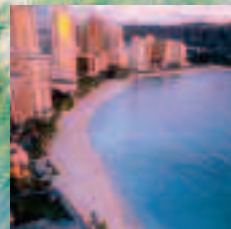
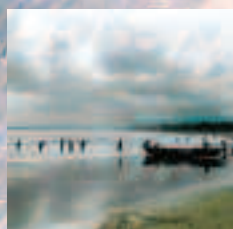


Meeting the Commitments on Oceans, Coasts, and Small Island Developing States Made at the 2002 World Summit on Sustainable Development: **How Well Are We Doing?**



Biliana Cicin-Sain, Veerle Vandeweerd,
Patricio A. Bernal, Lindsey C. Williams,
and Miriam C. Balgos

The Global Forum on Oceans, Coasts and Islands
Co-Chairs' Report—Volume 1
Third Global Conference on Oceans,
Coasts, and Islands:
Moving the Global Oceans Agenda Forward
UNESCO, Paris, January 23-28, 2006

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Third Global Conference on Oceans, Coasts, and Islands: Moving the Global Oceans Agenda Forward

January 23-28, 2006, UNESCO, Paris

Conference Co-Chairs: Dr. Biliana Cicin-Sain, Co-Chair and Head of Secretariat, Global Forum on Oceans, Coasts, and Islands, and Director, Gerard J. Mangone Center for Marine Policy, University of Delaware; Dr. Veerle Vandeweerd, Director, UNEP Regional Seas Programme, and Coordinator, UNEP Global Programme of Action for the Protection of the Marine Environment from Land-based Activities; and Dr. Patricio A. Bernal, Executive Secretary, Intergovernmental Oceanographic Commission, UNESCO.

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Canadian Department of Fisheries and Oceans

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South Pacific Applied Geoscience Commission

Partnerships in Environmental Management for the Seas of East Asia

New Partnership for Africa's Development/Coastal and Marine Coordination Unit

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Notes to Readers

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Meeting the Commitments on Oceans, Coasts, and Small Island Developing States Made at the 2002 World Summit on Sustainable Development:

How Well Are We Doing?

By Biliana Cicin-Sain¹, Veerle Vandeweerd², Patricio A. Bernal³,
Lindsey C. Williams⁴, and Miriam C. Balgos⁴

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Foreword

The world's political leaders made significant political progress at the global level at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa, by agreeing to a common set of goals and targets (many with specific time frames) for *oceans* (covering 72% of the Earth's surface); *coastal areas* (where half of the world's population lives), and the 43 *small island developing States (SIDS)* which are especially dependent on their ocean and coastal resources. The adoption of these targets/goals was a very significant development, especially taking into consideration that oceans, coasts, and SIDS were not initially on the agenda for the World Summit, and only became placed on that agenda through the mobilization of many NGOs, governments, UN agencies, and others.

In the Millennium Development Goals, most recently reaffirmed in 2005, the world's political leaders agreed on a specific set of goals with targets and timetables emphasizing measures to lift the world's poor out of poverty and to achieve healthful conditions for all. For oceans, the MDG called for improved cooperation and coordination at all levels to address oceans and seas issues in an integrated manner and promotion of integrated management and sustainable development of the oceans and seas.

As is well known, the UN Commission on Sustainable Development (CSD) provides the major forum for oversight of fulfillment of WSSD goals. However, the CSD is not scheduled to review and assess progress in fulfilling goals related to oceans and coasts until 2014-2015.

If no periodic assessments on oceans and coasts are made prior to 2014, it may be too late as:

- trends in the decline of ocean ecosystems might continue on a downward spiral;
- some fisheries could be fished to the point of irreversible damage;
- coastal communities could continue to be plagued with problems of poverty, pollution, unhealthful conditions, and lack of opportunities for economic and social advancement;
- the small island developing States (small in land size, but large Ocean States) could face significant threats to the ocean, coastal, and freshwater resources on which they depend, from overexploitation, inadequate planning and management, and climate change;
- marine biodiversity losses could continue, threatening the survival of species and the attendant human benefits.

It is, therefore, incumbent on all parts of the global oceans community to come together to make informal assessments of the status of oceans, coasts, and SIDS, and of the status of implementation of major international targets to improve oceans, coasts, and SIDS. While national governments bear primary responsibility for the implementation of WSSD targets, international agencies, nongovernmental organizations, industry, scientists, and others also play a key role in fostering the enabling conditions that make for successful implementation. Hence, the sub-



title of this publication is “How Well Are We Doing?” referring to all parts of the global oceans community.

This volume presents a summary of available information on progress made (or lack thereof) and obstacles faced in the implementation of the oceans, coasts, and SIDS targets of the World Summit on Sustainable Development, the Millennium Development Goals, and other related agreements. In many cases, the available information is sketchy and incomplete, reflecting the lack of global attention to gathering the requisite assessment data, in the form of international and national reports, on the WSSD and MDG goals.

The analysis is based, in large part, on the presentations and discussions which took place at the *Third Global Conference on Oceans, Coasts, and Islands: Moving the Global Oceans Agenda Forward*, organized by the Global Forum on Oceans, Coasts, and Islands, and held at UNESCO, Paris, January 23-28, 2006. The Conference brought together 403 participants from 78 countries, including key national level officials, regional organizations, UN agencies, donors, industry, nongovernmental organizations, scientists, and journalists. Conference coverage was provided by the Earth Negotiations Bulletin, a summary is available at <http://www.iisd.ca/download/pdf/sd/ymbvol68num3e.pdf>. Conference presentations, reports and other materials are available at <http://www.globaloceans.org>.

A companion publication-- *Reports from the Third Global Conference on Oceans, Coasts, and Islands: Moving the Global Oceans Agenda*

Forward, by Biliana Cicin-Sain, Veerle Vandeweerd, Patricio A. Bernal, Lindsey C. Williams, Miriam C. Balgos, and Julian Barbiere, Eds., Co-Chairs' Report—Volume 2, Third Global Conference on Oceans, Coasts and Islands, June 2006, brings together highlights from the Global Conference and summaries of discussions and recommendations on next steps on the attainment of WSSD and MDG ocean goals.

Our grateful thanks and appreciation go to the sponsors of the Global Conference and the Global Forum, especially the Global Environment Facility (*sponsors are listed on the back of the report cover*), to members of the Global Forum Steering Committee, Local Organizing Committee, and the other Committees and Roundtables of the Global Forum (*listed at the end of the report*) who steered the global conference process, to the Ministers and other high-level national officials who presented their national and local realities at the Global Conference, and to all the Paris conference participants for their dedication and commitment to advancing the global oceans agenda. Special thanks go to a number of individuals (*listed on the back of the report cover*) who played, with great dedication, a key role in the organization of the Global Conference and in the preparation of this report.

Co-Chairs, Global Forum on Oceans, Coasts, and Islands

Dr. Biliana Cicin-Sain
Dr. Patricio A. Bernal
Dr. Veerle Vandeweerd





List of Acronyms

ACC SOCA	Subcommittee on Oceans and Coastal Areas of the Administrative Committee on Coordination	GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
AOSIS	Alliance of Small Island States	GWP	Global Water Partnership
AWC	Arab Water Council	H2O	Hilltops-2-Oceans
BPoA	Barbados Programme of Action on the Sustainable Development of Small Island Developing States	IAEA	International Atomic Energy Agency
CBD	Convention on Biological Diversity	ICARM	Integrated Coastal Area and River Basin Management
CBD COP8	Eighth Conference of the Parties to the Convention on Biological Diversity	ICP	United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea
CEB	Chief Executive Board	IFA	Innovative Financing Arrangements
CEDARE	Centre for Environment and Development for the Arab Region and Europe	IHO	International Hydrographic Organization
CI	Conservation International	IISD	International Institute for Sustainable Development
CPLP	Community of Portuguese-Speaking Nations	ILO	International Labour Organization
CSD	Commission on Sustainable Development	IMO	International Maritime Organization
DEFRA	Department for Environment Food and Rural Affairs, UK	IOC-UNESCO	Intergovernmental Oceanographic Commission – United Nations Educational, Scientific and Cultural Organization
EBFM	Ecosystem-Based Fisheries Management	IPOAs	International Plans of Action
ECOWAS	Economic Community of West African States	ISA	International Seabed Authority
EEZs	Exclusive Economic Zones	IUCN	World Conservation Union
ENB	Earth Negotiations Bulletin	IUU	Illegal, Unreported, and Unregulated Fishing
ESCWA	UN Economic and Social Commission for Western Asia	IWRM	Integrated Water Resource Management
FAO	Food and Agriculture Organization	JPOI	Johannesburg Plan of Implementation
GCLME	Guinea Current Large Marine Ecosystem	LBS	Land-based sources
GEF	Global Environment Facility	MACEMP	Marine and Coastal Environmental Management Project
GMA	Global Marine Assessment	MDG	Millennium Development Goals
GNI	Gross National Income	MEY	Maximum Economic Yield

MPA	Marine Protected Area	UNDOALOS	United Nations Division for Ocean Affairs and the Law of the Sea
MSI	Mauritius Strategy for the Further Implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States	UNDP	United Nations Development Programme
		UNEP	United Nations Environment Programme
MSY	Maximum Sustainable Yield	UNEP/GPA	United Nations Environment Programme/Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
NGO	Non-governmental organization	UNESCO	United Nations Educational Scientific and Cultural Organization
NPAs	National Programmes of Action	UNESCO/IHE	United Nations Educational, Scientific and Cultural Organization/Institute for Water Education
NPOAs	National Plans of Action	UNFCCC	United Nations Framework Convention on Climate Change
ODA	Official Development Assistance	UNGA	United Nations General Assembly
OECD	Organization of Economic Cooperation and Development	UNHABITAT	United Nations Human Settlements Programme
OSPAR	Commission for the Protection of the Marine Environment of the North-East Atlantic	UNIDO	United Nations Industrial Development Organization
PADH	Physical Alteration and Destruction of Habitats	UNU	United Nations University
PIROF	Pacific Islands Regional Ocean Forum	WHO	World Health Organization
PIROF-ISA	Pacific Islands Regional Ocean Framework for Integrated Strategic Action	WIO-LaB	Addressing Land-based Activities in the Western Indian Ocean
PRSPs	Poverty Reduction Strategy Plans	WMO	World Meteorological Organization
RFMOs	Regional Fisheries Management Organizations	WSSCC	Water Supply and Sanitation Collaborative Council
SAP Wastewater	Strategic Action Plan on Municipal Wastewater	WSSD	World Summit on Sustainable Development
SIDS	Small Island Developing States	WTO	World Trade Organization
SIDSNET	Internet service on small island issues	WWF	World Wildlife Fund
UCC-Water	UNEP Collaborating Centre on Water and Environment	WWF4	Fourth World Water Forum
UNCLOS	United Nations Convention on the Law of the Sea		
UNCSD	United Nations Commission on Sustainable Development		
UNCTAD	United Nations Conference on Trade and Development		
UNDESA	United Nations Department of Economic and Social Affairs		





Summary

Our planet's fragile oceans and coasts are too economically and socially valuable to allow resource depletion to continue and threats to sustainability to rise. Many coastal communities and nations are simply living on borrowed time before the \$60 billion dollar annual international trade in fisheries collapses, depleted groundwater supplies for coastal cities run dry, changing climate swamps coastal communities, and burgeoning coastal urban populations overwhelm their degraded and polluted natural resource base. Action is needed yesterday, not tomorrow.

--Dr. Alfred M. Duda,
Senior Advisor, International Waters,
Global Environment Facility

Background

The Third Global Conference on Oceans, Coasts, and Islands: Moving the Global Oceans Agenda Forward, organized by the Global Forum on Oceans, Coasts, and Islands, was held January 23-28, 2006 at UNESCO in Paris, France. The Conference included over 400 participants from 78 countries, and greatly benefited from the participation of 37 ministers and high level government representatives (see Box). The Conference brought together key national level officials, regional organizations, UN agencies, donors, industry, non-governmental organizations, scientists and journalists to assess progress achieved and obstacles faced in the implementation of international targets on oceans, coasts, and small island developing states (SIDS), especially those related to the 2002 World Summit on Sustainable Development (WSSD), the Millennium Development Goals (MDGs), and other related agreements.

The 2006 Global Conference was the third in a series begun in 2001. *The first conference, Oceans and Coasts at Rio+10: Toward the 2002 World Summit on Sustainable Development* (WSSD), Johannesburg (December 2001), was useful in placing ocean, coastal, and SIDS issues on the WSSD agenda. As noted in the UN Secretary General's report on Oceans and the Law of the Sea (March 3, 2003), (A/58/65): 7.

The persistent efforts of all interested groups, beginning with the Global Conference on Oceans and Coasts at Rio+10, persuaded the preparatory meetings for the Johannesburg Conference that not only was UNCLOS not the end of the road, but also that many of the commitments of the UNCED at Rio remained unfulfilled.

Following the WSSD, the Global Forum's second major international conference, the *Global Conference on Oceans, Coasts, and Islands: Mobilizing for Implementation of the Commitments Made at the 2002 World Summit on Sustainable*

Development on Oceans, Coasts, and Small Island Developing States, was useful in spurring the process of initial implementation of the WSSD commitments and pointing to promising initiatives. This meeting proved especially important because the Commission on Sustainable Development is not scheduled to examine ocean issues until 2014-2015.

Relationship to Other Global Efforts

The *Third Global Conference on Oceans, Coasts, and Islands* built on the two previous global conferences, and is directly related to a number of other international efforts and global conferences.

The *Ocean Policy Summit International Conference on Integrated Ocean Policy: National and Regional Experiences, Prospects, and Emerging Practices* (held in Lisbon, Portugal, on October 10-14, 2005). This conference explicitly considered advances in the WSSD and MDG goals of achieving integrated oceans governance at national and regional levels, and made



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considerable progress in the collective understanding of how national and regional ocean policies may be enhanced and further expanded. Results from The Ocean Policy Summit were featured at the Paris Global Conference and are also partially reported in this volume.

The *4th World Water Forum* (held in Mexico City, Mexico, on March 16-22, 2006). Results of the Paris global conference provided input to the 4th World Water Forum particularly regarding specific recommendations for better linking freshwater to coasts to oceans and development of a joint program of work involving freshwater and ocean institutions.

The *Second Intergovernmental Review (IGR-2) of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities* (GPA), to be held in Beijing, China, on October 16-20, 2006. The current report, including specific recommendations for further advancement of the GPA will be presented at the IGR-2 in Beijing.

The WSSD and MDG targets on oceans, coasts, and SIDS

The major WSSD and MDG targets and timetables related to oceans, coasts, and SIDS are noted in Table 1. These targets represent an important advance because they have enshrined, as global imperatives by the world's political leaders, many of the goals previously posited by expert groups and specialized agencies. There is not a global consensus reached at the highest political levels that there is an urgent need to take specific action to achieve sustainability of oceans, coasts, and of small island developing States.

The WSSD and MDG targets and timetables, however, are not “self-implementing.” Instead, governments around the world need much support and collaboration from all parts of the oceans, coasts, and islands community—to operationalize what needs to be done, to mobilize the requisite knowledge and financial resources, and to maintain the high-level political support essential to achieve the sorely needed “on-the-ground” improve-



How to achieve sustainable development of oceans, coasts, and islands is an essential question for the future of our planet. As a principal source of protein for billions of people around the world, the oceans and seas need to be effectively protected against major threats, such as coastal degradation linked to demographic pressures; pollution from all sources (e.g., land-based, marine, and atmospheric); overexploitation of fishery resources; the introduction of non-indigenous species... None of us can act alone in addressing these issues... All of us together must address these challenges, profiting from the experiences of other countries, and defining together what should be done with the 3/4 of the Earth which is oceans.

--Honorable Madame Nelly Olin,
Minister of Ecology and Sustainable
Development, France

Table 1. **World Summit on Sustainable Development Goals addressed in this report.**

Johannesburg Plan of Implementation Goals and Targets

Ecosystem Approach and Integrated Management

- ◆ Encourage the application of the ecosystem approach by 2010 for the sustainable development of the oceans, particularly the management of fisheries and conservation of biodiversity
- ◆ Promote integrated coastal and ocean management at the national level and encourage and assist countries in developing ocean policies and mechanisms on integrated coastal management
- ◆ Assist developing countries in coordinating policies and programmes at the regional and sub-regional levels aimed at conservation and sustainable management of fishery resources and implement integrated coastal area management plans, including through the development of infrastructure

Protection of the Marine Environment from Land-based Activities

- ◆ Advance implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the Montreal Declaration on the Protection of the Marine Environment from Land-based Activities, with particular emphasis in the period 2002-2006 on municipal wastewater, the physical alteration and destruction of habitats, and nutrients, by actions at all levels

Biodiversity and Marine Protected Areas

- ◆ To achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth
- ◆ Develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive fishing practices, the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks by 2012

Small Island Developing States

- ◆ Undertake a comprehensive review of the implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States in 2004

Fisheries

- ◆ Implement the FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing (IUU) by 2004
- ◆ Implement the FAO International Plan of Action for the Management of Fishing Capacity by 2005
- ◆ Eliminate subsidies that contribute to illegal, unreported, and unregulated fishing and to overcapacity
- ◆ Maintain or restore depleted fish stocks to levels that can produce their maximum sustainable yield on an urgent basis and where possible no later than 2015

Integrated Water Resource Management

- ◆ Develop integrated water resource management (IWRM) plans by 2005

Global Marine Assessment

- ◆ Establish a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socioeconomic aspects, by 2004

Coordination of UN Activities on Oceans

- ◆ Establish an effective, transparent and regular inter-agency coordination mechanism on ocean and coastal issues within the United Nations system



Table 2. **Millennium Development Goals and Targets addressed in this report.**

Goal 1: Eradicate extreme poverty and hunger

- ◆ Target 1: Reduce by half the proportion of people living on less than a dollar a day by 2015
- ◆ Target 2: Reduce by half the proportion of people who suffer from hunger by 2015

Goal 7: Ensure environmental sustainability

- ◆ Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the losses of environmental resources.
- ◆ Target 10: Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation.

Goal 8: Develop a global partnership for development

- ◆ Target 14: Address the special needs of landlocked countries and small island developing states (through the Program of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions).

Added in 2005 through UNGA Resolution 60/1

- ◆ Improve cooperation and coordination at all levels in order to address issues related to oceans and seas in an integrated manner and promote integrated management and sustainable development of the oceans and seas.

ments in the health and condition of marine ecosystems and in the well-being of coastal communities.

Difficulties in assessing progress in the implementation of WSSD and MDG ocean targets

It is difficult to assess progress in the implementation of WSSD and MDG targets in the case of oceans, coasts, and SIDS for the following reasons:

- No evaluation frameworks, including indicators, have been developed to assess progress.
- No one institution has been charged with collecting, on a periodic basis, national and international data on the entire range of issues related to

oceans, especially regarding the cross-cutting goals (e.g. achieving ecosystem management and integrated ocean and coastal management). Periodic data collection does take place in the case of biodiversity conservation (through the Conservation on Biological Diversity), fisheries issues (FAO), and issues related to land-based sources of marine pollution (through the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities).

- There is no regular collection and assessment of information on the social and economic well-being of coastal communities (where 50% of the world's population lives), making it very difficult to ascertain progress on Millennium Development Goals in the context of oceans, coasts, and SIDS.
- Participants at the Global Conference reported that in some instances, many national and international efforts are underway to create the enabling conditions for implementation of the goals, but that tangible outcomes are not yet evident.
- Some of the goals are strongly linked and dependent on other WSSD/MDG goals. It is sometimes difficult to determine progress on one WSSD goal without understanding its relationship to other WSSD/MDG goals and to the broader context.

Nature of this report

This report provides a synthesis of information available from various sources on the implementation of WSSD/MDG targets on oceans, and whenever available, on each of the WSSD/MDG goals. The data contained in the report are generally partial and incomplete, due to the absence of appropriate information. The report relies, in large part, on the expert judgments of participants gathered at the Global Conference who came from all sectors of the global ocean policy community and addressed the questions of progress achieved (or lack thereof) in a series of facilitated dia-

The bottom line is that these goals are a tall order. The challenge is to consider: (1) horizontal integration across players and institutions; (2) vertical integration (technical through to political); (3) integration across the available toolkit; (4) geographical integration in order to link together watershed to coastal zone to high seas; and (5) integration across the pillars of sustainable development (environmental, economic and social).

--Ms. Lori Ridgeway
Director-General, International
Coordination and Policy Analysis,
Department of Fisheries and Oceans,
Canada

logues. Conference participants were also given an opportunity to complete an informal multistakeholder survey during the global conference regarding their perceptions on progress achieved on implementation of global oceans targets. The distribution of survey responses (about 15% of conference participants filled out the survey) is shown at the end of this Summary section. Although the response rate was low, the responses generally reflect the information gathered on each of the WSSD/MDG goals. It would be useful to replicate the survey on a broader scale and at other venues.

Progress Achieved on the WSSD/MDG Goals

Ecosystem management and Integrated coastal and ocean management

These concepts are closely related and should be considered as highly complementary. Both ecosystem management and integrated coastal and ocean man-



agement adopt a holistic, integrated approach covering both environmental and socio-economic dimensions, and are basically similar; however, the scale of operation and level of management intervention might vary with respect to geographical scale.

Regarding the ecosystem management goal (with a 2010 target date), there have been significant efforts to operationalize the concept, and to begin implementation in a number of national cases and at the regional level, especially in the case of Large Marine Ecosystem projects. It is impossible at this point to note exactly how many countries/regions have adopted the concept and begun implementation, but it is clear that there has been a marked increase in the application of the concept of ecosystem-based management and integrated coastal and ocean management in addressing cross-cutting environmental and sustainable development issues worldwide.

Regarding integrated coastal and ocean management, there is considerable experience with coastal management covering land and nearshore waters, with about 100 countries having established such programs. With regard to integrated management of ocean waters further offshore encompassing the entire Exclusive Economic Zone, a growing number of countries—about 40—are developing or are implementing integrated national ocean policies covering the EEZ areas.

While a timetable exists for applying the ecosystem approach (2010), no similar target exists for promoting integrated coastal and ocean management at the national level. Such a timetable should be established.

Developing nations, SIDS, and countries in economic transition, in particular, need enhanced assistance and collaboration from the international community in the development of capacity for ecosystem-based integrated ocean and coastal management.

Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)

The UNEP/GPA and the international community have provided substantive guidance, support, and funding to nations in their attempts to devise and implement National Programmes of Action (for control of land-based activities) (NPAs). As a result, over 60 countries are in the process of developing, or have finalized, their respective NPAs. Governments are facing a bottleneck in terms of personnel resources available at location to bring good ideas to the level of bankable, demand-driven projects. The leverage of locally available, domestic financial resources is another constraint in realizing implementation activities on the ground.

Nevertheless, the number of countries working on NPAs for GPA implementation indicates that countries recognize the need for and are embarking on national level planning with respect to the GPA. A next step is to ensure that these issues are embedded in the MDG-based Poverty Reduction Strategy Plans (PRSPs).

The First Intergovernmental Review of the GPA (held in 2001) facilitated the recognition of the GPA as a valuable tool for furthering ecosystem approaches to the management of oceans, coasts, and islands. During the Second Intergovernmental Review of the GPA (to be held October 16-20, 2006 in Beijing, China), progress achieved to date will be reviewed and the programme of work for the period 2007-2011 will be developed. This review presents a key opportunity to advance the application of ecosystem-based management and integrated coastal and ocean management by recognizing the inextricable link among freshwater, coastal, and ocean ecosystems.

Participants at the Global Conference and in the 4th World Water Forum made specific recommendations for creating linkages among management regimes for watersheds, river basins, coasts, and oceans. As the main global programme

with a mandate spanning these areas, it is expected that the next phase of work of the GPA will centrally address these challenges.

Small Island Developing States

The 2005 Mauritius International Meeting providing a comprehensive review of progress achieved on the 1994 Barbados Programme of Action for the Sustainable Development of Small Island Developing States (BPoA) has been successfully carried out and the Mauritius Strategy for the further implementation of the BPoA has been adopted. In this sense, the WSSD goal has been fulfilled. But, the WSSD goal is intended to further the implementation of the Barbados Programme of Action, while adding other elements regarding new issues that have arisen since 1994. In the long-term, the issue is actual implementation of the Mauritius Strategy. Rapid implementation will be dependent on the political will of SIDS leaders, and on the provision of adequate financial resources and implementation assistance from relevant international entities, and the efficient use of these resources by SIDS. It should be noted that the level of Overseas Development Assistance to SIDS has declined by 50% since 1994. Rapid implementation of the Mauritius Strategy will require a new infusion of development assistance support.

Regarding ocean and coastal management in SIDS countries, it is clear that most SIDS countries are keenly aware of the importance of the marine environment and its resources to their sustainable development and economic stability. Institutional capacity in integrated coastal and ocean management, however, is constrained by weak institutions and administration processes as well as lack of human, technical and financial resources to develop and implement ocean and coastal policies. Many nations lack specific institutions or administrative processes to implement a cross-cutting approach to planning and management of oceans and coasts.

No SIDS has delimited its EEZ due to lack of capacity and/or boundary delimi-



tation conflicts with neighboring states. Only 20% of SIDS have dedicated coastal management institutions; and only 7% have enacted coastal legislation. Most SIDS have not developed EEZ management plans; rather, they have created localized plans to manage fisheries and pollution issues. The SIDS countries face significant difficulties in surveillance and enforcement within their EEZs, due to logistical and financial constraints, as well as the expansive nature of the areas they control. Fisheries enforcement within EEZs is thus a primary area of concern and difficulty.

Global conference participants also underlined the need for a SIDS-driven mechanism to provide operational guidance, mobilization of support, oversight, and monitoring and reporting on progress (or lack thereof) in the implementation of the Mauritius Strategy. Specific proposals for developing a formal institutional structure for the Alliance of Small Island States (AOSIS), which has championed the cause of SIDS in all relevant intergovernmental fora, were advanced to insure the implementation of the Mauritius Strategy.

Sustainable Fisheries Development

Three-quarters of world fisheries are in trouble. The fisheries targets set during the World Summit on Sustainable Development represented a mix of very specific goals perhaps carrying unrealistically early deadlines (2004 and 2005) and the very complex and difficult to achieve long-term goal of maintaining or restoring depleted fish stocks by 2015.

With regard to the short-term goals of controlling IUU fishing, controlling overcapacity and eliminating subsidies that contribute to IUU fishing and to overcapacity, only very modest tangible progress appears to have been made on the ground.

With regards to IUU fishing, about 10% of nations have prepared or are preparing national action plans to address IUU fishing. Also, there is renewed enthusiasm and impetus for addressing the IUU

problem on the part of specific nations, international agencies, and ministerial efforts such as the High Seas Task Force. The High Seas Task Force has put forward very specific suggestions which could make a substantial difference if they are picked up by nations and accepted by industry. As the High Seas Task Force notes, it will be difficult to meet the WSSD goals while it is still profitable for individuals and organizations to engage in these practices.

The continuation of these activities is fuelled by the increasing demand for fish products, fishing overcapacity, and weak national governance, and remains unresolved in part because of the lack of political will to address the root causes. Once these activities are made unprofitable or too financially risky to undertake, it will be far easier to reach the goals. There has also been some progress in national reform of fisheries management, especially with new market measures, such as eco-labeling, that are being adopted both in developed and developing countries.

Participation from the fishing industry as well as the fish processing and distribution sectors is essential in order to achieve the WSSD goals. There are promising examples of companies taking action. For example, UNILEVER has pledged to only purchase fish products from sustainable sources and Wal-Mart has announced it will only sell sustainably harvested fish products.

With regard to controlling overcapacity and eliminating harmful subsidies, there is little tangible information on progress on these issues, but it would appear that there is movement among some countries in shifting away from funding the construction of fishing vessels that contribute to overcapacity in fishing fleets. However, since the issue of subsidies has economic, environmental and social ramifications, governments and international bodies need to carefully study transfer policies in order to come up with viable approaches that can further shift subsidies away from increasing fishing capacity and effort, and

instead mobilize support towards the effective implementation of fisheries management regimes.

Regarding the long-term goal of maintaining or restoring depleted fish stocks and the broad goal of achieving ecosystem management of fisheries, a growing acceptance of the ecosystem approach to fisheries appears to be indeed taking place among national governments and international organizations. Indeed, a paradigm shift may be taking place-- fisheries matters have traditionally been considered in a highly sectoral and separate manner, but now key fishery practitioners are moving toward a broader ecosystem concept which also takes into account other uses and resources of ocean and coastal areas. There are encouraging signs that the groundwork is being laid for attaining the enabling conditions which will lead to sustainable fisheries development in 2015.

Protection of Marine Biodiversity and Networks of Marine Protected Areas

Considering progress on the achievement of the WSSD biodiversity and marine protected area goals, it seems that in this area tangible progress has been made since 2002. Important initiatives are underway at both national and regional levels, and in the national reports to the Convention on Biological Diversity, a large proportion of nations reporting (71%) note that they have designated MPAs; and/or have plans to improve existing MPAs; 51% report that development of an MPA system or network is underway, while 29% report that an MPA system or network is already in place.

Implementation of the WSSD biodiversity and MPA goals benefits from the connection to an international convention—the Convention on Biological Diversity—and its Secretariat, which provide a well organized structure and process for advancing biodiversity around the world. In this area, too, there is good monitoring and regular reporting of progress on biodiversity conservation through such means as the national reports, the conference of the par



ties, and the scientific meetings. As noted, this is not the case with regard to many of the other WSSD goals.

Many challenges still remain in the establishment of networks of marine protected areas, including, for example, insufficient funding, inadequate awareness about the value of the resources, lack of political will and lack of shared long-term vision among stakeholders.

It is also important to embed the creation of MPAs within broader governance systems of integrated ocean and coastal management. These considerations are essential because the effectiveness of MPAs is not only influenced by the management of activities within the designated areas, but also human activities that are sometimes far removed from the protected area.

Despite obstacles, globally there has been a 3-5% increase in the rate of marine protection over the last century. As of 2005, there were approximately 4,600 MPAs covering 2.2 million square kilometers. This shows progress, but still only accounts for 0.6% of all the oceans (although it accounts for 6% of the territorial seas). Unfortunately these increases are not sufficient at the current rate of designation to reach the goal of networks of marine protected areas by 2012. If the current rate of designation is simply maintained, one study predicts that the 2012 WSSD goal will not be met until 2085.

The issue of high seas and deep seabed biodiversity will continue to be a key issue in the coming years. There is an important opportunity to build momentum towards resolving this issue in a collaborative and inclusive way in the near term. Many national governments, NGOs, as well as intergovernmental organizations are poised to move forward and take significant steps towards conserving and maintaining biodiversity in marine areas beyond national jurisdiction.

Finally, it is important to underline that the achievement of the biodiversity conservation goals is directly tied to the

efforts to meet the goals related to fisheries as well as the goals on integrated ocean and coastal management and on ecosystem management. These goals should be considered mutually supporting and, to the extent possible, they should be considered as parts of a whole.

Integrated Water Resources Management

The bottom line is that progress is being made on this key goal of securing water for all, while being responsive to environmental and societal considerations. The good news, too, is that there is significant engagement by global, regional, and national institutions to achieve this essential goal. There are also data available on this goal, not only from the global institutions (Global Water Partnership), but also from regional and national institutions as well. Taking the results from the 2005 Global Water Partnership survey, the results are encouraging: 21% of countries have strategies in place, 53% are in the process of creating national strategies/plans, and 26% are taking initial steps.

Participants at the Global Conference recommended that the freshwater and oceans communities should create stronger partnerships at both global and regional levels to address achieving the IWRM goal as well as the related WSSD targets on oceans and coasts. There is a need to work across and among freshwater, coastal, and oceans organizations, at the national and international levels. Among these opportunities are possible collaboration among the Global Water Partnership, the Global Forum on Oceans, Coasts, and Islands, and other partners.

Global Marine Assessment (GMA)

After a promising start in 2003 and 2004, implementation of this WSSD commitment (carrying a 2004 date) was significantly delayed due to political differences among nations. In December 2005, however, the process received new direction and impetus, and it is expected that the first tangible steps in the estab-

lishment of the global marine assessment will be taken at a meeting to be held just before the June 12-16, 2006 United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea meeting in New York. The first step will be the conduct of an "Assessment of Assessments," expected to take two years, to develop a framework and options for the regular GMA process.

While it is heartening to see that the process of establishing a Global Marine Assessment is moving some outstanding issues/questions should be noted:

Timing of a global marine assessment. Given that the Assessment of Assessments is slated to take two years, and a first global marine assessment at least four years, it is expected that the first GMA would not be available until 2012 or later. In this interim period, one can expect growing demand for global data on the status of ocean resources, of marine biodiversity, and of coastal communities, especially in view of resource declines and efforts to gauge progress on other WSSD goals, such as halting biodiversity loss by 2010, and MDG goals such as reducing by half the proportion of people living on less than a dollar a day by 2015. These data needs have to be met through other means than the GMA

Relation to other assessment efforts. There are many ongoing efforts—both formal and informal—to assess the status of marine resources, some on a global basis, others on a regional basis. Some examples include: regionally-based efforts by the Regional Seas Programme, other regional conventions and agreements, and by the GEF-funded Large Marine Ecosystems programs; sectorally based assessments by UN agencies such as fisheries assessments by FAO; and other scientific global assessments such as those of the Census of Marine Life. The diversity of efforts underway is an important rationale for first conducting an "Assessment of Assessments." It is also important to note that there are significant information sources, best practices, and experi-



ences at the national and sub-national level that might not be considered under the Assessment of Assessments that should be taken into consideration in the development and implementation of the regular GMA process.

Funding. It is clear that a regular process of global marine assessment will be costly (for example, the March 2004 report of the Group of Experts estimated that for the 5-year cycle, the total cost is US\$ 20,405,000 not including capacity building and stakeholder consultations). It is essential that additional funding resources be found to support carrying the GMA.

Openness and transparency. It is important that the process of preparing for and carrying out the global marine assessment take place involving all relevant stakeholders—governments, international agencies, NGOs, industry, scientists, and also the public, and that regularized means of obtaining the input of all stakeholders be put in place. The ultimate goal of the GMA is to learn how well ocean resources, biodiversity, and peoples dependent on or living near oceans are faring—are these better or worse? And what are the factors adversely affecting them? Such questions are the concern of us all.

Areas sparsely or not covered by current assessments. The assessment of high seas and deep waters, the marine environments of developing nations including SIDS, and the interactions between freshwater and marine ecosystems which are not well covered under existing assessments should be prioritized in the GMA, and capacity to undertake these assessments should be developed or existing capacity enhanced.

Capacity building. In recognition of the differences in capacities and resources among regions and nations, the GMA needs to deploy an implementation scheme that fully utilizes existing regional and national capacities, and to augment existing capacity through transfer of information, skills, best practices and technology, implementation of human

resources development programs, and development of standardized data collection techniques, as needed.

Coordination of UN activities on Oceans

Out of all the WSSD goals, one can unequivocally say that this goal has been largely accomplished: an inter-agency coordination mechanism on ocean and coastal issues within the UN system, in the form of UN-OCEANS has been established and is meeting regularly, making its discussions and decisions publicly available through the Internet.

The first step in every inter-agency collaboration effort is having a regular forum where the agencies come together on a periodic basis and share information on their programs and efforts and discuss common problems. This step has clearly been achieved with UN-OCEANS.

The long-run intent, however, of inter-agency cooperation on oceans is effectiveness in: achieving a common vision of the problems, synergy among existing programs, and the carrying out of broad activities with a variety of partners that improve ocean governance in general.

Experience with interagency cooperation on oceans at the national level suggests that some essential factors/incentives must be present for collaboration to be maintained over time and be effective. Especially important factors/incentives include the fostering of a common vision and a culture of collaboration; having a political mandate for collaboration and joint action; having a funded Secretariat to maintain the interagency cooperation over time; and having funding for joint activities. In the case of UN-OCEANS, while no doubt the agencies recognize that increasingly the complex scope of ocean problems means that they cannot be tackled solely by a particular agency and instead require joint action. While there is a political mandate for inter-agency collaboration from the UN Secretary-General, there is no specific funding for Secretariat activities to ensure the continuing interagency coop-

eration and oversee joint activities, and there is no funding set aside for joint activities within each of the agency's planning and budgeting cycles.

In planning the further evolution of UN-OCEANS, perhaps some lessons could be learned from UN-WATER, the collaborative interagency mechanism that has been set up on water issues. UN-WATER appears to have gone further in the development of interagency collaboration, including the transparency element—several joint reports have been produced; there is a joint logo that provides a symbolic unifying element; there is a proposal for funding a Secretariat which has been well received; and there is actual NGO participation in the meetings and activities of UN-WATER.

In addition, it should be noted that until now in the functions of UN-OCEANS there is no explicit mention of oceans and Small Island Developing States (SIDS). Given that the SIDS nations are especially dependent on the oceans, explicit consideration of oceans and SIDS issues might be considered in future UN-OCEANS decisionmaking.

Discussions of further enhancement of UN coherence on oceans must be set against the backdrop of UN reform. There is a major UN-wide reform effort underway in 2006. Although it is too early to judge the final results, several proposals have offered streamlined visions of the UN, with tighter mechanisms of planning, accountability and management.

Given the particular status of oceans, under the framework of UNCLOS in the context of UN-wide reform, participants at the Global Conference noted that it may be worthwhile to revisit some of the broader options available for achieving UN coherence on oceans, such as the creation of an overall oceans agency or the naming of a lead ocean agency. Calls were also made for the designation of a UN Ambassador on Oceans to provide a very visible focal point on oceans.



Millennium Development Goals

The ability for nations to agree on the Millennium Development Goals represents an important step towards linking the environment with poverty alleviation, but there is much more work to be done. Unfortunately, the MDGs seem to take a narrow view of what constitutes environment.

Following the World Summit on Sustainable Development, a decision was taken to find sustainable ways of dealing with issues relating to oceans, coasts, and islands...

It is encouraging to note that in the last decade, coastal nations have undertaken concerted efforts to articulate an integrated vision for the governance of ocean areas under their jurisdiction to harmonize existing uses and laws, to foster sustainable development of ocean areas, to protect biodiversity and vulnerable resources and ecosystems, and to coordinate the actions of the many government agencies that are typically involved in ocean affairs....

I must state that a lot has been achieved in the management of our marine resources, but a lot still has to be done. Individually we can achieve less, but if we work together as regions and as global partners we can achieve more.

--Hon. Rejoice Mabudafhasi,
Deputy Minister of Environmental
Affairs and Tourism, South Africa

While it is promising that one of the goals is environmental sustainability, the targets related to this goal focus primarily on energy use, freshwater and forests. While these are useful proxies for improved environmental services, they do not capture the complexity of environmental issues and the interlinkages between the environment and poverty reduction. Given the importance of oceans to our global envi-

International goals should be stated and have actual follow through, implementation, and achievement, which certainly applies to the Millennium Development Goals, as it does to almost every environmental objective that we have for the planet. We are having a very hard time following through on our very nice words. This is certainly the case across the board in environmental matters, but it is also certainly the case across the board in poverty reduction issues. If you put those two pieces together, the environment and poverty, which are so inextricably linked with causation running in both directions from poverty to environmental degradation and environmental difficulties and an increase in poverty, there is a tremendous amount of neglect and an inability to move forward on promises that have been made

--Prof. Jeffrey D. Sachs,
Director, Earth Institute at Columbia
University, and Special Advisor to
the UN Secretary-General on the
Millennium Development Goals

ronment both as a source of protein and also through their role in weather regulation and therefore the water cycle, not to express-ly consider improving ocean health as a step towards environmental sustainability represents a significant gap.

Ocean and coastal areas and marine resources contribute significantly to the economies of many nations, and are particularly important to developing countries in their efforts to eradicate poverty. These resources serve as the basis for the livelihoods of many poor coastal communities. While many developing countries are rich in marine and coastal resources, they remain in poverty in some cases due to inequitable use agreements related to their resources.

It is also important for integrated ocean and coastal management efforts to address the economic and social aspects of communities in developing countries. An excellent example of such an effort is the Tanzania Marine and Coastal Environmental Management Project (MACEMP), which addresses the range of aspects involved in coastal and ocean management. This project aims to strengthen governance through more integrated approaches and will address fisheries, coastal management, livelihood generation and poverty reduction as well as private sector involvement.

Poor nations rely heavily on their natural capital, and without other resources, this can lead to environmental degradation. The cycle of poverty does not afford the opportunity to "invest" this environmental capital for future benefits, as those in extreme poverty are struggling to survive and must rely on the environment in order to do so. There is an inextricable link between poverty alleviation and environmental sustainability, yet unfortunately the importance of this link is not always recognized. The link between environment and health, such as access to safe drinking water is also undeniable. One of the most important steps towards reinforcing and recognizing these connections is getting environmental considerations systematically into national development strategies.



A major setback in assessing progress on the MDGs is the fact that there is no systematic measurement of the social and economic well-being of peoples in coastal areas, which are home to 50% of the world's population. This lack of measurement makes it difficult to determine if progress is being made towards poverty alleviation and in achieving the Millennium Development Goals in the specific context of oceans, coasts, and small island states.

Is the glass “half-full” or “half empty”?

There was much discussion on this question at the Global Conference—How well are we doing in meeting the WSSD and MDG commitments? Is the Glass “half-full” or “half-empty”? Participants at the Global Conference agreed that progress toward implementation of the global targets related to oceans, coasts, and islands has been slow, but that there are many promising developments. In some areas, such as integrated coastal and ocean management, GPA, protection of marine biodiversity, integrated water resources management, and UN coherence, one must conclude that some very tangible progress is being made, often with specific efforts underway in a growing number of countries. In other areas such as fisheries and global marine assessment, the progress has been slower, but especially in fisheries, the

groundwork seems to have been established for enhanced progress in the next phase. On Small Island Developing States and oceans, while the Mauritius Strategy has been adopted, its implementation is in doubt if financial resources and institutional capacity are not enhanced. As the custodians of large areas of the world's oceans, SIDS need assistance and collaboration from the international community to develop the capacity to delimit, manage, and enforce these areas. The least progress appears to be taking place in meeting the Millennium Development Goals, so essential to human welfare. In this regard, it is imperative that increasingly ocean and coastal management programs address poverty reduction as central goals. It is imperative, as well, that the welfare of coastal populations—their health, food security, quality of life, and the benefits they derive from the coastal and marine resources they own be periodically measured to assess the extent to which any of the MDG and WSSD goals are making the needed difference on the ground.

Thinking about the next phase of further evolution in implementation of the WSSD and MDG goals, participants noted that it is important, as well, to establish for each WSSD/MDG goal, intermediate and readily measurable targets and timetables at the national level, as some countries such as the United Kingdom have done. As well, the issue of coordinating the local implementation of various international man-

dates should be addressed. With the WSSD and MDG mandates, nations are being asked to implement a variety of programs related to the ocean, coastal, and freshwater environments-- integrated coastal and ocean management, ecosystem-management, integrated water resources management, GPA and control of land-based activities, biodiversity protection and networks of marine protected areas. On-the-ground, these efforts address similar issues and cover, to some extent, similar areas. As further implementation of these efforts gets underway, it will be important to assist nations in rationalizing and bringing synergy among these efforts.

In conclusion, participants at the Global Conference “took the pulse” and made assessments of where we are on the road to full implementation of the WSSD/MDG commitments. The participants, from all sectors and all regions of the world, reaffirmed the importance of the WSSD/MDG goals; recognized new developments that have affected and/or altered the goals; mobilized to accelerate progress on the attainment of the goals, noting very tangible and specific steps that need to be taken and by whom, and with what kind of funding; and pledged to continue periodic assessment of progress on implementation.

The United Kingdom has already incorporated the WSSD targets into our Government's binding targets and published delivery plans on oceans, fisheries, and biodiversity. We will soon also be publishing a new Marine Bill to overhaul the governance of our own waters, based on marine spatial planning and an ecosystem approach. It is important that we all take the practical steps required to honour our WSSD commitments within the timescale laid down.

--Honorable Ben Bradshaw,
Member of Parliament, Minister for Local Environment,
Marine, and Animal Welfare, Department for Environment,
Food and Rural Affairs, United Kingdom



Informal Multi-Stakeholder Survey on Progress Achieved on the Ocean and Coastal Related Goals of the World Summit on Sustainable Development and the Millennium Development Goals (conducted during the Third Global Conference on Oceans, Coasts, and Islands, UNESCO, Paris, January 23-28, 2006)

Global conference participants were invited to complete an informal multi-stakeholder survey on progress towards achievement of the ocean and coastal related goals of the World Summit on Sustainable Development and the Millennium Development Goals. Survey respondents were asked to rate the extent to which they thought progress has been made on each of the major ocean-related goals. Respondents were asked to rate progress using a five point scale from 1 to 5 (1 = very poor progress, 2 = poor progress, 3 = adequate progress, 4 = good progress, 5 = very good progress).

Table 1. **Average ranking of progress on ocean and coastal related WSSD goals, summarized by sector.**

World Summit on Sustainable Development Goals	Overall	Gov't	NGOs and Academia	Intergov't Orgs.
INTEGRATED OCEAN AND COASTAL MANAGEMENT				
Application of the ecosystem approach by 2010	2.21	2.27	2.35	1.93
Promotion of integrated coastal and ocean management at the national and regional levels	2.67	2.94	2.74	2.17
FISHERIES				
Implementation of fishery capacity management measures	1.96	2.21	1.89	1.69
Elimination of illegal, unreported and unregulated fishing	1.67	1.64	1.65	1.4
Maintenance or restoration of depleted fish stocks where possible no later than 2015	1.84	1.83	2.0	1.56
Elimination of subsidies that contribute to illegal, unreported and unregulated fishing and to overcapacity	1.79	1.5	1.81	1.69
CONSERVATION OF BIODIVERSITY				
Achieve a significant reduction in the rate of biodiversity loss by 2010	2.06	2.31	1.83	1.83
Development of a representative network of marine protected areas by 2012	2.51	2.44	2.68	2.11
SMALL ISLAND DEVELOPING STATES				
Implementation of the recommendations of the Mauritius 2005 review of the Barbados Programme of Action on SIDS	2.36	2.1	2.4	2.23
PROTECTION FROM MARINE POLLUTION				
Implementation of the UNEP Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)	2.58	2.73	2.47	2.46
WATER RESOURCES MANAGEMENT				
Development of integrated water resource management (IWRM) plans by 2005	2.12	1.73	2.07	2.23
UN COORDINATION				
Create an effective and transparent UN interagency mechanism on oceans and coasts	2.1	2.31	1.73	2.12
GLOBAL MARINE ASSESSMENT				
Establish a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socioeconomic aspects, by 2004	2.25	2.36	2.06	2.21

Scale: 1 = very poor progress, 2 = poor progress, 3 = adequate progress, 4 = good progress, 5 = very good progress
Source: Prepared by the authors with the assistance of Brandon Riff.



Approximately 15% of conference participants (60 respondents) filled out the survey. Survey respondents came from all different sectors (government, NGOs and academia, international organizations, private sector), generally following the pattern of conference participation, as noted below.

Although the survey response rate was low, the results are suggestive of perceptions of various groups of progress achieved on WSSD and Millennium Development Goals. It would be useful to replicate the survey on a broader scale and at other venues. In general, respondents thought that: 1) in most cases progress was ranked as above very poor, but below adequate; 2) the most progress was reported for integrated coastal and

ocean management, marine protected areas, and GPA; 3) the least progress was noted for fisheries issues and millennium development goals. Although some individuals did rate goals as having adequate or very good progress, once averaged with all responses, no goal was rated as having adequate progress (although “promotion of integrated ocean and coastal management” as ranked by government participants came close at 2.94). There was 0.5 or greater variation in responses among the different sectors in only 5 of the 16 goals surveyed (integrated ocean and coastal management goal (0.77), MPA goal (0.57), the MDG cooperation goal (0.57), the fishing capacity goal (0.52) and the IWRM goal (0.50).

Table 2: **Distribution of conference participants and survey respondents.**

	Total	Gov't	NGO and academia	Intergov't Org	Private Sector	Journalism Sector	No info
Conference participants	403	33%	30%	24%	7%	6%	--
Survey respondents	60	28%	33%	30%	2%	--	7%

Table 3. **Average ranking of progress on ocean-related Millennium Development Goals, summarized by sector.**

Millennium Development Goals	Overall	Gov't	NGOs and Academia	Intergov't Orgs
Reduce by half the proportion of people living on less than a dollar a day by 2015	1.63	1.62	1.45	1.81
Reduce by half the proportion of people who suffer from hunger by 2015	1.70	1.62	1.55	1.94
Improve cooperation and coordination at all levels in order to address oceans and seas issues in an integrated manner and promote integrated management and sustainable development of the oceans and seas.	2.29	2.6	2.22	2.03

Scale: 1 = very poor progress, 2 = poor progress, 3 = adequate progress, 4 = good progress, 5 = very good progress.





The Ecosystem Approach and Integrated Coastal and Ocean Management

Johannesburg Plan of Implementation:

- ◆ Encourage the application of the ecosystem approach by 2010 for the development of the oceans, particularly the management of fisheries and conservation of biodiversity.
- ◆ Promote integrated coastal and ocean management at the national level and encourage and assist countries in developing ocean policies and mechanisms on integrated coastal management.
- ◆ Assist developing countries in coordinating policies and programmes at the regional and sub-regional levels aimed at conservation and sustainable management of fishery resources and implement integrated coastal area management plans, including through the development of infrastructure.

Discussion

Application of the ecosystem approach by 2010

As noted in the 2006 UN Secretary General's report on Oceans and Law of the Sea, there is no internationally agreed upon definition for the "ecosystem approach." However, the Convention on Biological Diversity (CBD) provides a useful definition as "a strategy for the integrated management of land, water, and living resources that promotes conservation and sustainable use in an equitable way" (CBD, 2000). There are several approaches currently in use which embody the ecosystem approach, such as integrated water resources management and integrated ocean and coastal area management, that are applied to coastal and ocean environments.

In addition to the CBD, there are a number of other international agreements that implicitly or explicitly refer to the ecosystem approach. Examples include:

- United Nations Millennium Declaration and 2005 World Summit
- Johannesburg Plan of Implementation of the World Summit on Sustainable Development, 2002
- Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem, 2001.
- Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), 1995
- FAO Code of Conduct for Responsible Fisheries, 1995

- International Coral Reef Initiative, 1995
- United Nations Agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks (UN Fish Stocks Agreement), 1995
- United Nations Conference on Environment and Development, 1992 (Agenda 21)
- The United Nations Convention on the Law of the Sea (UNCLOS), 1982
- World Charter for Nature, 1982
- Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), 1980
- United Nations Conference on the Human Environment, 1972
- Ramsar Convention on Wetlands, 1971 (UN, 2006).

Efforts to operationalize the ecosystem approach are underway in addition to efforts to build consensus towards an agreed upon definition of ecosystem based management as it pertains to oceans. In March 2005, over 200 academic scientists and policy experts signed a consensus statement on the definition of marine ecosystem-based management (EBM). The statement notes that "ecosystem-based management: (1) emphasizes the protection of ecosystem structure, functioning, and key processes; (2) is place-based in focusing on a specific ecosystem and the range of activities affecting it; (3) explicitly





accounts for the interconnectedness within systems, recognizing the importance of interactions between many target species or key services and other non-target species; (4) acknowledges interconnectedness among systems, such as between air, land and sea; and (5) integrates ecological, social, economic, and institutional perspectives, recognizing their strong interdependences” (McLeod, et al. 2005). Further efforts to operationalize the ecosystem approach as it applies to oceans and coasts will occur during the Seventh meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea in June 2006.

Several countries are beginning to make efforts towards the application of the ecosystem approach, in part through the use of marine spatial planning and the development of sea use plans. Another example of application is the UNEP Regional Seas Programme, which in 2004 agreed to promote integrated management based on the ecosystem approach (Ehler and Chua, 2006). Other examples of regional efforts include the Baltic Marine Environment Protection Commission (HELCOM), Commission for the Protection of the Marine Environment of the Northeast Atlantic (OSPAR), the Antarctic Treaty System, the New Partnership for Africa’s Development (NEPAD), and the Pacific Islands Regional Ocean Forum (UN 2006).

To date the most extensive application of the ecosystem approach is through the Large Marine Ecosystem (LME) projects funded by the Global Environmental Facility (GEF). These projects are being

used to operationalize the ecosystem approach in projects that include 120 countries, through sub-regional cooperation based on the boundaries of marine ecosystems as opposed to political boundaries (Ehler and Chua, 2006).

Although more recent definitions of the ecosystem approach begin to recognize the role of humans (social, economic, and cultural) in ecosystems, this does not always reach down to the level of implementation. In many cases, the human dimensions are treated as an aside or left out entirely. A promising example of a project that considers the issue of ecological protection and marine protected area networks, while at the same time working to alleviate poverty and ensure financial sustainability for the project, is the World Bank project in Tanzania and Zanzibar (Marine and Coastal Environmental Management Project (MACEMP) or “Blueprint 2050”). It is essential to recognize that ecosystem management is not actually management of the components of the ecosystem, but rather the management of human activities and their impacts on the ecosystem (Ehler and Chua, 2006).

Implementing ecosystem-based management requires baseline and monitoring data for both ecological and socioeconomic components of the ecosystems. Currently there are only a few large marine ecosystems with systematically collected, long-term data on the status and trends of natural and social systems. This lack of data and long-term monitoring capacity is a significant impediment to the implementation of the ecosystem approach. Data on the socioeconomic status of coastal communities is also essential in order to

Moving to an ecosystem approach should be considered an evolutionary step in integrated management and action, not a break with the past.

Application of the ecosystem approach involves a focus on the functional relationships and processes within ecosystems, attention to the distribution of benefits that flow from ecosystem services, the use of adaptive management practices, the need to carry out management actions at multiple scales, and inter-sectoral cooperation.

--Charles Ehler, The World Conservation Union –
World Commission on Protected Areas
and Chua Thia-Eng, Partnerships in
Environmental Management for the
Seas of East Asia (PEMSEA)

determine whether the Millennium Development Goals (MDGs) are being met in coastal communities. With no periodic assessment of the socio-economic status of coastal communities, it is not possible to measure progress on the MDG goal of alleviating poverty in the context of coastal areas (Ehler and Chua, 2006).



The Ocean Policy Summit

The Ocean Policy Summit 2005 that took place October 10-14, 2005 in Lisbon, Portugal having as its theme, Integrated Ocean Policy: National and Regional Experiences, Prospects and Emerging Practices brought together more than 200 participants from 53 countries. With a strong maritime tradition, Portugal warmly welcomed this meeting as an opportunity to share experiences and exchange information on emerging best practices when defining or implementing ocean policies.

With governments, regional organizations, UN agencies, academia, nongovernmental organizations and industry represented, the event strongly focused on the institutional aspects of ocean governance. The eight discussion panels addressed various aspects of ocean policy, including: the growing interest in the integrated national and regional ocean policies; learning lessons from countries that have made the most progress to date; achieving cross-sectoral harmonization of ocean use and agencies; identifying principles for governance; and implementing an integrated policy taking into account operational and financial considerations.

National ocean policy principles being adopted by different countries present a remarkable congruence: they highlight (not only) the need for engaging public opinion, the media, civil society and the scientific and research communities, but also the need to set up some kind of national oceans offices or agencies with clearly defined responsibilities for coordination and articulation.

In fact, although most of the experiences reported or presented at the meeting underscored the requirement for executive and legislative measures, they all seek to harmonize rather than replace sectoral policies.

Successful ocean policy should take into consideration the following premises:

- Takes several years to implement;
- Requires support in political circles, and strengthened cooperation at the international, regional and national levels;
- Requires clear legislation to ensure its effectiveness;
- Needs financial support and specific funds for implementation;
- Needs persistence and stubbornness;
- Should be:
 - Ambitious but realistic;
 - Inclusive, that means, engaging all stakeholders and having public participation; and
 - Prudent in terms of the competencies of each authority;
- Requires the preservation of a clean and safe marine environment and an efficient utilization of marine resources;
- Needs a national integrated coastal management strategy providing a framework linking sectors and local governments and creating partnerships among them to ensure sustainable use of ocean resources;
- Needs to be leveraged by relevant international treaties and regional and bilateral activities;
- Needs full engagement of sector-specific departments and agencies;
- Starts by a "learning by doing phase" and grows through small successes;
- Needs to be supported by a broad consensus on the importance of an ecosystems approach, best-available science, and public awareness and understanding.

A further conclusion of the Lisbon Summit reveals that most countries are experiencing similar problems when developing ocean policies. These include:

- how to make cross-sectoral collaboration and harmonization work on a continuing basis;
- how to structure a true national ocean policy;
- how to achieve the multipurpose objective of sustainable development, conservation, social promotion and maritime security;
- and, finally, how to achieve spatial integration of freshwater, coastal and oceans issues.

Portugal strongly assumes its maritime dimension and I can assure you that my government is full committed to international ocean policy formulation and implementation.

-- Hon. Dr. Manuel Lobo Antunes
Secretary of State for National Defense and Maritime Affairs, Portugal

The application of the ecosystem approach in the context of marine and coastal ecosystems builds on the already widely used concept of integrated ocean and coastal management. Integrated management is a comprehensive approach that provides for regulation of human activities, and takes into account the many (often conflicting) objectives in order to minimize user conflicts and maximize long term sustainability (Garcia et al., 2003).

Integrated coastal and ocean management

Integrated coastal and ocean management (ICM) has been the recommended framework for dealing with coastal and ocean issues under the UN Conference on Environment and Development (1992), including Agenda 21, the Rio Declaration of Principles, the Climate Change Convention, the Biodiversity Convention, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, and the Barbados Programme of Action for the Sustainable Development of Small Island States. Because of this international guidance and subsequent investments of substantial resources by international donors, ICM has now been implemented in about 100 countries around the world. However, many of these initiatives have been focused on estuaries and small areas of coasts instead of national programs. Successful pilot projects should now be scaled up to national efforts on ICM.

A study by Sorensen in 2002 showed that there were more than 700 ICM initiatives (including at the local level) in more than 90 nations around the world (Sorensen 2002). Data collected by Cicin-Sain et al in 2000 showed a significant increase in ICM efforts around the world from 1993 to 2000 (Table 1), although there were substantial differences in the extent of ICM activity in various regions of the world (Cicin-Sain et al, 2000).



Table 1. **Coastal Countries with ICM Efforts, 1993 and 2000 Comparison**

Continent	Coastal countries	1993		2000	
North America	3	3	100%	3	100%
Central America	7	4	57%	7	100%
Europe	33	11	31%	30	91%
Asia	17	13	62%	14	82%
South America	11	5	45%	8	73%
Caribbean	13	5	45%	8	62%
Near East	15	6	40%	7	47%
Oceania	17	7	33%	8	47%
Africa	37	5	13%	13	35%
Total		59		98	

Source: Cicin-Sain et al 2000.

The World Summit on Sustainable Development called for “integrated coastal and ocean management at the national level and encouragement and assistance to countries in developing ocean policies and mechanisms on integrated coastal management,” without, however, providing an explicit deadline for meeting this goal. The MDG, as amended in 2005, also contains a mandate for “improving cooperation and coordination at all levels in order to address issues related to oceans and seas in an integrated manner and promote integrated management of the oceans and seas.”

Unfortunately, there are no data available at the global level to ascertain further progress (or lack thereof) in integrated coastal and ocean management since the efforts noted above. Therefore, it is difficult to provide an overall perspective on the extent to which the WSSD and MDG goals are being implemented. To address these data gaps, at least partially, a joint effort between the Secretariat of the Convention on Biological Diversity (CBD) and the Global Forum on Oceans, Coasts, and Islands is underway in 2006 to analyze in depth the national reports to the CBD which do contain questions on national activities on integrated ocean and coastal management.

200-mile Exclusive Economic Zone management

A recent development on which there is growing documentation, however, concerns integrated oceans management further offshore than most coastal management efforts, incorporating the 200-mile Exclusive Economic Zone (EEZ). In the last decade, a growing number of nations have undertaken concerted efforts to articulate and implement an integrated vision for the governance of their EEZ areas—to harmonize existing uses and laws, to foster sustainable development, to protect biodiversity and vulnerable resources and ecosystems, and to coordinate the actions of the many government agencies that are typically involved in ocean affairs. It is estimated by the Nippon Foundation Research Task Force on National Ocean Policies that about 40 countries have taken concrete steps toward cross-cutting and integrated national ocean policy (Cicin-Sain, VanderZwaag, and Balgos, 2006). At The Ocean Policy Summit held in Lisbon, Portugal, October 10-14, 2005 (see Box), countries and regions reported on their efforts to develop integrated ocean policies to deal with multiple use conflicts among uses, users, and management agencies, degradation of marine resources, and missed opportunities for economic development. These different national policies are remarkably congruent in terms of overall principles and most recognize the need for transparency, public and stakeholder involvement, incentives for cooperative action, and a national ocean office with clearly articulated responsibilities. Tables 2 and 3 present preliminary data comparing principles adopted in national and regional ocean policies and governmental structures established (Cicin-Sain, 2006).

At the regional level, efforts such as UNEP's Regional Seas Programme and the GEF Large Marine Ecosystems projects have a very useful role to play in assisting states in developing national policies for their oceans. The GEF, for

Recognizing the negative changes in ecosystem health, our countries, in a regional effort, have resolved to work together to address the common concerns. Through various assessments carried out, our countries have realized that the traditional sectoral approach to management had failed in bringing about the needed changes in environmental and living resources uses. We have therefore resolved to adopt a holistic and multi-sectoral approach embodied in the large marine ecosystem concept.

--Honorable Ms. Christine Churcher,
MP, Minister of Environment and Science,
Ghana



Table 2. Principles Adopted in National Ocean Policies

Principles adopted											
Country	National Ocean Policy/Date E/L (Executive/Legislative)	Sustainable Development/ Sustainability	Integrated Management	Ecosystem-based Management	Good Governance	Adaptive Management/ Best Available Science	Precautionary Approach	Preservation of Marine Biodiversity	Stewardship	Multiple Use Management	Economic/ Social Develop./ Poverty Alleviation
Countries in the policy implementation stage											
Australia	Oceans Policy (1998)(E)	X	X	X		X	X	X	X	X	X
Brazil	National Marine Resources Policy 1980/ 2005 (L)	X	X	X	X	X	X		X		
Canada	Oceans Act 1997 (L)	X	X	X	X	X	X	X		X	
China	Ocean Agenda 21 1996 (E)	X	X	X		X				X	X
United Kingdom	Marine Stewardship Report 2002 (E)	X	X	X	X	X	X	X	X	X	X
Russian Federation	Marine Doctrine 2001 (E)	X	X	X		X	X	X			X
Countries in the policy formulation stage											
Jamaica	Natural Resource Conservation Authority Act 1991 (L)	X	X		X		X		X		X
New Zealand	National Oceans Policy – 2000 (initiated process) (L)	X		X	X	X	X	X	X	X	
Norway	Ocean Resource Act – Draft, 2005 (L)		X	X			X				X
Portugal	Strategic Oceans Commission Report 2004 (E)	X	X	X	X	X	X		X		X
United States	National Ocean Commission Report 2004,U.S. Ocean Action Plan 2004 (E)	X		X	X	X		X	X	X	
Countries in the policy preparation stage											
India	Ocean Policy Statement 1982 (E)	X	X	X	X		X				
Japan	Ocean policy proposal presented January 2006 (E)	X	X	X	X	X	X			X	
Mexico	Oceans Agenda) 2001 (E)	X	X	X	X	X	X	X	X	X	X
Philippines	Sustainable Archipelagic Devt Framework (Proposed, 2004) (E)	X	X		X		X		X		
Vietnam	Strategy of Marine Economy Development Toward Year 2020 (E)	X	X	X	X			X			X

Source: (Cicin-Sain, 2006). These data are part of the work of the Nippon Foundation Research Task Force on National Ocean Policies, forthcoming book: Biliiana Cicin-Sain, David VanderZwaag, and Miriam Balgos, Eds., *National Ocean Policies: Comparative Perspectives*. Many thanks are due to Kateryna Wowk for her work in the preparation of this table.



Table 3. Institutional Aspects of National and Regional Ocean Policies

Countries in the policy implementation stage.		
Country	Interagency Mechanism	Administrative Arrangement
AUSTRALIA	<ul style="list-style-type: none"> - Environment Committee of the Cabinet - Oceans Board of Management - National Oceans Advisory Group - Oceans Policy Science Advisory Group 	Lead: Department of Environment and Heritage National Oceans Office
BRAZIL	Interministerial Commission for the Sea Resources (CIRM)	Lead: Navy
CANADA	Canadian Council of Fisheries and Aquaculture Ministers	Lead: Department of Fisheries and Oceans
CHINA	None.	Lead: State Oceanic Administration
UNITED KINGDOM	<ul style="list-style-type: none"> - Marine Consents & Environment Unit (cross-departmental unit of Department for Environment, Food and Rural Affairs (Defra) and Department of Transport) - Executive and advisory Non-Departmental Public Bodies (national or regional public bodies independent of ministers to whom they are accountable) 	Coordinator: Defra
RUSSIAN FEDERATION	Marine Board, composed of 9 heads of federal executive agencies, and representatives from other executing organizations of the FTP <i>World Ocean</i>	Interagency Commission on FTP World Ocean Coordinator: Ministry of Economic Development and Trade
Countries in the policy formulation stage.		
Country	Interagency Mechanism	Administrative Arrangement
JAMAICA	National Council on Ocean and Coastal Management	Leads: Ministry of Foreign Affairs (Policy-making), and National Environment and Planning Agency, and Maritime Authority (Administrative)
NEW ZEALAND	Ad Hoc Ministerial Group of 6 Cabinet Ministers tasked to manage the development of national ocean policy.	Lead: Oceans Policy Secretariat, Ministry of Environment
NORWAY	Drafting Committee for the Oceans Resources Act (proposed)	Lead: Ministry of the Environment
PORTUGAL	Task Force, State Secretary for Defense and Maritime Affairs	Lead: State Secretary for Defense and Maritime Affairs
UNITED STATES	White House/CEQ Committee on Ocean Policy with subsidiary coordinating bodies <ul style="list-style-type: none"> - Interagency Committee on Ocean Science and Resources Management Integration - NSTC Joint Subcommittee on Ocean Science and Technology - Subcommittee on Integrated Management of Ocean Resources - National Security Council Policy Coordinating Committee - Ocean Research Advisory Panel 	Lead: Council on Environmental Quality (CEQ)
Countries in the policy preparation stage.		
Country	Interagency Mechanism	Administrative Arrangement
INDIA	None.	Leads: Department of Ocean Development and Ministry of Environment and Forests
JAPAN	Proposed: <ul style="list-style-type: none"> - Ministerial Level Council for Ocean Affairs - Inter-Ministry and Inter-Agency Conference on Ocean Affairs - Ocean Affairs Advisory Committee 	Proposed: <ul style="list-style-type: none"> - Minister for Ocean Affairs - Policy Coordinator and Ocean Policy Promotion Office
MEXICO	None.	Lead: Ministry of Environment and Natural Resources (SEMARNAT) (Policy-making)
PHILIPPINES	Archipelagic Development Council (proposed)	Leads: Department of Foreign Affairs (Policy-making); Department of Environment and Natural Resources and Department of Agriculture (Administrative)
VIETNAM	None.	Leads in Policy-making: Ministry of Planning and Investment, Ministry of Fisheries, and Ministry of Foreign Affairs
Region	Interagency Mechanism	Administrative Arrangement
Pacific Islands	Pacific Islands Regional Ocean Framework for Integrated Strategic Action (PIROF-ISA), the implementation framework of the Pacific Islands Regional Ocean Policy (PIROP), calls for a multisectoral coordination mechanism, within existing organisational structures, as a first step in implementing the Policy	Lead: Marine Sector Working Group of the Council of Regional Organisations in the Pacific (CROP)
European Union	Maritime Policy Task Force (7 Commissions)	Lead: Commissioner for Fisheries and Maritime Affairs, European Commission
East Asian Seas (PEMSEA)	Sustainable Development Strategy for the Seas of East Asia	Lead: Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)
Africa (NEPAD)	New Partnership for Africa's Development (NEPAD)	Lead: Coastal and Marine Secretariat (NEPAD)

Source: (Cicin-Sain, 2006). These data are part of the work of the Nippon Foundation Research Task Force on National Ocean Policies, forthcoming book: Biliana Cicin-Sain, David VanderZwaag, and Miriam Balgos, Eds., *National Ocean Policies: Comparative Perspectives*. Many thanks are due to Kateryna Wowk for her work in the preparation of this table.



example, is supporting initial development of regional ocean policies focusing on shared transboundary resources in 15 Large Marine Ecosystems (LMEs).

Significant work along these lines is also taking place in the Pacific Islands region, the East Asia region (through the Partnership in Environmental Management for the Seas of East Asia (PEMSEA) and with GEF funding), the Asia Pacific Region (through the Asia Pacific Economic Cooperation (APEC)),

The Atlantic, Indian Ocean, Mediterranean, and South China Sea (AIMS) SIDS lack a critical mass of qualified scientists and associated institutions. With few exceptions, technical capacities are very low, especially in marine and coastal matters. Institutional capacity and integrated coastal management initiatives are constrained by weak institutions and administration processes as well as lack of human resources to develop and implement policies.

—Nirmal Jivan Shah, Chief Executive
Nature Seychelles

and through the European Union. With over 30 years of experience, UNEP's Regional Seas Programme and its partners encompass 18 marine regions and include participation by over 140 coastal states and territories. Fourteen regional conventions have been signed and over 20 protocols addressing oil spill response, pollution from ocean dumping, and pollution from land-based sources have been ratified. While initially focused on offshore issues, over the past 20 years, the Regional Seas Programme has increasingly worked

on coastal management and coastal governance. Most recently, the Mediterranean Regional Seas Programme has drafted a protocol on integrated coastal management. An interesting and productive development has been a recent partnership between the Regional Seas Programme and Large Marine Ecosystem projects funded by the GEF to bring a more focused ecosystem-based approach to the Regional Seas Programmes.

Capacity development

For capacity building in ecosystem-based management and integrated management, it is critical that needs assessments and capacity stocktaking be carried out in order to have targeted efforts that use appropriate and effective approaches. At issue is not just the start up of capacity development initiatives but also capacity mobilization, which is the optimization of the use of existing capacity and creating the environment and incentives to ensure capacity retention, through various means, such as promotion of indigenous regional capacity (e.g., by supporting students to study in local academic institutions), development of community associations, and enlisting the involvement of governments as well as the private sector (Hewawasam, Dower, Astralaga, 2006).

There is also a need to bring capacity development in ecosystem-based management down to the grass roots, to the community level and find ways to empower local communities to engage in the management process and to establish mechanisms for their participation. Existing capacity-building programmes in ocean and coastal management need to be reviewed to ensure that ecosystem-based management is emphasized and that communities are empowered to apply ecosystem-based management best practices and approaches in addressing local management and conservation issues.

In many cases, there may be merit in taking the regional approach to addressing skills shortages as it may not be feasible for each country, especially in the case of

SIDS countries, to support the required skills base in ecosystem-based management and ocean governance. Developed nations and nations with the technical capacity to monitor and assess ecosystem-based management and integrated management efforts should provide assistance to developing nations since the extent of the ecological and economic data needed to understand ecosystem functions and human reliance on the ecosystems is significant. An opportunity to assist developing countries in developing this capacity is presented through the establishment in 2005 of the SIDS Consortium of Universities. There has been additional interest expressed in creating similar consortia in Africa and other regions in order to facilitate the expansion of locally developed technical and management capacity.

The Bottom Line and Outstanding Issues

Both ecosystem management and integrated coastal and ocean management adopt a holistic, integrated approach covering both environmental and socio-economic dimensions, and are basically similar; however, the scale of operation and level of management intervention might vary with respect to geographical scale. There has been a marked increase in the application of the concept of ecosystem-based management and integrated coastal and ocean management in addressing cross-cutting environmental and sustainable development issues worldwide. Financial support from GEF and multilateral and bilateral institutions has contributed to the increased efforts in applying this concept and approach at subnational, national, and regional levels.

The difficult job of measuring progress on implementing the WSSD and Millennium Development Goals related to ecosystem management and integrated coastal and ocean management, however, is even more challenging on these topics, because no one institution is responsible for tracking developments in



these areas. Moreover, there are no standardized evaluation criteria for measuring the performance of these efforts in achieving the MDG and WSSD goals, although some steps have been taken in this direction.

In addition, no international organization is responsible for tracking the progress of ICM planning and implementation activities, and, therefore, monitoring and evaluation of progress is carried out on an ad hoc basis. International coordination is one of the major difficulties confronted in the implementation of action plans for integrated management of large marine ecosystem or coastal and marine areas due to the typical lack of existing agencies with the mandate or function to coordinate coastal and ocean management issues.

With the increase of use conflicts in coastal and marine areas, severity of pollution, and heightened threats of dwindling marine resources, more countries will be looking to the application of integrated management models for solutions. It is an opportune time to intensify international efforts in the development of working models and good practices in integrated coastal and ocean management. In addition, interagency/inter-ministerial coordination is a major obstacle that requires strong political will and appropriate incentives to develop the willingness among agencies or ministries to work together.

The Strategic Action Programmes of Large Marine Ecosystems, as well as those at the local level, provide useful management frameworks and processes for inter-governmental, interagency, and cross-sector partnerships and cooperation at the regional, national, and sub-national levels. They also provide a useful platform for developing strategic partnerships among various multilateral and bilateral financial institutions, as well as donor communities, in mobilizing the needed financial resources for environmental improvement projects, capacity development, and implementation of international instruments.

While a timetable exists for applying the ecosystem approach (2010), no similar target exists for promoting integrated coastal and ocean management at the national level. A timetable for ICM should be established.

Finally, individual nations are increasingly asked by international organizations to develop and implement programs that deal with coastal and ocean management, land-based pollution, integrated water resources management, fisheries, networks of marine protected areas, adaptation to climate change, and so on – usually with little or no additional financial support. Guidance on figuring out how to coordinate, integrate, or “nest” these various international commitments and demands should be developed. A more active role by the Regional Seas Programme in coordinating these requirements could be a way forward.

Recommendations to National Governments:

- Adopt integrated coastal and ocean management/ ecosystem-based management approach and frameworks to address use conflicts, transboundary issues, resource depletion and environmental degradation with adequate consideration of the socio-economic dimensions of the coastal communities and their active participation throughout the management process;
- Address interagency conflicts at national and sub-national levels through the development of inter-ministerial or interagency coordination mechanisms to enable the integrated planning and implementation of policy and management interventions for addressing the increasing depletion of their coastal and ocean resources; and
- Increase capacity development in the areas of coastal and ocean governance to develop a critical mass of coastal and ocean managers at local and national levels to plan and manage their coastal resources.

Recommendations to the International and Donor Communities:

- Develop more case studies to demonstrate the effectiveness of an integrated and ecosystem-based management approach, in particular, demonstrating the socio-economic benefits of such approaches in achieving environmental sustainability;
- Develop an appropriate and tested monitoring program to track the performance of integrated coastal and ocean management/LME programs/projects at the international level; and
- Pool resources in developing strategic partnerships using ICM/ecosystem management as the integrated framework and processes to provide a policy environment at local and national levels to enable the effective mobilization and utilization of the financial resources in achieving the goals of sustainable development.

Our oceans have largely been left at the mercy of illegal fishing by distant nations who have plundered the resources without care. We still do not have the capacity to monitor activities in our large Exclusive Economic Zone, and we hope that the Global Forum will help us in ensuring control of these illegal activities...

--Hon. Joseph Konzolo Munyao,
Minister for Fisheries and Livestock
Development, Kenya



Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities

Johannesburg Plan of Implementation:

Advance implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the Montreal Declaration on the Protection of the Marine Environment from Land-based Activities, with particular emphasis in the period 2002-2006 on municipal wastewater, the physical alteration and destruction of habitats, and nutrients, by actions at all levels to:

- ◆ *Facilitate partnerships, scientific research and diffusion of technical knowledge; mobilize domestic, regional and international resources; and promote human and institutional capacity-building, paying particular attention to the needs of developing countries;*
- ◆ *Strengthen the capacity of developing countries in the development of their national and regional programmes and mechanisms to mainstream the objectives of the Global Programme of Action and to manage the risks and impacts of ocean pollution;*
- ◆ *Elaborate regional programmes of action and improve the links with strategic plans for the sustainable development of coastal and marine resources, noting in particular areas which are subject to accelerated environmental changes and development pressures;*
- ◆ *Make every effort to achieve substantial progress by the next Global Programme of Action conference in 2006 to protect the marine environment from land-based activities.*

In 1995, the UNEP Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) was adopted by 108 governments and the European Commission, in response to the major problems of pollution in the oceans coming from land-based activities, including municipal, industrial and agricultural wastes and run-off, and atmospheric deposition. The GPA is designed to be a source of conceptual and practical guidance to States, individually or jointly, in taking concrete actions that give tangible results within their respective policies, priorities and resources. Implementing the GPA is primarily the task of national governments, supported in their efforts by regional and international organizations, with the coordination effort led by UNEP through the UNEP-GPA Coordination Office. Additionally, civil society has been recognized as a potential contributor towards the achievement of GPA goals. The GPA is intended to facilitate national action and regional cooperation in the identification of problem areas and issues, the setting of priorities, and the development of measures to prevent, reduce and control the degradation of the marine environment. The GPA emphasizes action at the national level, cooperation at sub-regional and regional levels, and the strengthening of existing conventions and the negotiations of new regional conventions and programmes as appropriate (UNEP-GPA 2005).

The GPA is implemented through a Programme of Work delivered through a flexible modular framework to allow partners to support specific components within the context of the approved work

programme. This structure allows partners the flexibility to select components to support and to negotiate the scope of delivery. While the scope of the Programme of Work is global, it is focused on targeted delivery in prioritized programmatic areas in selected geographic regions. The core components of the Programme of Work are: National Programmes of Action (NPAs); Strategic Action Plan on Municipal Wastewater (SAP Wastewater); Physical Alteration and Destruction of Habitats (PADH); Integrated Coastal Area and River Basin Management (ICARM); Innovative Financing Arrangements (IFA); Legislation; and Outreach, Awareness and Clearing-House Mechanism. Normative guidance and pilot projects are also main elements of the GPA components relating to SAP, PADH and ICARM (UNEP-GPA 2005).

National Actions Towards Achievement of Goals

National Programmes of Action (NPAs) provide a comprehensive yet flexible framework to assist countries in fulfilling their duty to preserve and protect the marine environment from the major GPA pollution categories. The framework operates from the premise that action at the national level should build upon existing national priorities, policies and development plans. The framework is flexible, allowing for specific responses to unique circumstances and national priorities. The development of NPAs represents a direct step towards the establishment of a national enabling environment for the GPA, strengthening institutional capacities and identifying national priorities and key activities. Changes at



Table 1: **Status of National Programmes of Action (NPAs) as of May 2006 (UNEP-GPA 2006)**

Region	Country	Status NPA	Region	Country	Status NPA
AFRICA	Algeria	Completed - implementation initiated		Israel	Completed; implementation initiated
	Egypt	Red Sea: ongoing – draft available; Mediterranean: Completed – implementation initiated		Italy	Completed; implementation initiated
	Libya	Completed - implementation initiated		Kazakhstan	Initiated
	Morocco	Completed - implementation initiated		Malta	Completed; implementation initiated
	Nigeria	Ongoing - draft available		Monaco	Completed; implementation initiated
	Tanzania	Ongoing – draft available		Serbia & Montenegro	Completed; implementation initiated
	Tunisia	Completed - implementation initiated		Slovenia	Completed; implementation initiated
	GEF WIO-LaB (Addressing Land-Based Activities in the Western Indian Ocean)	Planned - 3 countries to be selected		Spain	Completed; implementation initiated
	GEF GCLME (Guinea Current Large Marine Ecosystem)	Initiated/ongoing in 11 countries – 15 NPAs to be developed in total		Russian Federation (Caspian Sea)	Initiated
				Turkey (Mediterranean)	Completed; implementation initiated
ASIA & THE PACIFIC	Australia	Completed	LATIN AMERICA & THE CARIBBEAN	Turkmenistan	Initiated
	Bangladesh	Completed - revision ongoing		Russian Arctic	Ongoing
	China	Preparations ongoing		Bahamas	Preparations ongoing
	India	Completed – revision ongoing		Barbados	Initiated
	Kiribati	Planned		Belize	Initiated
	Pakistan	Completed – revision ongoing		Brazil	Completed
	Sri Lanka	Completed – implementation ongoing		Chile	Ongoing
	Tonga	Ongoing		Colombia	Completed – implementation ongoing
				Costa Rica	Ongoing
				Ecuador	Ongoing
EUROPE	Albania	Completed; implementation initiated	NORTH AMERICA	Honduras	Initiated
	Azerbaijan	Initiated		Jamaica	Completed – implementation initiated
	Bosnia/Herzegovina	Completed; implementation initiated		Mexico	Initiated
	Croatia	Completed; implementation initiated		Panama	Ongoing
	Cyprus	Completed; implementation initiated		Peru	Ongoing
	Finland	Completed; implementation ongoing		St. Lucia	Ongoing
	France (Mediterranean)	Completed; implementation initiated		Trinidad & Tobago	Ongoing
	Greece	Completed; implementation initiated	WEST ASIA	Canada	Completed – implementation ongoing
	Iceland	Completed		Lebanon	Completed - implementation initiated
				Palestinian Authority	Completed - implementation initiated
				Syria	Completed - implementation initiated
				Yemen	Completed – implementation ongoing

¹Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa and Tanzania

²Angola, Benin, Cameroon, Cape Verde, Congo, DR Congo, Cote d'Ivoire, Gabon, Ghana, Equatorial Guinea, Guinea, Guinea-Bissau, Liberia, Sao Tome and Principe; Togo; Nigeria is also part of the project but started the NPA process independently before the GCLME project was approved

the national level policy, however, such as those resulting from a change in administration following elections, may delay the NPA processes that are being initiated.

UNEP/GPA has provided substantive support to national governments in the development of their national programmes of action. As a result, over 60 countries are in the process of develop-

ing, or have finalized, their respective NPAs (UNEP-GPA 2006) (Table 1). The GPA and the international community have been working to provide guidance, support, and funding to nations in their attempts to devise and implement NPAs. Governments are facing a bottleneck in terms of personnel resources available at location to bring good ideas to the level of bankable, demand-driven projects.

The leverage of locally available, domestic financial resources is another constraint in realizing implementation activities on the ground.

Nevertheless, the number of countries working on NPAs for GPA implementation indicates that countries recognize the need for and are embarking on national level planning with respect to the GPA. A next step is to ensure that



During the 1995 Intergovernmental Conference, held in Washington DC, when the Global Programme of Action (GPA) was adopted, governments expressed their commitment to protect and preserve the marine environment from impacts of land-based activities, and their intention to cooperate on a regional basis to coordinate efforts for maximum efficiency and to facilitate action at the national level. This is one of the deliverables we are proudly demonstrating and reflecting the efforts towards implementing the Johannesburg Plan of Implementation and the WSSD resolutions.

--Hon. Rejoice Mabudafhasi,
Deputy Minister of Environmental
Affairs and Tourism, South Africa

these issues are embedded in the MDG-based Poverty Reduction Strategy Reduction Plans (PRSPs).

International Actions Towards Achievement of Goals

At the 2002 World Summit on Sustainable Development, governments and NGOs committed to the full implementation of the GPA. The Johannesburg Plan of Implementation provides for advancing the implementation of the GPA and the Montreal Declaration on the Protection of the Marine Environment from Land-based Activities. Each country has to select a suitable implementation approach following guidelines provided by the GPA Coordination Office in the development of national programmes of action. Partnerships among intergovernmental organizations, government agencies and NGOs from various countries were formed specifically to implement GPA, including the White Water to Blue Water initiative and the Hilltops-2-Oceans initiatives, which inspired significant enthusiasm and collaboration at their launching. However, since many stakeholders are to be involved in the partnerships, in the development of National Programmes of Action (NPAs), as well as in the development and implementation of cross-cutting themes and programmatic components, sufficient time and support should be allowed for participatory processes to be established and to be carried out.

Regional actions including GPA regional meetings, regional meetings on Municipal Wastewater Management, Physical Alterations and Destruction of Habitats (PADH) consultation meetings, regional meetings on implementation of LBS (land-based sources) protocols, and Small Island Developing States regional meetings, have all addressed GPA implementation. The UNEP Regional Seas Programme also provides an important platform for coordinated implementation of the GPA. Regional Seas conventions and action plans bring together major regional actors involved in the management and sustainable development of

marine and coastal environments and facilitate links between the national governments relevant to each instrument. The GPA has been able to capitalize on these networks in several ways through integrated regional actions, e.g. legislative reviews, capacity building workshops and pilot projects.

As noted, partnerships to facilitate the implementation of the GPA have provided added momentum towards achieving the WSSD goal. For example:

- Partnerships with the White Water to Blue Water initiative, the Hilltops-2-Oceans (H2O) initiative, the UN-HABITAT/WHO/WSSCC partnership, UN-Oceans, UN-Water, UNESCO/IHE and others, have strengthened global cooperation on this issue.
- The 'FreshCo' Partnership, and other similar efforts through which the GPA works to link freshwater and coastal issues. The GPA also works to bring attention to the interlinkages between Integrated Water Resources Management, Integrated River-basin Management and Integrated Coastal Area Management. In addition, Guiding Principles for Integrated Coastal Area and River Basin Management (ICARM), which strives to incorporate these concepts, have been developed by UNEP.

The Bottom Line and Outstanding Issues

In an effort to reinforce the linkages between freshwater and oceans and coasts, participants at the Third Global Conference suggested that the following themes be incorporated into the Ministerial Declaration at the 4th World Water Forum:

1. The goals of sustainable development cannot be met without linking freshwater to coasts and oceans. This is particularly true in small island developing States.
2. Because impacts collect and are concentrated in coastal zones, a key goal



of integrated water resource management is to address coastal and oceans impacts.

3.Actions are needed at the local level throughout the watershed.

Several sessions at recent international freshwater and ocean meetings (including the 4th World Water Forum) highlighted the inextricable connection between freshwater and oceans and made specific recommendations for creating linkages among management regimes for watersheds, river basins, coasts, and oceans. However, bridging barriers between freshwater and coastal/marine institutions and communities remains a formidable challenge.

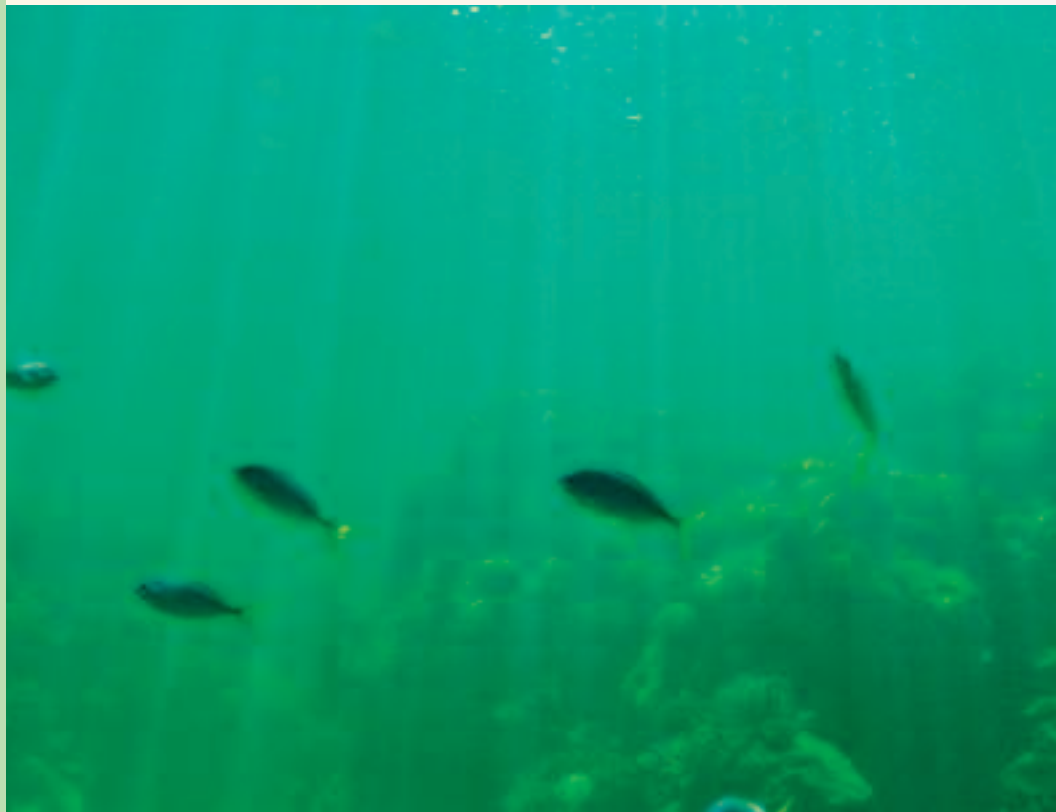
To build upon the momentum of the 4th World Water Forum and other international events addressing freshwater to oceans linkages, the 2nd Intergovernmental Review of the GPA will include a Partnership Day that will be modeled after the White Water to Blue Water Partnership.

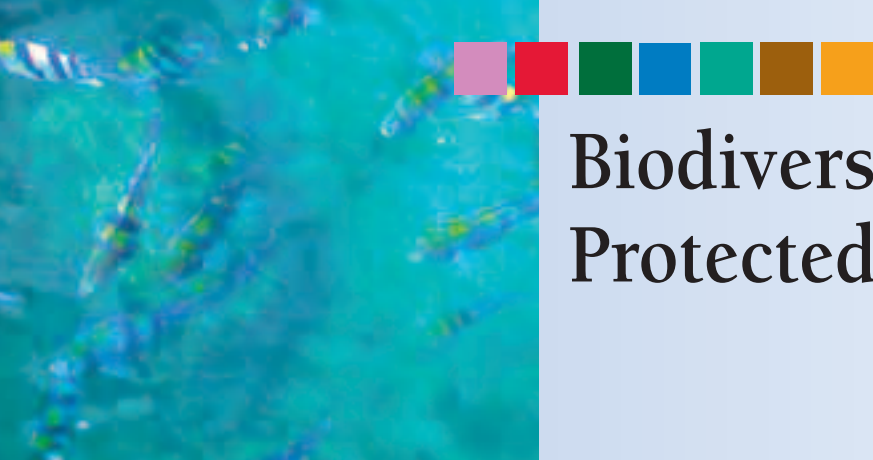
Implementing the GPA requires broad thinking about the interaction between freshwater resources and the coastal and marine environment. Achieving this goal is also tied to the goals of achieving effective integrated ocean and coastal resource management as well as Integrated Water Resource Management (IWRM).

The First Intergovernmental Review of the GPA (held in 2001) facilitated the recognition of the GPA as a valuable tool for furthering ecosystem approaches to the management of oceans, coasts, and islands. During the **Second Intergovernmental Review of the GPA** (to be held October 16-20, 2006 in Beijing, China), progress achieved to date will be reviewed and the programme of work for the period 2007-2011 will be developed. This review presents another key opportunity to advance the application of ecosystem-based management by recognizing the inextricable link between freshwater, coastal, and ocean ecosystems.

With regard to the World Bank/ GEF Strategic Partnership Investment Fund for Land-Based Pollution Reduction in the Seas of East Asia, our approach is not to create something new, but to build on the excellent work that has already been done. This regional coordination project will be implemented by PEMSEA, and some of the benefits of the partnership modality include: the creation of a forum for dialogue between the financiers and technical specialists; facilitation of common monitoring and evaluation; alignment of lending priorities of World Bank with borrowing priorities of clients; an opportunity to test activities that do not have a well-defined defined borrower; and an opportunity to support those with the courage to change.

--Dr. Mara Warwick,
East Asia and Pacific Region,
World Bank /GEF Strategic Partnership
for East Asian GPA Issues





Biodiversity and Marine Protected Areas

Johannesburg Plan of Implementation:

- ◆ To achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth
- ◆ Develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive fishing practices, the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks by 2012

Biodiversity loss is an issue with complex social, economic, cultural, and ecological dimensions, and complex solutions are required to resolve it.

--Madame Fientje Moerman,
Vice-Minister-President of the
Flemish Government and
Flemish Minister for Economy,
Enterprise, Science, Innovation and
Foreign Trade, Belgium

Background

Biological diversity, as defined in the Convention on Biological Diversity (CBD) is “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems” (Article 2: 1992 UN Convention on Biological Diversity). The CBD, through the Jakarta Mandate, is the main international agreement leading conservation of marine and coastal biodiversity. Many international agencies and non-governmental organizations also contribute to this effort by assisting a number of nations with their efforts to establish protected areas.

The 2005 Millennium Ecosystem Assessment highlighted significant declines in biodiversity, including marine and coastal biodiversity; for example:

- During the later part of the twentieth century, approximately 40% of the world's coral reefs were lost or degraded. During that same time, approximately 35% of mangrove area was also lost.
- The species extinction rate has increased greatly over the past several centuries, possibly to as much as 1000 times the naturally occurring or "background" extinction rates.
- Key factors in loss of diversity include a variety of changes to ecosystems, such as habitat loss, overharvesting, invasive species, pollution, and climate change (Millennium Ecosystem Assessment 2005).

Biodiversity concerns are especially prevalent in island ecosystems. The Earth is home to more than 130,000 islands, which host more than 500 million people. Islands contain half of the world's tropical marine biodiversity; especially notable is the fact that 12 of the 18 centers of marine endemism as well as seven of the ten coral reef hotspots occur in island ecosystems. Island species are in many cases highly threatened and islands are also the sites of the greatest number of species extinctions. There are highly diverse cultures found in the 43 Small Island Developing States (SIDS) and these cultures rely heavily on marine biodiversity for their livelihoods. In many cases these islands face unique challenges in the conservation and sustainable use of island biodiversity (Miles, 2006).

One method to halt the loss of marine and coastal biodiversity is through the use of marine protected areas (as noted in the WSSD goals). The main responsibility to conserve biodiversity, in conjunction with networks of marine protected areas (MPAs), lies with national governments. International organizations, regional institutions, and non-governmental organizations provide assistance, as well, to meet these commitments through such actions as project development, funding, guidance on best practices, indicator development, etc. For example, the World Conservation Union (IUCN) has developed guidance for MPA managers on linking MPAs to Integrated Coastal and Ocean Management (Belfiore, Cicin-Sain, and Ehler, 2004).

National actions

It is encouraging to note that of the countries that had submitted their CBD Third National Reports by January 2006 (approximately 60), the majority have taken action to designate protected areas (Table 1). Upcoming work by the Secretariat of the Convention on Biological Diversity and the Global Forum on Oceans, Coasts, and Islands will prepare a more detailed report on national efforts to conserve marine and coastal biodiversity both through protected areas and coastal and ocean management efforts.

A variety of initiatives in marine biodiversity conservation are underway at national and regional levels. A major development to improve biodiversity conservation in the Pacific was announced during the Eighth Conference of the Parties to the Convention on Biological Diversity (CBD-COP8) in March 2006. During the meeting, President Tommy Remengesau of Palau presented the “Micronesian Challenge,” a shared initiative to develop a network of protected areas among the islands of Micronesia. The initiative commits nations to protect at least 30 percent

of nearshore marine ecosystems and 20% of terrestrial ecosystems by 2020. This effort is being led by Palau, the Federated States of Micronesia, the Marshall Islands, and the US territories of Guam and Northern Marianas Islands (MPANews, 2006). The Nature Conservancy and Conservation International have already pledged \$6 million dollars to support this initiative with the goal of obtaining matching funds from donor countries and international or regional finance mechanisms (CI, 2006). In addition, the president of Kiribati announced the formation of the world's third-largest marine reserve, the Phoenix Islands Protected Area, which covers both coral reef and deep-sea habitat (Vierros, 2006).

Australia is using a bioregional planning model to identify key conservation values, features and threatening processes through a comprehensive ecological profile. These plans will include the current suite of biodiversity conservation tools available to the Australian Government including threatened species recovery planning, threat abatement plans, and marine protected area development. The

Senegal has introduced a strategy to develop and manage marine protected areas, in line with the recommendations of the World Conservation Union (IUCN) World Congress on Protected Areas held in Durban in 2003. Ten protected marine areas are being established in close cooperation with partners from civil society, the private sector and international institutions and bodies.

--Honorable Thierno Lo,
Minister for the Environment and
Protection of Nature, Senegal

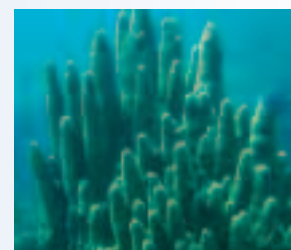
plans will also include baseline data to measure ecological sustainability on a regularized, five year cycle (Petrachenko and Addison, 2005).

In Canada, the Oceans Act of 1997 provides the mandate to develop a National Marine Protected Areas program as well as a Marine Ecosystem Health program. In addition, the Act required the development of an ocean strategy (Canada's Ocean Strategy), which was completed in 2002. This strategy was, in part, based on lessons learned over five years of pilot-testing over 30 integrated management and marine protected area projects (Mageau, VanderZwaag and Farlinger, 2005).

Table 1. Status of MPAs as reported in the CBD Third National Reports

Status of MPAs*	Percentage of Reporting Countries (no. of countries)
Designated some MPAs	71% (51)
Management plans developed with involvement of all stakeholders	63% (45)
Have effective management with enforcement and monitoring	46% (33)
Had plans to develop new MPAs	74% (53)
Plans to improve management of existing MPAs	71% (51)
MPA system or network under development	51% (37)
MPA system or network in place	29% (21)

*As reported in Convention on Biological Diversity Third National Reports received and analyzed prior to July 6, 2006.



The fisheries sector in Viet Nam has recently experienced spectacular development (worth \$2.5 billion dollars in exports in 2005).

To maintain sustainable fisheries development, the Vietnamese

Government has selected the ecosystem-based and integrated management approaches, carrying out such initiatives as:

--setting up a masterplan for a national system of marine protected areas;

--developing the legal framework for coastal and marine biodiversity management (Law of Environmental Protection (1994), Biodiversity Action Plan (1995), Law of Fisheries (2004)) which incorporates decrees and regulations on MPAs, wetlands, marine fisheries management, as well as some marine policies related to marine environment protection and conservation;

--developing the institutional framework for coastal and marine biodiversity management.

Dr. Nguyen Viet Thang,
Vice-Minister, Vietnam Ministry of Fisheries

The United Kingdom has developed a strategy to meet the WSSD commitments in three main areas: sustainable fisheries, conservation and sustainable management of marine and coastal biodiversity; and oceans governance and partnerships. In relation to protected areas, the UK has committed to identify a network of marine protected areas by 2006 under the Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR). As of 2005, 74 inshore Special Areas of Conservation have been identified (DEFRA, 2005).

Major areas of uncertainty

One issue that remains unresolved is the conservation of marine biological diversity beyond national jurisdiction (the high seas and deep seabed). In February of 2006, the UN Ad hoc Open-ended Informal Working Group to Study Issues Relating to the Conservation and Sustainable Use of Marine Biological Diversity Beyond Areas of National Jurisdiction (called for in UNGA resolution 59/24) met in New York to address this issue. At the close of the meeting it was agreed that there are many areas where further study is needed, including: 1) improved understanding of the resources and human impacts, 2) research into the development of management options, 3) improved understanding of the economic and socio-economic aspects, and 4) understanding the related legal and institutional issues.

During CBD COP8 in March 2006, two aspects of this issue were also discussed: deep seabed genetic resources and marine protected areas beyond national jurisdiction. It was emphasized on both issues that further scientific information

is needed. The parties recognized the role of the UN Convention on the Law of the Sea (UNCLOS) and the UN General Assembly in addressing issues related to marine areas beyond national jurisdiction, and requested that the CBD Executive Secretary, in collaboration with the UN Division for Ocean Affairs and the Law of the Sea and other relevant organizations, continue to analyze options to prevent and mitigate impacts on selected habitats of the deep seabed (Vierros, 2006b).

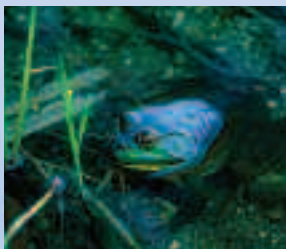
Although there appears to be broad consensus that something must happen to reverse the trend of degradation and to address emerging threats, there is not yet agreement on what specifically should be done. Proposals range from increasing research to better understand the oceans, to the development of a new implementing agreement under UNCLOS, and possibly a joint protocol between UNCLOS and CBD.

Bottom line and Outstanding Issues

Considering progress on the achievement of the WSSD biodiversity and marine protected area goals, it seems that in this area tangible progress has been made since 2002. Important initiatives are underway at both national and regional levels, and in the CBD national reports, a large proportion of nations reporting note that they have designated MPAs and also have plans to create MPA networks and to improve existing MPAs.

Implementation of the WSSD biodiversity and MPA goals benefits from the connection to an international convention—





the Convention on Biological Diversity—and its Secretariat, which provide a well-organized structure and process for advancing biodiversity around the world. In this area, too, there is good monitoring and regular reporting of progress on biodiversity conservation through such means as the national reports, the conference of the parties, and the scientific meetings. This is not the case with regard to many of the other WSSD goals.

Many challenges still remain in the establishment of networks of marine protected areas, including, for example, insufficient funding, inadequate awareness about the value of the resources, lack of political will and lack of shared long-term vision among stakeholders (Vierros, 2006a).

It is also important to embed the creation of MPAs within broader governance systems of integrated ocean and coastal management. These considerations are essential because the effectiveness of MPAs is not only influenced by the management of activities within the designated areas, but also human activities that are sometimes far removed from the protected area. Without consideration of the broader governance and management context, protected areas can be fated to become “islands of protection in a sea of use” (Cicin-Sain and Belfiore, 2005).

Despite obstacles, globally there has been a 3-5% increase in the rate of marine protection over the last century. As of 2005, there were approximately 4,600

MPAs covering 2.2 million square kilometers. This shows progress, but still only accounts for 0.6% of all the oceans (although it accounts for 6% of the territorial seas). Unfortunately these increases are not sufficient at the current rate of designation to reach the goal of networks of marine protected areas by 2012. If the current rate of designation is simply maintained, one study predicts that the 2012 WSSD goal will not be met until 2085 (MPA News, 2005).

The issue of high seas and deep seabed biodiversity will continue to be a key issue in the coming years. There is an important opportunity to build momentum towards resolving this issue in a collaborative and inclusive way in the near term. Many national governments, NGOs, as well as intergovernmental organizations are poised to move forward and take significant steps towards conserving and maintaining biodiversity in marine areas beyond national jurisdiction.

Finally, it is important to underline that the achievement of the biodiversity conservation goals is directly tied to the efforts to meet the goals related to fisheries as well as the goals on integrated ocean and coastal management and on ecosystem management. These goals should be considered mutually supporting and, to the extent possible, they should be considered as parts of a whole.

To achieve sustainable management of the Croatian coast, islands, and the Adriatic sea, we are currently in the process of establishing a unique network of marine protected areas along the coast, linking existing protected areas with planned future marine protected areas, using an integrated approach to conserve and manage the cultural and natural heritage of this region.

--Mr. Zoran Sikic,
Assistant Minister of Culture,
Government of Croatia





Small Island Developing States and Oceans

Johannesburg Plan of Implementation:

- ◆ Undertake a comprehensive review of the implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States in 2004

The special challenges dictated by the unique case and vulnerabilities of the SIDS are well defined, explained, prioritized and presented in the Mauritius Strategy for the Further Implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (MSI). As the blueprint of the global partnership between SIDS and the international community for the sustainable development of SIDS, the task now is to effectively implement the Strategy on the ground in SIDS.

--Ambassador Enele Sopoaga,
Tuvalu, Vice-Chair, Alliance of
Small Island States (AOSIS)

Small island developing states (SIDS) are characterized as large ocean states due to establishment of 200 mile Exclusive Economic Zones (EEZs), resulting in these small islands being custodians of much of the world's ocean space. Despite the fact that SIDS have large ocean areas rich in resources (fisheries, oil and gas, minerals, renewable energy), many island States are unable to benefit from the existence of these resources within their EEZs a result of inadequate technical and management capacity. For example, SIDS often lack the technologies necessary for the sustainable use of ocean resources. Another issue of major concern to SIDS is the threat of climate change and the associated sea level rise predictions. The significant vulnerability of the natural environment, economy, and social structure of SIDS has been well established. Even though similar problems are present in most or all developing countries, because of the inherent characteristics of SIDS, they are felt more acutely by these countries.

In April 1994, the *Global Conference on Sustainable Development of Small Island Developing States* was convened in Barbados. This was the first conference that translated Agenda 21 into a programme of action for a group of countries: the *Barbados Programme of Action on the Sustainable Development of Small Island Developing States* (BPoA). The BPoA sets forth a fourteen point program identifying priority actions and measures to be taken at the national, regional and international levels in support of the sustainable development of SIDS.

The 2002 WSSD called for States to “undertake a full and comprehensive

review of the implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States in 2004, in accordance with the provisions set forth in General Assembly resolution S-22/2...” (UNCSD 2005)).

The ten-year review of the BPoA was held in Port Louis, Mauritius in January 2005. The Mauritius International Meeting resulted in the *Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States*. The Mauritius Strategy notes the actions needed in order to achieve implementation of the BPoA. Section IV of the Mauritius Strategy relates to coastal and marine resources and includes seven items (26-32), including issues associated with delimitation of maritime boundaries, assessment of living and non-living marine resources, financial and technical assistance, capacity building, ascension to the U.N. Fish Stocks Agreement, enforcement, and the implementation of the UNEP Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, among other issues (see Box 1). Another outcome of the Mauritius International Meeting was the creation of a Small Island Developing States Universities Consortium to further SIDS cooperation on sustainable development education and to strengthen the national capacity of small island states to implement the Barbados Programme of Action and the Mauritius International Strategy. The five founding member institutions include the universities of Malta, Mauritius, South Pacific, Virgin Islands, and West Indies.

*Note: The emphasis in this section is on SIDS/UNEP and oceans. Therefore, other WSSD goals related to SIDS (community-based initiatives on sustainable tourism; implementation of the GPA regarding waste management and pollution; energy services) are not explicitly covered due to data and time limitations. Regarding the goal related to GPA and waste management, it should be noted that a SIDS/UNEP partnership on waste management will be featured at the forthcoming Intergovernmental Review of the GPA (IGR-2) in Beijing in October 2006.



In October and November 2005, the UN Department of Economic and Social Affairs convened regional and inter-regional meetings of Small Island Developing States in collaboration with relevant regional organizations and stakeholders, for the follow-up of the implementation of the Mauritius Strategy for Implementation. The meetings were held in St. Kitts & Nevis (5-7 October), Samoa (17-19 October), Seychelles (26-28 October), and Rome (15-16 November). Recommendations emanating from the meetings pushed for the establishment of enabling environments at the national, regional and international levels to support the implementation of the Mauritius Strategy (UN DESA 2006).

Implementation of the Barbados Programme of Action and the Mauritius Strategy in relation to oceans

Table 1. Status of Multilateral Environmental Agreement Ratification by Small Island Developing States (SIDS) as of 2004.

Source: Loper et al, 2004.

Table 1 shows a high level of ratification among SIDS nations (as of 2004) on major international conventions, as called for in the Barbados Programme of Action, most prominently, the Framework Convention on Climate Change, the Convention on Biological Diversity, and the Law of the Sea Convention. The nature of some of the problems faced by SIDS (e.g. climate change, marine pollution, depletion of fish stocks) dictates that they are best resolved through regional or international cooperation. Although SIDS show high levels of participation in some agreements, however, most face serious financial, technical, and capacity constraints in implementing these conventions (Loper et al 2004).

As can be seen in Table 2, there has been good progress on some aspects of ocean and coastal management, such as the establishment of marine protected areas by 61% of the reporting countries. On the other hand, there has been little progress in core issues related to ocean and coastal management: no SIDS had delimited their EEZs and deposited EEZ coordinates with the UN Division of Ocean Affairs and Law of the Sea; only 20% of countries have developed specific institutions or inter-agency mechanisms for the coordination of integrated coastal and ocean management; and only 7% had enacted national coastal zone acts.

Status	Percentage of SIDS (no. countries)
Developed specific institutions or interagency mechanisms for the coordination of integrated coastal and ocean management.	20% (8)
Entrusted the coordination of marine and coastal issues to national environmental institutions.	44% (18)
Delimited EEZ and deposited EEZ coordinates with the UN Division of Ocean Affairs and Law of the Sea (DOALOS).	0% (0)
Enacted National Environmental Acts	63% (26)



Box 1. Actions needed in order to achieve implementation of the BPoA on coastal and marine resources, as provided for in the Mauritius Strategy.

IV. Coastal and marine resources

26. Small island developing States are defined by their historic, cultural and economic links to the oceans and seas. They continue to be heavily dependent on their marine resources, particularly for the sustainable livelihoods of coastal communities. The management of coastal and marine resources have become integrated into broader ocean management strategies since the entry into force of the United Nations Convention on the Law of the Sea.¹¹ However, for small island developing States that are States parties to the Convention, implementation continues to be impeded by financial constraints and a lack of capacity.

27. To overcome these constraints, it is important to give appropriate priority at all levels, including in national and regional sustainable development agendas, to ocean issues, including fisheries. Further action is required by small island developing States, with the necessary support of the international community, to enable small island developing States to, among other things:

(a) Complete the delimitation of their maritime boundaries;

(b) Submit any claims to the Continental Shelf Commission by 13 May 2009 or such later date as may be applicable in accordance with the provisions of the Convention on the Law of the Sea;

(c) Further the work on the assessment of living and non-living seabed resources within their national jurisdiction.

28. Further action is required by small island developing States, with the necessary support of the international community, to build technical and financial capacities to:

(a) Establish effective monitoring, reporting and enforcement, and control of fishing vessels, including by small island developing States as flag States, to further implement international plans of action to prevent, deter and eliminate illegal, unreported and unregulated fishing and to manage fishing capacity;

(b) Strengthen or develop, where necessary, national and regional sustainable and responsible fisheries management mechanisms consistent with the 1995 Food and Agriculture Organization of the United Nations Code of Conduct for Responsible Fisheries;

(c) Fully implement surveillance and monitoring systems;

(d) Analyse and assess the status of fish stocks;

(e) If they have not yet done so, consider becoming parties to the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks¹³ and the Food and Agriculture Organization of the United Nations 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas,¹⁴ as well as relevant regional agreements for the conservation and management of fisheries;

(f) Establish or enhance the necessary infrastructure and legislative and enforcement capabilities to ensure effective compliance with, and implementation and enforcement of, their responsibilities under international law. In this regard, until such action is undertaken small island developing States flag States are encouraged to consider declining the granting of the right to fly their flag to new vessels, suspending their registry or not opening a registry.

29. Distant-water fishing nations are encouraged to provide small island developing States with adequate technical and financial support to enhance the effective and sustainable management of their fisheries resources.

30. In collaboration with other States and making use of regional mechanisms, small island developing States will work to put in place integrated policies and sound management approaches, such as marine protected areas, consistent with relevant international agreements, and develop national capacity to monitor, conserve and sustainably manage coral reefs and associated ecosystems, taking into account the programme of work on marine and coastal biological diversity adopted by the Conference of Parties to the Convention on Biological Diversity at its seventh session. Small island developing States should address as a priority the impacts of coastal development, coastal tourism, intensive and destructive fishing practices and pollution, as well as the unreported and illegal trade in corals, on the future health of coral reefs. To facilitate these initiatives, the international community should provide technical and financial support for:

(a) Regional monitoring efforts and Global Ocean Observing System;

(b) Intergovernmental Oceanographic Commission marine science programmes that are of particular relevance to small island developing States;

(c) The strengthening, where appropriate, of representative networks of marine protected areas, consistent with decision VII/2816 of the Conference of Parties to the Convention on Biological Diversity;

(d) Activities to address the impact of coral bleaching, including enhancing resistance and recovery.

31. Small island developing States and relevant regional and international development partners should work together to develop and implement regional initiatives to promote the sustainable conservation and management of coastal and marine resources, drawing upon best practices from other regions, including the Pacific Islands Regional Ocean Policy, the designation of the Caribbean Sea as a special area in the context of sustainable development, the ocean governance project involving all regions, and the establishment of related initiatives in other small island developing States regions.

32. Small island developing States and the international development partners should fully implement the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, particularly with the support of the United Nations

36. The international community is requested to provide assistance to small island developing States for capacity-building for the development and further implementation of freshwater and sanitation programmes, and the promotion of integrated water resources management, including through the Global Environment Facility focal areas, where appropriate, the World Water Assessment Programme, and through support to the Global Programme of Action Coordination Office and the EU "Water for Life Initiative".

Table 2, continued

Status (no. countries)	Percentage of SIDS
Enacted laws that provide for Environmental Impact Assessment	32% (13)
Developed National Sustainable Development Plans, and Biological Diversity National Strategies. (Note: The Cook Islands, Marshall Islands and Samoa have developed Marine Resources Plans.)	44% (18)
Enacted National Coastal Zone Acts	7% (3)
Developed national initiatives for integrated coastal management.	46% (19)
Enacted legislation on watershed planning, which includes coastal watershed management.	27% (11)
Established Marine Protected Areas (MPAs)	61% (25)

Source: Loper et al, 2005.

Loper et al (2005) also analyzed trends in several areas related to ocean and coastal management on which reports were available in the National Assessment Reports and the WSSD country reports.

With regard to climate change and sea level rise, a majority of reporting SIDS have produced a national sea level rise adaptation plan (63%), have a national disaster preparation and response plan (61%), and have prepared greenhouse emissions assessments (54%). These efforts have been facilitated by the availability of funding related to meeting commitments related to the Climate Change Convention.

Regarding the management of tourism in SIDS, typically based on ocean and coastal assets, the data show that the majority of SIDS countries reporting have some kind of tourism agency at the national level (88%), have developed national tourism strategies or plans (59%), have developed sustainable tourism standards or an eco-tourism accreditation scheme (54%), and have shown evidence of ecotourism or community-based tourism (63%) (Loper et al, 2005).



Table 3. Trends in National Level Implementation of Oceans and Coasts Components of the Barbados Programme of Action: Climate Change and Sea level Rise.

Status	Percentage of SIDS (no. countries)
Produced or are in the process of producing a national sea level adaptation plan.	63% (26)
Have national offices dedicated to issues of climate change and sea level rise.	22% (9)
Have a national disaster preparation and response plan.	61% (25)
Have a national office or agency dedicated to addressing disaster issues.	49% (20)
Systems for early warning of citizens when disasters, such as cyclones, are imminent.	29% (12)
Have renewable energy system installed.	37% (15)
Greenhouse gas (GHG) emissions assessments have been completed.	54% (22)
Installed equipment for environmental monitoring such as tidal gauges and meteorological stations.	20% (8)
Have implemented projects for public education about climate change and sea level rise.	34% (14)
Have produced a specific assessment pertaining to the socio-economic impact of sea level rise and climate change.	10% (4)

Source: Loper et al, 2005.

Regarding waste management, a majority of reporting SIDS have put in place some regulatory measures for the management of wastes and the control of pollution (90%), and have carried out surveys related to the characterization of wastes and/or the establishment of monitoring programs (51%).

Other examples of progress, in specific countries and regions, taking place after the Mauritius meeting were highlighted at the Global Conference (Walker, 2006):

- The Cook Islands has made positive strides in meeting the Millennium Development Goals, particularly those related to management of waste and monitoring biodiversity.
- The Cook Islands has developed a National Development Plan and a draft Tourism Master Plan to assist the country with the implementation of the Mauritius Strategy.
- Sao Tome and Principe is currently in the implementation phase of its National Programme of Action for addressing land-based sources of marine pollution as part of the Guinea Current Large Marine Ecosystem Project.
- Many islands in the Caribbean have put mechanisms in place to address management of waste and water pollution, such as:
 - Establishing Solid Waste Management Authorities;
 - Developing Marine Pollution Acts;
 - Acceding to relevant IMO instruments;
 - Establishing sanitary land fill sites;
 - Conducting public awareness and sensitization campaigns on waste management issues.
- Many Caribbean governments are committed to the Integrated Watershed and Coastal Area Project, funded by GEF, being executed by the UNEP Caribbean Environment Programme and the Caribbean Environment Health Institute.
- Pacific SIDS are in the process of developing National Sustainable Development Strategies, and some have already completed theirs. There is a need for additional financial support to implement and complete the strategies.
- The Pacific Islands Regional Ocean Policy was endorsed by the Ministers in 2002 and is currently being implemented at the national level (see Box 2).

Table 4. Trends in National Level Implementation of Oceans and Coasts Components of the Barbados Programme of Action: Tourism

Status	Percentage of SIDS (no. countries)
Have some kind of tourism agency at the national level	88% (36)
Have installed these organizations at the ministry or secretary of state level, such as a Ministry of Tourism or Secretary of State of Tourism.	49% (20)
Have developed national tourism strategies or plans	59% (24)
Have adopted sustainable tourism standards or an ecotourism accreditation scheme	54% (22)
Have shown positive evidence of ecotourism or community-based tourism, but it is not clear what proportion of overall tourism activities are eco-tourism and/or involve local communities.	63% (26)
Capacity building for tourism, including training of local workers.	46% (19)
Initiatives for cultural preservation within SIDS related to tourism.	24% (10)

Source: Loper et al, 2005.

Table 5. Trends in National Level Implementation of Oceans and Coasts Components of the Barbados Program of Action: Waste Management

Status	Percentage of SIDS (no. countries)
Developed incentives for the minimization of wastes.	39% (16)
Some regulatory measures for the management of wastes and the control of pollution.	90% (37)
Accomplishment or the current development of improvements in the disposal of solid domestic wastes.	27% (11)
Small and large scale recycling initiatives.	39% (16)
Performed specific or comprehensive surveys related to the characterization of wastes and/or establishment of monitoring programs.	51% (21)
	51% (21)

Source: Loper et al, 2005.



Box 2. The Pacific Islands Regional Ocean Policy

The Pacific Islands Regional Ocean Policy was approved by Pacific Island leaders in 2002. It underscores the importance of the ocean to Pacific Island nations and communities and serves to unify a number of existing regional initiatives that address issues relevant to management and development of ocean and coastal resources and environments.

The Regional Ocean Policy stems from "a regional effort to achieve responsible ocean governance." The vision of the region's leaders, as embodied in the policy, is a "healthy ocean that sustains the livelihoods and aspirations of Pacific Island communities." The Policy's goal is to ensure the future sustainable use of the ocean and its resources by both Pacific Island communities and their external partners. The Policy views the ocean broadly, defining it "to include the waters of the ocean, the living and non-living elements within, the seabed beneath and the ocean-atmosphere and ocean-island interfaces."

The Pacific Islands Regional Ocean Forum (PIROF), 2-6 February, 2004, University of the South Pacific, Suva, Fiji Islands, was held to gather input from a wide variety of stakeholders regarding the actions that are needed to implement the Pacific Islands Regional Ocean Policy. The Forum was attended by over 200 people from more than 20 countries. The discussions held at the Forum provided the basis for the Policy's implementation framework, the Pacific Islands Regional Ocean Framework for Integrated Strategic Action (PIROF-ISA).

The Pacific Islands Regional Ocean Policy contains guiding principles that are central to the goal of sustainable use of ocean resources, and these principles provide the structure that guides the Policy's implementation. Each of the principles or themes identified in the Policy is further developed in the implementation framework through a series of priority initiatives and actions. The overarching theme of improving ocean governance contains specific governance initiatives and actions designed to create an enabling environment for implementation of the Policy. The principle of creating partnerships and cooperation underpins all of the others, as implementation must be collaborative. The four central principles – relating to understanding of the ocean, sustainable development and management of ocean resources, health of the ocean, and peaceful use of the ocean – address issues at the heart of sustainable ocean governance.

Source: Pacific Islands Regional Ocean Policy.
<http://www.spc.int/piocean/forum/New/welcome.htm>

- During the thirteenth session of the Commission on Sustainable Development (CSD) it was decided that, during future meetings of the Commission, one full day will be committed to addressing SIDS issues (Walker 2006).

Implementation issues

Despite the fact that SIDS have large ocean areas rich in resources (fisheries, oil and gas, minerals, renewable energy), many island States are often unable to benefit from the existence of these resources within their EEZs as a result of lack of funding support and insufficient technical and management capacity.

Reduced funding

A major reason for problems in the implementation of the BPoA has been the decline in international support and resources. Reviews indicate a 50% reduction in Official Development Assistance (ODA) to SIDS in the period 1994-2004 (UN, 2004c). This decline in ODA is reflected in the lack of capacity to implement environmental agreements ratified by SIDS countries as well as in the lack of implementation of national plans and legislation developed for ocean and coastal management, climate change and sea level rise, tourism, and waste management.

The need for capacity development

Another obstacle is the absence of technical capacity, especially regarding EEZ and coastal management. There is consensus that enhancing capacity development in ocean and coastal management is a priority need among the SIDS. In this regard, the Global Forum on Oceans, Coasts, and Islands carried out, in late 2005, four assessments on the specific steps that can be taken to rapidly implement the Mauritius Strategy in four SIDS regions (Pacific, Caribbean, Indian Ocean, and Atlantic), including specific steps that need to be taken to enhance capacity development in each region (prepared by SIDS consultants with the support of various governmental and nongovernmental partners, and especial-

ly the Global Environment Facility) (Global Forum on Oceans, Coasts, and Islands 2006).

Additionally, the Community of Portuguese-Speaking Nations (CPLP) held a separate workshop on *The Seas of the Community of Portuguese-Speaking Nations*, as a part of The Ocean Policy Summit (October 10-14, 2005, organized by the Global Forum on Oceans, Coasts, and Islands, in Lisbon, Portugal, and supported by the Government of Portugal, the Nippon Foundation, and other partners), which brought together high-level representatives from the eight Portuguese-speaking nations to discuss common needs and prospective shared solutions for addressing capacity building in ocean and coastal management, with a special emphasis on the Portuguese-speaking Atlantic SIDS (Global Forum on Oceans, Coasts, and Islands 2006).

The follow-on activities to these assessments under discussion are capacity building initiatives for immediate implementation, including: 1) "ocean strategy" workshops on ocean and coastal management for high-level SIDS officials, 2) enhancement of the ocean and coastal management curricula in SIDS universities through the SIDS Consortium of Universities; and 3) development of training in ocean and coastal management for CPLP countries in Portuguese.

The need to institutionalize follow-up to the Mauritius Strategy and to formalize AOSIS

Another major obstacle emphasized at the Global Conference was insufficient institutional support for systematic follow-up to the Mauritius Strategy. Participants noted that there is an absence of a formalized integration, coordination, and monitoring mechanism to assess implementation of the Mauritius Strategy at the national and regional level; there is a need to integrate the Mauritius Strategy into the work programs of relevant UN organizations; UN agencies should designate a focal point within their agencies to be responsible



for SIDS issues and for Mauritius Strategy implementation; indicators for progress on the implementation of the strategy should be established; funding for SIDSNET (the Internet service on small island issues) should be provided; and SIDS themselves, too, should establish their own monitoring and evaluation methodologies at the national level to assess their own implementation of the Mauritius Strategy.

Participants also underlined the need for further evolution and development, and the establishment of a formal institutional structure for the Alliance of Small Island States (AOSIS), which has championed the cause of SIDS in all relevant intergovernmental fora, to insure the implementation of the Mauritius Strategy. Specific proposals for developing an institutional charter, structure, and Secretariat for AOSIS were presented.

Bottom Line and Outstanding Issues

The Mauritius International Meeting, providing a comprehensive review of the Barbados Programme of Action for the Sustainable Development of Small Island States, has been successfully carried out and the Mauritius Strategy has been adopted. In this sense, the WSSD goal has been fulfilled. But, of course, the WSSD goal is intended to further the implementation of the Barbados Programme of Action, while adding other elements regarding new issues that have arisen since 1994. In the long-term, the issue is actual implementation of the Mauritius Strategy. Rapid implementation will be dependent on the political will of SIDS leaders, on the provision of adequate financial resources and implementation assistance from relevant international entities, and on the efficient use of these resources by SIDS. As noted, the level of Official Development Assistance to SIDS has declined by 50% in some cases since 1994. Rapid implementation of the Mauritius Strategy will require a new infusion of development assistance support.

Regarding ocean and coastal management in SIDS countries, based on the various reports and assessments prepared by the Global Forum and partners, it is clear that most SIDS countries are keenly aware of the importance of the marine environment and its resources to their sustainable development and economic stability.

Institutional capacity in integrated coastal and ocean management, however, is constrained by weak institutions and administration processes as well as lack of human, technical and financial resources to develop and implement ocean and coastal policies. Many nations lack specific institutions or administrative processes to implement a cross-cutting approach to planning and management of oceans and coasts.

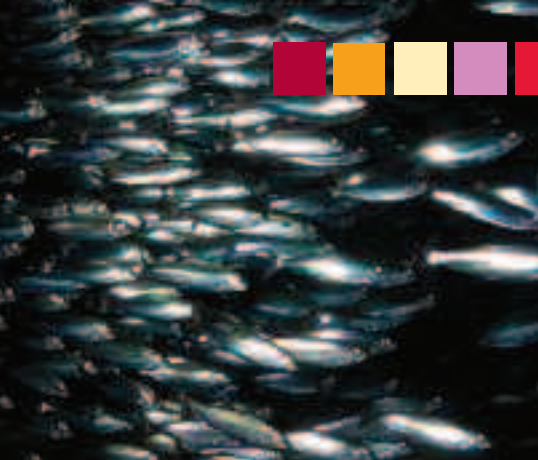
No SIDS has delimited its EEZ due to lack of capacity and/or boundary delimitation conflicts with neighboring states. Only 20% of SIDS have dedicated coastal management institutions; and only 7% have enacted coastal legislation. Most SIDS have not developed EEZ management plans; rather, they have created localized plans to manage fisheries and pollution issues. The SIDS countries face significant difficulties in surveillance and enforcement within their EEZs, due to logistical and financial constraints, as well as the expansive nature of the areas they control. Fisheries enforcement within EEZs is thus a primary area of concern and difficulty.

The SIDS assessments conducted by the Global Forum and partners as a follow-up to the Mauritius International Meeting emphasize the need for capacity development for ocean and coastal management in SIDS. Specific initiatives that are under discussion in this regard include the establishment of Ocean Policy Strategy Workshops for high-level SIDS decisionmakers, and the strengthening of relevant ocean and coastal management curricula in SIDS universities through the new SIDS Consortium of Universities established at the Mauritius International Meeting.

Global conference participants also underlined the need for a SIDS-driven mechanism to provide operational guidance, mobilization of support, oversight, and monitoring and reporting on progress (or lack thereof) in the implementation of the Mauritius Strategy. Specific proposals for developing a formal institutional structure for the Alliance of Small Island States (AOSIS), which has championed the cause of SIDS in all relevant intergovernmental fora, were advanced to insure the implementation of the Mauritius Strategy.

One of the biggest problems we have seen in the implementation of the Mauritius strategy has been the lack of proper coordination and the lack of a real monitoring body to insure implementation follow-up... We have come to the conclusion that unless the Alliance of Small Island States (AOSIS) constitutes itself in a proper, structured organization, with a formal structure and a formal charter, it will not be possible to ensure the full and proper implementation of the Mauritius Strategy because there is nobody else who will be able to do that from the perspective of having a full overview of the whole aspects of the Mauritius Strategy. So one of the recommendations that we think should come out from this conference is for AOSIS to formalize itself in a proper structure so that it can act as the intergovernmental body and follow up on the implementation of the Mauritius strategy.

--Ambassador Jagdish Koonjul,
Foreign Affairs, Mauritius,
outgoing chair, Alliance of
Small Island Developing States



Sustainable Development of Fisheries

Johannesburg Plan of Implementation:

- ◆ Implement the FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing (IUU) by 2004
- ◆ Implement the FAO International Plan of Action for the Management of Fishing Capacity by 2005
- ◆ Eliminate subsidies that contribute to illegal, unreported and unregulated fishing and to overcapacity
- ◆ Maintain or restore depleted fish stocks to levels that can produce their maximum sustainable yield on an urgent basis and where possible no later than 2015

About three quarters of the world's marine fisheries cannot withstand increased pressure. There has been a steady increase in the proportion of marine fish stocks that are classified as overexploited or depleted, according to the *State of World Fisheries and Aquaculture: 2004* (FAO, 2004b) prepared by the Food and Agriculture Organization of the United Nations (FAO). As noted in Table 1, sixteen percent of fish stocks are currently overexploited, fifty-two percent of stocks are fully exploited (indicating they are currently being fished at their maximum biological productivity); seven percent are depleted; and one percent of stocks are recovering from depletion. Only three percent of marine stocks are

currently underexploited and twenty-one percent are moderately exploited, meaning they could support small increases in fishing harvests. This situation of fisheries decline is of particular concern considering global population projections and the concomitant increase in demand for protein to feed these populations.

Table 1. Status of Global Marine Fish Stocks: 2004

Overexploited*	16%
Fully Exploited*	52%
Depleted*	7%
Recovering from Depletion*	1%
Moderately Exploited	21%
Underexploited	3%

* Stocks that cannot withstand further fishing pressure.
Source: FAO, 2004b

Fisheries have been a prominent component of international environmental negotiations and many nations have made commitments to take action to improve the sustainability of fisheries. As of May 2006, 149 nations had ratified the Convention on the Law of the Sea (UNCLOS) and 57 nations have ratified the Agreement for the Implementation of the Provisions of the Convention Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement). Eleven of the UNCLOS ratifications and 26 of the UN Fish Stocks Agreement ratifications occurred after the World Summit on Sustainable Development (United Nations, 2004a) indicating that the conference may have served as a catalyst to increase participation in these agree-

ments. The UN Fish Stocks Agreement was reviewed in May 2006, and During the review conference it was announced that an additional 14 nations will join the agreement. By the end of the review conference, member states and non-parties agreed on several key issues including: improving cooperation between flag States and coastal States in regards to high seas fisheries management measures; committing to reduce capacity of fishing fleets globally; and eliminating subsidies that contribute to IUU fishing, overfishing and fishing overcapacity (IISD, 2006).

Most fishing (up to 90%) occurs within 200-mile Exclusive Economic Zones (EEZs) under national jurisdiction, so participation and action by coastal and island states is essential for meeting the WSSD goals. Within EEZs it is the responsibility of national governments to implement and assess these goals since national governments are directly responsible for the management of their own fish stocks both under national laws as well as under international agreements such as UNCLOS. Developing countries and small island developing States, however, are typically in need of international support for developing management regimes for their EEZs including enforcement capabilities to prevent and control IUU fishing.

Currently, the role of nations as flag states is the main means of control of fishing vessels and fishing activities, but it should be noted that there is also an important role played by port states that offload fisheries products and also market states where these products are eventually sold. The issue of "flags of conven-





IUU fishing costs us \$9 billion a year, with \$1.25 billion on that on the high seas. These are similar to the losses caused by illegal logging. And like illegal logging they fall disproportionately on developing countries. We reckon Sierra Leone, for example, is losing \$110 million or more annually, with similarly large losses for other sub-Saharan countries.

--Minister Ben Bradshaw, Minister for Local Environment, Marine, and Animal Welfare, Department for Environment, Food and Rural Affairs, United Kingdom

ience” is a significant problem in fisheries management as it allows fishing operations to circumvent international fisheries agreements by registering (flagging) vessels in countries that either are not a party to the agreements (and therefore not bound to follow conservation and management regulations) or that turn a blind eye to the activities of their vessels. A 2005 study found that despite significant efforts to reduce IUU fishing, in 2005 there were still over 1000 large scale fishing vessels flying flags of convenience. The study also found that by the end of 2003, about 14% of large scale fishing vessels built between 2001 and 2003 were flying flags of convenience (Gianni and Simpson, 2005).

It is clear that the problem of fisheries decline has not been adequately resolved through flag state control alone. It is essential that the different states along the fisheries product chain, including both fishing states and states that serve as economic drivers for the industry, must all play a part in addressing this issue.

Beyond EEZ limits, management of fisheries occurs through the Regional Fisheries Management Organizations (RFMOs) and through other forms of cooperation among national governments. Poor management of fisheries within EEZs can add pressure to areas of the high seas, so it is again essential that national fisheries are managed well. Although high seas fisheries currently only account for a comparatively small proportion of global fisheries landings, their potential role in meeting increased demand for fisheries products cannot be overlooked. It is essential therefore that these fisheries are well managed and that

concerns over management approaches should be addressed immediately in order to resolve concerns prior to possible further expansion of these fisheries.

International organizations, such as the FAO, have a major role in raising awareness and creating an enabling environment for attaining the goals that have been laid out. International Plans of Action (IPOAs) are tools to help organize governments around the issues and facilitate implementation.

Illegal, Unreported, and Unregulated Fishing

The label Illegal, Unreported, and Unregulated Fishing (IUU) includes three separate categories of fishing, illegal fishing, unreported fishing, and unregulated fishing. If a fishing activity is characterized as IUU, it does not necessarily fall into all three categories (it could be just one or in some cases two). For example illegal fishing is not necessarily unregulated, while in most cases it does go unreported (High Seas Task Force 2004). In addition, while IUU fishing is sometimes thought of as only an issue for the high seas, it can also occur within domestic fisheries.

With regard to the WSSD goal of eliminating IUU fishing, five nations have submitted National Plans of Action (NPOAs) based on the FAO International Plan of Action (IPOA), and an additional 12 plans have been developed.

Although comparatively few states have submitted their IUU plans to the FAO (International Institutions and Liaison Service, 2006), there is much action going on to build toward these national plans which must also be recognized. In

2004, FAO conducted a voluntary survey of member states to assess the actions underway. While only 64 member states responded to the survey, awareness of the IPOA on IUU fishing was generally high. Responding states reported taking steps towards improving monitoring, control and surveillance efforts in particular. Unfortunately, the report notes weak exercise of flag State duties, particularly those related to high seas fishing and coastal states that grant access to their EEZs to foreign fishing vessels. In addition, only about a quarter of the nations who responded to the questionnaire had started to formulate a national plan of action (FAO, 2004a).

Another example of actions underway to address IUU fishing is the Ministerially-led Task Force on Illegal, Unreported and Unregulated Fishing on the High Seas (the High Seas Task Force). The Task Force was established in 2003 by fisheries ministers (United Kingdom, Australia, Canada, Chile, Namibia, and New Zealand) and international non-governmental organizations (The Earth Institute, WWF International, and IUCN) working together to create an action plan to combat IUU fishing on the high seas (High Seas Task Force, 2005). The Task Force released its final report, *Closing the Net: Stopping Illegal Fishing on the High Seas*, in March 2006. The report provided quantification of the extent of the problem and also included nine proposals for immediate action. These proposals are intended to target the root causes of IUU fishing with the goal that additional national governments and international organizations will adopt these proposals and join the effort to halt IUU fishing (High Seas Task Force, 2006).



Table 2. Status of National Plans of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (as of May 2006).

National Plan of Action	Submitted to FAO	Plan Developed*
National Plans of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing	Australia, Canada, Chile, New Zealand, the United Statesx of America	Federated States of Micronesia, The Gambia, Ghana, Mexico, Namibia, Tonga, Tuvalu, Seychelles, Spain, Tanzania, Lake Victoria Fisheries Organization, European Union

*FAO notes that they are aware of the development of these plans, but they are not yet available through FAO.

Each of the proposed measures is intended to expose and deter IUU activities and to improve enforcement capabilities to apprehend offenders. The Task Force notes that the intended effect of each of the proposals is to have one or both of the following effects:

- Enhance enforcement, therefore increasing the risk of exposures of operations engaged in IUU fishing, and/or
- Make IUU fishing less profitable through increased capital and operating costs and by reducing the revenue flow (High Seas Task Force, 2006).

Management of Fishing Capacity

Assessments of fishing overcapacity are made by comparing existing fishing capacity with the optimal or desired level for a particular fishery. Some effort has been made to assess over capacity in individual fisheries, but these estimates become less precise when aggregated to the global level. Estimates of global fishing overcapacity range from 30% when considering overcapacity in relation to maximum sustainable yield (MSY) to 25%-53% when considering overcapacity in relation to maximum economic

yield (MEY) (FAO, 1999). It is important to note that these estimates are for combined stocks and do not show the variation in capacity for individual fisheries.

Efforts to manage fishing capacity and reduce overcapacity where possible are essential to the effective management of fisheries resources. The International Plan of Action for the Management of Fishing Capacity calls on states and regional organizations to initially limit capacity and eventually reduce fishing capacity in cases where overcapacity is impacting the ability to sustainably manage stocks (International Institutions and Liaison Service, 2005).

Although there are some examples of national efforts to improve fisheries management and reduce overcapacity, there continue to be nations with weak national management. Weak fisheries manage-

ment at the national level creates an overdependence on the resources and allows overcapacity to continue. To address the overcapacity issue it is essential to consider the cost of transition away from fishing for some people. There is a great need for industry buy-in and participation which requires effective participatory frameworks and consideration of approaches such as co-management.

To date only one National Plan of Action for the Management of Fishing Capacity is available through FAO (Development Planning Service, 2006). Although there are efforts at the national and international level to facilitate capacity reduction, this problem has not yet been fully addressed. The FAO has continued to facilitate national efforts to manage fishing capacity through technical publications and assistance (United Nations 2006).

Fishing Subsidies

The issue of overcapacity is intimately related to the issue of subsidies by national governments to their fishing industries. The thirty member nations of the Organization of Economic Cooperation and Development (OECD) provide over 6 billion dollars in support, subsidies, and financial transfers each year to the fisheries within their coun-

Table 3. Status of National Plans of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (as of May 2006).

National Plan of Action	Submitted to FAO	Plan Developed*
National Plans of Action for the Management of Fishing Capacity	United States of America*	None reported by FAO

* The US has also developed an Implementation Plan for the FAO Code of Conduct for Responsible Fisheries (NOAA, 1997).



tries. The main types of support provided by governments to fisheries are for: research and management and enforcement of regulations; fisheries infrastructure; direct payments; vessel decommissioning; vessel construction and modernization; income support; and cost subsidies. It is noted, however, that the nature of fisheries subsidies involves increasing emphasis on “environmentally-friendly” support, including new less damaging gear technologies, as well as efforts to reduce fishing capacity, closing areas, and retraining displaced fishermen. OECD notes that among OECD countries, about two-thirds of the financial transfers are devoted to research, management and enforcement expenditures and payments for fisheries infrastructure (OECD 2005).

The issues of fisheries subsidies are very difficult to address because of their complex nature. Government financial transfers are basically an economic policy instrument designed to reduce costs or raise the income of fishers by providing financial support for increased fishing effort. The overall impact of such transfers depends on the type of fisheries management system in place and how they are enforced, as well as whether the stocks are overfished or underfished. Since the enforcement of fishing regulations is a ubiquitous problem, and with most of the fish stocks overfished, the eventual effects of subsidies will be reduced fish stocks, lower catches with higher costs and lower revenue for fishers. The problem becomes more complex when dealing with multi-species fisheries since management approaches are more difficult to formulate and deploy.

Furthermore, increased effort and catches also lead to increased bycatch (OECD 2005).

The impacts of subsidies on IUU fishing and overcapacity are now being addressed not only in the context of ecosystem and environmental issues, but also in the context of the World Trade Organization (WTO), where in recent negotiations it was agreed that they would continue to examine the impact of fisheries subsidies. The negotiations in the WTO aimed to clarify disciplines on fisheries subsidies which was considered an important step forward for the national and international fisheries agenda. However, each nation should evaluate its own fisheries support program and assess whether transfers have achieved the desired result. Policy makers need to ensure that the full range of economic, environmental and social effects of subsidies are taken into consideration during the design, evaluation, and reformulation of fisheries support programs, particularly since subsidies pose long-term impacts on the fishery resource. Some countries have already shifted or are shifting away from funding the construction of fishing vessels in recognition that overcapacity in fishing fleets is partly attributable to earlier financial support to build and modernize fishing vessels. However, the intention is not to reduce subsidies but to rechannel more subsidies to environmental-friendly support in order to carry out an effective fisheries management regime (OECD 2005).

Maintain or Restore Stocks by 2015

Meeting the goal of maintaining or restoring fish stocks by 2015 is heavily

dependent on meeting other WSSD goals particularly those related to ecosystem-based management and integrated management, as well as those related to biodiversity and protected areas. FAO and other organizations are working to define what constitutes ecosystem approaches to fisheries as well as to provide assistance with implementation of the concept. FAO notes that the main purpose of the ecosystem approach to fisheries is “to plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystems” (FAO 2005). Considering the interaction of fisheries with the surrounding ecosystem is important in the effort to maintain and restore stocks. Commercially important fish stocks cannot be restored in the absence of a healthy, functioning ecosystem.

It has been noted that the related concept of Ecosystem-Based Fisheries Management (EBFM) should “(i) avoid degradation of ecosystems, as measured by indicators of environmental quality and system status; (ii) minimize the risk of irreversible change to natural assemblages of species and ecosystem processes; (iii) obtain and maintain long-term socioeconomic benefits without compromising the ecosystem; and (iv) generate knowledge of ecosystem processes sufficient to understand the likely consequences of human actions” (Pikitch et al, 2004).

Fulfillment of the 2015 goal will also be heavily dependent on how other major fisheries issues are addressed, e.g.:



Limitations in capacity not only hinder countries from benefiting from oceans and seas and their resources under the 1982 Convention and Agenda 21; such limitations may also create opportunities for others to divert the benefits to themselves.

--Mrs. Annick de Marffy
Former Director, UN Division of
Ocean Affairs and Law of the Sea

Destructive fishing practices

Addressing the impacts of destructive fishing practices on vulnerable ecosystems, particularly those in the high seas, continues to be an active debate. While there is general agreement that protection of vulnerable areas is important, the mechanisms to do this remain unresolved.

Reform of Regional Fishery Management Organizations (RFMOs)

There is extensive discussion on how to approach improving fisheries management through RFMOs. While many feel that some form of RFMO reform is necessary, there is not agreement over the role that they should play in broader ocean management efforts. There is general consensus that there is a need for greater oversight and accountability, but

the debate on the appropriate mechanisms continues.

Improving the capacity of developing nations to manage their fisheries, and enhancing the terms of foreign fishing access agreements in the Exclusive Economic Zones of developing countries, to enhance environmental sustainability, local benefits, and transparency. While foreign fishing access agreements typically pay access fees to national governments, these are seldom accompanied with the development of national fishery management regimes, benefits to local populations, especially artisanal fishermen, or the development of long-term national capacity for sustainable development of fisheries.

Bottom Line and Outstanding Issues

It is clear that fisheries around the world are in trouble. With only 24% of marine fish stocks either moderately exploited or underexploited, there is little room to expand current fishing efforts without drastic consequences. The fisheries targets set during the World Summit on Sustainable Development represented a mix of very specific goals perhaps carrying unrealistically early deadlines (2004 and 2005) and the very complex and difficult to achieve long-term goal of maintaining or restoring depleted fish stocks by 2015.

With regard to the short-term goals of controlling IUU fishing, controlling overcapacity and eliminating subsidies that contribute to IUU fishing and to overcapacity, only very modest tangible progress appears to have been made on the ground.

With regards to IUU fishing, about 10% of nations have prepared or are preparing national action plans to address IUU fishing. Also, there is renewed enthusiasm and impetus for addressing the IUU problem on the part of specific nations, international agencies, and ministerial efforts such as the High Seas Task Force. The High Seas Task Force has put forward very specific suggestions which could make a substantial difference if they are picked up by nations and accepted by industry.

As the High Seas Task Force notes, it will be difficult to meet the WSSD goals while it is still profitable for individuals and organizations to engage in these practices. The continuation of these activities is fuelled by the increasing demand for fish products, fishing overcapacity, and weak national governance, and remains unresolved in part because of the lack of political will to address the root causes (High Seas Task Force, 2006). Once these activities are made unprofitable or too financially risky to undertake, it will be far easier to reach the goals.

There has also been some progress in national reform of fisheries management, especially with new market measures, such as ecolabelling, that are being adopted both in developed and developing countries. Participation from the fishing industry as well as the fish processing and distribution sectors is essential in order to achieve the WSSD goals. There are promising examples of companies taking action. For example, UNILEVER has pledged to only purchase fish products from sustainable sources and Wal-Mart has announced they will only sell sustainably harvested fish products.





With regard to controlling overcapacity and eliminating harmful subsidies, there is little tangible information on progress on these issues, but it would appear that there is movement among some countries in shifting away from funding the construction of fishing vessels that contribute to overcapacity in fishing fleets. However, since the issue of subsidies has economic, environmental and social ramifications, governments and international bodies need to carefully study transfer policies in order to come up with viable approaches that can further shift subsidies away from increasing fishing capacity and effort, and instead mobilize support towards the effective implementation of fisheries management regimes.

Regarding the long-term goal of maintaining or restoring depleted fish stocks and the broad goal of achieving ecosystem management of fisheries, a growing acceptance of the ecosystem approach to fisheries appears to be indeed taking place among national governments and international organizations. Indeed, a paradigm shift may be taking place--fisheries matters have traditionally been considered in a highly sectoral and separate manner, but now key fishery practitioners are moving toward a broader ecosystem concept which also takes into account other uses and resources of ocean and coastal areas. There are encouraging signs that the groundwork is being laid for attaining the enabling conditions which will lead to sustainable fisheries development in 2015.

Many of the African countries are engaged in discussions with the European Union on fisheries access agreements. The negotiations are not easy especially given the lack of capacity in our countries to understand available stocks and ability to monitor catches. Our region urgently needs capacity development in monitoring, surveillance, and control in order to get the best from the new trade negotiations with the European Union and with other fishing nations.

--Honorable Joseph Konzolo Munyao
EGH, MP, Minister for Fisheries and Livestock Development, Kenya

In the long-run, too, in assessing progress toward sustainable development of fisheries, one of the basic pillars of sustainable development—equitable distribution of benefits—should be recalled and applied to gauge the effectiveness of measures taken to achieve the WSSD targets. Will the measures, in due course, help to alleviate poverty and malnutrition of people who own the fishing grounds?





Integrated Water Resource Management

Johannesburg Plan of Implementation:

- ◆ Development of integrated water resource management (IWRM) plans by 2005

“Integrated Water Resource Management (IWRM) is an approach to land and water management that seeks to balance human, industrial, agricultural and environmental needs. IWRM is therefore a systematic process for the sustainable development, allocation and monitoring of water resource use in the context of social, economic and environmental objectives. To do this successfully, all users of water — government departments, academics, community groups, NGOs, the private sector and other interest groups — need to get together to share information, understand data and work together to solve their problems.”

- Emilio Gabrielli, Executive Secretary of the Global Water Partnership, November 2003, Second Global Conference on Oceans, Coasts, and Islands, Paris

Discussion

Many developing nations face significant hurdles in the effective management of freshwater resources. Recognizing that water is essential for human survival and that improved freshwater management is a key factor in the achievement of poverty reduction, the World Summit on Sustainable Development in 2002 called for all countries to develop Integrated Water Resource Management (IWRM) strategies by the end of 2005. These strategies are intended to tackle specific water challenges, such as pollution prevention, controlling flooding, mitigating the effects of drought, expanding access to water and sanitation, and addressing increasing competition for water and water scarcity. The IWRM target addresses the urgent situation through the development of plans and strategies for the adoption and implementation of sustainable water resources development and management. IWRM relates to economic development, social equity and environmental sustainability. One of the key concepts embodied in IWRM is cross-sectoral integration of different water uses, i.e., “Water for people,” “Water for food,” “Water for nature,” as well as water for other uses such as flood-risk management, industry, hydropower, navigation, and others (UCC-Water, 2006a).

Some of the challenges that have been identified in the implementation of IWRM: include lack of national water policies and institutions; lack of sanitation services, problems with scaling of pilot projects to the national level, coastal run off and saltwater intrusion,

and vulnerability to hurricanes and floods (Global Water Partnership, 2005).

Surveys by the Global Water Partnership

At the end of 2003, the Global Water Partnership (GWP) conducted an informal stakeholder baseline survey on the status of water sector reform processes around the world. The survey showed the status of the efforts of various countries to implement more sustainable water management practices. The results showed that of the 108 countries surveyed in 2003, 13% had made good progress towards more integrated approaches, 47% have taken some steps in this direction but need to increase efforts, while the remaining 40% were only at the initial stages of the process (Global Water Partnership, 2004).

Figure 1: **Results of the 2003 IWRM Survey** (Global Water Partnership 2004).



Key: White: countries having made good progress
Light blue: countries having carried out some steps
Dark blue: countries remaining at the initial stages
Striped: countries not included in survey

The GWP conducted a second informal survey in November and December of 2005 in order to assess additional progress towards meeting the 2005 goal. This survey found that of the 95 surveyed countries, 21% have now made good progress, 53% are in the process of preparing national strategies or plans



Table 1. Status of development of IWRM plans as reported by the Global Water Partnership.

Status*	2003 Survey	2005 Survey
Plans/strategies in place, or process well underway	13% (14 countries)	21% (20 countries)
In the process of preparing national strategies/plans	47% (51 countries)	53% (50 countries)
Initial steps towards preparing national strategies/plans	40% (43 countries)	26% (25 countries)

*Note: The 2003 and 2005 surveys are not directly comparable as different countries provided data and a different questionnaire was used.

although additional work is needed, and the remaining 26% have only taken initial steps towards national plans. Although different countries responded to the 2003 and 2005 surveys, the responses do indicate an increase in the countries that have taken steps towards IWRM plans from 60% in 2003 to 74% in 2005 (Global Water Partnership, 2006). These changes represent some good progress since the 2003 survey, but show that there is still work to be done before many countries are able to meet the target.

Other surveys on IWRM progress

There have also been several other surveys assessing progress on IWRM, including surveys carried out by the Japan Water Forum, UNEP in cooperation with regional institutions, the Arab Water Council with partners, the Economic Community of West African States (ECOWAS), and the UN Economic and Social Commission for Western Asia (ESCWA). These surveys were summarized prior to the Fourth

World Water Forum in March 2006 by Dr. Neils H. Ipsen, director of the UNEP Collaborating Centre on Water and Environment (UCC-Water) in Horsholm, Denmark (see Table 2).

The Bottom Line and Outstanding Issues

The bottom line is that progress is being made on this key goal of securing water for all, while being responsive to environmental and societal considerations. The good news too is that there is significant engagement by global, regional, and national institutions to achieve this essential goal. There are also data available on this goal, not only from the global institutions (Global Water Partnership), but also from regional and national institutions as well. Just taking the results from the 2005 Global Water Partnership survey, the results are encouraging: 21% of countries have strategies in place, 53% are in the

Table 2. Summary of IWRM Surveys carried out in 2005 (UCC-Water, 2006)

Geographic coverage	Global	Global	Five Sub-regions	Arab region	West Africa	Western Asia
Institution responsible	Global Water Partnership	Japan Water Forum	UNEP in cooperation with regional institutions	Arab Water Council, UNDP and CEDARE	ECOWAS – Water Resources Coordination Unit	ESCWA
Target of survey	Monitor progress towards IWRM plans	Contribute to enactment of IWRM Plans and and promotion of implementation of IWRM	Surveys are part of the development of subregional networks, national networks, national roadmaps and building capacity to implement IWRM	Assessment of status of developing IWRM plans as a first step in developing a regional support programme	Assessment of the progress towards the IWRM 2005 target	Identify status and progress of IWRM planning
Scope of survey	Policies, laws, plans/strategies, progress of implementation, stakeholder participation	Organization, laws, government spending, management, stakeholder participation, education and training, availability of basic data, MDG indicator score	Policies, legislative framework, institutional capacity and constraints, environmental aspects, human resources, awareness, milestones and progress towards IWRM	Policies, strategies, master plans leading towards IWRM	Policies, legislation, IWRM principles in legislation, institutional capacities, IWRM process, constraints to institutional performance	Policies, legislation, strategies and plans institutional structures and management tools
Monitoring of progress towards IWRM 2005 target?	Yes	Yes	Yes	Yes	Yes	Yes
Monitoring of progress towards IWRM framework?	Yes	Yes	Yes	No	No	Yes



Table 2. **Continued**

Geographic coverage	Global	Global	Five Sub-regions	Arab region	West Africa	Western Asia
Monitoring of progress towards implementation of institutional reform?	No	Partly	Yes	No	Partly	No
Prime survey data provided by?	GWP network of stakeholders	Government officials through an update of Portfolio of Water Actions	Government Officials	Desk study of existing documents	Government officials	Government officials
Previous surveys	Survey from 2003	No	No	No	Survey from 2003	Survey from 2001
Number of countries covered by survey	95	73	37	22	16	13
Regional and sub-regional distribution of countries covered by surveys	38 in Africa, 23 in Asia and Oceania, 10 in Europe, 16 in Latin America, 8 Small Island States	19 in CEE/CIS, 18 in East Asia and Pacific, 4 in East and Southern Africa, 19 industrialized countries, 7 in Middle East and North Africa, 2 in South Asia, 4 in West and Central Africa	9 in Southern Africa, 16 in Western Africa, 3 in North Africa, 6 in South East Asia, 3 in Central Asia	22 in the Arab Region	16 in West Africa	13 in Western Asian Region
Methodology used for assessment of survey results	Countries clustered into three groups according to degree of progress within IWRM plans/ strategies	Allocation of scores for MDG Indicator Evaluation and State of Water Resources Management maximum 200 points in total)	Countries clustered into three groups for enabling environment, institutional reform process and IWRM plan progress	Countries clustered into three groups according to progress within IWRM planning	Countries clustered into three groups according to progress within IWRM planning	Countries clustered into three groups according to progress within IWRM plans/ strategies and programmes
Summary result of surveys	IWRM plans are in place in 20 countries, good progress but more to do in 50 countries and 25 countries have only taken initial steps	0 countries received less than 60 points- 4 between 60 and 80, 7 between 80 and 100, 17 between 100 and 120, 22 between 120 and 140 13 between 140 and 160, 10 between 160 and 180 and no country received more than 180 points	Enabling Environment: 5 in good/very good progress 24 some progress, 8 limited Institutional reform process: 2 in good/ very good progress 19 some progress, 16 limited progress. IWRM Roadmap/plan: 5 good/very good progress, 19 some limited progress	5 countries are in advanced stage, 11 in progress towards IWRM plans, the progress of 6 countries is unknown, however 3 are assessed to have taken some initial steps and 3 not	IWRM plans are adopted and being implemented in 2 countries, the process has started in 6 and 8 countries have not yet started (2 out of these 8 have taken some initial steps)	4 countries have IWRM strategies and investment plans, 5 are at an advanced stage of formulating strategies, 4 have applied IWRM programmes at local level and at basin level.
Survey	GWP "Setting the Stage for Change," Feb. 2006 http://gwpforum.org	Japan Water Forum "Report on the Survey of Progress towards IWRM," Jan 2006. www.pwaweb.org	The results are available in regional progress reports on the programme "UNEP Support for Achieving the 2005 Target." www.UCC-Water.org	UNDP, AWC and CEDARE, "Status of Integrated Water Management Plans in the Arab Region." Results are	Results are summarized in a Brochure from ECOWAS to be distributed at WWF4 in Mexico.	Results presented at the Regional Seminar on the Status of National IWRM Planning in North Africa Countries, Rabat. Morocco, Jan. 2006

Source: (UCC-Water, 2006b)



process of creating national strategies/ plans, and 26% are taking initial steps.

Toward Closer Alignment Between Freshwater and Ocean and Coastal Institutions

It has been noted that an effective IWRM strategy will include the following principles in scientific and political analysis:

1. Involve all relevant stakeholders;
2. Identify the most urgent issues (and their costs), and prioritize those issues;
3. Secure political commitment;
4. Establish a common knowledge/ information platform for all stakeholders;
5. Facilitate knowledge/awareness raising to build support;

6. Encourage some institutional development, including financial resources (Catley-Carlson, 2006).

No one agency, by itself, can implement the strategies of integrated management. Synergy is needed across and between existing structures. For example, the ecosystem approach of the Convention on Biological Diversity is a framework for integrated management of land, water and biological resources. Integrated management of water resources cannot occur without addressing the natural linkages among freshwater, coasts, and oceans. An effective management scheme must take these linkages into consideration, and secure political and societal commitment among stakeholders.

Participants at the global conference recommended that the freshwater and

oceans communities should create stronger partnerships at both global and regional levels to address achieving the IWRM goal as well as the related WSSD on oceans and coasts. There is a need to work *across* and *among* freshwater, coastal, and oceans organizations, at the national and international levels. Among these opportunities are possible collaboration among the Global Water Partnership, the Global Forum on Oceans, Coasts, and Islands, and other partners.

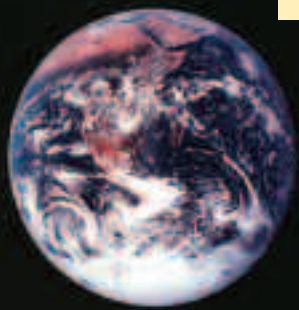
Although progress has been made over the past several years, there is still considerable work that needs to be done both to facilitate IWRM and to better connect IWRM efforts with other freshwater and coastal management efforts, especially integrated ocean and coastal management.

Continental waters stored in surface waters (rivers, lakes, wetlands), represent less than one percent of the Earth's water resources. Ninety-seven percent is stored in the oceans and the remaining 2% is sea ice, snow, glaciers, and permafrost. However, this small percentage of the Earth's total water resources that is freshwater is disproportionately important to people. The watersheds that integrate the surface water run-off of entire drainage basins play a critical role as sources of water, food, energy, recreation, and transportation. Watersheds provide habitat and a host of other ecological services from water purification to flood control and nutrient recycling—all important to people. Watersheds also provide a critical link between the land and the sea...

While institutional arrangements have been designed and implemented to address either freshwater or saltwater issues, rarely have institutions worked on the linkages between fresh and saltwater...

Today, it is essential to link freshwater to coasts and oceans with a new collaborative perspective that provides incentives for linking decisionmaking and institutional arrangements between “upstream” and “downstream” stakeholders...

--Dr. Antonio Díaz de León Corral, Director General for Environmental Policy Regional and Sectoral Integration, Ministry of Environment and Natural Resources (SEMARNAT),
International Workshop on Freshwater, Coastal, and Marine Management Interlinkages,
January 10-11, 2006, Mexico City (preparatory meeting to global oceans conference)



Global Marine Assessment

Johannesburg Plan of Implementation:

- ◆ *Establish a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socioeconomic aspects, by 2004.*

Discussion

Over the years, the international ocean policy community has emphasized the need to understand, and ultimately manage, major drivers of environmental change in the oceans, to monitor the health of ocean ecosystems and the quality of life of coastal communities, and to better understand the socio-economic contributions and environmental impacts of ocean industries. In 2002, the World Summit on Sustainable Development agreed to “establish by 2004 a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments” (Global Marine Assessment (GMA)). NGOs and other stakeholders have emphasized the potential of the GMA as a periodic report card on the state of the oceans and of coastal communities which could be used to both assess the effectiveness of international and national efforts in ocean and coastal management (are conditions better or worse?) and also to communicate with and involve the public in important ocean issues. The WSSD decision to establish the GMA process was subsequently endorsed by the UN General Assembly in resolutions 57/141 (paragraph 45) (United Nations 2002) and 58/240

(paragraphs 64-65) (A/AC. 271/WP. 1, p. 1) (United Nations 2003).

In a nutshell, after a promising start in 2003 and 2004, implementation of this WSSD commitment was significantly delayed due to political differences among nations, especially on the question of whether the assessment should include living resources, with a distinct minority of nations favoring focusing only on pollution and physical degradation. In December 2005, however, the process has received new direction and impetus, and it is expected that the first tangible steps in the establishment of the global marine assessment will be taken at a meeting to be held just before the June 12-16, 2006 United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea in New York.

Major developments in the implementation of this WSSD goal have been as follows:

- UN General Assembly Resolution 58/240 (2003) called for a group of experts to be convened to produce a draft document on the GMA detailing the scope, general

framework and outline of the regular process, peer review, secretariat, capacity building and funding (A/AC. 271/WP. 1). The Group of Experts, including representatives of States, intergovernmental organizations and non-governmental organizations, and including both scientists and policy makers, developed a draft document on the GMA in New York, from 23 to 26 March 2004, titled “A regular process for the global reporting and assessment of the state of the marine environment, including socio-economic aspects” (UN DOALOS 2004).

- The first GMA International Workshop, held during ICP-5 on June 8-11, 2004, considered the Group of Experts report and other issues. According to coverage by the *Earth Negotiations Bulletin* (ENB), the majority of delegates supported the goal of the GMA, but noted that more work and agreement were needed on specific aspects, especially on issues related to: the mandate, scope, start-up phase, frequency, organizational approach, and funding of the GMA. Delegates differed on the scope of the GMA, especially on whether the GMA



Fig. 1. UNEP Regional Seas

Source: UNEP 2003



should include living resources. Agreement could not be reached (ENB 2004).

- The Second International GMA Workshop was held on June 13-15, 2005, after ICP-6. During the Second Workshop it was envisaged that the GMA process would be started with an “Assessment of Assessments” which might take about two years. The Workshop recommended that: a) An ad hoc steering group be established; b) one or more UN agencies take a lead role; c) a group of experts be established. The second International Workshop noted that many organizations and UN bodies were already engaged in marine monitoring and assessment work and that they would therefore be able to contribute their experience and results to the “Assessment of Assessments” process (UN DOALOS 2005).
- UNGA Resolution A/60/L. 22 of December 2005 endorsed the conclusions of the Second International GMA Workshop on the regular process for global reporting and assessment of the state of the marine environment, including socio-economic

aspects, and decided to launch the start-up phase, the “Assessment of Assessments,” to be completed within two years, as a preparatory phase towards the effective establishment of the regular process. This resolution states that, under the guidance of an ad hoc steering group, UNEP and IOC-UNESCO should take the lead in the production of the “Assessment of Assessments,” to be undertaken by a group of experts.

The “assessment of assessments” is expected to:

- Assemble information about past or ongoing assessments relevant to the GMA;
- Carry out a constructive appraisal of existing marine and coastal assessments;
- Identify gaps and uncertainties in scientific knowledge and current assessment practices;
- Assess how these assessments have been communicated to policy makers at the national, regional and global levels;
- Produce a framework and options for the regular GMA process.

UNGA Resolution A/60/L. 22 also noted that the execution of the “Assessment of Assessments,” including the activities of the ad hoc steering group and the group of experts be financed through voluntary contributions and other resources available to participating organizations and bodies and invited Member States in a position to do so to make contributions.

- At the Third UN-Oceans meeting held in Paris on 23 January 2006, UNEP and UNESCO/IOC proposed an implementation plan for the “Assessment of Assessments,” detailing a timeline and activities. UNEP and IOC-UNESCO are also working in cooperation with other UN agencies, donors, partners and member states, in order to mobilize the necessary resources essential to implement the “Assessment of Assessments” as adopted by the 60th UNGA.
- The process for the establishment of the steering group has been initiated by UNEP and IOC-UNESCO following a letter to the UNGA president requesting nominations from member states to designate experts from member states from the various regional groupings.

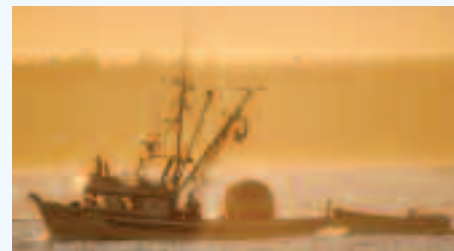
A request has been made to the collaborating agencies: the Food and Agriculture Organization of the United Nations, the World Meteorological Organization, the International Maritime Organization, the Intergovernmental Oceanographic Commission of UNESCO and the United Nations Environment Programme, as well as the International Seabed Authority to provide experts to be members of the Ad Hoc Steering Group.

- The first Ad Hoc Steering Group meeting will be held immediately before the



Fig. 2. FAO and non-FAO fisheries regions

Source: UNEP 2003



Seventh Meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP), from June 7 to 9, 2006 in New York.

- The group of experts to be established by the lead agencies will undertake the actual work of comparing the various assessments following a common methodology to identify a baseline across regions, as well as gaps in scope. The composition of the group should be approved by the ad hoc steering group, and will be part of the agenda for discussion during the first Ad Hoc Steering Group meeting in June 2006.

Bottom-Line and Outstanding Issues

While it is heartening to see that the process of establishing a Global Marine Assessment is moving again, after being stalled politically, some outstanding issues/questions should be noted:

1. Timing of a global marine assessment.

Given that the Assessment of Assessments is slated to take two years, and a first global marine assessment at least four years, it is expected that the first GMA would not be available until 2012 or later. In this interim period, one can expect growing demand for global data on the status of ocean resources, of marine biodiversity, and of coastal communities, especially in view of resource declines and

to gauge progress on other WSSD goals, such as halting biodiversity loss by 2010, and MDG goals such as reducing by half the proportion of people living on less than a dollar a day by 2015. **These data needs have to be met through other means than the GMA.**

2. Relation to other assessment efforts. There are many ongoing efforts—both formal and informal—to assess the status of marine resources, some on a global basis, others on a regional basis. Some examples include: regionally-based efforts by the Regional Seas Programme (see Figure 3), other regional conventions and agreements, and by the GEF-funded Large Marine Ecosystems programs (see Figure 3); sectorally-based assessments by UN agencies such as fisheries assessments by FAO (see Figure 2),; and

“A major problem in the poorest countries is the lack of mobilization of the best science to even understand the ecosystem dynamics. Most of these countries are presently overwhelmed with the daily tasks of governance, much less the tasks of achieving basic economic development goals, much less the task of understanding complex interactions of climate change, environmental pollution, economic drivers, changing nutrient load cycles, demographic dynamics, exotic species introduction, pathogens, and the whole host of interconnected ecological phenomena that are impinging on these countries...”

We need a regular cycle of global scale ecosystem assessments, but ones that scale down to national level quite systematically (right down to the conditions in coastal Senegal or coastal Ghana). It is an expensive proposition, but I can't think of a better investment in applied science than this one, and, as far as I can see it, also is not presently applied.”

Prof. Jeffrey D. Sachs,
Director, Earth Institute at Columbia University,
and Special Advisor to the UN Secretary-General on the
Millennium Development Goals



other scientific global assessments such as those of the Census of Marine Life. The diversity of efforts underway is an important rationale for first conducting an “Assessment of Assessments.” It is also important to note that there are significant information sources, best practices, and experiences at the national and sub-national level that might not be considered under the Assessment of Assessments that should to be taken into consideration in the development and implementation of the regular GMA process.

3. Funding. It is clear that a regular process of global marine assessment will be costly (for example, the March 2004 report of the Group of Experts estimated that for the 5-year cycle, the total cost is US\$ 20,405,000 not including capacity building and stakeholder consultations). It is essential that additional funding resources be found to support the carrying out of the GMA.

4. Openness and transparency. It is important that the process of preparing for and carrying out the global marine assessment take place involving all relevant stakeholders—governments, international agencies, NGOs, industry, scientists, and also the public, and that regularized means of obtaining the input of all stakeholders be put in place. The ultimate goal of the GMA, after all, is to learn how well ocean resources, biodiversity, and peoples dependent on or living near oceans are faring—are these better or worse? And what are the factors adversely affecting them? Such questions are the concern of us all.

5. Areas sparsely or not covered by current assessments. The assessment of high seas and deep waters, the marine environments of developing nations including SIDS, and the interactions between freshwater and marine ecosystems which are not well covered under existing assessments (UNEP 2003) should be



Fig. 3. Large Marine Ecosystems

Source: UNEP 2003

prioritized in the GMA. Capacity to undertake these assessments should be developed or existing capacity enhanced.

6. Capacity building. In recognition of the differences in capacities and resources among regions and nations, the GMA needs to deploy an implementation scheme that fully utilizes existing regional and national capacities, and to augment existing capacity by transfer of information, skills, best practices and technology, implementation of human resources development program, and development of standardized data collection techniques, as needed.



Coordination of UN Activities on Oceans

Johannesburg Plan of Implementation:

- ◆ *Establish an effective, transparent and regular inter-agency coordination mechanism on ocean and coastal issues within the United Nations system.*

The need for international coordination and cooperation on oceans and coasts has been frequently raised in various intergovernmental meetings and conferences. It is widely recognized that there is a need for addressing oceans and coasts in a cross-sectoral and comprehensive manner, examining the interrelationships among issues and setting forth integrated and coordinated solutions to interrelated problems. Existing UN agencies related to oceans have largely sectoral mandates, addressing different aspects of sustainable development of the oceans, such as fisheries and aquaculture, marine science, marine navigation and safety, marine pollution control, marine environmental protection and conservation, ecosystem dynamics, meteorology and climate change, global observing systems, data and information management, coastal area management, disaster management, marine radioactivity, seabed, ocean floor and subsoil, and marine and coastal biodiversity (see Box 1).

In 1992, the UN Conference on Environment and Development called for the strengthening of coordination and development of improved arrangements among the relevant UN organizations with major marine and coastal responsibilities. In 1993, these agencies formed

the Sub-committee on Oceans and Coastal Areas of the Administrative Committee on Coordination (ACC SOCA). ACC SOCA was created in order to present a coordinated and comprehensive view of UN agency activities in support of Chapter 17 of Agenda 21, which specifically deals with the protection of the oceans and the protection and rational use and development of their living resources.

In 1999-2000, as part of the reform process, the ACC and its subcommittees were reorganized resulting in the abolishment of the ACC and the creation of the Chief Executive Board (CEB), the system-wide body presided over by the UN Secretary General. The CEB delegated coordination to two high-level committees, one on programmes and one on management. The CEB decided that future inter-agency support requirements should be more responsive to a rapidly changing agenda and would best be handled through ad hoc, time-bound, task-oriented arrangements using a lead agency or function-based approach. UN Programs and Agencies participating in the coordination of oceans and coasts indicated strong interest in developing a new inter-agency coordinating mechanism consistent with the new arrangements being developed in the United Nations system (UN-OCEANS 2005a).

The 2002 Johannesburg Plan of Implementation called for UN inter-agency collaborative arrangements in four major areas: Freshwater and water and sanitation; 2) Energy; 3) Oceans and coastal areas; and 4) Changing unsustainable patterns of consumption and production. The CEB entrusted this

endeavour to its High Level Committee on Programmes (HLCF).

In September 2003, the CEB's High-Level Committee on Programmes approved the creation of an Oceans and Coastal Areas Network (subsequently renamed "UN-OCEANS") and at its 57th Session, the General Assembly called for the establishment of an effective, transparent and regular inter-agency coordination mechanism on oceans and coastal issues within the United Nations system in its resolution 57/141 of 12 December 2002 (UN DOALOS 2002). The objective of UN-OCEANS is to enhance cooperation and coordination among Secretariats of the International Organizations and Bodies concerned with ocean related activities.

UN-OCEANS held its first interagency meeting in January 2005 where a Coordinator (UNESCO-IOC) and Deputy Coordinator (UN-DESA) were elected to serve for a two-year term. During the first meeting, UN-OCEANS agreed to "operate as a flexible mechanism to review joint and overlapping ongoing activities and to support related deliberations of the ICP (UN Open-ended Informal Consultative Process on Ocean Affairs and the Law of the Sea), coordinating as far as possible its meetings with ICP sessions." To decrease the financial and human resource requirements for providing secretariat support, UN-OCEANS decided to establish a "distributed secretariat," with functions divided into an Organizing Secretariat and an Implementing Secretariat. It was agreed that the Organizing Secretariat shall be based in UN-DOALOS, which will, in consultation with the



Coordinators, assist UN-OCEANS in meeting its reporting requirements, including coordinating the preparation of its reports and organizing meetings. The Implementing Secretariat will be established in IOC-UNESCO, and will, in consultation with the Coordinators, assist UN-OCEANS in strengthening cooperation, reviewing the relevant programs and activities, and promoting the coherence of the UN system activities on ocean and coastal areas (UN-OCEANS, 2005b).

It is noted in its programme of work that UN-OCEANS will “pursue time-bound initiatives, with well-defined terms of reference, through ad hoc Task Forces open to the participation of NGOs and other international stakeholders as required” (UN-OCEANS 2005b). During the January 2005 meeting, the group agreed to the creation of four task forces on the following issues: 1) Post-Tsunami Response, 2) the Regular Process for Global Assessment of the Marine Environment, 3) Biodiversity in Marine Areas Beyond National Jurisdictions, and 4) the Second Intergovernmental Review of the GPA (UN-OCEANS 2005b).

UN-OCEANS held its second inter-agency meeting in June 2005 and held a third meeting in January 2006.

Functions of UN-OCEANS

When the UN-OCEANS (then still called the Oceans and Coastal Areas Network) was established, the requirement for effective coordination and cooperation as well as the need for a strong connection with the UN Open-ended Informal Consultative Process on Oceans and Law of the Sea (ICP) were identified. The functions that the ICP identified for UN-OCEANS as stated in the Terms of Reference for the Oceans and Coastal Areas Network presented at ICP-4 include:

1. Strengthening coordination and cooperation of the UN activities related to ocean and coastal areas;
2. Reviewing the relevant programmes and activities of the UN system, undertaken as part of their contribution to the implementation of the United

Nations Convention on the Law of the Sea (UNCLOS), Agenda 21, and the Johannesburg Plan Of Implementation (JPOI);

3. Identification of emerging issues, the definition of joint actions, and the establishment of specific task teams to deal with these, as appropriate;
4. Promoting the integrated management of ocean at the international level;
5. Facilitating as appropriate, the inputs to the annual report of the Secretary General on oceans and the law of the sea;
6. Promoting the coherence of the UN system activities on oceans and coastal areas with the mandates of the General Assembly, and the priorities contained in the Millennium Development Goals, the JPOI and of governing bodies of all UN-OCEANS members (UN-OCEANS 2005a).

Participation in UN-OCEANS

According to its website (<http://www.oceanatlas.org/www.un-oceans.org>), UN-OCEANS welcomes any UN agency to become a member through a simple expression of will. All organizations which had participated in the previous work of SOCA, or in the informal coordination for the ICP meetings are potential members, including: UN-DESA, UN-DOALOS, FAO, UNESCO, UNEP, World Bank (IBRD), IMO, WMO, UNDP, IAEA, CBD, ISA, ILO, UNIDO, WTO, WHO, UNHSP (UN-HABITAT), UNFCCC, Ramsar Convention, UNCTAD, UNU, OECD, and IHO (UN-OCEANS 2005a). Additionally, UN-OCEANS also noted that international financial and other institutions like the International Seabed Authority and secretariats of multilateral environment treaties are encouraged to be involved in its work in order to cover political, legal, security, economic, social, and environmental aspects (UN-OCEANS 2005b).

UN-OCEANS also agreed that the participation of relevant international NGOs and other international stakeholders in the work of the UN-OCEANS Task Forces should be encouraged under the responsibility of the lead institutions coordinating

UN actions are extended and amplified by an outstanding group of Goodwill Ambassadors who have generously accepted to use their talents and status to help focus the world's attention on the work and need of UN organizations. Decades of experience with the UN Goodwill Ambassadors have shown that they are in a position to focus the world's eyes on human and environmental needs, both in their own countries and around the world.

Designated UN Goodwill Ambassador(s) for Oceans would make direct representations to those with the power to effect change. They would advocate for conservation and sustainable use of our oceans, coasts and islands. They would support and contribute to the UN mission to eradicate extreme poverty and hunger, by improving environmental and human health and the well-being of our planet.

--Dr. Awni Behnam, President,
International Ocean Institute,
and
Dr. Anamarija Frankic, University of
Massachusetts, Boston, and Advisor to
Government of Croatia



Box 1. Who does what within the U.N. system for oceans and coastal area issues?*

UN Institution	Main Function
1. Division for Ocean Affairs and Law of the Sea (UN-DOALOS)	Carry out the Secretary-General's responsibilities upon the adoption of UNCLOS and fulfill the functions associated with its entry into force.
2. Department of Economic and Social Affairs (UN-DESA)	Promote sustainable development as the substantive secretariat to the UN CSD and through technical cooperation and capacity building at international, regional and national levels.
3. United Nations Development Programme (UNDP)	Advocate for change and connect countries to knowledge, Programme (UNDP) experience and resources to help people build a better life.
4. United Nations Environment Programme (UNEP)	Provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.
5. Food and Agricultural Organization (FAO)	Facilitate and secure the long-term sustainable development and utilization of the world's fisheries and aquaculture; Fisheries Department provides, on the request of Members, technical assistance in all aspects of fisheries and aquaculture management and development.
6. United Nations Educational, Scientific and Cultural Organization/ Intergovernmental Oceanographic Commission (UNESCO/IOC)	Provide Member States of the United Nations with an essential mechanism for global cooperation in the study of the ocean, with programs that focus on marine environmental protection, ecosystem dynamics, climate change, global observing systems, data and information management, coastal area management, and disaster early warning mitigation and management.
7. World Bank (WB)	Provide loans, policy advice, technical assistance and knowledge sharing services to low and middle income countries to reduce poverty.
8. International Maritime Organization (IMO)	Improve maritime safety and prevent pollution from ships.
9. World Meteorological Organization (WMO)	Coordinate and manage the implementation of an operational ocean observing system in support of the Global Ocean Observing system (GOOS) and the Global Climate Observing system (GCOS) in support of the United Nations Framework Convention on Climate Change.
10. International Atomic Energy Agency (IAEA)	Promote nuclear and isotopic techniques and the improved understanding of marine radioactivity.
11. International Seabed Authority (ISA)	Serve States Parties to the UNCLOS, in accordance with the regime for the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area) established in Part XI and the Agreement, in organizing and controlling activities in the Area, particularly with a view to administering the resources of the Area.
12. Convention on Biological Diversity (CBD)	Focus on integrated marine and coastal area management, the sustainable use of living resources, marine and coastal protected areas, mariculture and alien species for the conservation and sustainable use of marine and coastal biodiversity.

*Adapted from the UN-OCEANS website (UN-OCEANS 2005a).

the task forces. UN-OCEANS also agreed that international NGOs should be invited to contribute to the activities of the task forces and might be invited to attend selected items of the UN-OCEANS agenda (UN-OCEANS 2005a).

Bottom Line and Outstanding Issues

WSSD goal has been accomplished

Out of all the WSSD goals, one can unequivocally say that this goal has been largely accomplished: an inter-agency coordination mechanism on ocean and coastal issues within the UN system, in the form of UN-OCEANS has been established and is meeting regularly, making its discussions and decisions publicly available through the Internet. As a senior government official put it at the Third Global Conference "we can check this one off."

The first step in every inter-agency collaboration effort is having a regular forum where the agencies come together on a periodic basis and share information on their programs and efforts and discuss common problems. This step has clearly been achieved with UN-OCEANS.

Further evolution of UN-OCEANS

The long-run intent, however, of inter-agency cooperation on oceans is effectiveness in: achieving a common vision of the problems, synergy among existing programs, and the carrying out of broad activities with a variety of partners that improve ocean governance in general.

Coordination in ocean affairs in its broadest sense must involve not only UN agencies at the international level but also domestic agencies at the national level. Experience with interagency cooperation on oceans at the national level suggests that some essential factors/incentives must be present for collaboration to be maintained over time and be effective. Some of the incentives are "soft" incentives, meaning factors like achieving "perceptions of common problems and the need for joint solutions," and the fostering of a common vision and a culture of collaboration.



Regarding “hard” incentives/factors, these include: 1) having a political mandate for collaboration and joint action, 2) a funded Secretariat to maintain the interagency cooperation over time; and 3) funding for joint activities (Cicin-Sain, 2005). In the case of UN-OCEANS, the “soft” incentives/factors are undoubtedly present—the agencies recognize that increasingly the complex scope of ocean problems means that they cannot be tackled solely by a particular agency and instead require joint action. However, of the “hard” factors/incentives, only the first one—a political mandate for interagency collaboration from the UN Secretary General—is present. There is no specific funding for Secretariat activities to ensure the continuing interagency cooperation and oversee joint activities and there is no funding set aside for joint activities within each of the agencies planning and budgeting cycles. Also, the UN agencies all have different governing bodies/processes on different timelines and with different budgets, making funding of joint activities (outside of the regular budgeting process) an extremely unlikely event to occur. Only programmes that are of sufficient magnitude and visibility that can “work their way into” the governance planning cycle of more than one agency can have a chance of receiving joint mandate and budgetary support from more than one agency simultaneously. Such a process will take time and effort.

In planning the further evolution of UN-OCEANS, perhaps some lessons could be learned from UN-WATER, the collaborative interagency mechanism that has been set up on water issues. UN-WATER appears to have gone further in the development of interagency collaboration, including the transparency element—several joint reports have been produced; there is a joint logo that provides a symbolic unifying element; there is a proposal for funding a Secretariat which has been well received; and there is actual NGO participation in the meetings and activities of UN-WATER.

In addition, it should be noted that until now in the functions of UN-OCEANS

there is no explicit mention of oceans and Small Island Developing States (SIDS). Given that the 43 SIDS nations are especially dependent on the oceans, explicit consideration of oceans and SIDS issues might be considered in future UN-OCEANS decisionmaking.

The broader context of UN reform and the continuing need for a major UN focal point on oceans

Discussions of further enhancing UN coherence on oceans, must be set against the backdrop of UN reform. There is a major UN-wide reform effort underway in 2006. Although it is too early to judge the final results, several proposals have offered streamlined visions of the UN, with tighter mechanisms of planning, accountability and management. Given the particular status of oceans, under the framework of UNCLOS, in the context of UN-wide reform it might be worthwhile to revisit some of the options available. An interagency collaborative mechanism on oceans, can only go so far in playing the high-level global advocacy role on oceans that is sorely needed to keep ocean issues high on the agenda of the United Nations and of national governments. In most national ocean policy contexts, in addition to having a regular interagency cooperation mechanism, nations have also found it imperative to designate a “lead” agency on oceans and to have a specific “national ocean office” that carries out the integrated ocean vision and associated activities (in addition to having the other agencies continuing to perform their separate functions related to oceans) (Cicin-Sain, 2005). This is not yet present at the UN level—no one agency has been designated as the oceans lead. In the past, there have been continuing calls for the creation of an overall oceans agency or a lead ocean agency (de Marffy 2006). At the Third Global Conference, these ideas were reiterated, especially in the form of calls for the designation of a UN Ambassador on Oceans to provide a very visible focal point on oceans (Behnam 2006).

The architecture for ocean governance has developed in a rather dispersed, decentralized way, comprising not only bodies established by the Convention but also those already in existence before its conclusion. It therefore may be time to revisit Ambassador Arvid Pardo's idea. To achieve an efficient governance of the oceans, he envisaged a comprehensive management concept for the oceans, which would entail the establishment of an institution to regulate, supervise and manage all oceans issues, including the deep sea-bed. In his search for the most efficient way to achieve this comprehensive management concept, he proposed an institution which would integrate, either partially or entirely, all of the existing institutions dealing with ocean affairs. As is well known, the Convention assigns the various regulatory functions to the existing competent international organizations. It might be time to reconsider this idea and to evaluate the establishment of an integrated mechanism to efficiently deal with ocean affairs.

--Mrs. Annick de Marffy,
Former Director, UN Division for
Ocean Affairs and the Law of the Sea



Millennium Development Goals and Targets related to Oceans and Coasts

Goal 1: Eradicate extreme poverty and hunger

Target 1: Reduce by half the proportion of people living on less than a dollar a day by 2015

Target 2: Reduce by half the proportion of people who suffer from hunger by 2015

Goal 7: Ensure environmental sustainability

Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the losses of environmental resources.

Target 10: Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation.

Goal 8: Develop a global partnership for development

Target 14: Address the special needs of land-locked countries and small island developing States (through the Program of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions)

Added in 2005 through UNGA Resolution 60/1

Improve cooperation and coordination at all levels in order to address issues related to oceans and seas in an integrated manner and promote integrated management and sustainable development of the oceans and seas.

The Millennium Development Goals: Improving Peoples' Lives in Coastal Areas

In September 2000, world leaders met at the United Nations Millennium Summit and unanimously adopted the Millennium Declaration (UN 2000). This declaration focused on time-bound and measurable goals to combat poverty, hunger and disease, and to promote education, gender equity, health, and environmental sustainability. The UN General Assembly later adopted the Millennium Development Goals (MDGs), to be achieved by 2015, as part of the road map to implementation of the Millennium Declaration (World Bank, 2004). The eight MDGs are:

Goal 1. Eradicate extreme poverty and hunger

Goal 2. Achieve universal primary education

Goal 3. Promote gender equality and empower women

Goal 4. Reduce child mortality

Goal 5. Improve maternal health

Goal 6. Combat HIV/AIDS, malaria and other diseases

Goal 7. Ensure environmental sustainability

Goal 8. Develop a global partnership for development

These goals have galvanized efforts and brought the global community together to address the needs of the poorest people of the world. During the 60th Session of the UN General Assembly in October 2005, heads of state reaffirmed their resolve to meet the Millennium Development Goals and passed UNGA Resolution A/RES/60/1 which includes the statement that: "In pursuance of our

commitment to achieve sustainable development, we further resolve to: ... Improve cooperation and coordination at all levels in order to address issues related to oceans and seas in an integrated manner and promote integrated management and sustainable development of the oceans and seas" (UN 2005).

To date it appears that the developing countries can be categorized in three groups when considering their progress on the MDG. Those largely on track with all the goals include most of Asia and Northern Africa. West Asia, Latin America, and the Caribbean have made good progress towards some of the goals individually, but have made little progress in some areas. Unfortunately sub-Saharan Africa and the least developed countries in other regions remain far from making adequate progress towards achieving the goals (UN 2004b).

MDG on Environmental Sustainability: Stronger Focus on Oceans is Needed

During the Third Global Conference, it was noted that "environmental sustainability is the foundation upon which achieving the other MDGs will be built" (Pikitch, 2006) and that the adopters of the Millennium Development Goals recognized that "there could not be a fight against poverty without a fight for environmental sustainability" (Sachs, 2006). Both these statements reinforce the essential importance of environment in development and poverty reduction efforts.

Of the 8 goals, 18 targets, and 48 indicators for the MDGs, only one is expressly related to oceans, coasts, or small island

Attainment of MDGs and WSSD targets for many developing countries like Kenya is hampered by the enormous debt burden that keeps us in poverty... It is impossible to attain the MDG goals for countries like Kenya which pay over 30% of the national budget to debt repayment without similar inflows from new funding sources. A few African countries have recently benefited from debt cancellations by the G8 nations, but it will be useful for many more to be included. African countries have indeed paid back many times of the present day debts.

--Honorable Joseph Konzolo Munyao,
EGH, MP, Minister for Fisheries and
Livestock Development, Kenya

developing State, (target 14). Several of the others are tangentially related to oceans and coasts, such as reduction of poverty, protection of biodiversity, and inclusion of sustainable development principles in national planning. The 2005 UNGA resolution affirms the need to address oceans and coasts in the effort to meet the MDG.

The U.N. Millennium Project released the report from its Task Force on Environmental Sustainability in 2005. This report, [Environment and Human Well-being: A Practical Strategy,] covers fisheries and marine ecosystems in chapter 4 on [Investing in Environmental Management] (UN, 2005a). The Task Force recommendations related to oceans included the need to:

- Implement ecosystem-based fishery management,
- Eliminate destructive fishing practices,
- Establish networks of marine protected areas, and
- Restore depleted fish populations (Pikitch, 2006).

There are a number of different obstacles faced in the effort to achieve environmental sustainability. These include: "Lack of clear operational objectives; Insufficient direct investment in environmental management; Poor integration into sectoral policies; Inadequate institutional capacity; Market failures and distortions; Underinvestment in science and technology; Challenges in achieving regional and international cooperation; and Limited public awareness"(Pikitch, 2006).

According to data reported on Target 14, Overseas Development Assistance has

"...the environmental component of the fight against poverty is probably the most neglected of all the aspects of the Millennium Development Goals. This has many reasons, but even the basic structure of governance in poor countries leaves the environment minister far out of the inner circles of these concerns..."

--Prof. Jeffrey D. Sachs,
Director, Earth Institute at Columbia
University, and Special Advisor to the
UN Secretary-General on the
Millennium Development Goals

slowly risen from an all time low in 1997, and in 2003 reached \$69 Billion. Unfortunately, while the total amount has increased, it accounts for a smaller portion of developed country gross national income (GNI) than in the early 1990s. Although many developed countries have pledged to commit at least 0.7% of their GNI to ODA, the average remains under 0.25% (The World Bank Group, 2005). While total ODA may have risen, the amount reaching small island developing States has declined, by some reports up to 50% between 1994 and 2004 (UN, 2004c). These reductions



in available funds will continue to have devastating impacts on the nations struggling to meet their basic needs.

Ocean and Coastal Management Should Address Poverty Reduction

Ocean and coastal areas and marine resources contribute significantly to the economies of many nations, and are particularly important to developing countries in their efforts to eradicate poverty. These resources serve as the basis for the livelihoods of many poor coastal com-

Integrated management of the coast and the marine environment is altogether an essential aspect of improving the social and economic conditions of communities which are mostly established in such coastal zones—hence the need for vigilance on the part of all those involved in development to ensure better management of the marine and coastal environment, a revenue source that must be managed in an ecologically rational way.

--Honorable Thierno Lo, Minister for the Environment and Protection of Nature, Senegal

munities. While many developing countries are rich in marine and coastal resources, they remain in poverty in some cases due to inequitable use agreements related to their resources (McLean, 2006).

It is important for integrated ocean and coastal management efforts to address the economic and social aspects of communities in developing countries. An excellent example of such an effort is the Tanzania Marine and Coastal Environmental Management Project (MACEMP), which addresses the range of aspects involved in coastal and ocean management. This project aims to strengthen governance through more integrated approaches and address fisheries, coastal management, livelihood generation and poverty reduction as well as private sector involvement (McLean, 2006).

Poor nations rely heavily on their natural capital, and without other resources, this can lead to environmental degradation. The cycle of poverty does not afford the opportunity to “invest” this environmental capital for future benefits, as those in extreme poverty are struggling to survive and must rely on the environment in order to do so. There is an inextricable link between poverty alleviation and environmental sustainability, yet unfortunately the importance of this link is not always recognized. The link between environment and health, such as access to safe drinking water is also undeniable. One of the most important steps towards reinforcing and recognizing these connections is getting environmental considerations systematically into national development strategies (Sachs, 2006).

The Lack of Monitoring of Socio-Economic Conditions in Coastal Communities

A major setback in assessing progress is the fact that there is no systematic measurement of the social and economic well-being of peoples in coastal areas, which are home to 50% of the world's population. This lack of measurement makes it difficult to determine if progress is being

made towards poverty alleviation and achieving the Millennium Development Goals in the specific context of oceans, coasts, and small island states.

The Bottom Line

The ability for nations to agree on the Millennium Development Goals represents an important step towards linking the environment with poverty alleviation, but there is more work to be done. Unfortunately, the MDGs seem to take a narrow view of what constitutes environment. While it is promising that one of the goals is environmental sustainability, the targets related to this goal focus primarily on energy use, freshwater and forests. While these are useful proxies for improved environmental services, they do not capture the complexity of environmental issues and the interlinkages between the environment and poverty reduction. Given the importance of oceans to our global environment for example as a source of protein and also through their role in weather regulation and therefore the water cycle, not to expressly consider improving ocean health as a step towards environmental sustainability represents a significant gap.

“On all of the Millennium Development Goals, we face the fundamental challenge that there are a lot of nice words and... all promises that need to be made have been made. However, we are way off track on actually doing what needs to be accomplished” (Sachs 2006).

With these words, it is clear that significant further action needs to be taken to stay on track to meet these goals by 2015.







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About the Global Forum

The Global Forum on Oceans, Coasts, and Islands, created at the World Summit on Sustainable Development in Johannesburg in September 2002, aims to advance the interests of *oceans*—incorporating 72% of the Earth; *coasts*—the home of 50% of the world's population; and *islands*—43 of the world's nations are small island developing states which are especially dependent on the oceans. The Global Forum is composed of experts from governments, intergovernmental and international organizations, and nongovernmental organizations (environmental, scientific/technical, industry, and foundations) with the common goal of encouraging the sustainable development of oceans, coasts, and islands.

The Global Forum responds to major needs at the international scale:

- ◆ Promotion of cross-sectoral dialogue on ocean and coastal issues;
- ◆ Promotion of dialogue among governments, nongovernmental organizations, intergovernmental organizations, the private sector, and scientific institutions;
- ◆ A mechanism for oceans advocacy at the highest political levels; and
- ◆ A venue for linking oceans and freshwater concerns

The major goals of the Global Form are to:

1. Work together with governments, international and intergovernmental organizations, nongovernmental organizations (environmental, scientific/technical, industry, foundations), and others to effectively implement, at national and regional levels, major international agreements on oceans, especially the commitments made in the Plan of Implementation of the World Summit on Sustainable Development, commitments from Agenda 21, and other related agreements;
2. Work as a catalyst to mobilize knowledge, resources, and organizational action to advance the global oceans agenda;
3. Raise the international profile of oceans, coasts, and islands in all relevant global, regional, and sub-regional fora and mobilize resources to address these issues;

4. Mobilize public awareness on oceans, coasts, and islands, and promote information sharing and dissemination.

Publications and Internet Services by the Global Forum on Oceans, Coasts, and Islands

1. *Small Islands, Large Ocean States: A Review of Ocean and Coastal Management in Small Island Developing States since the 1994 Barbados Programme of Action for the Sustainable Development of Small Island Developing States (SIDS)* (2005)
2. *Climate Change and Energy Issues in Small Island Developing States* (2005)
3. *Mobilizing for Implementation of the Commitments Made at the 2002 World Summit on Sustainable Development on Oceans, Coasts, and Small Island Developing States – Co-Chairs' Report of the 2003 Global Conference on Oceans, Coasts, and Islands, UNESCO, Paris, November 12-14, 2003 and Subsequent Developments* (May 2004)
4. *Global Multilateral Environmental Agreements and Small Island Developing States* (2004)
5. *Voluntary Partnership Initiatives from the 2002 World Summit on Sustainable Development and Small Island Developing States* (2003) (also in Spanish)
6. *A Guide to Oceans, Coasts and Islands at the World Summit on Sustainable Development: Integrated Management from Hilltops to Oceans* (2002)
7. *Ensuring the Sustainable Development of Oceans and Coasts: A Call to Action. Co-Chairs' Report, the Global Conference on Oceans and Coasts at Rio+10, Paris, UNESCO, December 3-7, 2001* (2001)
8. *Ministerial Perspectives on Oceans and Coasts at Rio+10* (2001)
9. *Reports of the Conference Working Groups, The Global Conference on Oceans and Coasts at Rio+10, Paris, UNESCO, December 3-7, 2001* (2001)
10. Internet services: www.globaloceans.org provides a variety of information services on global, regional, and national developments related to oceans, coasts, and islands
11. *Global Forum Newsletter*, an electronic newsletter, is published every four months (available on <http://www.globaloceans.org>)



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Third Global Conference on Oceans, Coasts, and Islands: Moving the Global Oceans Agenda Forward

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The International Coastal and Ocean Organization (ICO) is the Secretariat of the Global Forum on Oceans, Coasts, and Islands. ICO is an international non-governmental organization (NGO) accredited to the United Nations roster for the UN Commission on Sustainable Development since 1993, and is dedicated to advancing the global agenda on oceans, coasts, and small island developing States (SIDS) through policy analyses, multistakeholder dialogues, and public education and outreach. ICO is hosted at the Gerard J. Mangone Center for Marine Policy, University of Delaware, USA.

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