



# *Submission of the Global Forum on Oceans, Coasts, and Islands to 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*

*New York, 28 April – 2 May 2008*



## ***This publication provides a summary of:***

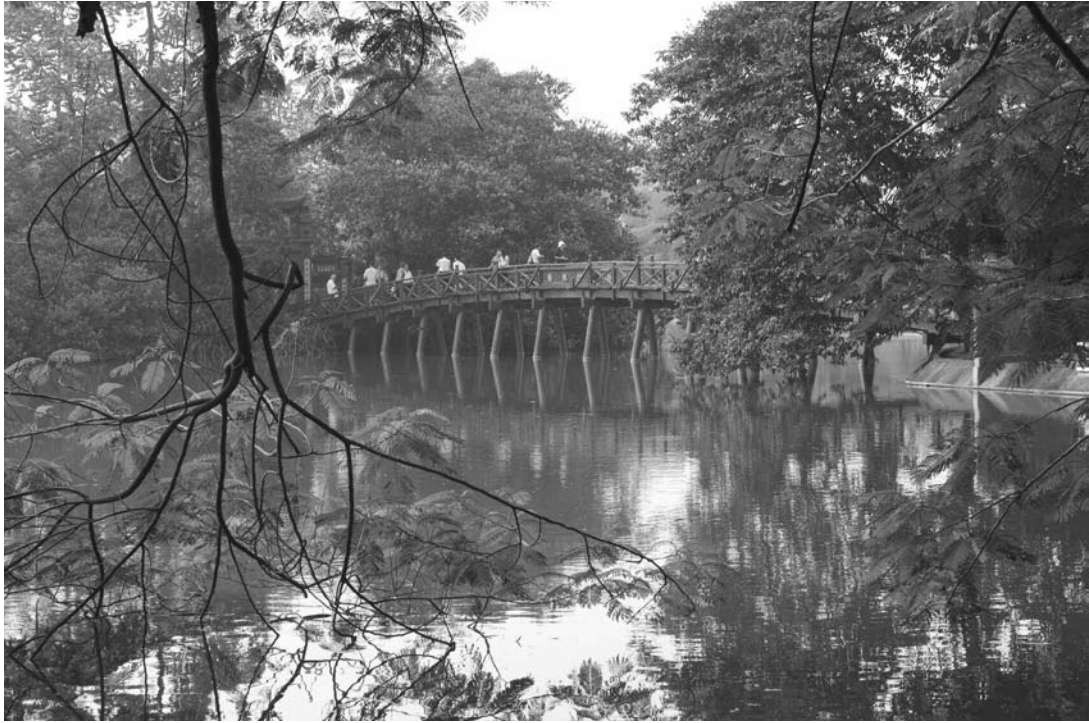
- 1. Strategic Planning Workshop on Global Ocean Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change, Nice, France, January 23-25, 2008***
- 2. Co-Chairs' Report of the Global Forum on Oceans, Coasts, and Islands Working Group on Governance of Marine Ecosystems and Uses in Areas Beyond National Jurisdiction at the 4th Global Conference on Oceans, Coasts, and Islands***
- 3. Highlights of the 4th Global Conference on Oceans, Coasts, and Islands, Hanoi, Vietnam, April 7-11, 2008***

Principal support for the Global Forum's work on Governance of Marine Areas Beyond National Jurisdiction comes from the Nippon Foundation, Japan, with contributions from the Government of Singapore, Department of Fisheries and Oceans, Canada, UNESCO, Gerard J. Mangone Center for Marine Policy, University of Delaware, World Ocean Network, NAUSICAA, and the Le Centre de Decouverte du Monde Marin, Nice, France.

Principal support for the Global Forum generally comes from the Global Environment Facility (GEF); GEF IW:LEARN; Intergovernmental Oceanographic Commission (IOC), UNESCO; Gerard J. Mangone Center for Marine Policy, University of Delaware; United Nations Environment Programme; U.S. National Oceanic and Atmospheric Administration; Department of Fisheries and Oceans, Canada; and World Ocean Network.

Other collaborating organizations include: Centro EPOMEX, Mexico; Consejo Consultivo del Agua, Mexico; Global Water Partnership; IOC Sub-Commission for the Caribbean and Adjacent Regions; Luso-American Development Foundation; The Nature Conservancy; The World Bank; New Partnership for Africa's Development; Nippon Foundation; Partnerships in Environmental Management for the Seas of East Asia; Portuguese Committee for IOC; Secretariat of Environment and Natural Resources, Mexico; Pacific Islands Applied Geoscience Commission; UNESCO; Government of Vietnam; International Coastal and Ocean Organization; Flemish Government of Belgium; Ministry of Land, Transportation and Maritime Affairs, Korea; Ministry of Marine Affairs and Fisheries, Indonesia; Lighthouse Foundation; USAID; United Nations Development Programme; World Bank; IUCN Vietnam; World Ocean Observatory; Ocean Policy Research Foundation, Japan; and International Ocean Institute.







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April 2008





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# Foreword

The Global Forum on Oceans, Coasts, and Islands has, since 2005, been engaged in an informal process to bring together major relevant interests to facilitate open and constructive multi-stakeholder policy dialogue to inform and support the formal processes that have been or may be established by the United Nations General Assembly regarding governance of marine areas beyond national jurisdiction. The general intent is to work to clarify the issues, lay out various perspectives, discuss options, and identify possible avenues for consensus-building among disparate interests.

This volume brings together the outcomes of several major meetings relevant to the issues under discussion by 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:

- Co-Chairs' Report from the Strategic Planning Workshop on Global Oceans Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change, held on January 23-25, 2008, in Nice, France
- Co-Chairs' Report of the Global Forum Working Group on Governance of Marine Ecosystems and Uses in Areas Beyond National Jurisdiction, reporting on the discussions held during the 4th Global Conference on Oceans, Coasts, and Islands: Advancing Ecosystem Management and Integrated Coastal and Ocean Management in the Context of Climate Change, April 7-11, 2008, Hanoi, Vietnam
- Overview of the 4th Global Conference on Oceans, Coasts, and Islands: Advancing Ecosystem Management and Integrated Coastal and Ocean Management in the Context of Climate Change, April 7-11, 2008, Hanoi, Vietnam

Readers are kindly informed that the next Global Forum workshop on these issues, *Policy Analyses and Multistakeholder Policy Dialogues on Governance of Areas Beyond National Jurisdiction: Management Issues and Policy Options*, will be held in late Fall 2008 in Singapore, kindly hosted by the Ministry of Foreign Affairs, Government of Singapore. This meeting will examine further the applicable principles, management approaches, capacity building requirements, options for benefit sharing, and interface with intellectual property rights obligations under international law.

Readers are kindly invited to join in these efforts as well as to provide comments and suggestions on this work.

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*Report from the*  
***Strategic Planning Workshop on Global Ocean Issues  
in Marine Areas Beyond National Jurisdiction in  
the Context of Climate Change***

Nice, France, January 23-25, 2008

**Prepared by Workshop Co-Chairs**

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## Overview

Marine areas beyond national jurisdiction--which include more than 60% of the world's oceans--represent the last and largest global commons on Earth.

These areas are highly rich in biological diversity which plays a crucial role in the functioning of marine ecosystems. Scientific evidence is beginning to demonstrate that loss in biodiversity could well lead to significant declines in ecosystem function, and may well threaten the life support systems of the oceans. The impacts of climate change, such as ocean warming and ocean acidification, are likely to produce significant adverse impacts which are not yet fully understood.

These areas, just as areas within national jurisdiction, also host a wide variety of important human activities which provide significant benefits to global, regional, and national economies. Examples include the maritime transportation industry which carries 90% of the world's goods, the submarine cable industry which provides for the vital links that sustain communication among all peoples on earth, the oil and gas industry which provides essential energy resources, the fishing industry which contributes to food security and is a source of livelihood for 400 million fishers around the world, and the biotechnology industry which utilizes the oceans' biodiversity for a wide array of important products from cancer drugs to cleaners to beauty supplies.

The question of governance in areas beyond national jurisdiction (ABNJ) is a major issue which countries will need to address over the next decade. While there has been substantial progress in recent years in achieving integrated governance of oceans in areas under national jurisdiction and in regional seas areas, governance of ABNJ remains largely sectorally-based, fragmented, and inadequate. This means that it is difficult to address inter-connected issues (such as the impacts of human uses on the environment, multiple-use conflicts among users, and responses to climate change effects) through an integrated and ecosystem-based approach. There are, moreover, significant differences of opinion among stakeholders regarding what actions need to be taken to improve governance in ABNJ, especially regarding the question of distribution of benefits from the uses of biodiversity in these ocean areas.

The Global Forum on Oceans, Coasts, and Islands and partners convened the *Strategic Planning Workshop on Global Ocean Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change* on January 23-25, 2008, in Nice, France, with the gracious hosting of Nice officials and nongovernmental organizations as a key step in an informal process to bring together major relevant interests to facilitate open and constructive multi-stakeholder dialogue to inform and support the



more formal processes that have been or may be established by the United Nations General Assembly or other fora regarding such issues. The Workshop brought together 45 experts from governments (developed and developing countries), NGOs, international organizations, science, and industry groups (submarine cables, fishing, marine transportation), all participating in their personal capacity in these informal discussions and following the Chatham House rule (See Annex 1 for a list of participants). The Workshop participants considered strategic perspectives for the next 5-10 years; clarified some issues; laid out various perspectives; developed options; and identified possible avenues for consensus-building among disparate interests. This Report aims to reflect the richness and diversity of views expressed at the Workshop. It is not a consensus document. It should be stressed that not all the participants agreed with all points set out here; nevertheless the Workshop discussions were most successful in charting some options for advancing this important issue in the next decade.

This was the first of a series of three workshops which the Global Forum will convene in 2008 on this issue. The second was held during the 4th Global Conference on Oceans, Coasts, and Islands in Hanoi, Vietnam, April 5, 2008 and the third will be held in Singapore on November 12-14, 2008.

The Workshop was organized by the Global Forum on Oceans, Coasts, and Islands; the Gerard J. Mangone Center for Marine Policy at the University of Delaware; NAUSICAA, Centre National de la Mer, Boulogne-sur-Mer, France; the World Ocean Network; and Le Centre de Decouverte du Monde Marin, Nice, with principal support from the Nippon Foundation, Japan, and with additional funding support by Canada's Department of Fisheries and Oceans, and UNESCO.

## Background

Since 2001, the Global Forum on Oceans, Coasts, and Islands has brought together ocean leaders from governments, UN agencies, NGOs, the private sector, and science groups from



close to 100 countries to advance the global oceans agenda, particularly the implementation of the ocean targets from the World Summit on Sustainable Development and addressing new challenges such as climate change and governance of marine areas beyond national jurisdiction. The Global Forum Working Group on Governance of Areas Beyond National Jurisdiction was organized in late 2005 to consider the issues related to moving toward integrated ecosystem-based governance in areas beyond national jurisdiction, to contribute to the discussions of the 3rd Global Conference on Oceans, Coasts, and Islands (held at UNESCO in Paris in January 2006), and to provide input into the discussions of the 2006 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 (New York, February 2006). Members of the Global Forum Working Group are noted in Annex 2.

## **Major Points Raised at the Nice Workshop**

Workshop discussants spent most of the time discussing: I. The nature of the issues in marine areas beyond national jurisdiction; II. The management of various marine activities in areas beyond national jurisdiction; III. The policy and legal issues that are raised; and IV. Issues related to the science/policy interface, climate change effects. The special issues raised by marine genetic resources were also discussed.

### **I. The Nature of the Issues in Marine Areas beyond National Jurisdiction**

#### **1. A sense of urgency –**

Participants recognized that there is a need to accelerate the implementation of ecosystem-based integrated management in areas beyond national jurisdiction. However, they recognized as well that the issues are thorny, that there are significant differences on some of these issues among developed/developing countries, industry, and environmental NGOs, as well as uncertainty. Formal changes to the regime governing areas beyond national jurisdiction may take time to sort out (for example, the Law of the Sea discussions spanned the period 1967 to 1994, with the actual negotiations taking place over a nine year period (1973-1982). However, there is much that can and should be done in the near and medium term.

#### **2. Three forcing functions –**

Participants identified three forcing functions that catalyze the need for improved governance: 1) the effects of uses on marine biodiversity and the marine environment; 2) effects of uses on one another (multiple use conflicts); and 3) the effects of the

disturbances of the oceans from climate change, as well as the associated feedbacks from climate changes that are expected to exacerbate the forces that are leading to increases in biodiversity loss in the oceans. A Census of Marine Life participant emphasized the importance of marine biodiversity for ecosystem function. Deep-sea ecosystems provide goods (including biomass, bioactive molecules, oil, gas, minerals) and services (climate regulation, nutrient regeneration and supply to the photic zone, food); they also have a profound role in global biogeochemical and ecological processes that is essential for the sustainable functioning of the biosphere and for human wellbeing.

The reduction of biodiversity may be associated with exponential reductions of ecosystem functions: 20-25% species loss can cause a reduction of 50-80% of ecosystem functions. The Census of Marine Life results thus suggest that the conservation of deep-sea biodiversity can be crucial for the sustainability of the functions of the largest ecosystem of the biosphere.

#### **3. Current Situation: Sectoral management of different uses by different global and regional institutions.**

Participants reviewed the current management situation of marine areas beyond national jurisdiction, noting that a variety of existing uses—such as submarine cables, fisheries, shipping, marine scientific research, oil and gas development, and dumping of wastes and other matter—are managed separately under different sectoral regimes by different regional and global institutions, with few, if any, connections among them, in most cases. There is also no mechanism for an area-wide environmental review process of the effects of one use on other uses and on the environment.

Participants also underlined that the economic and social values and perspectives on future problems/opportunities by various ocean industries have not been well documented and aggregated, and that a study on these questions would be very useful.

#### **4. Emerging uses are not yet adequately managed and there are important legal/policy gaps.**

Participants considered emerging uses of areas beyond national jurisdiction such as: bio-prospecting for marine genetic resources, carbon storage and sequestration; iron fertilization; mariculture facilities; floating energy facilities. The view was expressed that, apart from seabed mineral exploration and exploitation (managed by the International Seabed Authority), there are inadequate management frameworks and environmental review processes for such uses in ABNJ, and that if such activities are to go forward, appropriate regulatory policy and legal frameworks would need to be articulated.



## II. The Policy and Legal Issues that are Raised

### 5. *What is needed in moving toward ecosystem-based integrated management in areas beyond national jurisdiction?*

Participants underscored that there is much experience in how to move toward ecosystem-based integrated management at national levels and at regional levels and that much can be learned from examining these experiences. Ecosystem-based integrated ocean and coastal management is well rooted in international instruments adopted at various fora, starting with Agenda 21 at the 1992 UN Conference on Environment and Development (UNCED) and continuing with the Plan of Implementation of the 2002 World Summit on Sustainable Development (WSSD) and related instruments. At the national level, about 40 nations (incorporating about three-quarters of the world's Exclusive Economic Zones) have moved toward integrated ecosystem-based management by establishing national ocean policies. At the regional trans-boundary level, the application of ecosystem-based and integrated management has taken place, to varying degrees, in the 16 Large Marine Ecosystems supported by the Global Environment Facility and in the 18 Regional Seas Programmes.

In general, some commonalities in moving toward ecosystem-based and integrated management at both national and regional levels are:

1. Enunciation and application of governing principles
2. Development of capacity for area-based assessment, planning, and ultimately decision-making
3. Development of institutional capacity for addressing interactions among uses and their effects on biodiversity and the environment
4. Development of capacity for enforcement
5. Funding to support the management interventions.

### 6. *Principles. There are already well-accepted established principles of modern ocean governance (rooted in the Law of the Sea, Agenda 21 and the WSSD POI and other related instruments) which apply to marine areas beyond national jurisdiction. However, there are some important gaps and differences of opinion in some areas.*

Participants noted that there are major international law principles that are well accepted that apply to marine areas beyond national jurisdiction. These would include the following:

- Conditional freedom of activity on high seas
- Obligation to protect and preserve the marine environment

- Application of a transparent, science-driven approach to sustainable use of the oceans
- Precautionary approach
- Integrated ecosystem approach
- Integrated management for multiple uses
- Responsibility of States for actions of nationals, e.g., breaches of international law

While such principles are well accepted internationally, some participants considered that it may be useful to review these principles and to consider the promotion of a UNGA resolution to set out these established principles and to confirm their applicability to areas beyond national jurisdiction.

In respect to the specific issue of marine genetic resources in ABNJ, however, there were significant different views among participants on the principles and institutions that were applicable. These ranged from the application of the principle of "common heritage of mankind," to that of "freedom of the seas." Some proposed the designation of marine areas beyond national jurisdiction as "areas of common concern."

There was also discussion about the usefulness of examining modes of benefit sharing which has been developed in other areas, such as marine scientific research, ocean mining (under the International Seabed Authority), the Convention on Biological Diversity, and the collection of material and documentation of case studies on as wide a range of experiences as possible, so as to inform future debates on the management of marine genetic resources in ABNJ.

### 7. *Capacity for area-based assessment, planning, ultimately decision-making*

Capacity for area-based assessment and planning in areas beyond national jurisdiction is, at present, quite limited. There are some informal efforts at assessment, such as the Census of Marine Life. The "Assessment of Assessments" - the preparatory stage of a regular process for global reporting and assessment of the state of the marine environment - may ultimately provide adequate area-based information. There is, however, little capacity to assess and respond, in particular, to the effects of climate change.

### 8. *Institutional capacity for addressing interactions among uses and their combined/cumulative effects on biodiversity and the environment*

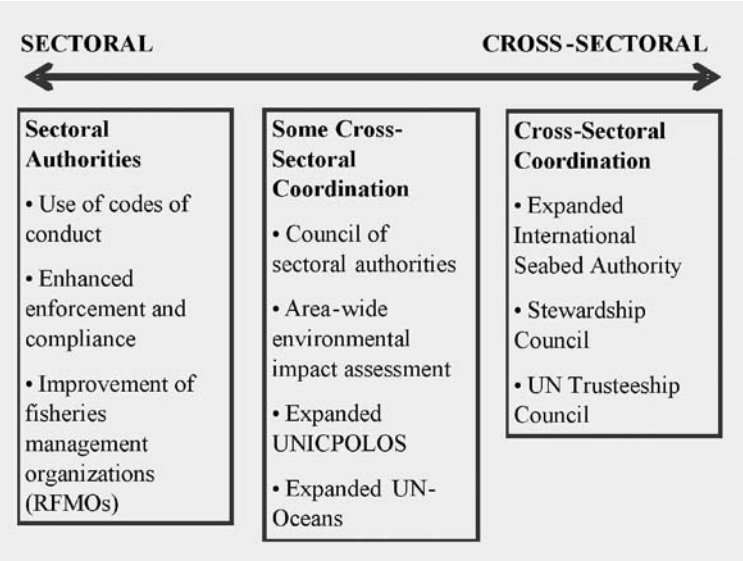
This area is especially ill-developed in relation to areas beyond national jurisdiction. There is a need to develop more sophisticated mechanisms for addressing interactions among uses and their effects on biodiversity and the environment, as well as their combined and cumulative impacts. Some participants



underscored the need for the establishment of a cross-sectoral environmental review process. It was recognized that this is an issue that is on the agenda for the UN Ad Hoc Working Group.

Figure 1 below shows a variety of options that various participants proposed for enhancing cross-sectoral institutional capacity. The options range from “least action” on the left side of the continuum to “most action” on the right side of the continuum. For example, on the “least action” side, the options include the strengthening of existing sectoral authorities and use of codes of conduct. In the middle of the continuum are options such as introducing some form of cross-sectoral coordination, for example a regular meeting (or council) of the sectoral authorities, or area-wide environmental review. Existing institutional frameworks such as UNICPOLOS or UN-Oceans might possibly be adapted to play such a role. On the “most action” end of the continuum, options include, for example, expansion of the mandate of the International Seabed Authority (toward a multiple use mandate), establishment of a Stewardship Council to govern areas beyond national jurisdiction, and use of the UN Trusteeship Council.

Figure 1. Continuum of Institutional Capacity



The major intent of these discussions was to conceptually identify the wide range of options available to improve governance of marine areas beyond national jurisdiction. It should be stressed that time did not permit a detailed evaluation of each or combinations of these options—such evaluation would be dependent on future studies and analyses.

### 9. Enforcement capacity is limited to single sector uses

Regarding enforcement capacity, there is potential enforcement capacity related to single sectors (such as, for example, shipping or fishing) but far less or no enforcement capacity related to area-wide cross-sectoral issues.

### 10. There is no readily available funding for management of marine areas beyond national jurisdiction

Participants discussed the fact that there is no readily available funding to support management of marine areas beyond national jurisdiction. In the future, alternative funding arrangements might be found, for example, by changes to the Global Environment Facility to allow for funding of management of these areas of common concern, or the establishment of special trust funds for these areas.

### 11. Options for moving forward to improve the international legal and policy framework

Participants discussed a wide range of possibilities for improving the legal and policy framework to achieve ecosystem-based integrated governance of marine areas beyond national jurisdiction. These are noted below. There was no attempt to evaluate the desirability and pros and cons of each option—this question awaits further study.

#### Options

- Enhanced implementation of existing international instruments and their scope of application
- Voluntary codes of conduct
- More effective implementation, strengthening of, or extending, mandates of existing institutions such as Regional Fisheries Management Organizations (RFMOs) and Regional Seas Programmes (RSPs)
- Forming new regional institutions as required
- A new Global Programme of Action on biodiversity in areas beyond national jurisdiction
- A new implementing agreement to United Nations Convention on the Law of the Sea (UNCLOS) in relation to activities in marine areas beyond national jurisdiction;
- An amendment to UNCLOS
- A Protocol to the Convention on Biological Diversity (CBD)
- Other possible approaches to be determined

Reservations were raised as to the practicality and/or feasibility of some of these options.

### 12. Stakeholder involvement

With various industries and NGOs present, participants had the opportunity to compare and contrast different modes of stakeholder involvement in different fora (United Nations Convention on the Law of the Sea, Food and Agriculture Organization, International Maritime Organization).



Participants took the view that there is a need to develop a good process for stakeholder involvement in the process of moving forward toward more integrated governance of marine areas beyond national jurisdiction—e.g., in identifying the issues; in discussions of the needs and perspectives of various stakeholders; in identifying and assessing options, etc.

### **III. Issues Related to the Science/Policy Interface, Climate Change Effects, and Special Issues Raised by Marine Genetic Resources**

#### **13. Knowledge Needs and Science/Policy Interface**

Participants discussed the fact that the development of an effective framework for the governance of marine areas beyond national jurisdiction needs to be based on the best available, robust, peer-reviewed science and ongoing ocean monitoring efforts. The following needs were regarded as particularly important:

- Maintain and strengthen continuous monitoring and observation of the oceans
- Increase understanding of deep sea ecosystems and biodiversity
- Improve effectiveness and coherence of science-policy interface
- Integrate industry experience into the knowledge base
- Ensure consideration of robust, sound, peer-reviewed science during the policy-making process

Participants discussed some options for moving forward on these issues. These included the following:

- Develop a statement stressing the importance of ongoing and continued scientific research in marine areas beyond national jurisdiction
- Develop a statement on the need to internalize the ecosystem services provided by the oceans to the economy through, for example, an ecological economics model
- Continue support for the Census of Marine Life, the Assessment of Assessments and similar approaches to data collection, banking and sharing of information
- Improve knowledge of deep sea ecosystems, uses, threats and impacts
- Develop capacity for integrated data and analysis
- Carry out a study of socio-economic values of ocean industries and contributions to the global economy, and of industry perspectives on future opportunities/-constraints
- Include industry knowledge to ensure a whole-system approach, e.g. initiate a dialogue with industry, including fisheries, submarine cables, biotech, and shipping, to

discuss how to improve the integration of their data with ocean science data

- Together with representatives from the science community (e.g., Census of Marine Life), develop a marine policy-science roundtable that could support the institutionalization of continued data collection on areas beyond national jurisdiction
- Ensure that knowledge needs and science-policy interface, including access to integrated analysis, are developed to support any new arrangements for marine areas beyond national jurisdiction

#### **14. Climate Change Issues**

Participants discussed climate change issues, focusing especially on uncertainties surrounding climate change and the apparent lack of preparedness in addressing the policy implications of the effects of ocean changes on climatology and of changes in the oceans due to climate change, e.g., ocean warming, ocean acidification, changes in ocean currents, changes in polar regions, etc. Participants underscored the need for adaptable and responsive governance mechanisms and management measures in place to maintain, or restore, the resilience of ocean ecosystems to adapt to the impacts of climate change. Major points discussed are noted below:

- Address information gaps on the relationship between climate change and the oceans, especially the understanding of the impacts of climate change on the oceans (and vice versa)
- Develop mitigation measures for reducing the impacts of climate change on the oceans
- Increase political awareness of the role of oceans in climate change at the global, regional, and national levels and raise the visibility of the concerns
- Establish an integrated, scientific assessment of the potential and cumulative impacts of all human activities impacting the oceans, e.g. fishing, pollution, seabed mining and impacts of climate change
- Generate scientifically-robust and sound information on the relationship between climate change and the oceans (and vice versa) for planning and management purposes
- Maintain and expand open ocean observations, including oceanographic processes and weather observations to catalogue changes, including occurrences of extreme weather events related to climate change
- Seek UNGA support for a high-level scientific panel to develop a Report on the relationship between oceans and climate change
- Develop mitigation and adaptation measures to address the impacts of climate change on ocean ecosystems,



including the biogeochemical cycles (carbon, oxygen, and nutrients)

- Assess technical feasibility and encourage/conduct environmental impact analysis of the emerging uses of the deep ocean: CO<sub>2</sub> sequestration, carbon storage, ocean fertilization, and other mitigation measures
- Trace the distribution and range expansion of organisms transmitting diseases, invasive species, red tides and other harmful algal blooms and the potential impact on global ocean health, human health, and ecosystem services
- Enhance/Increase efforts to maintain or restore the productivity, biodiversity, and resilience of ocean ecosystems in view of their increasing overall vulnerability to the impacts of climate change and their importance in providing for ecosystem balance, ecosystem services and food security

Participants also outlined possible next steps to address the climate/oceans issues:

- Observations should continue, providing the basis for understanding the parameters of climate change and cause and effect (for example, sea temperature changes, current flow patterns, marine food webs, and distribution of plankton, pelagic fish and other pelagic megafauna)
- Initiate a dialogue to further collaboration and strengthen partnerships between the oceans community, the IPCC and the WMO
- Collaborate and coordinate with all fora dealing with climate change, including UNFCCC and IFC, to ensure ocean issues are on the agenda at the 2009 climate change negotiations
- Produce and maintain a database on existing and emerging mitigation and adaptation strategies addressing the impacts of climate change
- Conduct an analysis of implications of climate change on global ocean health and ecosystem services

### **15. Special Issues Related to Marine Genetic Resources**

Participants discussed a possible future vision related to these important ocean resources. It was emphasized that this issue is complex involving several different legal frameworks and engendering significant debate. It was recognized that there is a lack of understanding of the extent, nature, location and vulnerability of marine genetic resources (MGRs) due to their diversity, and that there are complex issues concerned with ABNJ including controversial legal and policy issues. It was noted that there are also accessible MGRs in areas within national jurisdiction that are not being fully exploited. There was recognition that, given the nature of these issues, ongoing debate and dialogue is crucial.



### **Suggested actions included the following:**

A viable subset of total marine genetic resources in marine areas beyond national jurisdiction should be surveyed, catalogued, mapped, protected and sustainably managed under an effective and collaborative governance regime so as to meet development and environmental needs of present and future generations.

Some participants underscored the fact that conservation, management, and sustainable use of living marine resources in areas beyond national jurisdiction is needed to contribute to the achievement of the Millennium Development Goals.

Participants identified a variety of options for considering the special issues involved in the management of marine genetic resources, however there was not time for a detailed evaluation of the practicability and/or feasibility of each:

- Identify: a) potential benefits from research and commercialization of marine genetic resources in areas beyond national jurisdiction; b) options for benefit sharing, including learning from case studies on best practices; c) modalities for promoting equitable use
- Promote continued and focused marine scientific research
- Identify means of data banking, knowledge management and sharing: the biotech industry should provide information on where the samples of organisms identified to be of medicinal, industrial, other value, have been collected, for management and conservation purposes
- Involve the biotech industry in the planning process
- Facilitate government-to-government discussions, especially between developed and developing nations
- Identify and assess management options, which are potentially applicable in addressing the threats to marine genetic resources, including codes of conduct, permits and environmental impact assessment, area-based management, and ecosystem-based management, for adoption across sectors and regions





- Conduct economic analysis; analysis of comparative advantage
- Form partnerships and formal agreements of collaboration, including MOUs

#### **IV. Next Steps in the Global Forum's Work on Improving Governance of Marine Areas Beyond National Jurisdiction**

Participants discussed and identified the following next steps in the Global Forum's informal process to support the formal processes that have been established or will be established by the United Nations to consider the issues of governing marine areas beyond national jurisdiction. Again lack of time prevented a detailed evaluation of each of these options:

- Provide an overview of the governance issues and options in marine areas beyond national jurisdiction (analyze costs/benefits of options, and their administrative and political feasibility)
- Solicit multi-stakeholder perspectives on the issues
- Provide an overview of the range of modes of benefit sharing
- Initiate an ongoing process to facilitate dialogue among the key stakeholders, including developed and developing countries, on the more contentious issues in the governance of marine areas beyond national jurisdiction
- Act globally to raise awareness about issues of lack of jurisdiction over one half of the planet's surface in view of its importance for the future of humankind.

## **Annex 1**

### ***Strategic Planning Workshop on Global Ocean Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change***

*Nice, France, January 23-25, 2008*

## **Participants**

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## **Annex 2**

### **Members – Global Forum Expert Working Group on Governance of Marine Areas Beyond National Jurisdiction**

#### **Co-Chairs**

**Salvatore Arico**, Programme Specialist for Biodiversity, Division of Ecological and Earth Sciences, UNESCO

**Sivu Maqungo**, Minister-Counsellor, Permanent Mission of South Africa to the United Nations

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**Awni Behnam**, International Ocean Institute

**Thia-Eng Chua**, Partnerships in Environmental Management in the Seas of East Asia (PEMSEA)

**Biliana Cicin-Sain**, Global Forum on Oceans, Coasts, and Islands



Bruno Corréard, Independent Consultant and Responsible Fishing Alliance

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Philippe Vallette, NAUSICAA, France

Monica Verbeek, Seas at Risk

Marjo Vierros, United Nations University – Institute for Advanced Studies

## Annex 3

### Strategic Planning Workshop on Global Ocean Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change

*Nice, France, January 23-25, 2008*

#### Key Sources of Information

Workshop Program and Participants:  
<http://www.globaloceans.org/highseas/pdf/NiceWorkshopProgram-ListOfParticipants.pdf>

Workshop Briefing Volume on Key Information Sources:  
<http://www.globaloceans.org/highseas/pdf/NiceWorkshopBriefingVolume.pdf>





CO-CHAIRS' REPORT OF THE  
GLOBAL FORUM ON OCEANS, COASTS, AND ISLANDS

***Working Group on  
Governance of Marine Ecosystems and  
Uses in Areas Beyond the Limits of  
National Jurisdiction***

*at the 4th Global Conference  
on Oceans, Coasts, and Islands*

April 7-11, 2008, Hanoi, Vietnam

**Salvatore Arico**, UNESCO,  
and **Sivu Maqungo**, Permanent Mission of  
South Africa to the United Nations



# I. Background and Objectives

The Global Forum on Oceans, Coasts, and Islands Working Group on Governance of Marine Ecosystems and Uses in Areas Beyond the Limits of National Jurisdiction had the opportunity to meet throughout the 4th Global Conference on Oceans, Coasts, and Islands.

Pre-conference meetings were held with the members of the Working Group in the form of two conference calls in December 2007 and March 2008. A Strategic Planning Workshop on Global Oceans Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change took place in Nice, France in January 2008 under the co-sponsorship of the Global Forum and the Nippon Foundation. A pre-Conference workshop was organized on April 5, followed by another pre-Conference session on April 6. During the Conference, a Concurrent Discussion Session was held on April 9 and a Plenary Panel on Thursday 10.

The Working Group consists of fifty plus members. Many of these participated actively in the Working Group both prior to and at the Hanoi Conference. Moreover, the Working Group benefited from inputs from many non-members of the Working Group at the Nice Workshop and during the Hanoi Conference.

In Hanoi, the Working Group benefited from a number of expert presentations, spanning from governance-related issues to the contribution of oceans to the life-support system, including climate change issues, information on access and benefit-sharing, the application of the ecosystem approach, issues related to flag states, and marine genetic resources. Moreover, participants in the various Working Group sessions were encouraged to present information and views beyond the official presentations at Hanoi, and indeed a number of individuals presented information and views that greatly contributed to and informed the discussions by the Working Group.

We trust that the process of participating in the presentations, discussions, and deliberations of the Working Group was both participatory and representative of the aspirations and views of all individuals involved. Because of the Working Group's open-ended and multistakeholder nature, we believe that its views reflect the palette of issues and perspectives related to governance of marine ecosystems and uses in areas beyond the limits of national jurisdiction currently being discussed at the international level.

The Working Group discussions were characterized by a sense of urgency as well as by the realization that these issues are complex, often interrelated and cannot therefore be tackled in a simplistic manner. It is therefore important to be realistic and build on solutions that can work for each of these issues, while also maintaining a holistic and long-term perspective.

The Working Group, in conformity with the spirit of the Global Forum, is not a negotiating setting but rather an informal forum, at which scholars, expert practitioners and actors from various sectors of society gather in order to exchange information, views and collectively make progress towards the identification of possible approaches and solutions to solving problems and tackling issues of common interest.

The Working Group on Governance of Marine Ecosystems and Uses in Areas Beyond the Limits of National Jurisdiction gathered at the 4th Global Conference on Oceans, Coasts, and Islands with the goal to assist with the process of collecting relevant information that may provide a valuable contribution to the second meeting of the United Nations General Assembly *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 (New York, 28 April – 2 May 2008).

More specifically, the objectives of the work of the Working Group at the Hanoi Conference were:

- to hold focused discussions on a continuum of coherent policy options from sectoral solutions to cross-sectoral global solutions; and
- to discuss next steps needed for developing and applying a set of evaluative criteria to examine each option in the continuum (e.g. to what extent would the conservation and sustainable use goals be achieved, responses to climate change be effective, ocean uses be allowed, the institutional and administrative feasibility of individual measures, their political feasibility, etc.).

The Working Group focused its work on the main theme of the 4th Global Conference on Oceans, Coasts, and Islands, namely “Advancing Ecosystem Management and Integrated Coastal and Ocean Management in the Context of Climate Change.”

This document provides a summary of the Co-chairs understanding of the various information and views exchanged and of the outcomes of the work by members and non-members of the Working Group on issues related to marine areas beyond national jurisdiction, in preparation for the second meeting of the United Nations General Assembly *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.

# II. Summary of Main Outcomes of the Working Group's Activities

In order to facilitate their possible consideration by the United Nations General Assembly *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 at its second meeting, the summary of the main outcomes of our work is structured consistently with the agenda of the United Nations General Assembly *Ad Hoc* Open-ended Informal Working Group. For clarity of presentation, the outcomes of the Working Group discussions are organized according to statements, their underlying rationale and solutions.

#### ***a) The environmental impacts of anthropogenic activities on marine biological diversity beyond areas of national jurisdiction***

**Statement:** There is a need for urgency to achieve effective ocean management within and across areas beyond national jurisdiction, as well as in areas within national jurisdiction and continuously throughout the two, in view of strong evidence of threats to our life-supporting system and security due to extra vulnerabilities of ecosystems caused by climate change and the spillovers into broader ecosystem functions from current uses of resources in these areas. In this context, there is a need to ensure mechanisms to cooperate for generating the knowledge needed for adequate management of marine areas beyond national jurisdiction.

**Rationale:** Recent scientific findings demonstrating this sense of urgency include work by the Intergovernmental Panel on Climate Change (IPCC) on the risks posed by climate change in terms of disrupting the structure and functionality of ocean systems. Moreover, there is evidence that the combined impacts of climate change, pollution, overexploitation of living resources, destructive fishing practices, introduction of alien species and harmful effects of the exploration and exploitation of non-living resources imply that the major ocean systems are affected by environmental impacts arising from traditional uses of the oceans. These impacts manifest themselves, *inter alia*, through changes in sea-surface temperatures due to heat-energy increase, increased frequency and intensity of extreme weather patterns, eutrophication due to the alteration of geo-

chemical conditions and changes in biodiversity and ecosystem structure and functioning. Moreover, there are further possible irreversible changes resulting in a new climate equilibrium, namely those affecting ocean circulation such as in the case of the North Atlantic circulation and in the case of El Niño events. These altered conditions directly impact on biodiversity, negatively affect fishing productivity, impact on the hydrological cycle, water availability, food productivity, energy security and health. There is uncertainty as to the impact of new uses of the oceans such as carbon sequestration and ocean fertilization and how they may affect the ocean equilibrium and its resilience as a system and therefore its vulnerability. Marine areas beyond national jurisdiction contribute carbon regulation and other important services, the values of which should be taken into account when making decisions related to these areas.

**Solutions:** There are ways for addressing the human impacts on oceans, including in marine areas beyond national jurisdiction. Scientific research and ensuing increased knowledge is a key approach to addressing the sense of urgency surrounding the combined impacts of existing traditional with new ocean uses by humans. International scientific cooperation and systematic observations and forecasting on the role of the oceans in mitigating climate change and in assessing the impacts of climate change and other manifestations of global change on the oceans and their biodiversity will remain key tools for organizing international action aimed at increasing our knowledge of human impacts in marine areas beyond national jurisdiction, due to the remoteness, vastness and the technological and financial difficulties related to the exploration of these areas. Examples of regional bodies dealing with integrated science (ecosystem, biodiversity and climate science) are the International Council for the Exploration of the Sea (ICES) and the North Pacific Marine Science Organization (PICES), and these should be replicated. Moreover, there is a need to translate relevant scientific knowledge into language that is accessible by those who are required to make informed decisions and, more generally, for information-based decision-making. In turn, scientists must also take into account policy demands and requirements. There is a need to capitalize upon the beneficial contribution of scientific assessments to policy-making in relation to marine areas beyond national jurisdiction. Such integrated scientific assessments would encompass both natural and social sciences and should be linked with policy frameworks and processes, for example through the model of an intergovernmental panel. The 'Assessment of Assessments', the preparatory stage of which aims towards the establishment of a regular process for global reporting and assessment of the state of the marine environment, including socio-economic aspects, is scheduled for completion in 2009, and the results of which will be presented to the United Nations General Assembly. These results will provide the basis on which the





General Assembly will decide on the next steps towards the establishment of a regular process and will also assess the feasibility of an intergovernmental panel for the oceans.

***b) Coordination and cooperation among States as well as relevant intergovernmental organizations and bodies for the conservation and management of marine biological diversity beyond areas of national jurisdiction***

**Statement:** There is a need for coordination and cooperation nationally, regionally and globally, both at the intergovernmental as well as the governmental levels, in order to achieve integrated outcomes, if marine areas beyond national jurisdiction are to be managed sustainably for the benefit of current and future generations of the international community.

**Rationale:** Efforts towards international coordination of actions undertaken by individual governments through intergovernmental organizations should be optimized and expanded. Equally, institutional coordination should be ensured at the national level. There are precedents of effective cooperation both at the regional and global levels, but there is a need to build on these. Moreover, the issue of coordination also concerns the scientific community, in that it is important that the latter continues organizing and coordinating its activities so as to continue developing the knowledge needed for making decisions on the sustainable management of marine areas beyond national jurisdiction.

**Solution:** Governments should pursue efforts aimed at ensuring better institutional coherence at the national level. At the regional and global levels, progress towards cooperation and better institutional coherence has been made through mechanisms such as UN-Oceans, which was set-up with the objective to ensure better cooperation between the secretariats of the member agencies and, therefore, assist in improving institutional coherence and effectiveness. There is a need for these mechanisms to perform more effectively. To this end, intergovernmental organizations should be encouraged to enter into

memoranda of understanding to achieve better institutional cooperation when the respective responsibilities they have been mandated to carry out are closely related. In this context, there is value in continuing to rely on agencies whose mandates are specific to a given sector or issue or set of issues. UN-Oceans could be requested to play a more enhanced and effective role in promoting such coherence with regard to the activities of the UN system relating to marine areas beyond national jurisdiction. It would be useful for UN-Oceans to undertake and maintain a comprehensive inventory of programmes and activities carried out by individual agencies, for example, an inventory of international science programmes related to marine areas beyond national jurisdiction. These inventories of activities should be made widely accessible so as to ensure a clearer overview of current efforts being undertaken in relation to issues related to marine areas beyond national jurisdiction. While there is a need to ensure an institutional continuum, there also is a need to develop a platform for coordinating action at an operational level, at different scales. A concrete step in this direction could be to develop a Global Programme of Action for marine areas beyond national jurisdiction. The proposed Global Programme of Action would put in place the global policy framework and include actions at the global and regional levels and would also address the relationship between activities taking place within Exclusive Economic Zones with those beyond areas of national jurisdiction. The proposed Global Programme of Action would assist in the implementation stage of the United Nations Convention on the Law of the Sea (UNCLOS) and other related instruments and act as a catalyst to spur actions in various directions and at various levels, while ensuring visibility of issues related to marine areas beyond national jurisdiction and transparency and also providing a basis for reviewing progress. The Global Programme of Action should be anchored to an existing institution, namely the United Nations General Assembly, and could rely, as appropriate, on regional operational or study units such as the Large Marine Ecosystems.

***c) The role of area-based management tools***

**Statement:** There is a need to adopt management measures to the specific nature, needs and opportunities presented by given ocean spaces in given time frames, through a holistic approach. Area-based management measures are important tools for implementing the ecosystem approach in marine areas beyond national jurisdiction, for the mutual benefits of all concerned stakeholders.

**Rationale:** The problems of the oceans tend to be interlinked and should be considered as a whole. Area-based management, which integrates sectoral approaches, can be used as an operational framework for achieving a balance between conservation





and sustainable use of marine areas beyond national jurisdiction. Area-based management measures are part of a system of management measures and tools that implicate underlying advice, conservation approaches, collaboration and cooperation, and monitoring and evaluation. Area-based management approaches should also be used to link marine areas beyond national jurisdiction with areas within national jurisdiction.

**Solution:** There is a sense of urgency for moving towards area-based management in marine areas beyond national jurisdiction, and there are a number of possible tools and approaches that could be used already. To meet this urgency, there is a need to encourage ongoing scientific work in this area at the international level, including ecologically and biologically significant areas, biogeographic information, mapping and modeling, environmental impact assessments and appropriate planning approaches and tools.

#### ***d) Genetic resources beyond areas of national jurisdiction***

**Statement:** Marine genetic resources are currently the subject of discussions in relation to access and the potential for their applications such as pharmaceuticals and industrial processes, as well as with regard to the sharing of the benefits arising from their utilization. Their legal status is also being discussed. These discussions should continue in an appropriate forum.

**Rationale:** Various dimensions of the issue of marine genetic resources in areas beyond national jurisdiction (scientific, technical, technological, economic, socio-economic, environmental, policy and legal) still need to be further informed and debated in an open and transparent manner, in order to consider all relevant views and options available to address this emerging issue.

**Solution:** It is important to retain and make better use of existing institutions such as the United Nations Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS) and the United Nations General Assembly *Ad*

*Hoc* Open-ended Informal Working Group to study, *inter alia*, issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction that are intended to facilitate the exchange of information and the provision of advice and recommendations to the General Assembly. In particular, the United Nations General Assembly *Ad Hoc* Open-ended Informal Working Group should be institutionalized as a regular mechanism that provides the forum to pursue discussions and make recommendations on issues related to marine biodiversity in areas beyond national jurisdiction, including the equitable and efficient utilization as well as the conservation of on marine genetic resources. Access and benefit-sharing, as well as capacity-building, should also be an important element of these discussions, and appropriate models of trusts that would operate on the basis of users' rights should be identified.

#### ***e) Whether there is a governance or regulatory gap and, if so, how it should be addressed***

**Statement:** UNCLOS provides the legal framework for addressing any possible governance, regulatory or implementation gap related to marine areas beyond national jurisdiction. In this context, there is a need to ensure a package of measures aimed at implementing integration, while also promoting sectoral approaches, in relation to marine areas beyond national jurisdiction. These measures should be seen as distributed along a continuum, each involving a greater level of formality/degree of institutionalization.

**Rationale:** Efforts towards integration of sectoral approaches and actions undertaken by individual governments have been happening for a long while and should be further capitalized upon. Integration between sectoral policies should be based on strong foundations, namely clear sectoral policies and responsibilities, by which each sector operating in marine areas beyond national jurisdiction would take into account their respective impacts on other sectors. The geographic dimension of integration is also an important element to be considered, due to the diversity of situations within a given region and between regions. An ecosystem approach to marine areas beyond national jurisdiction should ultimately be pursued, which would encourage trade-offs between sectors and the achievement of common objectives. Such common objectives would be: strengthening the sustainability and viability of sectors operating in marine areas beyond national jurisdiction; maintaining the ecological integrity necessary to ensure proper ecosystem functioning; and maximizing opportunities for synergies among sectors.

**Solutions:** In this context, appropriate regulatory measures are seen as necessary so as to provide a clear framework for guiding the operations of the various stakeholders involved, promoting the exchange of information, encouraging cooperation,



ensuring public transparency and adapting such operations on the basis of their impacts and the results achieved. Such regulatory measures would apply both within and across sectors. With regard to sectoral measures, each sector operating in areas beyond national jurisdiction should be subject to: an assessment of whether or not sectoral obligations are clearly identified; whether an assessment of the activities of that given sector, including an environmental impact assessment, has been conducted and the related effects on the marine environment are regularly monitored (whether these activities have impacts, if they are optimized and how they could be adapted with regard to activities by other sectors); an assessment of that given sector's compliance with the obligations to which it is subject; and how to improve access to available knowledge and promote capacity-building within that particular sector. There is no shortage of obligations with regard to the proper implementation of flag state responsibilities, but tools available for assessing the implementation of flag state responsibilities with regard to specific sectors are unevenly available. For example, in the case of commercial shipping some tools are available, while in the case of the fishery sector tools for assessing compliance with international obligations are generally lacking. In turn, sectoral policies can and should be further harmonized through appropriate approaches such as the ecosystem approach, integrated ocean management and tools such as area-based management. This can be achieved through reforming sectoral management, especially in relation to ecosystems, as a foundation to cooperate on ecosystem-based management approaches. Moreover, institutional cooperation would need to be guaranteed, both at the national level as well as in terms of the operations of the various intergovernmental agencies involved with issues related to marine areas beyond national jurisdiction, so as to achieve a better integration of sectoral policies. Cooperation and coordination in the actions pursued at the level of individual regions should also be pursued. There is a need for capacity-building, both sectorally as well as in relation to cross-sectoral integration. Other important elements that cut across the hereby proposed nested approach to ensuring integration are integrated assessments and science, and education and public awareness. Capacity-building, integrated assessments and science, and education and public awareness are essential to ensuring a continuum of appropriate policy measures for regulating both sectoral and cross-sectoral solutions to dealing with issues related to marine areas beyond national jurisdiction. Initial regulatory measures for marine areas beyond national jurisdiction could be based on relevant existing legal and policy instruments. Indeed, there are a number of existing principles derived from current international law that can be considered for governing of marine areas beyond national jurisdiction. These include the principles that apply to the seabed, the ocean floor and its sub-soil and to the water sur-

face and water column. Governance gaps are complemented by gaps in implementation. In this regard, there are opportunities for action now, based on existing legal frameworks, namely the UNCLOS, for which implementing measures should be identified so as to fill implementation gaps related to marine areas beyond national jurisdiction. There may be governance or regulatory and implementation gaps in relation to marine genetic resources as well; a fast-track approach in dealing with this issue may be to assess how existing instruments could be used to deal with these resources, while the identification of long-term implementing measures may also be needed.

### III. Next Steps

It is our intention to bring this Co-chairs report to the attention of Member States participating in the second meeting of the United Nations General Assembly 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 (New York, 28 April – 2 May 2008). The Co-chairs shall ensure the dissemination of this report so that States can use it as they see fit to address issues related to marine areas beyond national jurisdiction.

***Salvatore Arico and Sivu Maqungo***

Working Group Co-Chairs





## ***Conference Overview***

### ***4th Global Conference on Oceans, Coasts, and Islands: Advancing Ecosystem Management and Integrated Coastal and Ocean Management in the Context of Climate Change***

April 7-11, 2008, Hanoi, Vietnam

**Biliana Cicin-Sain and Miriam Balgos**



## Conference Overview

### ***4th Global Conference on Oceans, Coasts, and Islands: Advancing Ecosystem Management and Integrated Coastal and Ocean Management in the Context of Climate Change, April 7-11, 2008, Hanoi, Vietnam***

The 4th Global Conference on Oceans, Coasts, and Islands brought together 436 ocean and coastal leaders from 71 countries, representing all sectors, including governments, intergovernmental and international organizations, non-governmental organizations, the business community, ocean donors, and scientific institutions. The conference assessed essential issues in the governance of the world's oceans, with a focus on moving toward an ecosystem-based and integrated approach to oceans governance at national, regional, and global levels. For the first time, a concerted effort was made to bring oceans policy together with climate change, which, as indicated in the 2007 report of the Intergovernmental Panel on Climate Change will have profound effects on ecosystems and coastal populations around the world, especially among the poorest people on Earth and in small island developing States.

The conference focused especially on assessing the progress that has been achieved (or lack thereof) on the global oceans targets established by the world's political leaders at the 2002 World Summit on Sustainable Development: Achieving ecosystem-based and integrated ocean and coastal management by 2010, reducing marine biodiversity loss by 2010, establishing networks of marine protected areas by 2012, and restoring fishery stocks by 2015, among others.

The conference underlined that ocean and coastal managers are at the front line of climate changes. The climate issues that ocean and coastal leaders around the world will need to face will ineradicably change the nature of ocean and coastal management, introducing increased uncertainty, the need to incorporate climate change planning into all existing management processes, the need to develop and apply new tools related to vulnerability assessment, and the need to make difficult choices in what in many cases will be "no win" situations, involving adverse impacts to vulnerable ecosystems and communities. Conference participants underlined that we must begin this process now, including altering coastal development that is already in the pipeline--we don't have the luxury of waiting 10 years before we consider the implications and before we act.

An extensive preparatory process involving twelve multinational Working Groups (involving 254 ocean experts from 68 countries representing all sectors and regions of the world) was mobilized to prepare analyses and specific policy recommendations to the 4th Global Conference in Hanoi, Vietnam, April 7-11, 2008. The Policy Briefs prepared by each Working Group are available on the YouTube Channel noted below.

Coverage of the Global Conference is available at the following sites:

- The Global Forum, the World Ocean Network and the World Ocean Observatory have created a special GOC2008 website and YouTube channel designed specifically to inform audiences across the world about the context and work of the Global Forum using rich media.

GOC2008 Website:

<http://www.thew2o.net/goc2008/index.html>

GOC2008 YouTube Channel:

<http://www.youtube.com/globaloceans2008>

These sites enable viewers to:

- Explore the proceedings of the Conference and each major ocean issue being addressed
- View the reports, recommendations, and Policy Briefs of the Global Forum's 12 Working Groups, which have been mobilized to provide recommendations on priority next steps that the international community should take on major ocean issues
- Watch ocean and coastal experts from various sectors around the globe in brief interviews addressing major ocean topics and issues.
- The International Institute for Sustainable Development – Reporting Services (IISDRS) provided daily coverage of Conference proceedings. As the publisher of the Earth Negotiations Bulletin, IISDRS is recognized for its issue expertise in the field of international environment and sustainable development policy.

The Earth Negotiations Bulletin Summary Report of the Global Oceans Conference follows this introduction.



### **FOURTH GLOBAL CONFERENCE ON OCEANS, COASTS, AND ISLANDS: ADVANCING ECOSYSTEM MANAGEMENT AND INTEGRATED COASTAL AND OCEAN MANAGEMENT BY 2010 IN THE CONTEXT OF CLIMATE CHANGE: 8-11 APRIL 2008**

The Fourth Global Conference on Oceans, Coasts, and Islands, "Advancing Ecosystem Management and Integrated Coastal and Ocean Management by 2010 in the Context of Climate Change" (Fourth Global Conference) hosted by the Government of Viet Nam, Ministry of Agriculture and Rural Development, took place in Hanoi, Viet Nam, from 8-11 April 2008.

The Fourth Global Conference was organized by the Global Forum on Oceans, Coasts, and Islands, which was created by an informal World Summit on Sustainable Development (WSSD) coordinating group in Johannesburg, South Africa, in 2002. Comprised of individuals from governments, intergovernmental organizations and non-governmental organizations (NGOs), the Global Forum serves as a platform for cross-sectoral information sharing and dialogue on issues affecting oceans, coasts and islands, with the goal of achieving sustainable development in these areas.

The event brought together over 430 participants from 71 countries representing governments, UN and other international agencies, NGOs, industry, oceans donors, organized science groups, and networks of museums and aquaria. The Fourth Global Conference provided a review of progress, or lack thereof, in attaining the goals adopted by the world's political leaders at the 2002 WSSD relating to oceans management and conservation in the context of climate change.

During the Conference, participants heard presentations by high-level officials and engaged in topical panels and discussion sessions on three major themes, namely: achieving ecosystem management and integrated coastal and ocean management by 2010; climate, oceans, and security: addressing impacts in vulnerable ecosystems and in vulnerable coastal communities, especially in Small Island Developing States (SIDS); and the governance of marine ecosystems and uses in areas beyond the limits of national jurisdiction.



Vietnamese cultural presentation during the opening session

Outcomes from the Fourth Global Conference include: a Co-Chairs' report containing a summary of the proceedings from the various panel sessions, discussion sessions and roundtables; summaries of the policy briefs presented; and recommendations. These outcomes will be presented at the ninth session of the UN Informal Consultative Process on Oceans and Law of the Sea in New York, US, scheduled to take place from 23-27 June 2008. The specific recommendations will be considered at the World Ocean Conference in Manado, North Sulawesi, Indonesia, from 11-15 May 2009, organized by the Government of Indonesia in collaboration with the Global Forum on Oceans, Coasts, and Islands, and other international partners.

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Throughout the Conference, participants actively engaged in the plenary and discussion sessions. While there was a sense of urgency, most shared a positive outlook given the opportunities for information sharing, collaboration, and networking in and outside the meeting rooms.

## **A BRIEF HISTORY OF THE GLOBAL FORUM AND INTERNATIONAL OCEANS AND COASTS POLICY AND MANAGEMENT**

The UN Conference on Environment and Development (UNCED), held in Rio de Janeiro, Brazil in 1992, was the first major international gathering to address issues related to sustainable development at the global level. UNCED participants adopted Agenda 21, a plan for achieving sustainable development in the 21st century, and the Rio Principles, which define the rights of people to development, and their responsibilities to safeguard the common environment. Chapter 17 of Agenda 21 calls for new and integrated approaches to the sustainable development of oceans and coasts, and the Rio Principles introduce the precautionary principle as a component of new approaches to oceans-related agreements.

**POST-UNCED AGREEMENTS AND ACTIVITIES:** Since UNCED significant progress has been made in the development of legislation, agreements and programmes of action at the international level. The UN Convention on the Law of the Sea entered into force in 1994, and provides an overall framework for other oceans-related agreements. The UN Environment Programme's (UNEP) Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), the Convention on Biological Diversity's (CBD) Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity and the UN Agreement on Straddling and Highly Migratory Fish Stocks (UN Fish Stocks Agreement) were all adopted in 1995. UNEP's Regional Seas Programme, launched in 1974 in the wake of the 1972 UN Conference on the Human Environment held in Stockholm, continued after UNCED to guide the process of regional cooperation, while the 1994 Barbados Programme of Action for the Sustainable Development of SIDS has contributed to an overall strengthening of issues related to SIDS on the political agenda.

Numerous efforts in capacity building and integrated coastal management (ICM) have also been undertaken at national and local levels, including the creation of policy frameworks and the establishment of protected areas and conservation projects. Investments by the private sector in partnership with governments, advances in technology and scientific research, and NGO efforts to raise public awareness have all contributed to the evolution of sustainable development and management of coastal and marine areas.

**THE FIRST GLOBAL CONFERENCE:** The First Global Conference on Oceans and Coasts at Rio+10: Toward the 2002 WSSD took place from 3-7 December 2001 in Paris, France. Participants assessed the status of oceans and coasts and progress achieved over the last decade, identified continuing and new challenges, examined options for concerted action on cross-sectoral issues and laid the groundwork for the inclusion of an oceans perspective and SIDS issues in the WSSD agenda.

**WSSD:** The WSSD convened from 26 August to 4 September 2002, in Johannesburg, South Africa. The outcomes of the Summit included the adoption of the Johannesburg Plan of Implementation, which contains a number of goals and targets related to oceans management, including: encouraging the application of the ecosystem approach by 2010 for the sustainable development of the oceans; 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; protecting the marine environment from land-based activities; achieving a significant reduction of the current rate of biodiversity loss by 2010; developing and facilitating the use of diverse approaches and tools, including the ecosystem approach; eliminating destructive fishing practices; establishing marine protected areas (MPAs) consistent with international law and based on scientific information, including representative networks by 2012; eliminating subsidies that contribute to illegal, unreported, and unregulated (IUU) fishing and to overcapacity; and maintaining or restoring depleted fish stocks to levels that can produce their maximum sustainable yield on an urgent basis and where possible no later than 2015.

**THE SECOND GLOBAL CONFERENCE:** The Second Global Conference on Oceans, Coasts, and Islands: Mobilizing for Implementation of the Commitments Made at the 2002 WSSD on Oceans, Coasts and SIDS, took place from 12-14 November 2003, at the UN Educational, Scientific and Cultural Organization (UNESCO) in Paris, France. The Conference was organized by the Global Forum and spurred the process of initial implementation of the WSSD commitments.

**THE INTERNATIONAL MEETING TO REVIEW THE IMPLEMENTATION OF THE PROGRAMME OF ACTION FOR SIDS:** The International Meeting convened from 10-14 January 2005, in Port Louis, Mauritius. Delegates adopted the Mauritius Declaration and the Mauritius Strategy for the Further Implementation of the Programme of Action on the Sustainable Development of SIDS.

**THE OCEAN POLICY SUMMIT:** The Ocean Policy Summit International Conference on Integrated Ocean Policy: National and Regional Experiences, Prospects, and Emerging Practices, was organized by the Global Forum and was held in Lisbon, Portugal, from 10-14 October 2005. The Summit considered advances made in achieving the WSSD targets and the Millennium Development Goals (MDGs) related to integrated oceans governance at national and regional levels. Participants addressed how national and regional ocean policies may be enhanced and further expanded.

**THE THIRD GLOBAL CONFERENCE:** The Third Global Conference on Oceans, Coasts, and Islands, which took as its theme "Moving the Global Oceans Agenda Forward," was held in Paris, France from 24-27 January 2006. The meeting sought to accelerate progress in achieving international ocean policy targets, especially those related to the WSSD and the MDGs. Participants also examined two major emerging ocean policy issues: high seas governance; and the wide-ranging effects of climate change on oceans and coastal environments.



### FIRST INFORMAL WORKING GROUP ON MARINE BIODIVERSITY:

The *Ad Hoc* Open-ended Informal Working Group of the UN General Assembly (UNGA) to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, convened from 13-17 February 2006, at UN headquarters in New York, US. Participants agreed on the need for short-term measures to address IUU fishing and destructive fishing practices as the most urgent threats to marine biodiversity, as well as institutional coordination. Many delegates also agreed that there should be an ongoing process to advance discussions on sharing the benefits from marine genetic resources, avoiding the adverse impacts of marine scientific research on marine biodiversity, and facilitating the establishment of high seas MPAs.

**ICP-8:** The eighth meeting of the UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP-8) convened from 25-29 June 2007 in New York, US. The meeting organized its discussions around the topic of marine genetic resources, as recommended by the UNGA in resolution 61/222 (Oceans and the law of the sea). Delegates did not agree on key language referring to the relevant legal regime for marine genetic resources in areas beyond national jurisdiction. While no consensus text on elements was agreed, the Co-Chairs developed a draft text of elements to be suggested to the UNGA, drawing on panel discussions and the draft elements and recommendations within the Co-Chairs' Report of ICP-8 to the UNGA, including an explanation of the divergence of views.

### REPORT OF THE CONFERENCE

The Fourth Global Conference on Oceans, Coasts, and Islands (Fourth Global Conference) was preceded by a series of meetings that took place from 3-7 April, as well as by a high-level roundtable discussion for ministers and high-level and eminent participants that was held on 7 April. The Fourth Global Conference commenced on Tuesday, 8 April 2008, with opening statements. Participants engaged in plenary policy sessions on Tuesday, Wednesday and Thursday and in concurrent discussion sessions on Tuesday and Wednesday. On Thursday afternoon, conference reports were presented in plenary, followed by a closing ceremony. A field trip to Halong Bay was organized for Friday. This report is structured by agenda item and summarizes the various plenary presentations and discussions, as well as the discussion sessions as reported in plenary.

### OPENING SESSION

On Tuesday 8 April, Le Van Minh, Director General, International Cooperation Department, Ministry of Agriculture and Rural Development, Viet Nam, chaired the opening session and welcomed participants to the meeting.

Biliana Cicin-Sain, Co-Chair and Head of Secretariat, Global Forum on Oceans, Coasts, and Islands and Co-Chair, Fourth Global Conference, encouraged participants to work



Le Van Minh, Director General, International Cooperation Department, Ministry of Agriculture and Rural Development, Viet Nam



Participants during the opening session

towards a more coherent and integrated ecosystem and oceans management regime outside of national jurisdiction. She stressed the need for political courage, international responsibility, and the mobilization of resources and knowledge to introduce climate change planning into oceans and coastal management processes.

Cao Duc Phat, Minister of Agriculture and Rural Development, Viet Nam, and Co-Chair, Fourth Global Conference, highlighted the benefits of collaboration and noted the opportunity for Vietnamese organizations to share their research and challenges in managing coastal and ocean resources in the context of climate change.

Monique Barbut, Chief Executive Officer, Global Environment Facility (GEF), outlined the GEF's activities in promoting action and collaboration among countries to protect coastal populations and ecosystems and stated that the GEF is committed to delivering on the Conference's agenda.

Veerle Vandeweerd, Director, Environment and Energy Group, UN Development Programme (UNDP), and Co-Chair, Global Forum on Oceans, Coasts, and Islands, applauded Viet Nam's leadership in coastal affairs and called for revisiting traditional paradigms and redefining how stakeholders collaborate. She highlighted the co-benefits of addressing climate change for reducing poverty and advancing sustainable development.

Ibrahim Thiaw, Director, Division of Environmental Policy Implementation, UN Environment Programme (UNEP), and Co-Chair, Fourth Global Conference, outlined UNEP's work on marine ecosystem conservation and identified the need for policies that integrate diverse ocean uses, tools to measure cumulative impacts on ocean integrity, and management plans that incorporate new scientific information.

Javier Armando Valladares, Chairman, Intergovernmental Oceanographic Commission (IOC), UN Educational, Scientific and Cultural Organization (UNESCO), underlined that the Global Forum acts as a catalyst for action and provides a platform for dialogue among stakeholders. He noted the upcoming celebration



Cao Duc Phat, Minister of Agriculture and Rural Development, Viet Nam, and Co-Chair, Fourth Global Conference



of the IOC's 50<sup>th</sup> anniversary in 2010, which will outline the achievements of the Commission and emphasize the need for a better understanding of the oceans.

Deputy Prime Minister Pham Gia Khiem, Minister of Foreign Affairs, Viet Nam, highlighted the crucial role played by marine and coastal communities in the Vietnamese economy. He outlined national marine environmental and conservation efforts, including the application of integrated coastal management (ICM), the development of marine research, and the establishment of marine protected area (MPA) networks.

Monique Barbut noted pressing threats to marine ecosystems, including: the trend of over-fishing of valuable species; nitrogen pollution; and the depletion of natural resources in coastal regions. She outlined recent GEF activities related to marine and coastal ecosystems, and explained that GEF reform has led to a more programmatic approach. She mentioned the Coral Triangle Initiative and the Pacific Alliance for Sustainability as illustrations of the GEF's present and future commitment to the sustainable development of the oceans.



Monique Barbut, Chief Executive Officer, GEF

Freddy Numberi, Minister of Marine Affairs and Fisheries, Indonesia, discussed the importance of political mobilization to achieve effective governance to address ecosystem management and climate change. He highlighted the threat of climate change to Small Island Developing States (SIDS) and marine resources, and stressed the need for decisive action to build on the Bali Roadmap. He outlined Indonesian government initiatives, such as the Coral Triangle Initiative and the World Ocean Conference in May 2009.

Global Forum Co-Chair Cicin-Sain highlighted the independence of the Global Forum, which periodically issues report cards on progress in achieving its goals. She stressed the need for increased effort and political support to address climate change challenges and emerging issues of high seas governance within the next decade, and underscored the extensive preparatory process for the Fourth Global Conference, which included 12 working groups, as well as one in development, comprised of 254 experts from 68 countries. She highlighted that all the working groups had prepared policy briefs with recommendations to national and international decision makers on next steps to advance each major ocean issue.



Biliana Cicin-Sain, Co-Chair and Head of Secretariat, Global Forum on Oceans, Coasts, and Islands and Co-Chair, Fourth Global Conference

## PLENARY PANELS

**OCEANS, CLIMATE, AND SIDS:** This panel was held on Tuesday morning and co-chaired by Nguyen Hong Thao, Vice-Chair of the National Border Committee, Ministry of Foreign Affairs, Viet Nam, and Rolph Payet, Advisor to the President of

Seychelles. The Co-Chairs outlined the session and emphasized SIDS' challenges in the context of climate change. Payet encouraged political leadership and the development of regional initiatives such as the Micronesia Challenge, the Caribbean Challenge and the Coral Triangle Initiative.

In a video keynote address, James Alix Michel, President of Seychelles, said the global community takes the oceans' resources for granted with little heed to the wellbeing of the planet. He called for: a change in the policies of the world's economic powers; adequate resources to reverse climate change and ecological damage; improved deployment of technologies and financing for mitigation and adaptation; and strengthened institutions. He underscored the need for clear leadership from developed nations, and called upon conference participants to implement at least one component of oceans conservation strategy. He concluded by noting that warning signs are already among us, and urged commitment to restore the "planet's harmony."

Rolph Payet introduced a policy brief on SIDS and the Mauritius Strategy. He identified food security as a new emerging priority and delineated four policy issues, including: adaptation to climate change and the role of ICM; sustainable natural resources management and ecosystem-based approaches to marine and coastal management, including fisheries; delineation of the extended continental shelf; and capacity building for coastal and marine management. He suggested that financial mechanisms, review mechanisms, capacity development, and SIDS' leadership are needed to address emerging challenges.

Noah Idechong, Congressman, House of Delegates, Palau, described domestic actions to address climate change impacts, including coral recovery efforts. He highlighted new challenges, such as the sense of anxiety within communities and competing priorities for local funding. He identified opportunities for new partnerships locally and internationally, underscored the urgency that SIDS' communities are experiencing and urged the international community to act.

Amb. Angus Friday, Grenada, Alliance of Small Island States (AOSIS) Chair, underlined the need for SIDS not to be bound by the future they fear, but by a new, shared vision. He said climate change should be addressed with "the mindset of winners," and that the bounty of the oceans should be harnessed. He called for mainstreaming adaptation into economic policies, including promoting green tourism and education, and safeguarding genetic resources beyond national jurisdiction. Noting the vulnerability of SIDS in terms of financial services, he stated that they need to become involved in carbon trading.

Amb. Jagdish Koonjul, Mauritius, Former AOSIS Chair, outlined emerging challenges, such as food security, faced by SIDS since the adoption of the 2005 Mauritius Strategy for further implementation of the Barbados Programme of Action. He stated that the impacts of climate change on islands should be addressed urgently to avoid social unrest and noted that the mobilization that existed post-Mauritius has lost its strength. He raised concern regarding the ability of SIDS to comply with their technical and legal obligations under the UN Convention on the Law of the Sea (UNCLOS) related to the



continental shelf delimitations and suggested that the AOSIS should be strengthened to act as the oversight mechanism on implementation of the Mauritius Strategy.

Amb. Tuiloma Neroni Slade, Samoa, First AOSIS Chair, highlighted the role of thresholds and non-linear behavior of climate change in community and ecosystem disruption. He argued that, while mitigation is crucial, adaptation efforts are also needed, especially in SIDS. He identified the need to consider equity and fairness, and stated that retreat to higher ground is not an option for island communities. He said adaptation strategies, including policies and technology transfer, for small countries require unique considerations. He concluded by noting the interlinkages among multilateral environmental agreements and called upon political leaders to avert dangerous climate change.

In the ensuing discussion, participants highlighted the need to focus SIDS' capacity building at the community level, the opportunity to harness energy from the sea, and the need to learn from innovative technological examples such as those from Singapore. Participants also discussed strengthening SIDS' institutional activities and the UN Trust Fund to facilitate the preparation of submissions to the Commission on the Limits of the Continental Shelf for Developing States.

#### **ECOSYSTEM MANAGEMENT AND INTEGRATED OCEAN AND COASTAL MANAGEMENT BY 2010: CHALLENGES TO DECISION-MAKERS:**

This panel took place on Tuesday afternoon and was co-chaired by: Alfred Duda, Senior Advisor, International Waters, GEF; Ibrahim Thiaw, UNEP; Andrew Hudson, Principal Technical Advisor, International Waters, UNDP-GEF; and Nguyen Chu Hoi, Director, Institute of Fisheries Economics and Planning, Viet Nam.

Chua Thia-Eng, Chair, East Asian Seas Partnership Council, outlined efforts carried out by the Partnerships in Environmental Management for the Seas of East Asia to achieve sustainable coastal and ocean development in the seas of East Asia over the next ten years, including by: consolidating the foundation of ICM; scaling-up ICM programmes along the coastline; enhancing the policy, legal, financial and human resources for local implementation; and institutionalizing a regional coordinating mechanism to implement ICM.

Noting the threats faced by large marine ecosystems (LMEs), including increasing temperatures and declining fish stocks, panel Co-Chair Duda called for adaptive management. He described GEF financing for coasts, marine and SIDS' projects in international waters and stressed support for more cross-sectoral focal area programmes for recovery and sustainable use of LMEs.

Zhang Hongsheng, Vice Administrator, State Oceanic Administration, China, discussed China's approach to integrated ecosystem-based ocean and coastal management in the context of climate change. He highlighted the ocean and coastal impacts

of China's rapidly growing marine economy and climate change, and noted the laws, institutions and programmes established to manage these threats.

Patrick Van Klaveren, Head of International and Mediterranean Environment Service, Monaco, outlined his country's actions for marine conservation, highlighting the creation of the Pelagos Sanctuary for Mediterranean Marine Mammals and of MPAs under the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area.

Teresita Castillo, Undersecretary, Department of Environment and Natural Resources, Philippines, presented on the effects of climate change on biodiversity and concomitant impacts on tourism. She identified stressors, such as beach erosion, increased sea levels and damage from sea surges and storms, and coral bleaching.

Rudolf Noronha, Director, Department of Environmental Quality, Ministry of Environment, Brazil, discussed ICM in the context of adaptation to climate change in Brazil. He outlined a macrodiagnostic initiative on the Brazilian coastal zone, which includes data on its geomorphology, ports, population dynamics, potential flooding risk and social risk mapping.

Arumugam Senthilvel, Additional Director, Ministry of Environment and Forests, India, discussed the challenges and opportunities for ICM zones in India. He noted the economic development impacts on coastal zones, outlined the legal framework and objectives of ICM in India, and highlighted opportunities for capacity building with World Bank assistance.

Francisca Delgado, General Director, National Institute for Fisheries Research, Angola, highlighted the importance of fisheries to the Angolan economy, and discussed the national legal and institutional framework for ecosystem-based management of fisheries. She noted the biological and social issues relating to fisheries, as well as management measures, research actions and ways forward to improve existing legislation.

Veerle Vandeweerd discussed adaptation needs for coastal zones. She identified major challenges, including the lack of an adaptation methodology and scant resources. She called for



Veerle Vandeweerd,  
Director, UNDP  
Environment and Energy  
Group, and Co-Chair,  
Global Forum on Oceans,  
Coasts, and Islands

mainstreaming adaptation, building climate resilience and financing. She suggested that adaptation is an opportunity to address sustainable development needs.

Torkil Jonch-Clausen, Danish Hydraulic Institute and Global Water Partnership, called for communication between the freshwater and coastal/marine communities and presented the solution of integrated coastal area and river management. He identified the need for joint action on concepts and guidelines, best practices, political and administrative support, pilot projects, and capacity building.

Julian Barbieri, IOC/UNESCO, described the "Assessment of Assessments," the UN Global Assessment of the State of the Marine Environment's (GMA) first phase. He explained that the





Plenary panel on "Ecosystem management and integrated ocean and coastal management by 2010"

Assessment of Assessments will contain a regional overview of assessments, establish best practices, and develop a framework and options for the GMA.

Jose Matheickal, Chief Technical Advisor, Global Ballast Water Management Programme, International Maritime Organization, recommended: appropriately managing marine biosecurity threats; including biosecurity as one of the Global Forum's ongoing themes; including marine biosecurity issues in GEF/LME programmes; and promoting the ratification and implementation of existing international agreements, such as the 2004 Ballast Water Convention, dealing with this issue.

**FISHERIES AND AQUACULTURE: SUSTAINABILITY AND GOVERNANCE:** This panel was held on Wednesday morning and co-chaired by: Rebecca Lent, Director, Office of International Affairs, US National Oceanic Atmospheric Administration (NOAA); Nguyen Chu Hoi; and Le Thanh Luu, Director of Research Institute for Aquaculture, Viet Nam.

Lent introduced the four main themes addressed by the fisheries and governance working group, namely: regional fisheries management organization (RFMO) reform; illegal, unreported and unregulated (IUU) fishing; overcapacity in fishing; and sustainable aquaculture. She highlighted the impacts of climate change on fisheries, particularly on small-scale fishing, and stressed the need for more flexible measures.

Panel Co-Chair Nguyen Chu Hoi outlined the main fisheries management challenges in Viet Nam, including: an unmanaged number of fishing boats; overexploitation in coastal waters; and increasing numbers of fishermen. He suggested solutions such as creating a community-based management system, applying responsible fishing techniques, and developing marine conservation parks.

Kilus Nguvauva, Deputy-Minister, Ministry of Fisheries and Marine Resources, Namibia, discussed access agreements between developing countries and distant and neighboring nations, and the private sector. While he noted that the agreements can be valuable, he raised concerns regarding equity, the environment, competition with local fisheries, food security and trade. He encouraged creating a platform for discussion and identifying best practices.

Chris Tompkins, Independent Consultant, UK, called for several RFMO reforms, including: modernization of mandates; cooperation among RFMOs and with other regional bodies;



Plenary panel on "Fisheries and aquaculture: sustainability and governance"

transparency; emphasis on equity and openness to new countries; adoption of UN Fish Stocks Agreement principles; and performance assessments. He highlighted a Chatham House report entitled "Recommended Best Practices for RFMOs."

Lori Ridgeway, Director-General, International Policy and Integration, Department of Fisheries and Oceans, Canada, outlined the challenges facing tuna stocks, such as: weak conservation and management measures; IUU fishing; access and allocation issues; by-catch; institutionalized over-fishing; and data collection and sharing. She called for accelerated progress and suggested that failure to conserve tuna would translate to a credibility loss for the fisheries governance system.

Moritaka Hayashi, Ocean Policy Research Foundation, Japan, and former Assistant Director-General, UN Food and Agriculture Organization (FAO), welcomed the increasing link between RFMOs and global institutions, such as the UN General Assembly (UNGA) and the FAO's Committee on Fisheries. He stressed the need for more effective management of RFMOs with periodic reviews of their performance.

In the ensuing discussion moderated by Rebecca Metzner, FAO, participants addressed the costs of management and enforcement, the need for improving the science-policy interface within RFMOs, and the replicability of RFMOs' success stories. One participant stressed the need for RFMOs to collaborate with regional economic organizations.

**HALTING LOSS OF BIODIVERSITY AND ESTABLISHING REPRESENTATIVE NETWORKS OF MARINE PROTECTED AREAS:** This panel was held on Wednesday morning and co-chaired by Jihyun Lee, Convention on Biological Diversity (CBD) Secretariat, and Do Van Khuong, Director of Research Institute of Marine Fisheries, Viet Nam.

Panel Co-Chair Lee introduced the working group's policy brief on halting marine biodiversity loss and establishing representative networks of MPAs. She said the working group was not confident that the 2002 World Summit on Sustainable Development (WSSD) biodiversity goals will be met by 2010 and highlighted the need to represent biodiversity in market terms in order to receive government attention.

Sue Wells, Independent Consultant, discussed progress towards the 2002 WSSD biodiversity and MPA goals. She highlighted marine biodiversity indicators for meeting the 2010 goal, noted challenges in achieving the 2012 MPA target, and underscored





Plenary Panel 4: Halting loss of biodiversity and establishing representative networks of MPAs

the difficulty of gathering data for the working group policy brief. She called on participants to explore the possibility of a creating a Friends of the Jakarta Mandate Group and to advance the marine biodiversity agenda forward through the CBD and IUCN processes.

Nicole Glineur, Biodiversity Program Manager, GEF, discussed the GEF's activities on coastal and marine ecosystem conservation. She outlined funding avenues, such as through the biodiversity, international waters and climate change focal areas, as well as the GEF Small Grants Programme and the Public-Private Partnership Initiative. She highlighted the opportunity for ecosystem services payments and, given limited resources, the need for pooling funding sources together.

Payet described the Global Island Partnership, which strives to bridge the gaps between the global agenda, national leaders and communities. He suggested that leadership at the highest level is needed to protect biodiversity and called for the reversal of biodiversity loss.

James Hardcastle, Senior Conservation Finance and Policy Advisor, Asia-Pacific, The Nature Conservancy, described the Micronesia Challenge, which was issued in 2005 by the President of Palau to Micronesian nations to effectively conserve 30% of near-shore marine resources and 20% of forest resources by 2020. He outlined lessons learned from the Challenge, including the need to build on existing conservation programmes and for the full involvement of communities.

Marea Hatzios, Senior Coastal and Marine Specialist, Environment Department, World Bank, presented on means of increasing the effectiveness of MPAs and coral reef conservation, noting that most areas contain coral reefs. She explained how remote sensing and scientific research on coral disease can help improve the design of MPAs.

Nguyen Giang Thu, Project Director of Livelihoods and MPAs, Viet Nam, reported on MPA development in Viet Nam. She highlighted: the challenges facing MPA policy, legal and institutional frameworks; the need for ICM and MPA co-development; cross-cutting issues for effective management; and the impact of MPAs on sustainable livelihoods.

Vo Si Tuan, Former Senior Expert, GEF, Institute of Oceanography, Viet Nam, UNEP/GEF South China Sea Project, discussed the collaborative network and outcomes from a UNEP/

GEF project that seeks to reverse environmental degradation trends in the South China Sea and the Gulf of Thailand. He highlighted the development of a system of fisheries refugia in the region.

Julius Francis, Executive Secretary, Western Indian Ocean Marine Science Association, Tanzania, discussed a certification programme for MPA professionals in the Western Indian Ocean region. He highlighted the growing number of MPAs in the region, the lack of training schemes and the programme's three tiers of certification.

The ensuing discussion focused on sustaining the participation of local communities in MPA management and financing MPA enforcement.

**OCEANS AND CLIMATE:** This plenary panel took place on Wednesday afternoon and was co-chaired by Gunnar Kullenberg, former Executive Secretary, IOC/UNESCO, and Vu Thanh Ca, Vietnam Institute of Meteorology and Hydrology.

Panel Co-Chair Kullenberg discussed the working group's policy brief on oceans, climate change and security. He highlighted the prospect for harnessing the ocean's energy, and noted that climate impacts are transpiring at higher rates than expected. He argued that we have the financial means, but lack the capacity, to contend with climate impacts to oceans, as well as ocean impacts to the climate.

Pamela Rubinoff, Coastal Resources Center, University of Rhode Island, discussed a US Agency for International



Pamela Rubinoff, Coastal Resources Center, University of Rhode Island

Development publication, "Adapting to Climate Variability and Change," and efforts to tailor lessons to coastal systems. She identified the need for: long-term and place-based approaches; the use of local and traditional knowledge; outcome-based and adaptive adaptation; and a transition to long-term political choices.

Kenneth Sherman, GEF LME Programme and NOAA, described a five module strategy, based on lessons learned from LME case studies, to provide science-based information for the monitoring, assessment and management of LMEs. He recommended the adoption of a system of capping catches and prioritizing important species to establish a precautionary regime based on the level of warming detected in each LME.

Paul Epstein, Center for Health and the Global Environment, Harvard Medical School, gave examples of the consequences of global warming on public health. Noting that oceans nourish and regulate the climate, he called for a transition to clean energy sources that would serve adaptation to and mitigation of climate change.

Nguyen Huu Ninh, Chairman, Center for Environment Research, Education and Development, Vietnam National University, Coordinator, Indochina Global Change Network, presented on climate variability and hazards with a focus on Viet



Nam. He noted the impacts of climate change on livelihoods and national economic development, and highlighted the consequences of disasters in Viet Nam.

Willett Kempton, College of Marine and Earth Studies, University of Delaware, discussed the essential role of marine renewable power in mitigating climate change and reducing ocean acidification. Using a case study from the US Northeast to demonstrate the potential of offshore wind energy, he recommended focusing on large-scale marine renewables, such as offshore wind, ocean currents and ocean thermal energy conversion.

In the ensuing discussion, participants debated the costs of marine renewable energy, strategies to balance mitigation measures, and why coastal marine ecosystems warm more quickly than the global marine average.

**GOVERNANCE OF MARINE AREAS BEYOND NATIONAL JURISDICTION:** This plenary panel took place on Thursday morning and was co-chaired by Gabriele Goettsche-Wanli, UN Division for Ocean Affairs and the Law of the Sea (DOALOS); Mary Seet-Cheng, Singapore's Ambassador to the Republic of Panama and to Cuba; and Ngoc Giao Hoang, Faculty of Law, Vietnam National University.

Panel Co-Chair Goettsche-Wanli highlighted the lack of knowledge and technical challenges impeding the governance of marine areas beyond national jurisdiction. She noted the contention of the existing legal regime and stressed the need for cooperation. She highlighted that these issues will be further discussed in the Second Meeting of the *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 (*Ad Hoc* Open-ended Informal Working Group) established under the UNGA.

Panel Co-Chair Seet-Cheng discussed issues related to the governance of marine areas beyond national jurisdiction, including the need to: address knowledge gaps; provide continuity with previous governance activities; and raise the profile on the political agenda.

Panel Co-Chair Ngoc Giao Hoang noted how Viet Nam can learn from addressing this topic, and identified the need to develop cooperation within Asia on governance of marine areas beyond national jurisdiction.



Co-chair Gabriele Goettsche-Wanli, UNDOALOS



Panel Co-Chair Ngoc Giao Hoang, Faculty of Law, Vietnam National University

Sivu Maqungo, South Africa, described the working group's policy brief on governance of marine areas beyond national jurisdiction. He said that the group's brief addresses: environmental impacts on marine biodiversity beyond areas of national jurisdiction; coordination and cooperation among states and intergovernmental organizations; the role of area-based management tools; genetic resources beyond areas of national jurisdiction; and governance gaps.

Salvatore Arico, UNESCO, discussed the policy brief findings in more detail. He highlighted the role of information-based decision making, and suggested that area-based management tools could facilitate implementation of the ecosystem approach. He identified the need for: institutional and programmatic coherence; a package of measures to address governance gaps; and recommendations on genetic resources beyond areas of national jurisdiction.

Laurent Stefanini, Ambassador for the Environment, Ministry of Foreign and European Affairs, France, described a strategic plan to be developed within France, which will address transport, economic development, coastal planning, marine resources and biodiversity. He stated that the plan will first be applied to areas under national jurisdiction but, given France's role in ocean policies, he suggested that it would have greater reach. He called for better coordination among UN organizations, and identified the importance of scientific expertise on marine biodiversity, which, he said, should be included under the International Mechanism of Scientific Expertise on Biodiversity framework and could put pressure on the policymaking process.

David Freestone, World Bank, stressed that there is no comprehensive governance framework for marine areas beyond national jurisdiction even though they comprise 50% of the Earth's surface. He noted governance gaps, including poor implementation, uncoordinated rule-making and weak enforcement; stressed the need for ecosystem-based integrated management; and suggested solutions such as establishing a coordinating mechanism and expanding the mandate of existing arrangements.

Maqungo discussed developing country perspectives on governance of marine areas beyond national jurisdiction. He



Sivu Maqungo, South Africa

outlined the key issues, namely clarification of the legal regime, the existence of regulatory gaps, and access and benefit-sharing of marine genetic resources. He stressed the importance of the UNCLOS's principle of equity and noted that activity in the Area (the seabed and subsoil beyond national jurisdiction) must be guided by the principle of the common heritage of mankind.

Marie Fuensanta Candela Castillo, European Commission, said the EU position on the governance of marine areas beyond national jurisdiction is a work in progress. She said the EU is committed to the concept of an UNCLOS implementation



agreement as a long-term objective, and is ready to consider dialogue to examine options related to access and benefit-sharing, but has difficulty accepting the common heritage of mankind status of marine genetic resources in the Area.

Ridgeway presented on opportunities for enhancing integrated governance of marine areas beyond national jurisdiction, stressing that “integration starts at home.” She outlined the different kinds of integration that should be taken into account, including horizontal, vertical, and spatial, and noted the new concept of mainstreaming integration within other issue areas, such as climate change.

David Johnson, Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) Commission, presented a regional perspective on the enhancement of integrated governance of marine areas beyond national jurisdiction. He described the Charlie Gibbs Fracture Zone, which, he explained, is a possible test case for the creation of a MPA.

In the ensuing discussion, which was moderated by Johannes Nieuwenhuis, Marine Policy Coordinator, Ministry of Agriculture, Nature and Food Quality, the Netherlands, one non-governmental organization representative said some scientific advice is already available and should be taken as basis for action. Participants addressed the ways in which pilot projects and science can inform the international debate on high seas governance.

**OVERARCHING CROSS-CUTTING ISSUES:** This plenary panel took place on Thursday morning and was co-chaired by Anna Tengberg, UNDP, Bangkok; Nicole Glineur, GEF Secretariat; and Le Ngoc Hung, Head of the Department of Management Sociology, Ho Chi Minh National Politics and Administration Academy, Viet Nam.

Koos Neefjes, UNDP, discussed the “One UN Initiative” in Viet Nam. He described the extent to which climate change and



Koos Neefjes, UNDP

marine and coastal issues are incorporated into the Initiative. He identified the need for: a focus on core mandates of, as well as increased coherency among, UN organizations; overcoming implementation obstacles; leadership; efficiency; and managing performance expectations.

Indumathie Hewawasam, World Bank Consultant, highlighted the need and priorities for capacity development. She called for:

partnerships with private foundations; a global forum to enhance technical skills; mainstreaming coastal and oceans agendas into national economic planning; a high-level multi-donor conference on capacity development; and support of regional institutions in the most vulnerable countries.

Ralph Cantral, National Ocean Service, NOAA, discussed progress markers, designed to gauge success in achieving coastal and ocean goals. He noted that the development of progress markers will have a short-term focus on identifying process and



Plenary panel on “Overarching cross-cutting issues”

institutional indicators. He added that this work will be followed by a review of on-the-ground results, supporting a shift from “outputs to outcomes.”

Carl Bruch, Environmental Law Institute, presented the policy brief of the compliance and enforcement working group. He said the costs of noncompliance can be substantial in the short- and long-term and that a range of tools is needed. He noted challenges such as lack of capacity and political will, outlined options including increasing public participation and the use of market-based approaches, and stressed the need to develop an agenda for improving compliance and enforcement.

Philippe Vallette, French National Sea Experience Centre (NAUSICAÄ) and World Ocean Network, presented on the long-term media strategy to advance the global oceans agenda. He stressed the importance of bringing media attention to traditional knowledge, cultural heritage, and the impacts of climate variability on the oceans and the oceans on the climate. He outlined ongoing work, including the establishment of World Ocean Day and the World Ocean Network educational programmes.

Takashi Ito, The Nippon Foundation, described the capacity building initiatives of The Nippon Foundation in the field of global ocean governance, highlighting the organization of the International Ocean Governance Network.

In the ensuing discussion, participants debated outreach and awareness-raising activities in Viet Nam. Sinyo Harry Sarundajang, Governor of North Sulawesi Province, Indonesia, extended an invitation to participants to attend the World Ocean Conference in May 2009, to be held in Manado, Indonesia.

## CONFERENCE REPORTS

On Tuesday and Wednesday afternoon, 21 concurrent discussion sessions took place. These discussion sessions aimed to provide participants with an opportunity to discuss 13 themes in an informal setting and to formulate recommendations. On Thursday afternoon, participants heard reports from all but three of these sessions in a plenary moderated by Julian Barbieri, IOC/UNESCO. Coverage of the discussion groups is grouped according to the 13 themes and limited to the plenary summary reports presented by each group’s rapporteur in plenary on Thursday.



**OCEANS, CLIMATE, AND SIDS:** On Tuesday, this topic was addressed in a discussion session entitled, “Advancing the Implementation of the SIDS Mauritius Strategy.” On Thursday, Rolph Payet presented a summary of this discussion. He noted that SIDS have led the oceans agenda and identified adaptation to climate change as the most pressing issue for SIDS. He welcomed the support to the Sea-level Rise Initiative and the GEF ecosystem-based management (EBM) initiatives. Payet stressed the need to address genetic resources issues in time for SIDS to take advantage of the economic opportunity they may present and to build the capacity of SIDS to enable them to make extended continental shelf submissions. He said SIDS should be fully involved in the high seas discussions and called for the establishment of a robust mechanism to implement the Mauritius Strategy.

**ECOSYSTEM MANAGEMENT AND INTEGRATED COASTAL AND OCEAN MANAGEMENT:** This topic was first addressed in a discussion session on Tuesday entitled, “Building Networks of Local Officials for Integrated Coastal and Ocean Governance”; “Progress makers”; and “Integrated Coastal and Ocean Policies: National Perspectives-1.” On Wednesday, the topic was again addressed in a discussion session entitled, “Integrated Coastal and Ocean Policies: Regional Perspectives-2”; “Mainstreaming Coastal and Marine Issues into National Planning and Budgetary Processes”; and “Enhancing UN Coherence: Global Regional Assessment of Marine Environments, UN-Oceans, and One UN Pilot Programme.” On Thursday, Ned Cyr, Chief, Marine Ecosystems Division, NOAA, presented a summary of these discussions.

Noting that ICM implementation guidelines are well established, Cyr underlined that EBM implementation guidelines are less well codified. He said EBM and ICM are not conflicting but complementary and consistent. Cyr noted progress in implementation at various levels, but stressed the need to better communicate the benefits of EBM to policy makers. He also called for: maintaining collaboration on ICM and EBM at the international level; emphasizing capacity building of and support to developing States; and establishing a systematic process to track progress on ICM and EBM implementation by 2010 using common indicators.

**LMEs:** This topic was addressed on Tuesday in a discussion session entitled, “Experiences in the Practical Implementation of Country-Driven GEF LME Programmes.” On Thursday, Kenneth Sherman presented a summary of this discussion. He identified the possible policy change within the GEF towards a national allocation of funds as a potentially perverse incentive that would discourage countries from working together to address cross-cutting issues and could be detrimental to EBM implementation. He recognized the success of a number of GEF-



Kenneth Sherman, GEF LME Programme and NOAA

funded LME projects and underscored the insufficient focus and means for support of professional training in the various regions. He indicated an interest to build on the existing LME assessment management framework.

**FISHERIES AND AQUACULTURE: SUSTAINABILITY AND GOVERNANCE:** This topic was addressed on Wednesday in two discussion sessions entitled, “Controlling Fishing Overcapacity” and “Doing Aquaculture Right.” On Thursday, Chris Tompkins presented a summary of these discussions. He outlined eight central themes, namely: the need for market-based mechanisms; coordination and integration of governance approaches; inseparability of fisheries and oceans management; integration of aquaculture into the overall fisheries framework; capacity development; the challenge of IUU fishing; the imperative of stakeholder engagement; and the impacts of climate change. He noted four recommendations from the fishing overcapacity discussion session, including the need to investigate perverse government incentives and to support scientific management of capacity. Tompkins outlined five main policy recommendations from the aquaculture discussion session, including the need for certification and sustainability standards, and support for the development and implementation of better practices by resource users.

**HALTING LOSS OF BIODIVERSITY AND ESTABLISHING REPRESENTATIVE NETWORKS OF MPAs:** This topic was addressed on Wednesday, in the discussion session entitled, “Next Steps in Assessing Progress in Halting Biodiversity Loss by 2010.” On Thursday, Jihyun Lee presented a summary of this discussion. She said progress towards the WSSD targets is not positive, and feared that the 2010 biodiversity and 2012 MPA targets would not be met. Noting that the working group was “searching for hope,” she highlighted that: the CBD provides an overall framework for implementation; numerous high-level commitments exist; management interventions are largely known and understood; and some populations and ecosystems are showing signs of recovery. Lee identified barriers and constraints towards achieving the WSSD targets, which include: poor marketing of the value of marine biodiversity; lack of political interest and commitment; limited capacity and financial resources; lack of baseline data and information on trends; ineffective reporting mechanisms; and fragmented efforts by regional and international organizations. To overcome these barriers she recommended: renewing country commitments to the Jakarta Mandates; establishing an effective reporting and monitoring framework; and promoting the value of marine biodiversity.

**OCEANS, CLIMATE AND SECURITY:** This topic was addressed in the discussion session on “Dealing with Changes in Oceans: Ocean Warming, Ocean Acidification, Changes in Polar Regions,” which took place on Tuesday, as well as in the discussion sessions on “Practical Solutions to Climate Change Adaptation” and “Mitigation Measures to Climate Change Impacts: Encouraging Alternative Sources of Energy: Wind, Waves, Tides, Currents, oceans thermal energy conservation,” which took place on Wednesday. On Thursday, Gunnar Kullenberg presented a summary of these





Panelists in the session on "Governance of marine areas beyond national jurisdiction"

discussions. He noted that oceans are necessary to fulfill basic human needs, which are threatened by climate change impacts having global consequences. He called for comprehensive integration of adaptation, planning and mitigation activities. Noting the existence of the necessary tools, Kullenberg urged capacity building and implementation. He identified the need for observational research, especially with regard to ocean acidification and climate impacts to the food chain. On climate change, he highlighted equity concerns and the vulnerability of polar regions, and stated that marine mitigation options need to be evaluated and that "no regrets" options should be embraced.

#### **GOVERNANCE OF MARINE AREAS BEYOND NATIONAL JURISDICTION:**

This topic was addressed on Wednesday in the discussion session on "Uses of Marine Ecosystems in Areas Beyond National Jurisdiction (Bioprospecting, Fisheries, Deep Seabed Mining, Maritime Transportation, Communication Cables: Opportunities for Enhancing the Management Frameworks)." On Thursday, Salvatore Arico presented a summary of this discussion. He underscored the sense of urgency and complexity of the topic, and reported that the group was successful in achieving a balance between a realistic vision and a long-term perspective.

He discussed the working group's policy brief on governance of marine areas beyond national jurisdiction, which is organized according to findings, rationale and solutions. He said the brief identifies a need for integrated science and calls for cooperation among States and international organizations, as well as among scientists. He highlighted the value of area-based management tools, and called on the *Ad Hoc* Open-ended Informal Working Group to provide recommendations with regard to marine genetic resources. Concerning regulatory gaps, he said a range of options would be necessary.

**FRESHWATER TO OCEANS:** This topic was addressed on Wednesday in the discussion session on "Freshwater-to-Oceans and Preparations for the Fifth World Water Forum." On Thursday, Torkil Jonch-Clausen presented a summary of this discussion. He



Salvatore Arico, UNESCO

recommended freshwater and coastal management communities take steps to overcome the present lack of coordination and communicate the seriousness of the issue, including the cost of inaction, and need for integrated freshwater and coastal management. He called for increased attention to non-point sources of pollution and noted the role that demonstration projects can play in developing and testing integrated river and freshwater tools and good practices. He highlighted lack of capacity and funding, particularly in developing countries.

**CAPACITY BUILDING:** This topic was addressed on Tuesday in a discussion session entitled, "Capacity Development Among the Community of Portuguese-Speaking Nations," as well as on Wednesday in a discussion session entitled "Capacity Building." On Thursday, Indumathie Hewawasam presented a summary of these discussions and noted that capacity had been emphasized in every discussion session. She identified barriers to capacity building, including: political will; leadership; institutional weakness; high turn-over of technical staff; the "brain drain"; lack of transparency; need for empowered citizenry; and communication between public and private entities. She said the Global Forum can aid in forging alliances among those in the private sector, public sector, global institutions and regional institutions. She also suggested it can promote technical skills in emerging issue areas. In conclusion, she called for a conference of donors to discuss financing and leveraging funds, as well as collaboration, efficiency and effectiveness.



Indumathie Hewawasam, World Bank Consultant

**PUBLIC EDUCATION:** This topic was addressed on Wednesday in a discussion session entitled, "Public Education and Outreach." On Thursday, Manuel Cira, NAUSICAÁ, World Ocean Network Coordinator, presented a summary of this discussion. He called for training and resources for the mobilization of oceans ambassadors and announced the creation of a world ocean leadership academy, which aims to train educators and media. He highlighted the upcoming World Ocean Day, to be celebrated on 8 June 2008, and called for the official UN designation of that day by 2012, which will mark the twentieth anniversary of the Rio Summit, where the World Ocean Day was first proposed. He urged the maintenance of the Fourth Global Conference's momentum.

**COMPLIANCE AND ENFORCEMENT:** This topic was addressed on Wednesday in a discussion session entitled "Compliance and Enforcement." No presentation was made to plenary.

**MARINE TRANSPORTATION:** This topic was addressed on Tuesday in a discussion session entitled "maritime transportation." No presentation was made to plenary.



**INDICATORS FOR PROGRESS:** This topic was addressed on Tuesday in a discussion session entitled, "Progress markers." No presentation was made to plenary.

### **CLOSING CEREMONY**

This plenary session took place on Thursday afternoon and was moderated by Janot-Reine Mendler de Suarez, Deputy Director, GEF International Waters Learning Exchange and Resource Network (IW:LEARN).

Global Forum Co-Chair Cicin-Sain outlined the strategic planning process that preceded the Conference and noted that the working groups will continue on an indefinite basis. She highlighted strong media interest, outlined the Conference outcomes, and reflected upon next steps moving towards the World Ocean Conference in 2009 and the Fifth Global Conference in 2010.

Rejoice Mabudafhasi, Deputy Minister of Environmental Affairs and Tourism, South Africa, applauded the sense of urgency



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

present at the Conference and called for increased partnership between professionals in developed and developing countries. She stressed the need to raise the profile of the oceans and coasts within climate change negotiations.

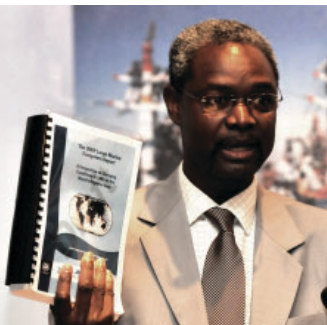
Nguyen Viet Thang, Minister of Agriculture and Rural Development, Viet Nam, stated that the conference was "fruitful," as it forged collaboration and played an important role in Viet Nam, helping the nation further recognize the importance of



Nguyen Viet Thang, Minister of Agriculture and Rural Development, Viet Nam

protecting oceans, coasts and islands. He wished the participants success and expressed his hopes for them to retain memories of Viet Nam.

Ibrahim Thiaw reflected on the Conference's high-level participation, dynamism, diversity and rich presentations. He called for moving beyond "preaching to the converts," and urged outreach to other communities, such as those involved in freshwater and development issues. He noted the need to consider land-locked countries, for more champions to defend the world's oceans, and for key figures who can convey messages. He asked participants to consider: a long-term vision



Ibrahim Thiaw, Director, UNEP Division of Environmental Policy Implementation, and Co-Chair, Fourth Global Conference

and overall objectives for the Global Forum; means to enhance efficiency; lobbying methods; communication, education, and outreach needs; and alliances with other actors.

Andrew Hudson, Principal Technical Advisor, International Waters, UNDP-GEF, spoke on behalf of Global Forum Co-Chair Vandeweerd. He said the Global Forum was the principal mechanism for high-level policy dialogue on sustainability challenges that face oceans, coasts and islands. He noted the Forum's role in reviewing progress and identifying strategies to address ongoing and emerging challenges. He highlighted insights from the Conference's policy briefs, including: the additional complexity climate change brings to the sustainable management of oceans and coasts; the continuation and expansion of impacts from human activities; the urgent issues facing SIDS, which can serve as models for demonstrating good progress; the need to enhance public participation and strengthen governance; and the major gaps in public understanding.

Noting that the oceans and freshwater communities share the same commitments to sustainable development, Jonch-Clausen urged participants to "decrease their salinity" and invited them to attend the Fifth World Water Forum in 2009.

Peter Neill, Director, World Ocean Observatory, explained that the conference had been covered by the World Ocean Network and the World Ocean Observatory, with funding from the Lighthouse Foundation (<http://www.thew2o.net/goc2008/>). He highlighted that interviews from a number of eminent participants are available on U Tube.

Lori Ridgeway underlined the power of positive thinking and, noting the inspirational examples presented during the Conference, she urged participants to convey a message of hope. She stressed the urgency for change and for the creation of a "win-win" agenda.

Reine Mendler de Suarez closed the Conference at 4:45 pm.

## **UPCOMING MEETINGS**

### **GLOBAL MARINE RENEWABLE ENERGY**

**CONFERENCE:** This conference will take place from 17-18 April 2008 in New York, US, convening international and US-based leaders and innovators to exchange the latest information on marine renewable energy. For more information, contact: fax: +1-410-423-2193; e-mail: [cs@energetics.com](mailto:cs@energetics.com); internet: <http://www.globalmarinerenewable.com>

**SECOND 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:** The second meeting of this working group will take place from 28 April to 2 May 2008, in New York, US, in accordance with UN General Assembly resolution 62/215 adopted on 22 December 2007. For more information, contact: Director, UN Division for Ocean Affairs and the Law of the Sea (DOALOS); tel: +1-212-963-3962; fax: +1-212-963-5847; e-mail: [doalos@un.org](mailto:doalos@un.org); internet: <http://www.un.org/Depts/los/biodiversityworkinggroup/biodiversityworkinggroup.htm>



# **INTERNATIONAL GLOBAL ENVIRONMENT FACILITY (GEF) WORKSHOP ON EVALUATING CLIMATE CHANGE AND DEVELOPMENT: RESULTS, METHODS AND CAPACITIES:**

This workshop will take place from 10-13 May 2008, in Alexandria, Egypt, organized by the GEF Evaluation Office, with a view to sharing experiences in evaluating projects and programmes aimed at the nexus between climate change and development. For more information, contact: Secretariat of the International Workshop, Evaluation Office of the Global Environment Facility; tel: +1 202 458 8537; e-mail: IntWorkshop@TheGEF.org; internet: <http://www.esdevaluation.org>

**INTERGOVERNMENTAL MEETING ON THE MANAGEMENT OF HIGH SEAS BOTTOM FISHERIES IN THE NORTH WESTERN PACIFIC OCEAN:** The second meeting of this new Regional Fisheries Management Organization (RFMO) will take place from 14-16 May 2008, in Vladivostok, Russia. The scientific working group meeting will take place from 12-13 May 2008. For more information, contact: Miho Wazawa; tel: +81-3-3502-8111 (ext 6747); fax: +81-3-3502-0571; e-mail: [miho\\_wazawa@mm.maff.go.jp](mailto:miho_wazawa@mm.maff.go.jp); internet: [http://www.fpir.noaa.gov/IFD/ifd\\_nwpbottomtrawl.html](http://www.fpir.noaa.gov/IFD/ifd_nwpbottomtrawl.html)

**CBD COP-9:** This conference is organized by the Convention on Biological Diversity (CBD) Secretariat and will be held from 19-30 May 2008, in Bonn, Germany. For more information, contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: [secretariat@cbd.int](mailto:secretariat@cbd.int); internet: <http://www.cbd.int/doc/meeting.aspx?mtg=COP-09>

**FORUM FISHERIES COMMITTEE MINISTERIAL MEETING:** This meeting will take place from 19-20 May 2008, in Palau, following the 67th official session of the Forum Fisheries Committee from 12-16 May 2008. For more information, contact: Jean-Paul Gaudechoux; tel: +687-262-000 or +687-260-169; fax: +687-263-818; e-mail: [jeanpaulg@spc.int](mailto:jeanpaulg@spc.int); internet: <http://home.spc.int/coastfish/meetings.htm>

**59TH TUNA CONFERENCE:** This conference will take place on 19-22 May 2008, in Lake Arrowhead, California, US. It will consider progress in research on various marine species, including tuna. For more information, contact: Anne Allen; tel: +1-858-546-7128; fax: +1-858-546-5656; e-mail: [info@tunaconference.org](mailto:info@tunaconference.org); internet: <http://www.tunaconference.org/Home.htm>

**28TH SESSIONS OF THE UNFCCC SUBSIDIARY BODIES:** The 28th sessions of the Subsidiary Bodies of the UN Framework Convention on Climate Change (UNFCCC) – the Subsidiary Body for Implementation (SBI) and the Subsidiary Body for Scientific and Technological Advice (SBSTA) – are scheduled to take place from 2-13 June 2008, in Bonn, Germany. In addition, the second meeting of the *Ad Hoc* Working Group on Long-Term Cooperative Action, a new body established at COP 13 in Bali, is expected to be held alongside the SBI and SBSTA. The resumed fifth session of the *Ad Hoc* Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol will also be held at the same time. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: [secretariat@unfccc.int](mailto:secretariat@unfccc.int); internet: [http://unfccc.int/meetings/unfccc\\_calendar/items/2655.php?year=2008](http://unfccc.int/meetings/unfccc_calendar/items/2655.php?year=2008)

## **12TH SESSION OF THE INDIAN OCEAN TUNA COMMISSION (IOTC):**

This session of the Commission will take place from 7-11 June 2008, in Muscat, Oman. Among the issues to be considered is the future relationship between the IOTC and UN Food and Agriculture Organization (FAO). For more information, contact: IOTC Secretariat; tel: +248-225-494; fax: +248-224-364; e-mail: [iotc.secretary@iotc.org](mailto:iotc.secretary@iotc.org); internet: <http://www.iotc.org/English/meetings/comm/comcurrent.php>

**18TH MEETING OF STATES PARTIES TO THE UN CONVENTION ON THE LAW OF THE SEA:** This meeting will take place from 13-20 June 2008, at UN headquarters in New York, US. For more information, contact: Secretary of the Meeting of States Parties; tel: +1-212-963-3972; fax: +1-212-963-5847; e-mail: [doalos@un.org](mailto:doalos@un.org); internet: [http://www.un.org/Depts/los/meeting\\_states\\_parties/eighteenthmeetingstatesparties.htm](http://www.un.org/Depts/los/meeting_states_parties/eighteenthmeetingstatesparties.htm)

## **FAO TECHNICAL CONSULTATION ON ILLEGAL, UNREPORTED AND UNREGULATED (IUU) FISHING:**

The Technical Consultation to draft a legally binding instrument on port State measures to prevent, deter and eliminate IUU fishing is scheduled to take place from 23-27 June 2008 in Rome, Italy. For more information, contact: David Doulman, FAO; tel: +39-6-570-56752; fax: +39-6-570-56500; e-mail: [david.doulman@fao.org](mailto:david.doulman@fao.org); internet: [http://www.fao.org/fi/NEMS/events/detail\\_event.asp?event\\_id=36383](http://www.fao.org/fi/NEMS/events/detail_event.asp?event_id=36383)

## **60TH ANNUAL MEETING OF THE INTERNATIONAL WHALING COMMISSION (IWC):**

This meeting of the Commission will be held from 23-27 June 2008, in Santiago, Chile. Associated meetings of the Scientific Committee and Commission sub-groups are scheduled for 1-22 June 2008. For more information, contact: IWC Secretariat; tel: +44-1223-233-971; fax: +44-1223-232-876; e-mail: [secretariat@iwcoffice.org](mailto:secretariat@iwcoffice.org); internet: <http://www.iwcoffice.org/meetings/meeting2008.htm>

## **NINTH MEETING OF THE UNITED NATIONS OPEN-ENDED INFORMAL CONSULTATIVE PROCESS ON OCEANS AND THE LAW OF THE SEA:**

This meeting is scheduled for 23-27 June 2008, at UN headquarters in New York, US. The meeting will focus on "Maritime security and safety." For more information, contact: Secretary of the Consultative Process; tel: +1-212-963-3969; fax: +1-212-963-5847; e-mail: [doalos@un.org](mailto:doalos@un.org); internet: [http://www.un.org/Depts/los/consultative\\_process/consultative\\_process.htm](http://www.un.org/Depts/los/consultative_process/consultative_process.htm)

## **ELEVENTH INTERNATIONAL CORAL REEF SYMPOSIUM:**

This symposium will be organized under the theme "Reefs for the Future" and will take place from 7-11 July 2008, in Fort Lauderdale, Florida, US. This meeting will focus on key concepts of coral reefs, including reef structure and function, pattern and process, ecosystem-based management, and human interactions. For more information, contact: Nancy Copen; tel: +1-301-634-7010; e-mail: [ncopen@faseb.org](mailto:ncopen@faseb.org); internet: <http://www.nova.edu/ncri/11icrs/>

## **INTERNATIONAL SYMPOSIUM ON COPING WITH GLOBAL CHANGE IN MARINE SOCIAL-ECOLOGICAL SYSTEMS:**

This symposium will take place from 8-11 July 2008, in Rome, Italy. For more information, contact: Kevern Cochrane, FAO Senior Fisheries Officer; tel: +39-6-570-56109;



fax: +39-6-570-53020; e-mail: kevern.cochrane@fao.org; internet: [http://www.fao.org/fi/NEMS/events/detail\\_event.asp?event\\_id=36388](http://www.fao.org/fi/NEMS/events/detail_event.asp?event_id=36388)

**ASIA-PACIFIC FISHERY COMMISSION (APFIC) CONSULTATIVE FORUM MEETING:** This meeting on “Adapting to emerging challenges - promoting effective arrangements for managing fisheries and aquaculture in the Asia-Pacific Region” will take place from 6-9 August 2008, in Manado, Indonesia. The Consultative Forum Meeting provides an opportunity to agree on actions needed to adapt to the emerging challenges facing fisheries and aquaculture in the region. For more information, contact: Secretary APFIC Secretary; tel: +66-2-697-4149; fax: +66-2-697-445; e-mail: [simon.fungesmith@fao.org](mailto:simon.fungesmith@fao.org); internet: [http://www.apfic.org/RCFM2008/RCFM\\_home.html](http://www.apfic.org/RCFM2008/RCFM_home.html)

**ASIA-PACIFIC FISHERY COMMISSION:** The 30th session of the Fishery Commission will take place from 11-13 August 2008, in Manado, Indonesia. This by invitation only formal session will deliberate on a range of current and emerging fisheries issues relevant to the Asia-Pacific Region. For more information, contact: Secretary APFIC; tel: +66-2-697-4149; fax: +66-2-697-445; e-mail: [simon.fungesmith@fao.org](mailto:simon.fungesmith@fao.org); internet: [www.apfic.org](http://www.apfic.org) and <http://www.fao.org/fishery/nems/36390/en>

**29TH SESSION OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC 29):** IPCC 29 will take place in Geneva, Switzerland, during the first week of September 2008, during which the IPCC's 20th anniversary will be celebrated. For more information, contact: IPCC Secretariat; tel: +41-22-730-8208; fax: +41-22-7 30-8025/13; e-mail: [IPCC-Sec@wmo.int](mailto:IPCC-Sec@wmo.int); internet: <http://www.ipcc.ch/>

**NORTHWEST ATLANTIC FISHERIES ORGANIZATION (NAFO):** The annual meeting of the Northwest Atlantic Fisheries Organization will take place from 22-26 September 2008, in Vigo, Spain. For more information, contact: Barbara Marshall; tel: +1-902-468-5590; fax: +1-902-468-5538; e-mail: [info@nafo.int](mailto:info@nafo.int); internet: <http://www.nafo.int/about/frames/activities.html>

**63RD SESSION OF THE UN GENERAL ASSEMBLY:** The 63rd session of the UN General Assembly is scheduled to hold Informal Consultations on the draft resolutions on “Oceans and the Law of the Sea,” tentatively scheduled from 29 September to 3 October 2008, and 17-21 November, and on sustainable fisheries, including the UN Fish Stocks Agreement and UN Convention on the Law of the Sea, tentatively scheduled on 17-19 September and 10-14 November 2008. For more information, contact: Director, UNDOALOS; tel: +1-212-963-3962; fax: +1-212-963-5847; e-mail: [doalos@un.org](mailto:doalos@un.org); internet: [http://www.un.org/Depts/los/reference\\_files/calendar\\_of\\_meetings.htm](http://www.un.org/Depts/los/reference_files/calendar_of_meetings.htm)

**ANNUAL MEETINGS OF THE SOUTH EAST ATLANTIC FISHERIES ORGANIZATION (SEAFO):** The 4th annual meeting of the Scientific Committee of SEAFO will take place from 2-3 October 2008, followed by the 5th annual meeting of the Commission on 6-9 October 2008, in Windhoek, Namibia. For more information, contact: Executive Secretary; tel: +264-64-220-387; fax: +264-64-220-389; e-mail: [info@seafo.org](mailto:info@seafo.org); internet: <http://www.seafo.org>

**15TH ANNUAL MEETING OF THE COMMISSION FOR THE CONSERVATION OF SOUTHERN BLUEFIN TUNA (CCSBT) COMMISSION:** This session of the CCSBT, also incorporating the Extended Commission, will take place from 14-17 October 2008, in Auckland, New Zealand. For more information, contact: Executive Secretary; tel: +61-2-6282-8396; fax: +61-2-6282-8407; email: [nhermes@ccsbt.org](mailto:nhermes@ccsbt.org); internet: <http://www.ccsbt.org/docs/meeting.html>

**10TH MEETING OF THE CONFERENCE OF THE CONTRACTING PARTIES: THE RAMSAR CONVENTION ON WETLANDS:** The 10th meeting of the Conference of the Parties to the Ramsar Convention will take place from 28 October-4 November 2008, in Changwon, Republic of Korea. For more information, contact: Ramsar Convention Secretariat; tel: +41 22 999 0170; fax: +41 22 999 0169; e-mail: [ramsar@ramsar.org](mailto:ramsar@ramsar.org); internet: [http://www.ramsar.org/index\\_cop10\\_e.htm](http://www.ramsar.org/index_cop10_e.htm)

**27TH MEETING OF THE COMMISSION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES (CCAMLR):** The regular meeting of the Commission will take place from 27 October to 7 November 2008, at CCAMLR Headquarters in Hobart, Australia. For more information, contact: CCAMLR Secretariat; tel: +61-3-6210-1111; fax: +61-3-6224-8744; email: [ccamlr@ccamlr.org](mailto:ccamlr@ccamlr.org); internet: <http://www.ccamlr.org/pu/e/sched-of-mtgs.htm>

**ANNUAL MEETING OF THE NORTH EAST ATLANTIC FISHERIES COMMISSION (NEAFC):** The contracting parties of the NEAFC will meet for their annual meeting from 10-14 November 2008, in London, UK. For more information, contact: NEAFC Secretariat; tel: +44-20-7631-0016; fax: +44-20-7636-9225; email: [info@neafo.org](mailto:info@neafo.org); internet: <http://www.neafc.org/>

**ANNUAL MEETING OF THE NORTH PACIFIC ANADROMOUS FISH COMMISSION (NPAFC):** This meeting will take place from 17-21 November 2008, in Seattle, Washington, USA. The objective of the meeting is to promote the conservation of anadromous fish stocks in its region, including various kinds of salmon. For more information, contact: Wakako Morris; tel: +1-604-775-5550; fax: +1-604-775-5577; e-mail: [secretariat@npafc.org](mailto:secretariat@npafc.org); internet: [http://www.npafc.org/new/events\\_annual.html](http://www.npafc.org/new/events_annual.html)

**16TH SPECIAL SESSION OF THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS (ICCAT):** The Special Session is scheduled to take place from 17-24 November 2008, at a venue yet to be determined. For more information, contact: Pilar Pallarés, ICCAT; tel: +34-91-416-5600; fax: +34-91-415-2612; e-mail: [info@iccat.int](mailto:info@iccat.int); internet: <http://www.iccat.int/>

**NPAFC INTERNATIONAL SYMPOSIUM ON THE BERING-ALEUTIAN SALMON INTERNATIONAL SURVEYS (BASIS):** This Symposium is scheduled for 23-25 November 2008, in Seattle, Washington, US, and is conceptualized under the theme of “Climate Change, Production Trends, and Carrying Capacity of Pacific Salmon in the Bering Sea and Adjacent Waters.” For more information, contact: NFAPC Secretariat; tel: +1-604-775-5550; fax: +1-604-775-5577; e-mail: [secretariat@npafc.org](mailto:secretariat@npafc.org); internet: <http://www.npafc.org/new/index.html>



**CMS COP-9:** The ninth Conference of the Parties to the Convention on Migratory Species (CMS) is organized by the CMS Secretariat and will take place from 1-5 December 2008, in Rome, Italy. For more information, contact: tel: +49-228-815-2401/02; fax: +49-228-815-2449; e-mail: secretariat@cms.int; internet: <http://www.cms.int/news/events.htm>

#### **UNFCCC COP-14 AND KYOTO PROTOCOL COP/**

**MOP 4:** UNFCCC COP-14 and Kyoto Protocol COP/MOP 4 are scheduled to take place from 1-12 December 2008 in Poznan, Poland. These meetings will coincide with the 29th meetings of the UNFCCC's subsidiary bodies. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: [http://unfccc.int/meetings/unfccc\\_calendar/items/2655.php?year=2008](http://unfccc.int/meetings/unfccc_calendar/items/2655.php?year=2008)

#### **WESTERN AND CENTRAL PACIFIC FISHERIES**

**COMMISSION SESSION:** The 5th regular session of the Commission is provisionally set to take place from 8-12 December 2008, in Busan, Republic of Korea. The meetings of its Northern, Scientific, Technical and Compliance Committees will take place prior to the session. For more information, contact: Lucille Martinez; tel: +691-320-1992 or +691-320-1993; fax: +691-320-1108; e-mail: [wcpfc@mail.fm](mailto:wcpfc@mail.fm); internet: <http://www.wcpfc.int/>

**WORLD OCEAN CONFERENCE:** This conference will take place from 11-15 May 2009, in Manado, North Sulawesi, Indonesia, organized by the Government of Indonesia, Global Forum on Oceans, Coasts and Islands, and other partners. The conference will focus high-level attention on issues of ecosystem-based integrated oceans management in the context of climate change, focusing especially on the policy recommendations emanating from the 2008 Global Conference. For more information, contact: WOC'09 Secretariat; tel: +62 431 861 152; fax: +62 431 861 394; e-mail: [info@woc2009.org](mailto:info@woc2009.org); internet: <http://www.woc2009.org/>

**FIFTH GLOBAL CONFERENCE ON OCEANS, COASTS AND ISLANDS:** The Fifth Global Conference on Oceans, Coasts and Islands will be held at a date to be determined in 2010, in a venue to be determined. For more information, contact: Miriam Balgos, University of Delaware; tel: +1-302-831-8086; fax: +1-302-831-3668; e-mail: [mbalgos@udel.edu](mailto:mbalgos@udel.edu); internet: <http://www.globaloceans.org/globalconferences/2008/index.html>



Vietnamese dancers entertained delegates

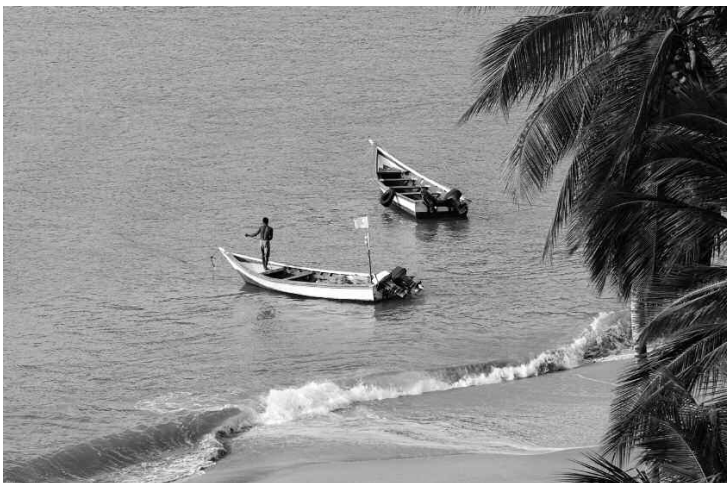
## **GLOSSARY**

AOSIS	Alliance of Small Island States
APFIC	Asia-Pacific Fishery Commission
CBD	Convention on Biological Diversity
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
DOALOS	Division for Ocean Affairs and the Law of the Sea
EBM	ecosystem-based management
FAO	UN Food and Agriculture Organization
GEF	Global Environment Facility
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICM	integrated coastal management
ICP	Informal Consultative Process on Oceans and the Law of the Sea
IOC	Intergovernmental Oceanographic Commission
IOTC	Indian Ocean Tuna Commission
IUU	illegal, unreported and unregulated
IW:LEARN	International Waters Learning Exchange and Resource Network
IWC	International Whaling Commission
LME	large marine ecosystems
MDGs	Millennium Development Goals
MPA	marine protected area
NAUSICAÄ	French National Sea Experience Centre
NEAFC	North East Atlantic Fisheries Commission
NGO	non-governmental organization
NOAA	US National Oceanic Atmospheric Administration
NPAFC	North Pacific Anadromous Fish Commission
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
RFMO	regional fisheries management organization
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SEAFO	South East Atlantic Fisheries Organization
SIDS	Small Island Developing States
UNCED	United Nations Conference on Environment and Development
UNCLOS	UN Convention on the Law of the Sea
UNDP	UN Development Programme
UNEP	UN Environment Programme
UNESCO	UN Educational, Scientific and Cultural Organization
UNGA	UN General Assembly
WSSD	World Summit on Sustainable Development









## About the Global Forum

The Global Forum is comprised of ocean leaders from governments, non-governmental organizations, international and intergovernmental organizations, the private sector, and scientific associations with the purpose of advancing the global oceans agenda. "Advancing the global oceans agenda" is meant as: 1) promoting the implementation of international agreements related to oceans, coasts, and small island developing States (SIDS), especially the goals emanating from the 2002 WSSD; 2) analyzing new emerging issues such as improving the governance regime for ocean areas beyond national jurisdiction; and 3) promoting international consensus-building on unresolved ocean issues.

The Global Forum was first mobilized in 2001 to help the world's governments highlight issues related to oceans, coasts, and SIDS on the agenda of the 2002 World Summit on Sustainable Development, and was later formalized at the WSSD in Johannesburg. The Global Forum is a response to perceived needs for fostering cross-sectoral dialogue on ocean issues among governments, NGOs, international organizations, and the private and scientific sectors; constant advocacy for oceans at the highest political levels; and the imperative of taking an ecosystem-based and integrated approach to oceans governance at national, regional, and global levels, including treating the water system—from freshwater, to coasts, to oceans—as the interlinked system that it is.

Since 2001, the Global Forum has involved ocean experts representing all sectors from 93 countries; organized four Global Conferences (in 2001, 2003, and 2006 at UNESCO in Paris, and in Hanoi, Vietnam in 2008); organized the Ocean Policy Summit in Lisbon in 2005 documenting experiences with integrated oceans governance in over 20 countries and 4 regions around the world; prepared a number of reports on the implementation of the WSSD ocean targets, reports on ocean issues in island states for the 2005 Mauritius International Meeting, and reports on capacity development needs on ocean and coastal management in 8 world regions; and provided a series of Internet information services, including periodic newsletters.

For information about the Global Forum, please see the Global Forum Website at <http://www.globaloceans.org>."



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**Grant Trebble**, African Marine and Coastal Resource Over-exploitation Prevention Strategy (AMCROPS), South Africa

**Philippe Vallette and Manuel Cira**, NAUSICAA, France, and the World Ocean Network

**David VanderZwaag**, IUCN Specialist Group on Ocean Law and Governance Trust

\* Please note: Members of the Steering Committee participate in their individual capacities.









**Global Forum on Oceans,  
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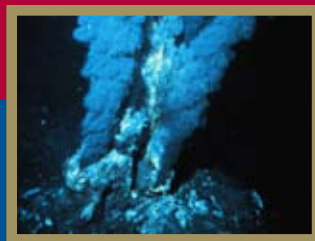
See coverage of 2008 Global Oceans Conference at:

World Ocean Observatory  
<http://www.thew2o.net/goc2008/goc2008.htm>

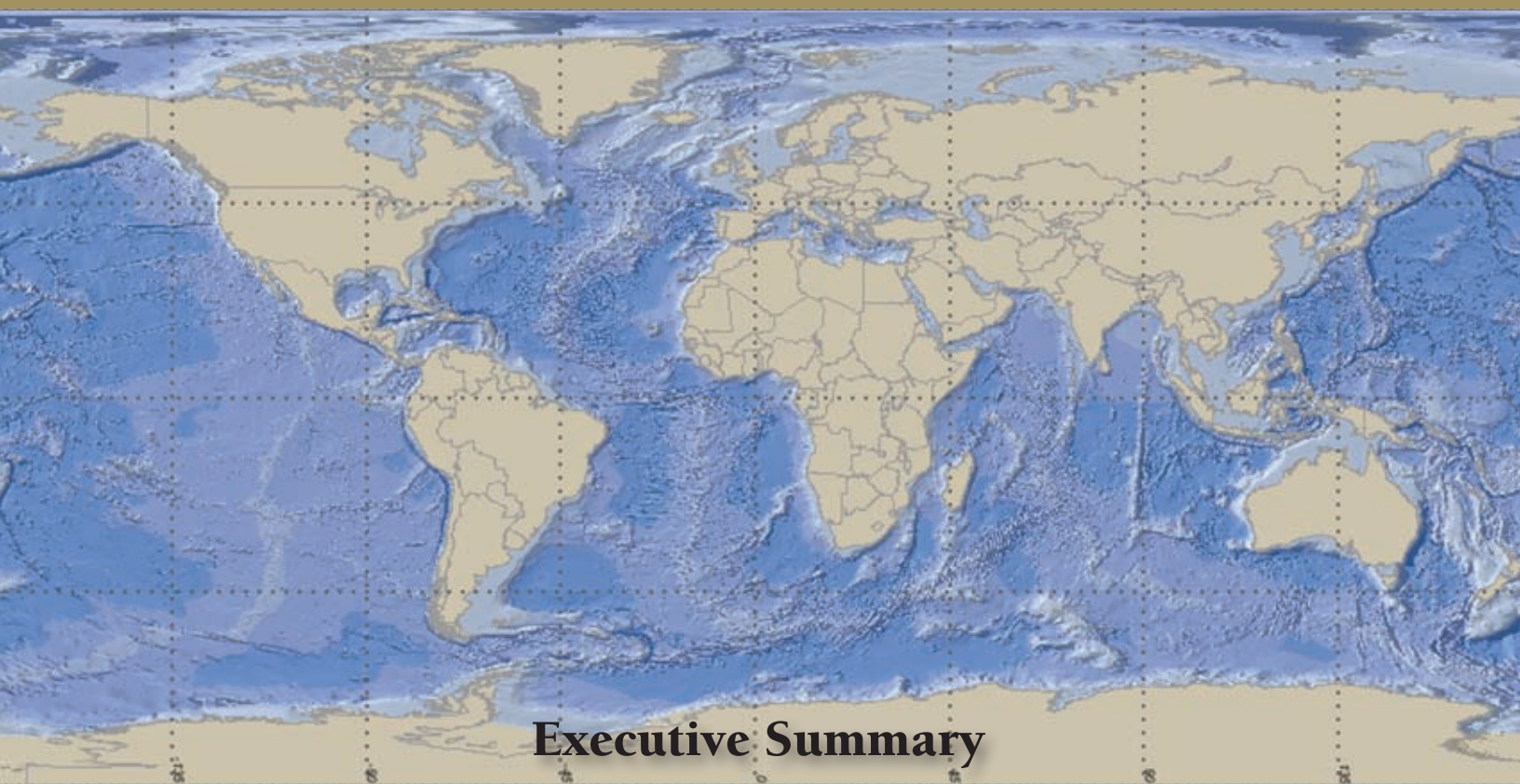
Global Oceans Conference 2008 YouTube Channel  
<http://www.thew2o.net/goc2008/goc2008.htm>

International Institute for Sustainable Development  
– Reporting Services (IISD-RS)  
<http://www.iisd.ca/ymb/sdoh4/>





# Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options



## Executive Summary

**November 3-5, 2008, Singapore**

*Organized by the Global Forum on Oceans, Coasts, and Islands, the National Parks Board, Singapore, and the University of Delaware Gerard J. Mangone Center for Marine Policy, with funding support from the Nippon Foundation, Japan, and the Global Environment Facility*





The Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options was the third in a three-part series of workshops examining issues and options pertaining to the governance of marine areas beyond national jurisdiction. It was organized by the Global Forum on Oceans, Coasts, and Islands, the Gerard J. Mangone Center for Marine Policy at the University of Delaware, and the National Parks Board, Singapore, with funding support from the Nippon Foundation, Japan, and the Global Environment Facility.

The Workshop was part of an informal process to bring together major relevant interests to facilitate open and constructive multi-stakeholder dialogue to inform and support the formal processes which have been or may be established by the UN General Assembly regarding this issue. The intent is to contribute to clarifying the issues, laying out various perspectives, developing options, and identifying possible avenues for consensus-building among disparate interests.

We acknowledge, with sincere thanks, individuals who played a key role in the organization of the Workshop:

Miriam Balgos	Nigel Goh
Sumathi Krisinasamy	Leong Chee Chiew
Rachel Lim Li-feng	Kat McCole
Yang Shufen	Caitlin Snyder
Siti M. Yaakub	

**Note to readers:**

This report should be cited as: Miriam C. Balgos, Caitlin Snyder, Biliana Cicin-Sain, David Freestone, and Chris Tompkins. 2008. Executive Summary: Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

The report is available online at <http://www.globaloceans.org>.



## **Executive Summary**

# **Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options**

**November 3-5, 2008, Singapore**

By Miriam C. Balgos,<sup>1</sup> Caitlin Snyder,<sup>1</sup> Biliana Cicin-Sain,<sup>2</sup>  
David Freestone,<sup>3</sup> and Chris Tompkins,<sup>4</sup>

### **Workshop Co-Chairs**

Dr. Biliana Cicin-Sain, Global Forum on Oceans, Coasts, and Islands

Mr. David Freestone, World Bank

Ambassador Mary Seet-Cheng, Ministry of Foreign Affairs, Singapore

Mr. Eden Charles, Permanent Mission of Trinidad and Tobago to the United Nations

Dr. Salvatore Arico, UNESCO, Co-Chair of the Working Group

(Authors' Note: Any errors or omissions in this report are the responsibility  
of the authors in their individual capacities.)

<sup>1</sup> University of Delaware and Global Forum Secretariat

<sup>2</sup> University of Delaware, Global Forum Co-Chair and Head of Secretariat

<sup>3</sup> The George Washington University Law School

<sup>4</sup> Independent Consultant, UK







# Workshop on Governance of Marine Areas Beyond National Jurisdiction:

## Management Issues and Policy Options

November 3-5, 2008, Singapore



### Executive Summary



## Background

The Global Forum on Oceans, Coasts, and Islands has, since 2001, brought together ocean leaders from governments, UN agencies, NGOs, the private sector, and science groups from 105 countries to advance the global oceans agenda, particularly the implementation of the ocean targets from The World Summit on Sustainable Development and addressing new challenges such as climate change and governance of marine areas beyond national jurisdiction. Since 2005, the Global Forum has been engaged in an informal process to bring together major relevant interests to facilitate open and constructive multi-stakeholder policy dialogue to inform and support the formal processes that have been or may be established by the United Nations General Assembly regarding governance of marine areas beyond national jurisdiction. The general intent is to work to clarify the issues, lay out various perspectives, discuss options, and identify possible avenues for consensus-building among disparate interests.

The question of governance of the 64% of the oceans that lies beyond national jurisdiction looms as a major issue that countries will need to address and negotiate over in the next decade. While there has been substantial progress in recent years in achieving integrated oceans governance in areas under national jurisdiction and in regional seas areas, governance of areas beyond national jurisdiction at present remains largely sectorally-based and fragmented. Thus, it is difficult to address interconnected issues (such as fishing issues; extraction of genetic resources;

maritime transportation; pollution; offshore oil and gas development; marine scientific research; climate change; carbon capture and storage) through an integrated and ecosystem-based approach. There are, moreover, significant differences of opinion among developed and developing countries, industries, and environmental interests, on what, if anything, needs to be done to improve governance of these important ocean areas.

This Workshop is part of a series of workshops, policy analyses, and multi-stakeholder dialogues being carried out under the *Project Governing the Oceans Beyond National Jurisdiction: Multistakeholder Policy Analyses and Policy Dialogues for Improved Ocean Governance*, supported by the Nippon Foundation, Japan, and carried out at the University of Delaware Gerard J. Mangone Center for Marine Policy, which included two past workshops:

- *Strategic Planning Workshop on Global Oceans Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change*, January 23-25, 2008, Nice, France
- *Workshop on Ecosystems and Uses in Marine Areas Beyond National Jurisdiction*, held on April 5, 2008 as part of the Fourth Global Conference on Oceans, Coasts, and Islands: Advancing Ecosystem Management and Integrated Coastal and Ocean Management by 2010 in the Context of Climate Change

held in Hanoi, Vietnam, April 7-11, 2008

A report on these two workshops was submitted to the Second Meeting of 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 held in New York on April 28-May 2, 2008.<sup>1</sup>

The Singapore Workshop builds on the two workshops noted above and continuing work carried out by the Global Forum's Expert Working Group on Governance of Marine Areas Beyond National Jurisdiction, which includes 72 experts from both developed and developing countries and from a broad range of sectors including national governments, academia, UN agencies, intergovernmental organizations, nongovernmental organizations, and industry and is co-chaired by Salvatore Arico, UNESCO, and Sivu Maqungo, Permanent Mission of South Africa to the United Nations.

## Purpose of the Singapore Workshop

The Singapore Workshop aimed to provide expert and multi-stakeholder perspectives on addressing important issues related to the governance of marine areas beyond national jurisdiction, specifically by:

1. *Assessing each of the major management options for improved governance of marine areas beyond national jurisdiction* (ranging along a continuum of enhancing institutional capacity for ecosystem-

<sup>1</sup>Cicin-Sain, B., S. Maqungo, S. Arico, and M. Balgos. 2008. Submission of the Global Forum on Oceans, Coasts, and Islands to 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 New York, 28 April – 2 May 2008. Available online at <http://www.globaloceans.org/globalconferences/2008/pdf/GlobalForumSubmission-2ndAdHocWGMeeting-April2008-red.pdf>.



based management), building on the outcomes of the Nice Workshop and of the Hanoi Conference;

2. *Addressing the following focal areas in the management of marine genetic resources: Identifying opportunities and enhancing understanding of values and processes, and issues related to intellectual property, options for access and benefit sharing, and governance gaps*, taking into account the outcomes of the 8th meeting of the UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP-8, June 2007) and the second meeting of 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 (April-May 2008);
3. *Discussing priority activities that might be taken to move toward ecosystem-based governance of marine areas beyond national jurisdiction (including the Arctic)* that could be considered for support through future Global Environment Facility (GEF) funding.

The Workshop was co-chaired by Biliana Cicin-Sain, Global Forum on Oceans, Coasts, and Islands; David Freestone, World Bank; Ambassador Mary Seet-Cheng, Ministry of Foreign Affairs, Singapore; Eden Charles, Permanent Mission of Trinidad and Tobago to the United Nations; and Salvatore Arico, UNESCO, Co-Chair of the Working Group.

### Box 1. Acknowledgements

Sincere appreciation is expressed by the Workshop organizers to the Singapore hosts, the National Parks Board of Singapore (NParks), especially Dr. Leong Chee Chiew, Mr. Wong Tuan Wah, and Dr. Nigel Goh of the National Parks Board, and Ambassador Mary Seet-Cheng of the Ministry of Foreign Affairs, Singapore. The great support provided by the NParks staff for an efficiently conducted workshop is sincerely acknowledged.

The Workshop greatly benefited from the wisdom and experience of Ambassador Tommy Koh, Ambassador-At-Large, Ministry of Foreign Affairs, and Chairman of the Institute of Policy Studies, Singapore (President of the Third UN Conference on the Law of the Sea, 1980-1982, and

Chairman of the Preparatory Committee and the Main Committee of the UN Conference on Environment and Development, 1990-1992), in an inspiring keynote address.

Funding support for the workshop from the Nippon Foundation, Japan, and the Global Environment Facility is greatly appreciated.

The workshop also took note and reviewed progress made in the past year in both the formal UN process and in informal venues (see Box 2).

### Box 2. Efforts carried out in 2007-2008 and planned for in 2008-2009 to advance discussion on the governance of marine areas beyond national jurisdiction.

#### Formal Process

1. Second Meeting of 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, April 28-May 2, 2008, New York
2. UN General Assembly discussions, Fall 2008

#### Informal Process

1. IUCN Workshop on High Seas Governance for the 21st Century, October 17-19, 2007, New York, New York
2. Strategic Planning Workshop on Global Oceans Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change, January 23-25, 2008, Nice, France
3. International Seminar on Towards a New Governance of High Seas Biodiversity, March 20-21, 2008, Monaco
4. Workshop on Ecosystems and Uses in Marine Areas Beyond National Jurisdiction, April 5, 2008, Hanoi, Vietnam
5. International conference on marine affairs and the Law of the Sea, Fridtjof Nansen Institute, Oslo, Norway, August 21-23, 2008
6. IUCN World Conservation Congress, October 5-14, 2008, Barcelona, Spain
7. Perspectives from the French Presidency of the European Union, Fall 2008
8. Plans for 2012 Marine Targets: European Marine Strategy and Issues in High Seas, Brest, France, December 9-11, 2008
9. Plans for an Intergovernmental Platform on Biodiversity and Ecosystem Services
10. Plans for the World Ocean Conference, May 11-15, 2009

## Special Address by Singapore Ambassador Tommy Koh

Ambassador Tommy Koh provided the opening keynote address on whether the existing international conventions, such as the United Nations Convention on the Law of the Sea (UNCLOS), adequately address emerging governance issues on the use of marine living resources in areas beyond national jurisdiction as opposed to non-living resources in the deep seabed beyond national jurisdiction from his perspective as former President of the Conference that negotiated UNCLOS (Annex 1).

## Discussion of Major Topics

### 1. Major Options for Moving Toward Ecosystem-Based Management of Marine Areas Beyond National Jurisdiction

It is generally agreed that there is much experience in how to move toward ecosystem-based integrated management at national levels and at regional levels and that much can be learned from examining these experiences. Ecosystem-based integrated ocean and coastal management is well rooted in international instruments adopted at various fora, starting with Agenda 21 at the 1992 UN Conference on Environment and Development (UNCED) and continuing with the Plan of Implementation of the 2002 World Summit on Sustainable Development (WSSD) and related instruments. At the national level, about 40 nations (incorporating about three-quarters of the world's Exclusive Economic Zones) have moved toward integrated ecosystem-based management by establishing national ocean policies. At the regional trans-boundary level, the application of ecosystem-based and integrated management has taken place, to varying degrees, in the 16 Large Marine Ecosystems supported by the Global Environment Facility and in the 18 Regional Seas Programmes.

In general, some commonalities in moving toward ecosystem-based and integrated



management at both national and regional levels are:<sup>2</sup>

1. Enunciation and application of governing principles
2. Development of capacity for area-based assessment, planning, and ultimately decision-making
3. Development of institutional capacity for addressing interactions among uses and their effects on biodiversity and the environment
4. Development of capacity for enforcement
5. Funding to support the management interventions.

The discussions at the Nice Workshop conceptually identified the wide range of options available to improve the governance of marine areas beyond national jurisdiction. The options identified include:<sup>3</sup>

- Enhanced implementation of existing international instruments and their scope of application
- Voluntary codes of conduct
- More effective implementation, strengthening of, or extending, mandates of existing institutions such as Regional Fisheries Management Organizations (RFMOs) and Regional Seas Programmes (RSPs)
- Forming new regional institutions as required
- A new Global Programme of Action on biodiversity in areas beyond national jurisdiction
- A new implementing agreement to the United Nations Convention on the Law of the Sea (UNCLOS) in relation to activities in marine areas beyond national jurisdiction
- An amendment to UNCLOS
- A Protocol to the Convention on Biological Diversity (CBD)
- Other possible approaches to be determined.

Participants at the Nice Workshop also identified a range of options for enhancing cross-sectoral institutional capacity. The options range from “sectoral” on the left side of the continuum to “most cross-sectoral” on the right side of the continuum. For example, on the “sectoral” side, the options include the strengthening of existing sectoral authorities and use of codes of conduct. In the middle of the continuum are options such as introducing some form of cross-sectoral coordination, for example a regular meeting (or council) of the sectoral authorities, or area-wide environmental review. Existing institutional frameworks such as UNICPOLOS or UN-Oceans might possibly be adapted to play such a role. On the “most cross-sectoral” end of the continuum, options include, for example, expansion of the mandate of the International Seabed Authority (toward a multiple use mandate), establishment of a Stewardship Council to govern areas beyond national jurisdiction, and use of the UN Trusteeship Council (Fig. 1).<sup>4</sup>

The Hanoi workshop then provided an opportunity to assist in the process of collecting relevant information on these options that may contribute information to the second meeting of the United Nations General Assembly 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 (New York, 28 April – 2 May 2008). The Hanoi workshop focused discussion on the continuum of coherent policy options from sectoral to cross-sectoral global solutions, and on the next steps needed for developing and applying a set of evaluative criteria to examine each option in the continuum. The outcomes of the Nice and Hanoi workshops were presented to the Ad Hoc Working Group meeting through a statement read and disseminated in print form during the meeting.<sup>5</sup>

The second meeting of the UN Working Group stressed the urgent need to address the conservation and sustainable use of marine biodiversity beyond areas of national jurisdiction and noted that some progress had been made since 2006 but that further efforts were needed. It further noted that all issues related to oceans are interrelated and should be addressed in an interdisciplinary, intersectoral and comprehensive manner and that the United Nations Convention on the Law of the Sea sets out the legal framework for all activities in the oceans and seas and is complemented by a number of other conventions and instruments. The essential role of science and the need for further scientific research were noted as was the need for increased capacity-building for developing States. The Co-Chairs of the UN Working Group considered that there was a need for ongoing consideration by the General Assembly of these issues, in particular within the framework of the Working Group. The following could be more particularly considered: effective implementation/enforcement of existing instruments; the strengthening of cooperation and coordination at all levels and across all sectors, including enhanced cooperation in capacity-building for developing countries; development and implementation of effective environmental impact assessments as a tool for improving ocean management; development and use of area-based management tools; practical measures to address the conservation and sustainable use of marine genetic resources in ABNJ; and enhanced marine scientific research in relation to marine biodiversity in ABNJ.<sup>6</sup>

### **Criteria for Assessing Managing Options**

Based on the recommendations from the Nice and Hanoi workshops, the need for a more systematic assessment of management options was addressed in the Singapore workshop. The options should be described

<sup>2</sup>Cicin-Sain, B., D. VanderZwaag and M. Balgos. Introduction. Integrated National and Regional Ocean Policies: Comparative Practices and Future Prospects (forthcoming in 2009).

<sup>3</sup>Cicin-Sain, B. and D. Freestone. 2008. Report from the Strategic Planning Workshop on Global Ocean Issues in Marine Areas Beyond National Jurisdiction in the Context of Climate Change, Nice, France, January 23-25, 2008.

<sup>4</sup>Cicin-Sain, B., S. Maqungo, S. Arico, and M. Balgos. 2008. Submission of the Global Forum on Oceans, Coasts, and Islands to 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 New York, 28 April – 2 May 2008.

<sup>5</sup>Ibid.

<sup>6</sup>Joint Statement of the Co-Chairs of the Second Meeting of 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, April 28-May 2, 2008, New York. Available: <http://daccess-ods.un.org/access.nsf/Get?Open&DS=A/63/79&Lang=E>



**Figure 1. Continuum of Options for Enhancing Cross-Sectoral Institutional Capacity.**

**Sectoral** ←————→ **Cross-Sectoral**

**Sectoral Authorities—  
Global and Regional**

- Use of codes of conduct
- Enhanced enforcement and compliance
- Improvement of fisheries management organizations (RFMOs)
- Regional experimentation

**Some Sectoral Coordination**

- Council of sectoral authorities
- Area-based impact assessment, planning and decisionmaking
- Expanded UNICPOLOS
- Expanded UN-OCEANS

**Cross-Sectoral Coordination/  
New or Enhanced  
Institutions**

- Expanded International Seabed Authority
- New Global Programme of Action
- Stewardship Council
- UN Trusteeship Council

in more detail, with the objectives, scope, principles, content and modalities, development, and review and monitoring of each management option clearly presented. This assessment of each option would examine the benefits and consequences (including potential unintended consequences), outline the costs associated with the option, the feasibility and ease of implementation, and effectiveness and efficiency of the option.<sup>7</sup>

Options should be evaluated according to particular criteria, such as: 1) *ecological* (e.g., meets important ocean stewardship objectives; protects the ecological function of oceans, including oceans/climate functioning; protects marine biodiversity); 2) *developmental and managerial* (promotes sustainable development; addresses conflicts and problems among ocean uses; provides a capacity for area-based assessment, planning, and decision-making; 3) *societal* (incorporates equity among nations and between current and future generations); and 4) *procedural/programmatic* (incorporates science-based decision-making; is consistent with existing international law and policy; incorporates public transparency and accountability; is feasible — politically, financially, administratively).<sup>8</sup>

The need for an integrated approach to management of ocean space was emphasized. Similarly, the need for systematic mapping, inventory, and assessment, as well as detailed marine spatial planning,<sup>9,10</sup> was underscored. It was pointed out that Agenda 21 and the WSSD goals remain insufficient to serve as future policy guidelines on the issue of areas beyond national jurisdiction and that a new, integrated and holistic approach to management of ocean space is needed to secure a legal order on the oceans, promote peaceful use, conserve natural resources, and protect the environment. Such an approach covers both the Exclusive Economic Zones and areas beyond national jurisdiction (ABNJ).

It was pointed out that it is crucial to continue carrying out scientific research and information-sharing to address the dearth of data on oceans, including the development of a marine inventory of areas beyond national jurisdiction. There was also discussion about the usefulness of considering the various management options using a number of questions related to the UNCLOS framework, including: 1) the adequacy of UNCLOS and what would be needed to ensure that any implementing agreement eventually developed to address the conser-

vation and sustainable use of marine biodiversity in areas beyond national jurisdiction be in line with the Convention; 2) whether there is a need for an integrated approach and how can this be achieved consistent with the Convention; 3) whether there is a need for an ecosystem-based approach and how can this be achieved consistent with the Convention; 4) how should cooperation and coordination between the sectorally-based approaches undertaken by national, regional, and global institutions be enhanced; 5) what elements would be necessary to make an implementing agreement to UNCLOS both useful and effective; and 6) what is the meaning of UNCLOS as a “living Constitution” for the oceans.

Other considerations put forward to guide the discussion under this topic included employing the CBD framework (within the limits of its mandate), giving the charge to the UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP) to agree to a particular framework, or leaving the UNCLOS States parties to develop a formula.<sup>11</sup>

Considering the options noted in the continuum, the discussion on the criteria for assessing the management options, and the presentations and papers submitted for the workshop, three groups of options were examined in greater detail: 1) Improvements to Sectoral Processes; 2) Achieving Cross-Sectoral Coordination and Initiating Area-wide Environmental Impact Assessment; and 3) Establishing New Management Institutions or Enhancing Existing Institutions to Govern Marine Areas Beyond National Jurisdiction.

### **Improvements to Sectoral Processes**

The section discusses sectoral activities that contribute to improved governance and better ecosystem outcomes in ABNJ.<sup>12</sup> Fisheries was the only sectoral example discussed in detail in the session, but much of the discussion applies more generally. Discussion

<sup>7</sup>Cicin-Sain. General Perspectives and Criteria for the Assessment of Management Options. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options November 3-5, 2008, Singapore.

<sup>8</sup>Ibid.

<sup>9</sup>Marine spatial planning (MSP) is an ecosystem-based approach to promoting ocean use management. MSP results in a comprehensive marine spatial plan for an area or ecosystem and is usually implemented through zoning maps, regulations, and a permit system.

<sup>11</sup>Terashima, H. Holistic Approach to Management of Ocean Space. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>12</sup>Charles, E. Major questions to consider when considering the management options. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.



focused on the role of sectoral management, the fit of sectoral activities in cooperative governance models, the need to understand sectoral management contexts in reality, and practical meaning of such terms as “the need for cross-sectoral collaboration.” It was argued that a lack of a shared appreciation among oceans, biodiversity and sectoral communities of interest on often complex sectoral management challenges and developments, and on goals and roles they might play in possible integrated governance has led to confusion among communities that may hinder collaboration and trust among players in the agenda. An inclusive paradigm for sectoral roles in integrated management in ABNJ was put forward as an illustrative and scalable model of “cooperative governance,” aimed at delivering healthier ecosystems, reduced biodiversity loss, and associated economic and social goals.<sup>13</sup>

Robust sectoral management across all key sectors would be needed to support integrated planning processes, and to deliver shared goals through responsible sectoral activities, which, in ABNJ, may be achieved in the shorter term from stronger sectoral management and voluntary collaborative integrated management initiatives. Examples of how fisheries management contributes to integrated ecosystem-based management include: 1) Application of the ecosystem approach to fisheries (EAF); 2) collection of new data and information especially related to ecosystems; 3) development of new science efforts and mapping of both vulnerable marine ecosystems (VMEs) and fishing footprints; 4) protection of VMEs (e.g., use of area and time-based measures, by-catch); 5) strengthened monitoring, surveillance and control; 6) development of new guidelines including most recently for management of deep seas fisheries; 7) new work on port state and flag state control and assessment; and 8) single-stock sustainability contributes to ecosystem health (e.g., protection of trophic relationships).

The broader fisheries reform agenda was discussed. It was noted that tools already

exist for such approaches, although implementation gaps need filling, including knowledge gaps and management capacity building. It was also noted that specifics of the agendas of other sectors also need to be understood. Emphasis was also placed on the need for better collaboration and integration among international institutions, as one aspect of better integrated management, as well as performance review processes.

Not all opportunities for cross-sectoral cooperation and leverage for conservation outcomes (thus contributing to responsible use of ABNJ) need enabling by organized integrated management (answering, in part, a question as to whether “spontaneous” collaboration across sectors is realistic). Examples include cooperation between maritime and fisheries expertise in port state inspections; cooperation between maritime and fisheries interests regarding transshipment; the synergy between domain awareness for security and monitoring, control and surveillance (e.g. regarding IUU fishing); food marketing and education enabling informed, responsible consumption; integrated tracking and traceability that exploits both catch certification and emerging private marketing standards.

Thus, the fisheries example shows that the absence of formal integrated management does not leave the ABNJ landscape devoid of regulation or tools for better management, or modernization of management to improve conservation outcomes. However, it was well recognized that appropriate cooperative and coordinated management approaches would improve outcomes as long as sectors are prepared to play their proper role in such systems.

In general, there is a need to identify and delimit the appropriate ‘entry points’ for more integrated approaches as well as the use of processes to assist this, for example, the IUCN high seas governance principles as a check list or code of conduct for effective action. It was recognized that the prime responsibility for sustainable management of the sectoral resource – e.g., minerals or fish – lies with the sector, while the wider sustainability issues, such as broader effects

on the ecosystem, rests on the legitimate interests of other bodies and processes. By enabling all key sectoral bodies to adopt similar approaches – ecosystem based management, precautionary approach, impact assessments – a common language could be established among sectoral bodies to enable them to cooperate and coordinate effectively, laying a basis for more integrated management where necessary.

### ***Achieving Cross-sectoral Coordination and/or Initiating Area-wide Environmental Impact Assessment***

This section builds on the preceding discussion by clarifying that workable tools are available to help achieve cross-sectoral coordination. It was pointed out that oceans beyond national jurisdiction are suffering from increasing environmental impacts now compounded by the effects of climate change. The synergistic effects of these impacts, according to a 2008 UNEP report, “risk an unprecedented, dramatic and widespread collapse of marine ecosystems and fisheries within the next decades.” In order to safeguard ocean health and resilience in a changing climate, it was suggested that governance of oceans in ABNJ needs to reflect a new imperative: maintaining structure, function and biodiversity of ecosystems to enhance resilience to change.<sup>14</sup> The United Nations Conference on Environment and Development (UNCED), it was recalled, emphasized the critical linkage of marine environmental protection to sustainable development.

The importance of ecosystem-based and precautionary management to governance in ABNJ was underscored. Because marine ecosystems do not recognize political boundaries, progress on ecosystem-based management requires global cooperation. Though there may be different kinds of ecosystem approaches with different methods of application, it was put forward that there needs to be some common principles and objectives that are shared by all organizations and sectors. Given the increasing intensity of ocean uses and the impacts of climate change, institutions will also need

<sup>13</sup>Ridgeway, L. Improvements in Sectoral Authorities and Processes. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>14</sup>Currie, D. Achieving Cross-sector Coordination and/or Initiating Area-Wide Environmental Impact Assessment. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.



to evolve to respond quickly to new information and uncertainties and to take cumulative and synergistic effects into account. For ocean areas, another challenge lies in integrating the various management approaches into a comprehensive and cohesive plan that has the ecosystem approach as its central framework. There are, however, many lessons that can be learned from experiences in integrated coastal and marine area management that should be further studied.

It was emphasized that global level coordination and integration need not replace regional regulation or State control. Sectoral-based management has its advantages in terms of focused expertise and needs to be strengthened. Sectoral organizations, nevertheless, may be dominated by particular industry interests. To effectively implement the ecosystem approach, there needs to be common principles and objectives as well as a process or mechanism to bring the sectoral and regional organizations and civil society together.

In this regard, some important ideas were offered as to how to move towards practical implementation of EBM in the deep sea/high seas including:

- Further exploration of marine spatial planning as a practical tool for implementing the ecosystem approach. To do this there is a need to improve understanding of the human dimension of ABNJ, including the use of ocean space, intensity, spatial and temporal extent, and impacts through, e.g., information systems that integrate spatially referenced environmental data, stakeholder uses, and jurisdictional boundaries. There is also a need to anticipate the role of new and expanding uses of oceans.
- Selection of pilot sites for development of a management plan based on the ecosystem approach. The Global Environment Facility (GEF) has already funded four cases involving ABNJ and the subject has been eligible for financing for a number of years; however, only very few requests have been re-

ceived. The GEF should be encouraged to continue funding such initiatives, for example, a program is needed in order for the GEF to experiment with a number of other ways of addressing ABNJ ecosystems, especially seamounts.<sup>15</sup>

It was pointed out that area-wide environmental impact assessments have an extensive basis in both hard and soft law and are already being applied at the regional, national and global levels.<sup>16</sup> In addition to provisions in UNCLOS, the CBD, the London Convention, the Madrid Protocols to the Antarctic Treaty and many regional seas agreements, there have also been calls for EIAs in Agenda 21, the JPOI of WSSD and UNGA resolution 61/105 with respect to high seas bottom fishing. There is a treaty specifically on environmental impact assessments in a transboundary context (the Espoo Convention), but it focuses solely on impacts on neighboring States. It does, however, provide a useful model for capacity building amongst participating States.

Many RFMOs and States are now grappling with the requirement to conduct individual assessments of high seas bottom fishing as called for by an UNGA resolution, which also requires RFMOs and States to manage high seas bottom fishing to prevent significant adverse impacts, or not to allow it to proceed. Implementation of the impact assessment process required under UNGA 61/105 has been uneven to date, underscoring the importance of a global review process to spur performance improvements.

In May 2008, the Parties to the CBD adopted a decision calling for the creation of scientific and technical guidance for EIAs and Strategic Environmental Assessments that can build on experience at the national, regional and sectoral level. In October 2008, the IUCN World Conservation Congress adopted a motion building on the requirements in UNCLOS and the CBD, as well as the conditions set forth in UNGA res. 61/105. The World Conservation Congress motion 43 urges Member States of the United Nations General Assembly to adopt a resolution calling on States to:

- a) Develop assessment processes, including the assessment of cumulative impacts, of human activities with a potential for significant adverse impacts on the marine environment, living marine resources and biodiversity in areas beyond national jurisdiction; and
- b) Ensure that assessed activities with the potential for such significant adverse impacts are subject to prior authorization by States responsible for nationals and vessels engaged in those activities, consistent with international law, and that such activities are managed to prevent such impacts, or not authorized to proceed.

Some ideas were also put forward for initiating area-wide EIA including:

- Actively supporting the development of scientific and technical guidance for EIAs and SEAs by the CBD;
- Developing and implementing assessment procedures at State level for vessels as well as nationals;
- Providing financial assistance to developing countries to develop procedures to implement EIAs for ABNJ (e.g. in role as flag states);
- To implement the precautionary approach, placing the burden of proof on those who propose a specific activity to show that it will not cause significant adverse impacts and that management measures are in place to prevent such impacts. Responsible parties should be liable for environmental harm;
- To ensure that EIAs are more than just a sectoral instrument, ensuring the assessment process allows for consideration of cumulative impacts;
- Prior assessment and regulation under conservation and management measures to prevent significant adverse impacts should become the sine qua non for fishing or other activities on the high seas. Bottom fishing and ocean fertilization are already moving in that direction.

In order to enhance cross-sectoral coordination and cooperation and improve

<sup>15</sup>Vierros, M. Towards the application of the ecosystem approach in the deep and open ocean: Cross-sectoral perspectives. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>16</sup>Gjerde, K. Achieving Cross-Sectoral Coordination and/or Initiating Area-wide Environmental Impact Assessment. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.



institutional performance, discussions were held on the following options:

- a) Make the UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP) a central coordinating body. ICP is a global forum that provides broad participation and thus provides a good starting point. If it does not improve coordination, it could also reconsider the need for a more elaborate arrangement, such as a new institution.
- b) Allocate one or two days of the ICP to the consideration of the ecosystem approach and integrated activities in the world ocean. All existing global and regional organizations could be invited to present their views, issues, and concerns after which these organizations would go back to governing bodies to discuss responses. The allocated days would be in addition to, not instead of, focused discussions at the ICP on specific topics.
- c) Enhance coordination and cooperation through direct mechanisms such as mutual participation by regional seas and regional fisheries organizations in each other's meetings and the development of memoranda of understanding with and between regional and global conservation and sectoral organizations.
- d) Strengthen regional seas organizations/arrangements and extend their coverage and mandate into areas beyond national jurisdiction, where they do not already apply, and, where necessary, establish new ones.
- e) Establish a common set of principles and objectives to provide an appropriate environment for cooperation. The mandates of sectoral organizations may need to be broadened to incorporate common environmental principles and objectives. Incentives and funding can also help.

- f) Provide for some form of global level review of regional and sectoral organizations to identify progress and problems as well as to ensure accountability.

While the global policy-setting role of the General Assembly was recognized, the complementary work of the CBD on scientific and technical issues, including in relation to area-based management and impact assessments was also highlighted. Furthermore, a case study from Vietnam featured an institutional framework of cross-coordination which reflected the complexities of achieving integrated and harmonized national-level management of seas and islands.<sup>17</sup>

### ***Establishing New Management Institutions or Enhancing Existing Institutions to Govern Marine Areas Beyond National Jurisdiction***

With regard to the "most cross-sectoral" end of the institutional capacity continuum (Figure 1), there was no opportunity at the Singapore meeting to discuss in detail options such as expanding the mandate of the International Seabed Authority, creating a new Global Programme of Action, establishing a Stewardship Council, or using the UN Trusteeship Council. Discussion of these options was deferred for future meetings to be organized by the Global Forum. Nevertheless, analysis of some of these options was contained in some of the workshop materials put together for the Singapore workshop.<sup>18</sup>

There was discussion, instead, of the possible value of creating an implementing agreement to UNCLOS addressing major issues in the management of marine areas beyond national jurisdiction.

At the second meeting of the UN Ad Hoc Working Group in 2008, delegations generally recognized that there were implementation gaps in the international

legal framework and emphasized the need for full and effective implementation of existing instruments, including available principles and tools, and for the strengthening of existing institutions and arrangements and enhanced cooperation and coordination. Delegations were divided as to whether an elaborated regime was needed within the framework of UNCLOS in relation to marine genetic resources or more generally to marine biodiversity conservation in areas beyond national jurisdiction. Delegations who hold the view that a new international regime was not needed for marine genetic resources noted that any such regime might hinder scientific research and innovation and would be difficult to monitor and enforce. Several country delegations highlighted the need for further consideration of intellectual property rights relating to marine genetic resources beyond areas of national jurisdiction.<sup>19</sup>

Greenpeace has put forward a draft implementation agreement to elicit what elements are needed and what text could be drawn upon, and to show that an implementing agreement for the conservation and management articles of UNCLOS is achievable. The agreement is to be established to coordinate and oversee ABNJ and high seas issues and address the major gaps, and will comprise an intergovernmental process and a broader involvement of stakeholders including the private sector.<sup>20,21</sup> Such an agreement, which should be founded upon previously established ocean principles, needs to involve regional and sub-regional organizations.

The draft agreement builds on the UN Fish Stocks Agreement, which categorically includes fisheries within the scope of the agreement, reflecting a current perception that fisheries are among the primary causes of damage to biodiversity in areas beyond national jurisdiction. The elements of the

<sup>17</sup>Nguyen Chu Hoi. Case study presented on the Vietnamese perspective on integrated management of coasts and oceans, including the high seas. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>18</sup>Warner, R. Options to Strengthen the Environmental Regulation of Marine Genetic Resource Exploitation in Areas beyond National Jurisdiction. Paper prepared for the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>19</sup>Joint Statement of the Co-Chairs of the Second Meeting of 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, April 28-May 2, 2008, New York. Available: <http://daccess-ods.un.org/access.nsf/Get?Open&DS=A/63/79&Lang=E>

<sup>20</sup>Currie, D. The draft Greenpeace Implementing Agreement. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>21</sup>Greenpeace. Suggested Draft High Seas Implementing Agreement for the Conservation and Management of the Marine Environment. Available: <http://www.greenpeace.org/raw/content/international/press/reports/suggested-draft-high-seas-impl.pdf>



text provide a model implementing agreement for the conservation and management articles of UNCLOS with respect to biodiversity on the high seas. The authors noted that, where possible, the provisions of the draft agreement, referenced throughout, were taken or adapted from current regional and international treaties and instruments. The text was provided by way of suggestion and is subject to correction and clarification as needed.<sup>22</sup>

Concerns were expressed that a new implementing agreement should address the systemic issues associated with the governance of ABNJ, as well as enable area-based conservation. Existing area-based management initiatives such as the SPAMI (Specially Protected Areas of the Mediterranean Interest) and the establishment of the Pelagos Sanctuary are good examples of how ABNJ issues can be addressed within the context of existing regional processes and could serve as models for global processes.

It was concluded that there is a need to make much better use of existing instruments and frameworks, although new instruments could be developed as appropriate.

## **2. Management of Marine Genetic Resources: Identifying Opportunities, Intellectual Property Issues, Options for Access and Benefit Sharing, and Governance Gaps**

### ***Identifying Opportunities, Intellectual Property Issues, Enhancing Understanding of Values and Processes***

At present, there is limited detailed information about marine genetic resources (MGRs), including in marine areas beyond national jurisdiction, to inform the policy debate. This includes the type of MGRs being collected, the location of MGR collection, the potential and actual values of MGRs, the use of the collected MGRs, e.g.

commercial application, the types of products developed and marketed by MGRs, and the types of benefit-sharing agreements (if any) that have been developed. The United Nations University–Institute of Advanced Studies has developed an online database tool, Marine Bioprospector, to provide information about bioprospecting activities in Antarctica, the Pacific Island countries, marine areas, and the Arctic.<sup>23</sup> Information on deep seabed genetic resources remains difficult to find due to its commercially sensitive nature, although several biotechnology companies are involved in the patenting of deep sea genetic resources, product development and collaboration with research institutions.

The existing legal instruments that apply to marine genetic resources governance include the UN Convention on the Law of the Sea (UNCLOS) and the Convention on Biological Diversity (CBD), as well as other conventions that may inform the discussion. Relevant provisions of UNCLOS include Parts VII on the high seas, Part XI on the Area, Part XIII, which addresses marine scientific research, and Part XIV, which addresses technology transfer. Under Part XIII, marine scientific research activities shall not cause unjustifiable interference with other legitimate uses of the sea (Article 240), and shall not constitute the legal basis for any claim to any part of the marine environment or its resources (Article 241). States and competent international organizations are required to ‘make available by publication and dissemination through appropriate channels. . . knowledge resulting from [MSR]’ and ‘actively promote the flow of scientific data and information and the transfer of knowledge resulting from [MSR], especially to developing States’ (Article 244). States have the right to carry out marine scientific research in the water column beyond the 200nm Exclusive Economic Zone and in the Area. Marine scientific research undertaken in the Area is to be carried out exclusively for peaceful pur-

poses and for the benefit of mankind as a whole.. It is important to note that whether or not “bio-prospecting” is an activity which falls under the definition of marine scientific research and thus falls under the provisions of Part XIII, or is governed by the Convention’s regime of exploitation of resources beyond national jurisdiction, remains an issue with divergent viewpoints.<sup>24</sup>

Intellectual property law can be examined for its relevance in marine genetic resources discovered in areas beyond national jurisdiction. Agreements include the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)–Budapest Treaty (contains rules on patent criteria, disclosure of the invention, and patent owners), the Madrid system (agreement and protocol on trademarks/downstream intellectual property), and the Paris Convention and Lisbon Agreement (geographical indicators). A proposed amendment to TRIPS Article 29 would require that patent applicants disclose the origin of genetic resources used in their inventions, evidence that they received “prior informed consent,” evidence of “fair and equitable” benefit sharing, and consequences for non-disclosure.<sup>25</sup> Issues to consider with this amendment include the definition of “biological resources” and whether this includes “genetic resources,” the scope and extent of disclosure (e.g. mandatory or optional, country of origin, etc.); the effect of non-compliance and the consequences on patent applications/granted patents/ acquired intellectual property rights, for example sanctions or revocation of patents.<sup>26</sup>

Under Article 311, UNCLOS “shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.” In the present context, what this provision means, in substance, is that UNCLOS and interna-

<sup>22</sup>Ibid.

<sup>23</sup>Vierros, M. Status of Marine Biological Prospecting. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>24</sup>Salpin, C. Marine Genetic Resources: The Law of the Sea and Intellectual Property Law. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore. The views expressed in that presentation do not necessarily reflect the views of the United Nations.

<sup>25</sup>Ibid.

<sup>26</sup>Sim, A. Implications of Decisions on Access & Benefit Sharing of Genetic Resources on the International Intellectual Property System. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore



tional instruments related to IP law are compatible, insofar as compliance with the latter instruments does not alter the exercise by a State of its rights and performance of its obligations under UNCLOS.<sup>27</sup>

There is a considerable nexus between the objectives of UNCLOS and intellectual property law. Despite this nexus, questions of compatibility between the two areas of law arise. Questions raised include:

- Is patenting a claim to the marine environment and its resources?
- Is the degree of confidentiality required prior to filing for patents in order to safeguard the novel character of an invention compatible with the requirement for dissemination and publication of data and research results?

As discussed in the Workshop, patenting does not constitute a claim of ownership to the marine environment or its resources, but instead a claim to the exclusive use of such resources for a limited period of time. The issue of dissemination and research is largely an issue of implementation and there are avenues within the patent system itself to ensure an implementation that is consistent with the relevant provisions of UNCLOS. The need for studies on how patent law instruments have been implemented in relation to marine genetic resources from areas beyond national jurisdiction was highlighted. It was also proposed that the possibility of using other types of intellectual property, such as trademarks and geographical indications downstream patenting and open source licensing, be further studied and considered.

### ***Relevant Experiences with and Options for Access and Benefit-Sharing***

The current policy framework for access and benefit sharing (ABS) is represented by the related regime being negotiated under the Convention of Biological Diversity (CBD), while the Law of the Sea (UNCLOS) does not contain regulatory measures for ABS for deep seabed genetic resources.

Any new approach to access and benefit sharing frameworks for marine genetic resources beyond national jurisdiction must take into account ecological, climatic, and transboundary issues. Moreover, proximate States should be involved in the design and implementation of any ABS framework, with a focus on joint management, research cooperation, and royalty sharing.<sup>28</sup>

Lessons-learned from the CBD include acknowledgement that monetary flows are never guaranteed from access to genetic resources. Shorter term in-kind benefits are valuable and should be sought. The international community could usefully focus on defining what UNCLOS means by MSR in the Area being undertaken for the “benefit of (hu)mankind as a whole.” In addition to in-kind benefits outlined in Part XIII, emphasis could be placed not only on physical access to the samples and materials, but access to associated genomic, proteomic and metagenomic information in publically accessible databases.<sup>29</sup>

An issue to explore is the extent to which the international community already has access to biological samples and associated databases. A related issue is determining current practice of the MSR community to place information in the public domain (e.g. InterRidge). Possible obstacles to sharing samples and information include the nature of scientific research today: scientific competition and the associated need to publish, transaction costs to providing information and materials to others, commercial interests for confidentiality and intellectual property rights. Governance mechanisms to ensure sharing include community best practice, etiquette and peer pressure, funding agency (public or private) conditionalities, governmental policies and law and international organizations working to harmonize practices across countries (e.g. UNESCO/IOC). Lessons can be learned and principles adapted from other scientific sectors such as the fields of genomics and proteomics in relation to public health (e.g., Human Genome Project (HGP)). Policy

developments post-HGP have been premised on the following overarching principles: (1) Fostering free exchange of data, information and materials and (2) Fostering responsible patenting and licensing strategies that support further basic research.

Existing efforts, regimes and conventions may be used as reference points in the development of an access and benefit sharing framework for areas beyond national jurisdiction. These include the FAO Global Strategy for the Management of Farmed Animal Resources, the OSPAR Convention, the Nouméa Convention, the Mediterranean Action Plan, and the Intergovernmental Oceanographic Commission. An ideal package of tools for ABS would involve codes of conduct and databases, as well as compilation of and lessons derived from best practices with ABS. Any international access and benefit sharing arrangements should not adversely impact efficiency and integrity of the intellectual property system.

Some countries have been experimenting with various approaches to access and benefit sharing related to marine genetic resources. For example, the Seychelles has participated in some ad hoc bio-prospecting in collaboration with external partners, including the Venter Global Sea Collection project. A number of patents based on samples collected in the Seychelles have been filed, on which the Government and people of the Seychelles have no say. A second example is the joint project between the University of the Philippines Marine Science Institute (UP-MSI) and the University of Utah (Pharma Seas Drug Discovery Program), which was a cross-departmental collaboration. The UP-MSI has a six-year program with aims to develop marine genetic resources, including anti-infective agents from sponge-associated marine microorganisms (for TB, *S. aureus* infections, possibly HIV) and anti-pain agents from turrid snails. Although this is a local effort, the knowledge gained by UP-MSI can be applied to policy formulation related to

<sup>27</sup>Salpin, C. Marine Genetic Resources: The Law of the Sea and Intellectual Property Law. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>28</sup>Payet, R. Access and Benefit Sharing of Genetic Resources in Seychelles. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>29</sup>Glowka, L. Some Considerations on Marine Genetic Resources Beyond the Limits of Any National Jurisdiction. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.



marine genetic resources. The UP-MSI projects, and generally other local research initiatives in the Philippines, also demonstrate a willingness of the country to be involved and trained in international ocean and MGR research, it also is an example of capacity building especially in weak areas, e.g. taxonomic and population genetics research.<sup>30</sup>

### **Addressing Governance Gaps**

A range of options exist for addressing the governance gaps related to the management of marine areas beyond national jurisdiction and marine genetic resources, from broad governance options in which MGR issues could be tied to regional approaches to specific arrangements for just MGRs. The current legal and institutional regime for marine areas beyond national jurisdiction is fragmented and incomplete, resulting in limited effectiveness in securing sustainable conservation and use of marine areas beyond national jurisdiction, its resources and biodiversity. Effective protection of these areas will require a more integrated governance structure.

The central challenge for governance of areas beyond national jurisdiction stems from the nature of this area as an open access area with equal rights of users and exclusive Flag State jurisdiction. The freedom of the high seas leads inexorably to the tragedy of the commons and Flag State jurisdiction is ineffective in halting this tragedy.

In view of the limitations in the current ABNJ regime, it is arguable that the time has come for an integrated and comprehensive regulation of all uses and activities in the common interest of all States. It may be possible to devise a regime which straddles the divide between the open access and common heritage of mankind principles in a way which protects the common interests in resources and the common concern of humanity for the protection and preservation of the marine environment.

Common ground might be found in the concept of areas beyond national jurisdiction as a public trust to be used for and managed in the interests of present and fu-

ture generations. Under this public trust, open access to ABNJ resources would continue but those who exercise that access must do so subject to rules for sustainable management adopted by regional seas stewards. Users would also potentially make a contribution based on a small percentage of their profits derived from ABNJ resource exploitation to a global oceans trust or its regional seas delegates for ongoing protection and preservation of the marine environment.

An analysis of the geographical and regulatory coverage of Regional Fisheries Management Organizations and Arrangements (RFMO/As) and Regional Seas Conventions revealed large geographical gaps exist in the coverage of regional instruments. Where such instruments exist, they provide an opportunity to continue moving forward in the short-term with the application of modern management and conservation measures. More extensive reliance on regional instruments would require expanding their coverage and/or establishing new Regional Seas agreements or RFMO/As. Coordination among regional instruments is challenging, making coherent global action using regional measures more difficult.

Participants concluded that measures at both global and regional levels will be needed to move toward ecosystem-based management of marine areas beyond national jurisdiction.

### **3. Encouraging Experimentation on Ecosystem-Based Management in Areas Beyond National Jurisdiction in Regional Cases through Global Environment Facility Support**

In recognition of the fact that developing global rules to enhance ecosystem-based management of areas beyond national jurisdiction and to improve existing sectoral processes will take considerable time, participants underscored the importance of encouraging experimentation at the regional level of ecosystem-based approaches to manage particular areas which may encompass national jurisdiction, large marine ecosystems shared by various coun-

tries, as well as areas beyond national jurisdiction. Such experimentation in regional areas could entail, for example: Applying particular ocean governing principles to the regional area; assessing the status of marine biodiversity; determining patterns of human use; identifying conflicts among uses and between users and the environment, including biodiversity; employing Environmental Impact Assessment; establishing marine protected areas in certain areas in need of special protection; study and inventory of the marine genetic resources of the regional area; establishment of appropriate access and benefit-sharing arrangements to exploit the marine genetic resources of the regional area; establishing appropriate compliance and enforcement mechanisms.

Participants underscored the benefits that such regional experimentation could bring to global debates over improved governance of marine areas beyond national jurisdiction, for example, practical demonstration of which approaches may work well and which may not; understanding of how existing sectoral processes might be better coordinated and enhanced to achieve cross-sectoral integrated management; practical learning of how the marine genetic resources might be identified, inventoried, and benefit-sharing established; legal and policy issues that might arise in the application of area-wide Environmental Impact Assessment, development of a management plan, and establishment of marine protected areas; problems that may arise in coordinating the actions of multiple sectoral agencies regarding joint monitoring and compliance.

Participants urged the Global Environment Facility to consider providing financial support for such experiments to test the feasibility of applying ecosystem-based management to regional areas which may include areas of national jurisdiction, large marine ecosystems shared by various countries, and areas beyond national jurisdiction. In selecting such regional cases, the GEF might consider such factors as the following: Areas of special significance for restoring and sustaining coastal and marine fish stocks and associated bio-

<sup>30</sup>Eguia, M.R. Perspectives on the Role of Developing States in the Sustainable Use and Management of MGRs in Global Oceans. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.



logical diversity as well as areas particularly affected by climate change; areas of special interest to developing countries for their sustainable development, including exploitation of fisheries and marine genetic resources; areas in which national authorities have collaborated cross-nationally through Large Marine Ecosystem Programs<sup>31</sup> and where the areas of high seas directly affect ecosystem health and function within the LMEs; areas in which national and regional authorities have a demonstrable interest in such experimentation and have the capacity to learn from the experimentation and to draw lessons for scaling up and for application in other regional areas. It was noted that the Global Forum on Oceans, Coasts, and Islands is well suited to playing a technical assistance role in these efforts by linking the regional experiments with each other and with global discussions of approaches, tools, and methods that might be applied and of possible legal and policy implications, and by drawing the attention of UN-level global discussions on areas beyond national jurisdiction of the results and lessons learned from the regional experiments.

The Global Environment Facility is the major international financial mechanism supporting developing country action under global environmental treaties (United Nations Convention to Combat Desertification, Convention on Biological Diversity, United Nations Framework Convention on Climate Change, and Stockholm Convention on Persistent Organic Pollutants). Since 1991, the GEF has supported action by 177 member countries through what is now a \$3 billion trust fund. The GEF International Waters program, which responds explicitly to Chapters 17 and 18 of Agenda 21, addresses area-based management of transboundary, multi-country water systems, including coasts, oceans and adjacent basins, transboundary surface water basins, and groundwater basins. In the period 1992-2008, the GEF International Waters

Portfolio supported 165 GEF Council-approved projects involving 147 recipient countries and 22 industrialized countries with \$1.13 billion in GEF grants and \$4.68 billion in co-financing.<sup>32</sup> A major part of the International Waters Portfolio has been the funding of 17 Large Marine Ecosystems involving 126 collaborating developing countries. In addition to the GEF International Waters Portfolio, two other relevant GEF focal areas—the GEF Biodiversity Focal Area and the Climate Change Focal area—are of relevance to areas beyond national jurisdiction as well.

Workshop participants encouraged the development of a new GEF program on marine areas beyond national jurisdiction, which could be included under the next funding period, GEF 5 (2010-2014). The GEF replenishment process for its next phase of activities<sup>33</sup> has just started and is expected to be completed by December 2009.

Workshop participants discussed a number of regional cases where fruitful experimentation on applying ecosystem-based approaches to regional areas combining national jurisdiction, large marine ecosystems, and areas beyond national jurisdiction could take place, as noted below.

### ***GEF/UNDP Agulhas and Somali Current Large Marine Ecosystems Project***

The GEF/UNDP Agulhas and Somali Current Large Marine Ecosystems Project aims to formulate, adopt, and implement effective and sustainable Strategic Action Programmes for the two LMES by looking at their: 1) Productivity; 2) Fish and Fisheries; 3) Ecosystem Health and Pollution; 4) Socioeconomics; and 5) Governance. Work on the first three areas will provide the scientific foundation and justification upon which to confirm the extent and boundaries of the ecosystems (as well as identifying the processes which define those ecosystems). The last two areas will provide

an understanding of the governance needs in terms of national and regional institutional structures, human resources, political agreements, fiscal demands, etc.<sup>34</sup> Ocean/climate processes in areas beyond national jurisdiction which significantly affect the LMEs could be effectively managed through an ecosystem approach in collaboration with the many regional organizations in the region. Discussion also centered around the possibility of coordinating with the Republic of Mauritius and the Republic of Seychelles regarding the continental shelf area lying beyond 200 nautical miles in the region of the Mascarene Plateau in respect of which Mauritius and the Seychelles made a submission to the Commission on the Limits of the Continental Shelf.

### ***OSPAR Region***

The OSPAR Commission is considering the inclusion of areas of the OSPAR maritime area beyond the limits of jurisdiction of coastal states as components of the OSPAR network of Marine Protected Areas (MPAs). WWF, Portugal and the Netherlands have proposed a section of the Mid-Atlantic Ridge/Charlie Gibbs Fracture Zone as an OSPAR area of interest for establishing an MPA, located beyond the limits of national jurisdiction of the coastal states in the OSPAR maritime area and Canada. The site proposed is also outside the potential Extended Continental Shelf of Iceland and Greenland (according to Part IV, Art. 76 of UNCLOS). A roadmap for further work on the establishment of this MPA is defined for 2008- 2009 setting out a critical path of considerations and steps to be taken with a view to considering for possible adoption of MPAs in ABNJ at the OSPAR Ministerial Meeting in 2010, including liaising with other competent authorities, scientists and other stakeholders.<sup>35</sup>

### ***Coral Triangle/French Polynesia***

The Coral Triangle, sometimes referred to as the “Amazon of the Seas,” is the epicen-

<sup>31</sup>Large Marine Ecosystems provide a framework for ecosystem-based approaches to management adopted by the GEF in 1995 as an operational strategy for addressing transboundary concerns (Duda 2008, this report).

<sup>32</sup>Duda, A. GEF International Waters Focal Area and other GEF Opportunities for Addressing Areas Beyond National Jurisdictions. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>33</sup>The GEF replenishment is the process by which donor countries contribute money to the GEF Trust Fund at four-yearly intervals. See GEF Structure and Organization. Available: [http://www.gefcountrysupport.org/report\\_detail.cfm?projectId=140](http://www.gefcountrysupport.org/report_detail.cfm?projectId=140)

<sup>34</sup>Vousden, D. and M. Ngoile. Presentation given during the Workshop on Governance of Marine Areas Beyond National Jurisdiction: Management Issues and Policy Options, November 3-5, 2008, Singapore.

<sup>35</sup>Johnson, D. Update on OSPAR activities regarding the governance of marine areas beyond national jurisdiction to the Global Forum, October 2008.



ter of marine life abundance and biodiversity on the planet, holding more than 75% of the known coral species and over 3,000 species of reef fish. This regional case could involve the development of networks of marine protected areas in the large marine ecosystem stretching from the Solomon Islands to French Polynesia and the development of rules and guidance for exploitation of marine genetic resources through regional collaboration among the Pacific Island Nations, France, and the major regional organizations in the South Pacific — the Pacific Islands Forum, Forum Fisheries Agency, SPREP, SOPAC, the Secretariat of the Pacific Community. The Coral Triangle Initiative (CTI) has received funding and support from the GEF, national governments, the Asian Development Bank, and partner NGOs – World Wildlife Fund, The Nature Conservancy and Conservation International.

### **The Arctic**

As the sea ice melts in the Arctic, there is a concern about the need to manage this region, especially the areas beyond national jurisdiction, through an ecosystem approach, to insure that forthcoming development—involving, among others, offshore oil and gas, new shipping routes, and greater population concentration, is carried out with due care for this vulnerable region.

### **4. Participant Break-out Session Outcomes**

Two break-out sessions covered the following themes: 1) Building enhanced understanding of values and processes in marine genetic resources; 2) Options for benefit-sharing of marine genetic resources; and 3) Addressing governance gaps in areas beyond national jurisdiction. The first group concentrated on clarifying the issues and demystifying some of the language and concepts related to marine genetic resources. The second group developed a series of options and recommendations for improvement of governance of marine areas beyond national jurisdiction, both for the short, medium, and long-term, with a special emphasis on marine genetic resources.

### **Group 1: Building Enhanced Understanding of Values and Processes and Options for Benefit-Sharing Regarding Marine Genetic Resources**

Participants noted that a pre-condition for progress was the need for a realistic assessment of ocean assets and the demystification of the issue of the potential profitability of activities related to MGRs from ABNJ. A great deal of information is available on the commercialization of products derived from MGRs, but a number of participants did not think the information currently available was sufficient for informed decision-making by states. In line with a precautionary approach, some participants considered that, in any case, the lack of information should not prevent states as well as the international community from taking action.

The need to move beyond discussions on ownership of the resources was highlighted, as was the need to separate the issue of access to MGRs from that of benefit-sharing. It was noted that there is no international consensus on whether there should be benefit-sharing with regard to marine genetic resources from ABNJ.

The UNCLOS objective of equitable and efficient utilization of ocean resources was the starting point and framework for any benefit-sharing discussion. There was agreement that before considering modalities for benefit-sharing, it was necessary to first identify the types of benefits to be shared, financial and in-kind, as well as direct and indirect, in particular since different benefits may call for different sharing regimes. Benefits include, for example, ecosystem services, goods, access to new drugs, information exchange, sharing of experience, education, capacity building, transfer of technology, partnerships, etc. The range of benefits outlined in the Bonn Guidelines on Access and Benefit Sharing could provide a useful reference point.

Participants stressed that the ability to benefit from the resources should be accompanied by an obligation to share the cost of protecting those resources. The benefits should be generated through sustainable activities from the environmen-

tal, social, economic and cultural standpoints. A proposal was made to develop an ethics charter on ocean uses. Codes of conduct could include access and benefit sharing provisions. Vital was the need to ensure that marine scientific research was not hampered by stringent access and benefit-sharing measures. Adequate incentives are also needed to ensure the continuation of marine research.

At the national level, possible access options included the use of concessions, licensing, and user fees, although caution was expressed about the use of access fees. Certainly, learning from experiences and mechanisms developed in other fora for addressing ABS would be useful, bearing in mind that such experiences may not always be applicable to marine resources in ABNJ. The view was expressed that the ABS provisions of the CBD were unlikely to work for marine genetic resources from ABNJ. But important lessons could be learned from experiences at the national and local levels, including the possible development of model contracts for ABS. Different views were expressed on whether new mechanisms or institutions were necessary to manage ABS. The need to ensure buy-in from all players and stakeholders, in particular markets and the public, was highlighted, as was the need for input from different agencies, international organizations, investors, and donors.

The session identified a number of activities that could be undertaken in relation to identifying opportunities, understanding values and processes, as well as options for access and benefit-sharing. The group considered that those activities should not be prioritized but, instead, could be undertaken simultaneously on parallel tracks; hence they did not separate them in short or long-term measures.

The following ideas were proposed:

### **Start at micro-level (local, national) and scale up to the macro-level (regional, ABNJ):**

- Develop ABS systems for MGR at the national level
- Consider the development of regional ABS plans



- Undertake pilot projects to develop ABS systems; including using LMEs (exploring the possibility for GEF funding for such pilots)

### **Clarification of what benefits are**

International discussions would benefit from a process that clarifies what the realistic potential benefits from MGRs actually are. These common elements could then be fed into the formal processes at the UN (United Nations Open-Ended Informal Consultative Process on Oceans and the Law of the Sea, UN Ad Hoc Working Group).

### **Research: Undertake further studies and compile information on the following**

- Details of successful public/private partnerships for ABS
- Existing commercial uses of MGRs
- The relationship between the ABS procedure under CBD and the MSR consent regime under UNCLOS
- Intellectual property rights over MGRs, in particular their implementation to date
- Developing/learning from existing tools for ABS measures (including national laws and model commercial contracts) and disseminating them

### **Education**

- Publish the panel presentations of ICP-8 (modeled on “Ecosystems and Oceans” publication, prepared following ICP-7)
- Target various audiences (governments, public, media, industry, scientific community, etc.), with governments as priority targets
- Develop accessible policy briefs on the issue for national governments and civil society

### **Developing an ethical approach for researchers and industry**

- Corporate Social Responsibility norms should encompass ethical exploitation of MGRs
- Codes of Conduct for scientists and industry

- A Global Statement on Basic Principles (perhaps feeding into codes)
- Adopt a precautionary approach

### **Institutional arrangements**

- Convene an Expert Panel to develop guidelines on the exploitation of MGRs (not country-based, not UN-based), with a clear, focused mandate: to be held possibly on the margins of the UN Ad Hoc Working Group, the World Oceans Conference (May 2009), or the Global Forum on Oceans, Coasts, and Islands Conference (April 2010). At a later stage consider whether there should be a continuous process to address these issues.

### **Group 2: Addressing Governance Gaps in Areas Beyond National Jurisdiction with Special Emphasis on Marine Genetic Resources**

The group started by seeking a shared understanding of governance. In its simplest and most direct form, it could be seen as the devising and execution of policy. Accordingly, governance could be seen on a pragmatic basis as a set of tools and/or mechanisms used to achieve a desired outcome. These can include laws, policies, institutions and procedures that provide the basis for implementation, co-ordination, reporting and compliance. Governance has several dimensions, including considerations related to scale (national, regional, and international), time and geographic space, as well as coordination amongst institutions to achieve coherence and making available scientific knowledge relevant for decision-making. Governance needs to enable implementation. Achievement of the desired outcome through governance critically relies on setting the context for stakeholder buy-in and participation.

For working purposes, a distinction can usefully be made between governance gaps—a need for new governing mechanisms, and implementation gaps—whether the implementation of existing governance mechanisms needs to be improved. It was stressed that key was to consider and address implementation gaps as a first step to identifying why desired outcomes have not been reached. In doing this, it is important

to consider why the gap is there and design actions accordingly. Capacity building is also important in this regard.

UNCLOS, problematically, provides no operational coordinating mechanism (except the UNGA) through which the international community can set common standards across various regional and sectoral governing bodies. As a result, new instruments (e.g. binding or non-binding international agreements, agreed principles, codes of conduct) and existing processes (e.g. UN Ad Hoc Working Group, UNICPOLOS), perhaps with expanded mandates, are needed to provide a basis for coordinating existing mechanisms and addressing new and emerging issues in marine areas beyond the limits of national jurisdiction. Any new instruments should incorporate modern provisions for compliance including reporting, performance criteria and review, as well as measures for noncompliance. It was also noted that governance mechanisms exist in regional seas for collaboration between coastal states on managing proximate areas beyond their EEZs where ecosystems extend into these areas, but seldom extend into open ocean waters.

The group developed the following recommendations for addressing governance gaps in marine areas beyond the limits of national jurisdiction in the short and medium to long-term. These actions are particularly relevant to marine genetic resources, though they also have wider resonance.

### **Short-term**

1. As a priority, identify or establish a permanent forum/focal point on ABNJ issues. This could be done by a number of means:
  - Renew and expand mandate of UN Ad Hoc Working Group
  - Consider an expanded role for UNICPOLOS in particular regarding coordination
  - Adopt a UNGA Enabling Resolution on means to identify and address implementation/regulatory gaps in UNCLOS Part VII, XI, XII, XIII and XIV (e.g., seeking clarification of the ISA mandate in terms of marine scientific research)



- Use mechanisms that are not formal, such as the Global Forum, to stimulate discussion
  - UN Secretary General designates a high-level liaison to facilitate the process - including MGRs
2. Accelerate the implementation of existing commitments, both normative and institutional. This could, inter alia, be through the development of governing principles or other mechanisms in particular to assess and enhance performance
  3. Increase scientific research, knowledge, capacity, and collaboration, as well as access to and utilization of scientific information (initially using existing mechanisms)
    - Incorporate marine biodiversity into the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) process if it goes forward
    - Develop guidelines or codes of conduct on information sharing
    - Start the work to identify ecologically and biologically important areas in ABNJ
    - Develop demonstration programmes or projects on marine spatial planning and other area-based management
    - Enhance institutional cooperation among UN Bodies
    - Incorporate climate change and its effects on ABNJ into broader discussions
    - Look at questions that might be asked from the Global Marine Assessment and draft agenda for future development (best tool for science into policy debate)
    - Develop guidance on environmental impact assessment (EIA) in ABNJ
    - Use this guidance to address activities conducted by flag states as well as other states through their nationals
  4. Create a stakeholder process for implementing environmental impact assessments and marine spatial planning in ABNJ
  5. Identify Principles for High Seas Governance
    - Agree on Principles and roadmap for their implementation

- Use performance review of RFMOs to apply lessons learned into other processes. Work towards creating global review for other activities using common principles. Create linkages among RFMOs
6. Improve management of MGRs within national jurisdiction
  7. Encourage stronger coordination among UN agencies
  8. Invite the GEF to expand its work in the high seas with a dedicated program with funding from its International Waters and its Biodiversity areas for its next budget cycle

### Medium and long-term

The following activities will help fulfill the WSSD goals relating to ecosystem-based management in areas beyond national jurisdiction:

1. Norms
  - Move towards institutionalization of agreed Principles of High Sea Governance
2. Institutions
  - Establish a Special Working Group or Committee on MGRs in ABNJ
  - Develop a new instrument(s), such as an Implementing Agreement
  - Create a “New” Agenda 21 or joint plan of implementation for ABNJs
  - Create IPCC for oceans (if this need is not met by the proposed Intergovernmental Platform on Biodiversity and Ecosystem Services process or Global Marine Assessment)
3. Actions
  - Fill governance gaps in high seas sectors
  - Investigate using the public trust idea for governance of ABNJ
  - Invite regional seas conventions and arrangements to consider expanding their mandate to include high seas issues

### Conclusion

A central feature of the Singapore Workshop, consistent with widely accepted approaches to ecosystem-based management, was agreement on the pivotal role of effective management by the sectors themselves and their representative bodies in delivering change. At the same time, and again consistent with broader ecosystem-based management, there was clear recognition that sectoral improvements needed to be complemented and guided by more integrated approaches, which brought the sectors together in more cooperative and coordinated approaches.

On this understanding, the Workshop was able to focus on ‘entry points’ as to where more integrated approaches and mechanisms were appropriate and necessary, without prejudice to the role of the sectors. Two discrete themes emerged: adequate and strengthened UN oceans machinery was needed to help embed coordinated inter-governmental and inter-agency work; and secondly, and reflecting a significant new departure, the need to validate and test out such integrated entry points at a practical, management level. Here the work of the Global Environment Facility (GEF), with its large marine ecosystem (LME) and transboundary capacity building work could be key. Detailed discussions on marine genetic resources showed that problematic issues of equity and property rights might also be tested in this pragmatic framework.



## **Annex 1.**

### **Keynote Address by**

**Ambassador Tommy Koh, Ambassador at Large,  
Ministry of Foreign Affairs, during the Workshop  
on Governance of Areas Beyond National Juris-  
diction: Management Issues and Policy Options,  
3-5 November 2008, Botany Centre, Singapore**

Distinguished members of the Global Forum, ladies and gentlemen

I am very pleased to join you this morning for this workshop appropriately held in this wonderful green environment of the Botany Centre.

I am told that the Global Forum brings together ocean leaders of governments, UN agencies, NGOs, the private sector and science groups from many countries to advance the global oceans agenda, particularly the implementation of the ocean targets from the World Summit on Sustainable Development and to address new challenges like climate change. This workshop however is focused on the governance of marine areas beyond national jurisdiction. Its work aims to promote informal and multistakeholder dialogue to support formal processes that have been established in the UNGA on the subject. Your premise is that the governance of marine areas beyond national jurisdiction is a major issue that countries will need to address and negotiate over the next decade.

One key question in the ongoing ABNJ debate is whether the existing international conventions, such as UNCLOS adequately address emerging governance issues on the use and exploitation of marine living resources in the deepsea areas as opposed to non-living mineral resources in the deep seabed beyond national limits or THE AREA for which Part XI of UNCLOS applies. As the former President of the Conference that negotiated the UNCLOS, I am told I might be able to add value to the workshops' discussions by sharing my experience and interpretation of what the UNCLOS negotiators had meant to cover in 1982 and if there are now emerging lacunas that may necessitate a review.

I understand that some of this debate has already taken place at the meetings of the UN Informal Consultative Process on Oceans and the Law of the Sea (UNICPO-

LOS) and the meetings of the UNAd-Hoc Open ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biodiversity in ABNJs held in New York earlier this year.

### *Sharing my experience in negotiating and interpreting UNCLOS*

First, let me address the issue of whether UNCLOS continues to be adequate to address the ocean issues of today such as the use of marine genetic resources in the deepsea areas beyond national limits. I consider the Treaty as a comprehensive "constitution for the oceans" which was meant to have a long shelf life. The convention covers all aspects of the uses and resources of the world's oceans. It respects the interrelationships among the different aspects of law of the sea. It treats ocean space as an ecological whole. Concerns about the environment surfaced very early in the negotiations of UNCLOS. Consequently, UNCLOS has provisions for the protection of the marine environment alongside provisions for the sovereign rights of States to exploit their marine resources within and beyond national limits. All issues relating to the oceans including protection and preservation of the marine environment, marine scientific research and development and transfer of marine technology were comprehensively covered. The UNCLOS provides a clear legal framework that clarifies the principles and values for the protection of the marine environment yet remains sufficiently flexible to deal with new issues of the day. It appears that the majority of delegates at UNICPOLOS also remain unconvinced that a new international regime for marine genetic resources in ABNJ is needed.

Second, UNCLOS is a finely balanced package deal. The Treaty took 10 years to negotiate during which delicate compromises were arrived at. Countries made concessions in one area in return for gains elsewhere. The provisions in the Convention carefully struck the right balance between the economic interests of those who wished to exploit the living and non-living marine resources and those who wanted to preserve the marine environment. It may be unwise to unravel such a finely balanced package deal to seek specific

provisions for particular issues like marine genetic resources in ABNJ. The principle of carefully balancing the interests of all negotiating parties was the basis for the successful conclusion of UNCLOS. It is important to reserve this balance by working within the existing UNCLOS legal framework even as new issues emerge. It is a matter of understanding the principles and correctly interpreting the provisions in the context of the overall agreement.

Third, on the specific issue of exploitation and preservation of marine genetic resources, it will be useful for 'oceans' people to appreciate and understand the debate among 'land' people on the exploitation, benefit sharing and preservation of plant and animal genetic resources. There must be important synergies in terms of common objectives and governing principles across organisations such as UNCLOS, CBD, FAO and others in this genetics debate. This is where I would like to compliment the integrated approach that the Global Forum has been taking in trying to build the international dialogue on this issue. By building an informal channel for dialogue among all stakeholders whether governments, scientists, industry, IGOs or NGOs you are helping to build up knowledge from an integrated perspective which can best promote solutions that carefully balance the interests of all parties.

### *Balancing Economic Development and Protection of Marine Environment - The Singapore experience*

Let me end with a few comments on Singapore's own experience on how it has tried to maintain its marine biodiversity while at the same time becoming the world's busiest transshipment port. Singapore's waters harbour more coral species and genera per hectare of reef than there are in the Great Barrier Reef. We have achieved this by strictly controlling both land and sea-based sources of marine pollution. Our guiding principle is that protecting the marine environment, maintaining navigational freedoms as well as pursuing economic development are not mutually exclusive. Each of these activities need not be pursued at the expense of the other as long as a careful balance is struck as has been done in the comprehensive framework which UNCLOS



represents. I am pleased to hear that during your stay in Singapore, NParks will be offering you several field trips to show some of our efforts at preserving our biodiversity.

### *Conclusion*

The immediate and real effects of climate change on our oceans and the sustainability of its living resources are serious threats to humanity. Scientists tell us that rising sea levels could wipe out entire countries off the map. Rising water temperatures have the potential to destroy marine ecosystems that may devastate world fishstocks threatening the world's major renewable food resource. The melting of the ice caps may open up new routes for commercial navigation and start a race for the previously inaccessible natural and mineral resources in the Arctic and Antarctic. These are issues that need our attention.

But even as we focus on how to protect our oceans and their resources from the ravages of climate change, we should do so while protecting UNCLOS' integrity. UNCLOS was concluded as a comprehensive package that balanced the competing interests of many diverse states. It has served the international community well over these years and I am sure that it will continue to do so in future. We will need to maintain that careful balance by ensuring that States are faithful in their interpretation and application of the Convention. That will help preserve UNCLOS' position as the key instrument that can continue to sustain international cooperation in safety, security and environmental protection of the oceans and seas.

I wish you a fruitful and enjoyable stay in Singapore.

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## About the Global Forum

The Global Forum is comprised of ocean leaders from governments, non governmental organizations, international and intergovernmental organizations, the private sector, and scientific associations with the purpose of advancing the global oceans agenda. "Advancing the global oceans agenda" is meant as: 1) promoting the implementation of international agreements related to oceans, coasts, and small island developing States (SIDS), especially the goals emanating from the 2002 WSSD; 2) analyzing new emerging issues such as improving the governance regime for ocean areas beyond national jurisdiction; and 3) promoting international consensus-building on unresolved ocean issues.

The Global Forum was first mobilized in 2001 to help the world's governments highlight issues related to oceans, coasts, and SIDS on the agenda of the 2002 World Summit on Sustainable Development, and was later formalized at the WSSD in Johannesburg. The Global Forum is a response to perceived needs for fostering cross-sectoral dialogue on ocean issues among governments, NGOs, international organizations, and the private and scientific sectors; constant advocacy for oceans at the highest political levels; and the imperative of taking an ecosystem-based and integrated approach to oceans governance at national, regional, and global levels, including treating the water system—from freshwater, to coasts, to oceans— as the interlinked system that it is.

Since 2001, the Global Forum has involved ocean experts representing all sectors from 105 countries; organized four Global Conferences (in 2001, 2003, and 2006 at UNESCO in Paris, and in Hanoi, Vietnam in 2008); organized the Ocean Policy Summit in Lisbon in 2005 documenting experiences with integrated oceans governance in over 20 countries and 4 regions around the world;

prepared a number of reports on the implementation of the WSSD ocean targets, reports on ocean issues in island states for the 2005 Mauritius International Meeting, and reports on capacity development needs on ocean and coastal management in 8 world regions; and provided a series of Internet information services, including periodic newsletters.

For information about the Global Forum, please see the Global Forum Website at

<http://www.globaloceans.org>.

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For additional information on the Global Forum on Oceans, Coasts, and Islands or to become engaged in Global Forum activities, please contact the Global Forum Secretariat.

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