

Executive Summary

Global Forum on Oceans, Coasts, and Islands
**Moving Toward Ecosystem-Based Management and Integrated Coastal and
Ocean Management in Marine Areas Beyond National Jurisdiction**

*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*

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 function 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, like 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, the biotechnology industry which utilizes the oceans' biodiversity for a wide 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 areas beyond national jurisdiction 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 Chatham House rules (speak freely with no quotes attributed to particular individuals) (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 will be 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 9 year period (1973-1982).

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 deterioration of the oceans on climate change as well as climate changes that are expected to exacerbate the forces that are leading to 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—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; seabed mineral exploration and exploitation; mariculture facilities; floating energy facilities—and the view was expressed that there are inadequate management frameworks and environmental review processes for such uses, and that if such activities were to go forward, detailed development of 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
- Responsibility of states for actions of nationals, eg 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 had 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 ANBNJ.

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

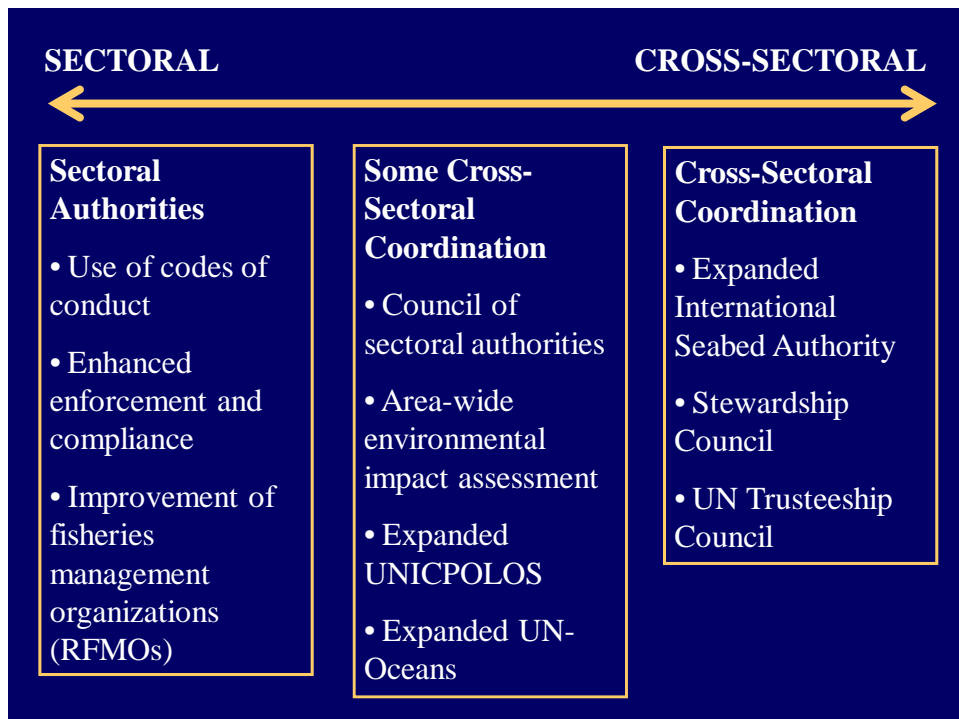
Capacity for area-based assessment and planning in areas beyond national jurisdiction is, at present, quite limited. There are some informal efforts at assessment, such as the Census of Marine Life. The “Assessment of Assessments” - the preparatory stage of a regular process for global reporting and 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 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. 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 Ad Hoc Working Group.

The Figure 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, such as 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.



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, such as, 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 studies.

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 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
- 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 for 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 debate
- 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 upon ocean observations, including weather observations to catalogue 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)
- Technical feasibility and environmental impact analysis of the use of deep ocean CO₂ 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 also 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.

--Carry out 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.

Nice Workshop Participants

Workshop Co-Chairs:

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Annex 2

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

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