



## Governance of marine biodiversity beyond national jurisdictions: Issues and perspectives

### Report of the international seminar “Towards a new governance of high seas biodiversity” (Principality of Monaco, March 20–21, 2008)

Julien Rochette\*, Raphaël Billé

*Institute for Sustainable Development and International Relations (IDDRI), Sciences Po, 27, rue Saint-Guillaume, 75337 Paris Cedex 07, France*

Organised by the Institute for Sustainable Development and International Relations (IDDRI), the international seminar “Towards a new governance of high seas biodiversity” (Principality of Monaco, March 20–21, 2008) brought together high-level international experts from international organisations, national governments, non-governmental organisations and research centres. This event – organised in partnership with the Prince Albert II of Monaco Foundation, the French Agency of Marine Protected Areas, the French Global Environmental Facility (FFEM) and with the collaboration of the Maritime and Oceanic Law Centre (University of Nantes) – aimed to foster interaction between the different disciplines involved with a view to informing the current debate, examining the issues that raise the greatest difficulties, and considering new approaches to the sustainable management of biodiversity in areas beyond national jurisdiction. This article provides a subjective summary of the presentations and discussions held during the seminar but does not replace the report produced in cooperation with participants (available on <http://www.iddri.org/Activites/Conferences-internationales/Towards-a-new-governance-of-high-seas-biodiversity/>) and the detailed proceedings to be published in the coming weeks.

#### 1. An increasingly threatened biodiversity

Governed since the 17th century on the basis of Grotius's principle of the freedom of the seas, the high seas remain the least known and least explored area on earth. As a global public good par excellence, the high seas are in need of internationally coordinated management within a global framework of effective environmental governance. Indeed, today the high seas and their resources appear under increasing threat from the intensity and variety of human pressures exerted on them. The exponential growth of international maritime traffic over recent decades has increased the risk of

damage to ecosystems (fuel pollution, transport of dangerous goods, etc.) and disturbance of species<sup>1</sup> (sound pollution, collisions with vessels, etc.). Also, the over-exploitation of fishery resources is gradually depleting available stocks,<sup>2</sup> while new fishing techniques are altering deep-water habitats<sup>3</sup> (deep-sea trawling, etc.). Illegal, unreported and unregulated fishing – a poorly quantified phenomenon that is nevertheless considered to be a major cause of the collapse of stocks – undermines the sustainable management of fisheries and is also implicated in the degradation of marine biodiversity.<sup>4</sup> Furthermore, scientific and technological progress is leading to an increase in the use of marine resources for industrial purposes, particularly oil and gas extraction and bioprospecting.<sup>5</sup> Finally, in spite of being far away from continents, the high seas are affected by land-based human activities (effluent discharges, atmospheric deposition, etc.).

The high seas are therefore subject to multiple pressures that threaten their exceptional biodiversity, which is only just beginning to be explored (discovery of hydrothermal vents, seamounts, cold-water coral reefs, gas hydrates, etc.) by the scientific community.<sup>6</sup> However, the current international framework seems incapable of providing a satisfactory response to the threats weighing on the particularly rich and vulnerable resources of the high seas, which represent 64% of the total surface of seas and oceans. A debate on establishing an international system of environmental governance is mounting,<sup>7</sup> and it will be essential to define an appropriate

<sup>1</sup> Halpern B, et al. A global map of human impact on marine ecosystems, *Science*; 2008: 319(5865); 948–52.

<sup>2</sup> FAO. The state of world fisheries and aquaculture. FAO Fisheries and Aquaculture Department; 2007. 180 pp.

<sup>3</sup> Report and documentation of the expert consultation on deep-sea fisheries in the high seas, Bangkok, Thailand, 21–23 November 2006, FAO Fisheries Report, No. 838, 208 pp.

<sup>4</sup> High Seas Task Force. Closing the net: stopping illegal fishing on the high seas, Governments of Australia, Canada, Chile, Namibia, New Zealand, and the United Kingdom, WWF, IUCN and the Earth Institute at Columbia University; 2006. 116 pp.

<sup>5</sup> Schubert R, et al. The future oceans – Warming up, rising high, turning sour. German Advisory Council on Global Change (WGBU); 2006. 110 pp.

<sup>6</sup> UNEP. Ecosystems and biodiversity in deep waters and high seas, UNEP Regional Seas Reports and Studies, No. 178, UNEP/IUCN, Switzerland, 60pp.

<sup>7</sup> Informal consultative process on the institutional framework for the United Nations' environmental activities, Co-chairs' options paper, New York; 14 June 2007.

\* Corresponding author. Tel.: +33 (0) 1 45 49 76 72; fax: +33 (0) 1 45 49 76 85.  
E-mail address: [julien.rochette@iddri.org](mailto:julien.rochette@iddri.org) (J. Rochette).

political, legal and institutional framework for the sustainable use and exploitation of marine biodiversity in areas beyond national jurisdiction.

## 2. An open debate for a new governance

Aware of the urgency of the situation, the international community is therefore gradually mobilizing and debating the issue of high seas governance within different forums – whether intergovernmental (UN Secretariat, UNEP, FAO, UNESCO, IMO, CBD Secretariat, etc.) or not (IUCN, WWF, the Deep-Sea Conservation Coalition, etc.) – and through different processes (Joint group of experts on the scientific aspects of marine environmental protection, informal consultation process on oceans and the law of the sea, ad hoc open-ended informal working group to study issues relating to conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, the Countdown 2010 initiative, etc.). The recent debates conducted within these different institutions have raised some critical issues – of a scientific, legal, institutional and economic nature – that must now be dealt with as a matter of urgency for the sake of biodiversity conservation. The aim of the international seminar “Towards a new governance of high seas biodiversity” was thus to bring together high-level international experts with a view to informing the current debate, examining the issues that raise the greatest difficulties, and considering new approaches to the sustainable management of high-seas resources.

## 3. Efforts must be redoubled

Although the pacific and rational use of the oceans was given a global legal framework when the United Nations Convention on the Law of the Sea (UNCLOS) entered into force, this treaty was the result of lengthy negotiations launched in the early 1970s, a time when scientific knowledge of marine biodiversity was limited. Since then, except for a general principle of marine environmental protection,<sup>8</sup> the Convention only governs the high seas in a fragmented manner: while the mineral resources in or under the seabed have been declared the common heritage of mankind,<sup>9</sup> the elements of marine biodiversity have retained *res nullius* status and can therefore be freely appropriated. Initiatives are nevertheless being launched to preserve the multiple resources found beyond national jurisdiction. International and regional fisheries organisations are thus attempting to prevent the over-exploitation of fishery resources through stock assessment and catch restriction programmes. However, the effectiveness of such authorities often proves limited due to difficulties in implementing the decisions adopted, to major obstacles linked to compliance monitoring and to the impossibility of taking binding action against the third party States. The United Nations Convention on Biological Diversity (1992) provides for the conservation of biodiversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from the use of genetic resources.<sup>10</sup> However, it sees marine biodiversity as only one element of global biodiversity. In particular, its field of application at sea remains restricted to areas under sovereignty or jurisdiction.<sup>11</sup>

High seas biodiversity conservation has therefore become a critical issue, suffering from a fragmented, often deficient international framework. Unless major efforts are made over the next few years, the international community will be unable to meet the

objectives it has set itself within the different intergovernmental arenas. Thus, establishing measures to protect vulnerable ecosystems against bottom trawling before 31 December 2008,<sup>12</sup> implementing the ecosystem approach by 2010,<sup>13</sup> creating a representative network of marine protected areas by 2012,<sup>14</sup> and maintaining fish stocks or restoring them to a level ensuring a maximum sustainable yield by 2015,<sup>15</sup> are all particularly ambitious objectives that will require the international community to step up its efforts.

## 4. Prospects for immediate action

The increasing loss of marine biodiversity and the intensification of threats facing the high seas and their resources require an immediate reaction. Many possibilities exist and priorities must therefore be established.

From this perspective, it first seems necessary to exploit all the possibilities provided by the legal instruments already in force. Thus, reinforcing the application of the MARPOL Convention, or implementing the concept of Particularly Sensitive Sea Areas will help to improve the protection of marine areas in view of the dangers linked to the increase in international maritime transport. Likewise, UNCLOS, and especially article 194(5), provides an appropriate legal basis for improving the protection of fragile and vulnerable ecosystems in areas beyond national jurisdiction. In this respect, use of the dispute settlement mechanism provided by UNCLOS and the 1995 Agreement on straddling stocks and highly migratory species could lead to a new interpretation of this provision, in light of the new threats facing high seas resources. Moreover, it is important to use all appropriate international levers, even beyond the fields in which environmental concerns predominate. Thus, it is to be hoped that the negotiations on trade rules currently underway at the World Trade Organisation (WTO) will make it possible to revise the system of subsidies granted to fisheries activities in favour of the sustainable management of fishery resources.

The regional approach to marine biodiversity conservation should also be consolidated and further developed. First, regional fisheries management organisations (RFMOs) potentially have the capacities needed to overcome the shortcomings of international governance, by developing sustainable management policies for deep-sea fishery resources: it therefore seems essential that these authorities pursue this objective, especially by controlling destructive fishing practices, closing vulnerable zones and implementing the ecosystem approach. Furthermore, the regional approach will enable States to more efficiently combat illegal, unreported and unregulated fishing, to more accurately identify vulnerable marine ecosystems and to encourage the sustainable consumption of fishery products through certification and eco-labelling processes. The success of this kind of approach nevertheless requires an external assessment of the performance of RFMOs in order to determine their main weaknesses and thereby build their capacities. Beyond these fishery issues, regional marine protection conventions also provide an appropriate platform for adopting measures for marine biodiversity conservation in areas beyond national jurisdiction. Like the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the

<sup>12</sup> United Nations General Assembly. Resolution 61/105 adopted on 8 décembre 2006, paragraph 83.

<sup>13</sup> World Summit on Sustainable Development, Plan of implementation; 2002, paragraph 30d.

<sup>14</sup> World Summit on Sustainable Development, Plan of implementation; 2002, paragraph 32c.

<sup>15</sup> World Summit on Sustainable Development, Plan of implementation; 2002, paragraph 31a.

<sup>8</sup> Article 192.

<sup>9</sup> Article 136.

<sup>10</sup> Article 1.

<sup>11</sup> Article 4.

Mediterranean, framework conventions must henceforth strive more systematically towards the protection of high seas areas, especially by establishing marine protected areas.

### 5. A global debate is on going

Although a decisive effort must be made towards the effective application and consolidation of existing tools, at both the global and regional scales, this should not overshadow the broader need for a new governance of the oceans.

First, it now appears necessary to base marine environmental management on new principles, resulting from debates on sustainable development, such as the ecosystem approach, the precautionary principle, and policy integration, etc. Likewise, conservation tools that have proven their value in other areas and on other scales must be applied to the high seas: protected areas are a highly significant example in this respect. Furthermore, it is particularly important to define the conditions for accessing and using high seas marine genetic resources. These various elements are now leading the international community to ask whether an inter-State agreement on areas and resources beyond national jurisdiction is needed. Although the debate is only in its early stages, it is already raising a number of questions. The first, concerning the legal and institutional framework for such an agreement, theoretically poses few problems: there is quite a general agreement that UNCLOS provides the legal basis for the adoption of such an instrument that would therefore constitute an implementing agreement, along the lines of the 1995 Agreement. The second question, concerning its content, is much thornier. Indeed, although specific proposals have been made as to the definition of new high seas biodiversity conservation tools, the issue of the use of marine resources, or more specifically genetic resources, raises considerable difficulties. This is in fact an eminently political problem, marked by an undeniable north–south conflict, which also comes up against considerable legal difficulties: the issue of the legal status to be granted to these resources and the mechanisms to guarantee the sharing of benefits arising from their use thus makes negotiation particularly complex. Some people are now calling for differential treatment for these two elements, dissociating the conservation and the use of marine biodiversity.

In the same sense, a broader debate must be launched on the role of States in exercising effective jurisdiction over ships flying their flags. The obligation laid down in article 91 of UNCLOS of a “genuine link between the State and the ship” is, as we know, far from being systematically met. Although article 94 of this Convention defines the flag State’s duties, the methods for effectively exercising these duties remain to be developed.

### 6. Re-examining the relations between science and decision-making

In broader terms, the urgent situation prevailing today calls for a re-examination of the link between science and decision-making. Indeed, the systematic exploration of marine ecosystems promises to keep the scientific community busy for many years to come. Assessments of the number of marine species must still be improved. Similarly, knowledge of the mobility and biology of species must be enhanced, climate change impact assessments for the oceans must be continued and, more generally, integrated assessments must be developed, in order to understand long-term connections between ecosystems and their dynamics. In this respect, it is interesting to note the many bridges - especially conceptual, legal and institutional - linking the high seas to the governance of the other global public goods. Thus, as for the climate issue, the oceans could undoubtedly benefit from an expertise mechanism, such as the Intergovernmental Panel on Climate Change (IPCC), capable of sending a strong, clear message that is accepted by one and all.

Nevertheless, despite this unanimously recognized lack of knowledge, it appears that we now have sufficient scientific knowledge to take action: the biodiversity hotspots are known, and there is increasing understanding of the way different species behave and of the mechanisms governing deep-sea ecosystems. We must therefore accept this “disconnection” between the time for research, for assessments and for decision-making and acknowledge that action - though sometimes sub-optimal from a scientific or economic point of view - must now be taken.