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Modalities for Advancing Cross-Sectoral Cooperation in Managing Marine Areas Beyond National Jurisdiction

Draft for Discussion

Modalities for advancing cross-sectoral cooperation in managing marine areas beyond national jurisdiction

Draft for discussion at the 12th Global Meeting of the Regional Seas Conventions and Action Plans¹

I. Introduction

1. This report provides information and advice to the Secretariats and Member States of Regional Seas Conventions & Action Plans (RSCAPs) on modalities for advancing cross-sectoral cooperation to progress internationally agreed conservation and sustainable use goals in marine areas beyond national jurisdiction.
2. Never has the need or opportunity for cross-sectoral regional seas cooperation been greater. As ocean pressures mount, States have called for new tools and integrated approaches to help fulfill their duties to protect the marine environment and to conserve living marine resources in areas beyond national jurisdiction consistent with international law, based on science and precaution.
3. As a result, regional fisheries management organisations (RFMOs) are working to fully implement the call from the United Nations General Assembly to identify and protect vulnerable seabed features from significant harm caused by high sea bottom fishing activities. Similarly, Parties to the Convention on Biological Diversity (CBD) have called for action to more broadly protect ecologically or biologically significant areas in the open ocean and deep seabed.
4. For these purposes, the CBD and the UN Food and Agricultural Organization (FAO) have adopted similar criteria by which to identify ecologically significant and vulnerable areas. At the same time, the CBD, FAO and the United Nations General Assembly are also putting a renewed emphasis on environmental impact assessments and the need to consider cumulative impacts. These and other international developments provide a platform for RSCAPs, RFMOs, and others to strengthen their cooperative work such that progress is coordinated, and unnecessary duplication is minimised.
5. To enable the Secretariats and Member States of RSCAPs to assess potential avenues for engagement with other sectors and organizations, the report summarizes some recent global and regional developments relevant to biodiversity conservation and highlights a few of the challenges, opportunities and modalities for moving ahead.
6. While the report's focus is primarily on areas beyond national jurisdiction, the authors hope it may also serve to inform regionally-based efforts to conserve and integrate management

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of the vast open ocean and deep sea areas under national jurisdiction and control, including the outer continental shelf.

II. Policy background

7. Covering sixty-four percent of the surface of the ocean, and providing nearly 95% of its volume, marine areas beyond national jurisdiction (ABNJ) are home to an important part of the world's biodiversity, support significant fisheries, and play a critical role in stabilizing global climate. These ecosystem services are increasingly threatened by overfishing, habitat degradation and alteration, pollution, climate change, ocean acidification, which act in concert to seriously undermine ecosystem health and resilience.
8. Though much of the open ocean and deep sea lies beyond national jurisdiction, changes in these systems will impact associated regions and nations directly or indirectly. Associated regions and nations therefore need to be engaged in managing these areas if an integrated ecosystem approach is to be effective.
9. It is well known that the ecosystems of the ocean are interrelated and do not respect political boundaries. Yet, international law as reflected in the UN Convention on the Law of the Sea (UNCLOS) divides ocean space between areas within national jurisdiction (e.g. the territorial sea and exclusive economic zone (EEZ)) and areas beyond: the "high seas" and seabed "Area". While many nations are now adopting a more integrated approach to managing ocean space and uses within their EEZs, existing international mechanisms for managing the high seas and the Area provide primarily sectoral approaches, and focus on shipping, fishing, waste dumping and minerals mining.
10. At the 2002 World Summit on Sustainable Development (WSSD), governments committed to improving ocean conservation and management through actions at all levels, giving due regard to the relevant international instruments. In specific, they committed to:

*"32.(c) Develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive fishing practices, the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks by 2012 and time/area closures for the protection of nursery grounds and periods, proper coastal land use and watershed planning and the integration of marine and coastal areas management into key sectors."*²
11. In 2002 the UN General Assembly (UNGA) welcomed the WSSD commitments and called upon States and relevant international organizations at all levels urgently to consider ways of integrating and improving, on a scientific basis, the management of risks to vulnerable marine biodiversity within the framework of the UNCLOS, consistent with international law and the principles of integrated ecosystem-based management.³ A special ad-hoc open

² WSSD, 2002, Agenda 21 Plan of Implementation.

³ UNGA resolution 57/141 (issued 21 February 2003)

ended Working Group to study issues related to the conservation and sustainable use of marine biodiversity beyond the areas of national jurisdiction (UN Working Group on ABNJ) was established in 2005 to help accelerate progress in the high seas and seabed Area.⁴

12. While there has been some progress since 2005 towards addressing risks to marine biodiversity and integrating management, few mechanisms or policies are in place to foster cross-sectoral cooperation necessary to achieve the WSSD commitments beyond national jurisdiction. Similarly, there are few policies or incentives to coordinate between areas within and beyond national jurisdiction.⁵ This report highlights some options to redress this gap.

Definitions for key terms used in this paper:

Areas beyond national jurisdiction (ABNJ): includes the High Seas and the Area.

The Area: legal term for the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction, as defined in the United Nations Convention on the Law of the Sea Article 1(1)(1). Generally starts at 200 nm from coastal baselines, but may start 350 nm or beyond in certain circumstances.

Cross-sectoral: a collaborative activity that is developed and carried out through involvement of several economic and social sectors at the same time.

Deep Sea: ocean waters and seafloor beyond the depth where photosynthesis can occur, generally below 200 m.

EBSA: ecologically or biologically significant areas in need of protection in open-ocean waters and deep-sea habitats (CBD decision IX/20, Annex I).

High seas: legal term for waters beyond the zones of national jurisdiction: parts of the sea that are not included in the EEZ, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State (UNCLOS Article 86).

Marine Protected Area (MPA). The CBD defines a protected area as “a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives”(Convention on Biological Diversity 1993). In MPAs, regulation levels vary greatly, ranging from managed multiple use areas to scientific or wilderness reserves with strictly limited taking or access. This paper does NOT use the term MPA to mean a no-take reserve.

Open Ocean: ocean waters above and beyond the physical continental shelf. Often thought of as remote, in many places such as the western side of continents, or at heads of submarine canyons, or off volcanic islands, the open ocean begins just beyond the coastal zone.

⁴ UNGA resolution 60/30 (issued 8 March 2006). As recognized in the Convention on Biological Diversity Article 3, Principles, “States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”

⁵ Golysyn, V. 2010. Major Challenges of Globalisation for Seas and Oceans: Legal Aspects. (in Vidas, D. (ed.)) LAW, TECHNOLOGY AND SCIENCE FOR OCEANS IN GLOBALISATION. Martinus Nijhoff, Leiden, Boston, p. 68.

III. Conservation and management in areas beyond national jurisdiction

Ecologically or biologically significant areas

13. In accordance with the WSSD goals to protect biodiversity, promote ecosystem approaches and establish marine protected areas, the Parties to the Convention on Biological Diversity (CBD) in 2008 adopted scientific criteria for the identification of ecologically or biologically significant areas (EBSAs) in need of protection in open-ocean waters and deep-sea habitats.⁶

14. The seven CBD EBSA criteria are:

- uniqueness or rarity (areas containing either unique, rare or endemic species, rare or distinct habitats, or unique or unusual features);
- special importance for life history of species (areas that are required for a population to survive and thrive);
- importance for threatened, endangered or declining species and/or habitats;
- vulnerability, fragility, sensitivity, slow recovery;
- biological productivity (areas containing species, populations or communities with comparatively higher natural biological productivity);
- biological diversity (an area contains comparatively higher diversity of ecosystems, habitats, communities or species, or has higher genetic diversity); and
- naturalness (comparatively higher degree of naturalness).

15. When adopting these criteria, the Ninth CBD Conference of Parties (COP) urged Parties and invited other governments and relevant organizations to apply these criteria and to take action to protect such areas.⁷ It is envisaged that such action will be taken within the UNCLOS framework, and that protection may be achieved through a variety of conservation and management tools across the various sectors and user groups. Such measures are explored in section III below.

Vulnerable marine ecosystems

16. The CBD EBSA criteria are similar to criteria developed around the same time by the UN Food and Agriculture Organization (FAO) for identifying vulnerable marine ecosystems (VMEs) at risk from high seas bottom fishing. However, the VME criteria differ in having an internationally agreed process for their identification and a required management response.

⁶ CBD Decision IX/20, Annex I. For background on the criteria, their definition, rationale and considerations in application, see: *Azores Scientific Criteria and Guidance for identifying ecologically or biologically significant marine areas and designing representative networks of marine protected areas in open ocean waters and deep sea habitats*. <http://www.cbd.int/marine/doc/azores-brochure-en.pdf>.

⁷ CBD Decision IX/20, paragraphs 14-19. Draft Guidelines to assist in EBSA identification have been submitted to CBD COP 10 for adoption, based on the recommendation of the 14th Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 14). REPORT OF THE EXPERT WORKSHOP ON SCIENTIFIC AND TECHNICAL GUIDANCE ON THE USE OF BIOGEOGRAPHIC CLASSIFICATION SYSTEMS AND IDENTIFICATION OF MARINE AREAS BEYOND NATIONAL JURISDICTION IN NEED OF PROTECTION UNEP/CBD/SBSTTA/14/INF/4. (<http://www.cbd.int/doc/meetings/sbstta/sbstta-14/information/sbstta-14-inf-04-en.pdf>) Annex VI.

17. In 2006, responding to global concern over the impacts of unregulated high seas bottom fishing on fragile deep sea ecosystems, the United Nations General Assembly (UNGA)⁸, called for three important new requirements for VMEs in the context of high seas bottom fisheries. It called for flag States and regional fisheries management organizations (RFMOs): 1) to conduct environmental assessments prior to authorizing bottom-contact fishing activities (including the identification of known or likely VMEs); 2) to manage such fisheries so as to prevent significant adverse impacts to VMEs; and 3) not to allow the activities to proceed until steps one and two had been taken.⁹
18. “Vulnerable marine ecosystems” were not defined in the UNGA resolution, but were defined in later Guidelines developed by the FAO and its members to help States and RFMOs implement the UNGA resolution.¹⁰ These FAO Guidelines identify five criteria:
- uniqueness or rarity;
 - functional significance of the habitat;
 - fragility;
 - life-history traits of component species that make recovery difficult; and
 - structural complexity.

Differences between CBD EBSA criteria and FAO VME criteria

19. The three main technical differences between the CBD EBSA criteria and the FAO VME criteria are that the FAO VME criteria: i) lack explicit mention of areas of relatively higher “biological productivity”, “biological diversity” or “naturalness”, ii) include “structural complexity”; and iii) apply specifically to high seas bottom fisheries.
20. However, the FAO Expert Consultation that provided the scientific basis for the FAO criteria agreed that two important aspects of the “functional significance of habitats” were their ability to support productivity and diversity. Consequently areas documented to have high productivity and diversity relative to adjacent areas will be excellent candidates as VMEs in FAO/UNGA terminology as well as EBSAs in CBD terminology. Similarly, structurally complex areas are likely to have higher relative biodiversity and perhaps also productivity compared to adjacent areas.
21. The main functional differences at present remain:

⁸ UNGA Res. 61/105 (paragraphs 80-93)

⁹ “83. To assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorized to proceed; (b) To identify vulnerable marine ecosystems and determine whether bottom fishing activities would cause significant adverse impacts to such ecosystems and the long-term sustainability of deep sea fish stocks, inter alia, by improving scientific research and data collection and sharing, and through new and exploratory fisheries;”

¹⁰ FAO, 2009. International Guidelines for the Management Of Deep-Sea Fisheries in the High Seas (adopted August 2008), para. 42. There is also an annex with examples of potentially vulnerable species groups, communities and habitats, as well as features that potentially support them. http://www.fao.org/fileadmin/user_upload/newsroom/docs/i0816t.pdf

- If an area meets or is likely to meet the VME criteria under the UNGA resolutions and the FAO Guidelines, this necessarily triggers a management response: the State or relevant RFMO is either to manage deep sea fishing activities to prevent significant adverse impacts or not authorize them to proceed.
- If an area meets the CBD EBSA criteria, Parties, other governments and relevant organizations are “encouraged” to cooperate to adopt management measures to protect them, but the identification of an EBSA is a scientific and technical step only, and has no direct function in determining the policy and management response.¹¹
- Currently the body who decides whether an area is a VME is the State or RFMO responsible for regulating the deep sea fishery while there is no single specific body or mechanism responsible for identifying EBSAs or adopting management measures.

Cooperation in implementing the CBD EBSA criteria and FAO VME criteria

22. The CBD EBSA criteria thus provide an entry point for Regional Seas Conventions and Action Plans to seek closer collaboration with various sectoral bodies to initiate a process to identify EBSAs and to develop compatible measures such as fisheries or shipping restrictions for their protection consistent with international law.
23. As recognized in UNCLOS, States have a duty to protect and preserve the marine environment, including through measures to protect rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life,¹² and to cooperate at the global and regional level, as appropriate, to develop rules, regulations and guidelines to protect and preserve the marine environment, taking into account regional conditions.¹³ International law also recognizes a duty to cooperate in the conservation and management of high seas living resources and areas¹⁴, the need to avoid or minimize “significant adverse impacts”, to protect biodiversity, and to apply precaution.¹⁵
24. Such cooperation could ideally lead to more general spatial planning to enhance conservation and sustainable use. For example, the criteria could be used to identify areas important for fisheries productivity or areas where bycatch of vulnerable species or ship collisions with large cetaceans are less likely to occur. These are explored further in sections III and IV below.

¹¹ UNEP/CBD/EW-BCS&IMA/1/2 CBD Report of the Expert Workshop on Ecological Criteria and Biogeographic Classification Systems for Marine Areas in Need of Protection Annex VI, Scientific guidance on the identification of marine areas beyond national jurisdiction, which meet the scientific criteria in annex I to decision IX/20

¹² UNCLOS, article 192, UNCLOS article 194.5.

¹³ UNCLOS article 197.

¹⁴ UNCLOS articles 117-119.

¹⁵ As applied to fisheries under article 5 of the *United Nations Fish Stocks Agreement* on highly migratory fish stocks and straddling fish stocks, States are to “protect biodiversity in the marine environment”, “assess the impacts of fishing...” and “minimise ... impacts on associated and dependant species, in particular endangered species, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost effective fishing gear and techniques.” And under Article 6 States are to “apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.” See also the London Convention and Protocol, CBD preamble and article 14.

25. Examples of work underway to apply the CBD EBSA or comparable criteria at the national, regional and global levels, including in areas beyond national jurisdiction, is provided in the report from the CBD expert workshop on scientific and technical guidance on the use of biogeographic classification systems and identification of marine areas beyond national jurisdiction in need of protection.¹⁶ Examples provided are from Canada, Mexico, Norway, the Mediterranean Action Plan, the North East Atlantic OSPAR Commission, the North West Atlantic Fisheries Organization, the FAO, the International Seabed Authority, among many others.

Biogeographic Classification Systems

26. A new global biogeographic classification—the Global Open Ocean and Deep Seabed (GOODS) Biogeographic Classification¹⁷-- may provide a useful frame of reference for marine spatial approaches beyond national jurisdiction. Biogeographic classification systems delineate ecologically based management units with similar biological and physical characteristics.
27. The GOODS biogeographic classification provides a broad-scale global biogeographic classification system for open oceans and the deep seabed. It divides the ocean beyond the continental shelf into 78 large-scale benthic and pelagic biogeographic provinces based on both environmental variables and biological information. Such units can be subdivided if or when more detailed information is available.
28. Biogeographic classification systems are already used nationally and regionally in many different management applications. As explored in the draft CBD Guidelines on the use and further development of biogeographic classification systems¹⁸, examples include (i) ecological assessment, monitoring and scientific research; (ii) application of the ecosystem approach; (iii) planning and implementation of representative networks of marine protected areas; and (iv) undertaking environmental impact assessment, threat assessment and ecological modeling.
29. For example, the GOODS biogeographic classification in combination with the CBD EBSA criteria could assist in identifying potential components of a representative network of marine protected areas as called for by the WSSD. The CBD scientific guidance on representative network design (CBD Decision IX/20, Annex II) includes EBSAs as one of four components essential to network design: ecologically or biologically significant areas, representativity, connectivity, and replicated ecological features. Again, cross-sectoral cooperation will be absolutely essential to provide a platform for securing the desired levels of protection and management consistent with international law.

¹⁶ UNEP/CBD/EW-BCS&IMA/1/2 CBD Report of the Expert Workshop on Ecological Criteria and Biogeographic Classification Systems for Marine Areas in Need of Protection Annexes III and IV.

¹⁷ UNESCO (2009) Global Open Oceans and Deep Seabed (GOODS) – Biogeographic Classification. Intergovernmental Oceanographic Commission (UNESCO-IOC), Paris, pp 87. <http://unesdoc.unesco.org/images/0018/001824/182451e.pdf>

¹⁸ UNEP/CBD/EW-BCS&IMA/1/2 CBD Report of the Expert Workshop on Ecological Criteria and Biogeographic Classification Systems for Marine Areas in Need of Protection, Annex V, see also Annex III.

Environmental Impact Assessments and Strategic Environmental Assessments

30. Environmental impact assessments (EIAs) and strategic environmental assessments (SEAs) are two important tools frequently used at the national level to inform decision-makers about potential risks associated with specific undertaking (EIAs) or with proposed technologies, plans, programmes or policies (SEAs).¹⁹
31. The CBD has adopted Guidelines for biodiversity-inclusive EIAs and SEAs, and SBSTTA 14 has recommended to CBD COP10 that it supplement them for use in marine areas beyond national jurisdiction, highlighting the need to facilitate the development of voluntary guidelines for the consideration of biodiversity in environmental impact assessments (EIAs) and strategic environmental assessments (SEAs) in marine and coastal areas using the guidance in annexes II, III and IV to the Manila workshop report (UNEP/CBD/SBSTTA/14/INF/5).²⁰
32. The need for environmental assessments for activities affecting marine areas beyond national jurisdiction is explicitly recognized in UNCLOS, the UN Fish Stocks Agreement, the FAO Code of Conduct, the FAO International Guidelines for Deep-Sea Fisheries, the International Seabed Authority's Mining Code, the London Convention and Protocol as well as the CBD.²¹ Most environmental assessment processes, however, are applied at a sectoral level and do not require the assessment of cumulative impacts across sectors. Nor do they address unregulated activities such as marine scientific research or laying of submarine cables and pipelines, or emerging activities such as climate change mitigation activities or ocean energy operations.
33. The 2010 UN Working Group on ABNJ stressed the importance of EIA, in particular for the implementation of the ecosystem and precautionary approaches, and recommended that the UNGA recognize the importance of further developing scientific and technical guidance on the implementation of EIA for planned activities in areas beyond national jurisdiction, including consideration of assessments of cumulative impacts.²²

¹⁹ Comprehensive guidance resources exist on these tools that are applicable for marine and coastal issues, for example OECD's 'Applying Strategic Environmental Assessment' – ISBN 92-64-02657-6 – © OECD 2006, <http://www.oecd.org/dataoecd/4/21/37353858.pdf>, the UNEP Environmental Impact Assessment Training Resource Manual http://www.unep.ch/etu/publications/EIAMan_2edition_toc.htm and the inter-agency open educational resource on Environmental Impact Assessment (EIA) <http://eia.unu.edu/index.html>.

²⁰ REPORT OF THE EXPERT WORKSHOP ON SCIENTIFIC AND TECHNICAL ASPECTS RELEVANT TO ENVIRONMENTAL IMPACT ASSESSMENT IN MARINE AREAS BEYOND NATIONAL JURISDICTION <http://www.cbd.int/doc/meetings/sbstta/sbstta-14/information/sbstta-14-inf-05-en.pdf>; COP9 Decision IX/20, paragraph 8; UNEP/CBD/COP/10/3 Annex: RECOMMENDATIONS ADOPTED BY THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE AT ITS FOURTEENTH MEETING, XIV/3. In-depth review of the implementation of the programme of work on marine and coastal biological diversity, para. 39. www.cbd.int/doc/meetings/cop/cop-10/official/cop-10-01-add2-en.pdf

²¹ Art 206 of LOSC and Art 14 CBD, Chapter 17 paragraph 22(b) of Agenda 21, UNGA resolution 61/105, the Fish Stocks Agreement, the FAO Deep Sea Fishing Guidelines, the London Convention (Article IV(2) and Protocol, Polymetallic Nodule Regulations Regulation 18(c) and (d).

²² Letter dated 16 March 2010 from the Co-Chairpersons of the Ad Hoc Open-ended Informal Working Group to the President of the General Assembly containing Recommendations 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 A/65/68, para.16.

34. The EIA process of assessing potential impacts, consultation, identifying alternatives and consideration of mitigation and management measures can help in the process of both identifying likely EBSAs as well as in the design of measures to prevent significant adverse impacts. This may be evolving anyway, at least with regard to deep sea fisheries, as progress is made on implementation of the FAO Deep Sea Fishery Guidelines.
35. The SEA could be a particularly important tool in the context of cross-sectoral management. As envisaged by experts attending the CBD workshop on EIAs and SEAs in ABNJ, broad application of SEAs could allow the management of activities of multiple users of ocean space to be coordinated, including by being incorporated into an integrated management plan for a region or subregion.²³ Such plans could be formulated to maintain species, habitats and ecosystem structure with regard to individual and cumulative impacts by users and in relation to natural environmental change.

IV. **Sector-based tools for conservation, including protection of significant areas**

36. Numerous sector-based measures already exist that could be applied to protect EBSAs or to improve conservation and sustainable use more generally in areas beyond national jurisdiction.²⁴
37. For impacts related to fisheries, RFMOs can adopt binding management measures including spatial or temporal closures (year round, dynamic or seasonal), effort or gear restrictions, catch or bycatch quotas to reduce impacts on EBSAs or VMEs or other areas, and require full reporting of catches, often validated by some level of independent observer coverage.²⁵ RFMOs and States could be requested to cooperate in the protection of EBSAs vulnerable to deep sea or pelagic fishing impacts in the high seas, particularly pursuant to the provisions of the UN Fish Stocks Agreement for highly migratory and straddling fish stocks.²⁶
38. The FAO also has published many guidelines and international plans of action for the conservation and management of species, such as sharks, sea turtles and sea birds, and for the prevention of illegal, unregulated and unreported fisheries. They are about to publish Guidelines on MPAs for Fisheries, and are currently developing guidelines to manage bycatch and reduce discards. These latter Guidelines could also include measures to reduce the catch

²³ REPORT OF THE EXPERT WORKSHOP ON SCIENTIFIC AND TECHNICAL ASPECTS RELEVANT TO ENVIRONMENTAL IMPACT ASSESSMENT IN MARINE AREAS BEYOND NATIONAL JURISDICTION (UNEP/CBD/SBSTTA/14/INF/5) <http://www.cbd.int/doc/meetings/sbstta/sbstta-14/information/sbstta-14-inf-05-en.pdf>.

²⁴ See, e.g., Kimball, Lee. A. (2005). *The International Legal Regime of the High Seas and Seabed beyond the Limits of National Jurisdiction and Options for Cooperation for the Establishment of Marine Protected Areas in Marine Areas beyond the Limits of National Jurisdiction*, Secretariat of the Convention on Biological Diversity, Montreal, Technical Series No. 19, 64 pages.

²⁵ For information on RFMO activities by region see: <http://www.fao.org/fishery/rfb/search/en>

²⁶ Under article 5 of the *United Nations Fish Stocks Agreement* on highly migratory fish stocks and straddling fish stocks, States are to “protect biodiversity in the marine environment”, “assess the impacts of fishing...” and “minimise ... impacts on associated and dependant species, in particular endangered species, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost effective fishing gear and techniques.” And under Article 6 States are to “apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.”

of vulnerable species in areas where they are most at risk, using the EBSA criteria for endangered and threatened species or special importance for life history of species.

39. For impacts related to shipping and dumping, the International Maritime Organization is the responsible agency. Available protective measures for environmentally sensitive areas include discharge restrictions through designation of an area as a “Special Area” under Annexes I-V of the MARPOL Convention²⁷ where discharges from ships such as oil, chemical wastes, sewage, and garbage, or atmospheric emissions are more strictly controlled or prohibited. The Ballast Water Convention also has procedures for designating ballast water discharge areas, or for prohibiting ballast water discharges.²⁸
40. Reporting requirements that would notify the appropriate authorities of the entry or exit of vessels into a specific area, or routing measures that might reorganize vessel traffic flow through or around an area could be sought under the SOLAS Convention²⁹ and accompanying regulations and guidelines. For any open ocean area, but particularly a high seas area, strong regional support as well as outreach to key shipping and port states would be essential to having such measures adopted.
41. IMO already has adopted criteria similar to EBSAs for identifying “Particularly Sensitive Sea Areas” (PSSAs) for sensitive coastal and open ocean areas at risk from shipping activities.³⁰ The IMO has adopted Guidelines that detail the requirements and procedures for the designation of PSSAs and Special Areas. Under the IMO’s PSSA Guidelines, a PSSA proposal must be accompanied by a specific protective measure that is currently or potentially available through the IMO. While States can petition for the various IMO measures described above without having an area first designated as a PSSA, the environmental and other information required for a PSSA proposal can also help to justify proposals for other measures.
42. For impacts related to seabed mining in the Area, the International Seabed Authority (ISA) is responsible for the regulation of mineral exploration and exploitation in the deep seabed. It has developed regulations governing prospecting and exploration for polymetallic nodule deposits in the abyssal plain and for polymetallic sulphide deposits found in association with hydrothermal vents.³¹ Regulations for exploration for cobalt-rich crusts, generally found on seamounts, are under development.

²⁷ International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). For example, eight Special Areas under Annex V on garbage discharges have been adopted, two include high seas areas (the Mediterranean and the Antarctic) http://www.imo.org/Environment/mainframe.asp?topic_id=760;

²⁸ The International Convention...Ballast Water.

²⁹ International Convention on the Safety of Life at Sea (SOLAS).

³⁰ See IMO, *Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs)* A.982(24) . The CBD EBSA criteria are based in large part on the PSSA criteria for ecological significance, but the PSSA criteria also include criteria relating to an area’s socio-economic, historic, scientific and educational significance.

³¹ The Mining Code.: <http://www.isa.org.jm/en/documents/mcode>.

43. As part of its responsibility, the ISA is specifically charged with the taking measures to protect and conserve the natural resources of the Area from adverse impacts from mining-related activity and to prevent damage to the flora and fauna of the marine environment.³²
44. The ISA has sponsored or co-operated in environmental research to gain baseline information, to assess potential impacts of seabed mining, and for environmental planning. It is currently considering options for an environmental management plan for the Clarion Clipperton Fracture Zone (Pacific abyssal plain) that would be provide enhanced protection for network of nine “areas of environmental interest”. These nine areas were proposed by scientists to protect natural ecosystem structure and function and allow for recolonization of impacted areas, while at the same time avoiding any conflict with existing uses. The ISA is using the CBD EBSA criteria as part of its effort to collect information on other seabed areas of ecological, scientific or cultural interest for consideration in future environmental management plans for mining activities.

V. Challenges and opportunities for improving cross-sectoral cooperation

45. Challenges to cooperation between and amongst sectoral organizations and regional seas organizations may occur for lack of capacity, time, money or information, as well as sometimes differing priorities amongst bodies. Likewise, organizations can only act within the specific terms of their respective jurisdictions and mandates. That said, an injection of funds, human resources, and/or scientific capacity towards projects that contain a common commitment to shared goals and objectives may serve to stimulate cooperation.
46. At the same time there is a need to strengthen collaboration at the national level amongst the various ministries so that a harmonized position is taken by the same government in the various regional and international organizations. After all, there are limitations to the influence secretariats of regional and sectoral organizations can have on their members without domestic support.
47. GEF funding. The Global Environment Facility (GEF) has approved \$20 million in funding for its next tranche to promote pilot studies on effective management of Marine Areas beyond National Jurisdiction in the International Waters portfolio and \$25 million in the biodiversity portfolio.³³ As has occurred in the GEF projects for the Coral Triangle³⁴ and is hoped to occur in the Southern Indian Ocean seamounts project³⁵, this could provide vital seed funds to stimulate regional cooperation.
48. CBD Guidelines on EBSAs, EIAs and SEAs could help to establish a common approach to identification of areas and management of risks to biodiversity beyond national jurisdiction while respecting the varying competences of the regional and sectoral bodies. At the same

³² UNCLOS 145(b).

³³ Global Environment Facility GEF-% Programming Document GEF/R.5/31/CRP.1 Note that just \$20 million is allocated for marine areas beyond national jurisdiction out of programming target of \$4,200 million for all allocations.

³⁴ See South West Pacific Case study, appendix 3.

³⁵ See Southern Indian Ocean Case study, appendix 5.

time, the wealth of new scientific and technical data and information from RFMO efforts to identify VMEs, from the ISA scientific and planning initiatives, as well as from the Census of Marine Life and other scientific initiatives, can inform the conduct of EIAs and SEAs and help to identify EBSAs.³⁶ Nevertheless, capacity development initiatives may still be required, as identified by SBSTTA 14 in its recommendation to COP 10.

49. Regional developments: there is an increasing willingness to cooperate across sectors, through memoranda of understanding and other agreements, as evidenced in the Mediterranean, North East Atlantic and South West Pacific case studies.³⁷ This has led to joint work programs, joint meetings, participation on each other's meetings and scientific committees, and so forth. But underpinning such agreements must be an understanding of the benefits such as certainty, prevention of duplication and increase in efficiency in achieving agreed goals and targets, the process for cooperation, and the human and financial resources committed.
50. Legal boundaries of RSCAPs: there is clearly a role for regional seas organizations in the conservation of marine areas beyond national jurisdiction, as evidenced by activities in the Mediterranean, the Northeast Atlantic and the Southwest Pacific.³⁸ However, unlike these three regions, the areal remit of most other regional agreements stops at the 200 nm EEZ limits. Thus, there is a need to consider whether the legal mandate or geographic area of application of RSCAPs might need to be formally amended to include areas beyond national jurisdiction. What is clear, however, is that States can choose to work together either on an ad hoc basis or through an RSCAP as a platform to pursue cooperative measures to protect or conserve species or areas of interest beyond national jurisdiction. Thus a formal amendment may not be necessary if there is broad support for action.
51. The UN Working Group on ABNJ could provide a platform to galvanize cooperation. For example, the UN Working Group could recommend adoption of the UNGA resolution, declaration of principles, or a new agreement to establish common principles and goals for spatial management, and provide guidance on implementation. This could facilitate establishing more coherent policies and practices across agencies at both a strategic and an operational level. Operationally it could facilitate agencies exchanging information about the suites of management measures being considered for achieving each agency's objectives, such that conflicting tools could be avoided and opportunities for achieving multiple benefits from a single set of management measures could be pursued. The major challenge to such a resolution or agreement, of course, is finding consensus among States and various regional

³⁶ For example, the website for the Global Ocean Biodiversity Initiative, (GOBI) offers a portal into data bases, maps, modeling tools, and scientific analysis relevant to EBSAs. GOBI was founded by the German government during its CBD presidency (2008-2010), in cooperation with the CBD Secretariat, the Census of Marine Life and other scientific partners (www.GOBI.org).

³⁷ See appendices 1,2, and 3. As an example of a general agreement to work cooperatively, see the Memorandum of Understanding between the North East Atlantic Fisheries Commission (NEAFC) and the OSPAR Commission (Agreement 2008-4) www.ospar.org/v.../get_page.asp?v0=08...NEAFC%20OSPAR%20MoU. As noted in the North East Atlantic case study (Appendix 1), the OSPAR Commission also took the initiative to invite other competent agencies and bodies, including the relevant RFMOs, IMO and ISA to consider the scientific case for protection of the Charlie Gibbs Fracture Zone.

³⁸ See Mediterranean, North East Atlantic and Southwest Pacific case studies Appendix 1, 2 and 3.

and global intergovernmental organizations on exactly who would be given such an overarching mandate.

52. The UN Regular Process for Global Marine Assessments, which is already approved and in development, could be directed to consider spatial management as a context for their regional and global assessments. That would at least give all the States and agencies in a region a common scientific starting point for their efforts at planning, policy, and management.
53. The 2012 Rio Conference on Sustainable Development provides another opportunity to reinvigorate commitments for integrated ocean management and conservation agreed in 1992 and reiterated in 2002. States could use the preparatory meetings to improve understanding of the urgent need for improved cross-sectoral cooperation to confront new ocean pressures including ocean acidification and climate change.

Identification of EBSAs to inform management

54. A key requirement for going forward on EBSA identification and management may be having a single corpus of scientific advice on areas in need of protection going to all agencies and Parties. Different approaches may achieve this.
- Regional workshops with the relevant participants could bring all of the key players into the identification process at an early stage.
 - A scientific institution or body could be commissioned to conduct the initial analysis for later review by the relevant Parties at a workshop or other joint meeting as has been done in the Mediterranean and North East Atlantic.³⁹
 - A joint scientific working group could be established with participants from the relevant RFMOs, the regional seas organizations and other experts, as has been done in the Heard Island and McDonald Islands.⁴⁰
 - Non-governmental organizations should also be permitted to gather and present potential EBSA proposals for consideration, subject to an agreed review process using national, sectoral and other experts, as has occurred in the North East Atlantic.⁴¹
55. The development of a CBD-based global inventory of ecologically or biologically significant areas in marine areas beyond national jurisdiction, as proposed by SBSTTA for consideration at COP10, could provide a process for stimulating and coordinating this cross-sectoral cooperation at the regional level, and providing for a globally accessible list of recognized EBSAs.

³⁹ See Mediterranean and North East Atlantic case studies Appendix 1 and 2.

⁴⁰ See Southern Ocean case study Appendix 4.

⁴¹ See Northeast Atlantic case study Appendix 2.

56. The outcomes of such processes could inform decision-making within the relevant bodies as to the appropriate management response for enhancing the levels of protection of an EBSA, ideally based on shared goals and objectives.
57. For longer-term management, States and the relevant organizations could enter into cooperative agreements for activities such as monitoring, surveillance and enforcement. As has been done in the South West Pacific region, States could enter into agreements to pool resources, technologies and data, and to authorize others to act on their behalf in enforcement actions in port and at sea.⁴²

EIAs and SEAs

58. By providing a common framework for analysis of potential impacts in marine areas beyond national jurisdiction, the CBD scientific and technical guidance for biodiversity-inclusive EIAs and SEAs in marine and coastal areas, once finalized, may serve as an important starting point for enhanced interagency collaboration.
59. RSCAPs could foster mutual agreements amongst States and agencies to notify and consult with one another and with relevant international organizations on proposed activities that are likely to have a significant adverse impact on marine biodiversity beyond national jurisdiction. Where a relevant agency exists with a mandate for the specific activity, that agency would naturally initiate the process, but other agencies and RSCAPs could be included in the notification and consultation processes.
60. Such a regional (or global) agreement could also ensure some level of national and collective scrutiny and responsibility for activities where no relevant agency exists.
61. Jointly appointed advisory boards or scientific committees could be established to facilitate an interdisciplinary and cross-sectoral review of the EIAs and SEAs. The FAO Deep Seas Fisheries Guidelines indeed call for scientific advisory boards and transparent reviews.

Marine spatial planning

62. A regional marine spatial planning initiative could provide a framework to advance consideration of ocean management at a large ecosystem scale level, addressing cumulative impacts from multiple uses and promoting integration between ecological, economic and social needs beyond national jurisdiction, and could complement national or regional initiatives within national jurisdiction.
63. Such an initiative could entail increased use of multi-objective marine spatial planning tools that distribute and manage the numerous human uses of the ocean in a more coordinated fashion while supporting healthy ecosystems and ensuring coordinated governance structures.⁴³

⁴² See South West Pacific case study Appendix 3.

⁴³ See eg. UNESCO website and guidelines on marine spatial planning. <http://www.unesco-ioc-marinesp.be/>

64. New protocols or agreements to pursue marine spatial planning at a regional scale could provide a more legally-binding science-based framework for cross-sectoral cooperation and management. Such an agreement could include the designation and management of EBSAs, VMEs, PSSAs, etc. as well as designation of preferred areas for fishing or shipping or other activities to minimise conflicts and maximize opportunities for stakeholder consultation. As such discussions will inevitably touch on sensitive topics such as allocation of resources and space, support of national Ministers of foreign affairs, planning and finance will be key.
65. Eventually, States may wish to consider moving towards a more fully fledged cross-sectoral regional oceans management organizations with representatives from the adjacent coastal states as well as relevant sectoral organizations, both global and regional. Such an organization could reflect more comprehensive objectives and be able to implement a true marine spatial planning process for marine areas within and beyond national jurisdiction.

VI. Key observations for improving cooperation

66. Governments have agreed at the highest level on the need to stimulate cooperation and integration across sectors in pursuit of the internationally agreed goals of conservation and sustainable use. As highlighted in the report above and the case studies annexed below, it is possible to overcome past obstacles to cooperation in marine areas beyond national jurisdiction. Some of the key ingredients for advancing cross-sectoral cooperation include:
- a. A focus on creating partnerships or platforms for cross-sectoral discussions and work between states and management bodies.
 - b. The development of a common science advisory foundation for regulatory and environmental agencies to use as a starting point for their policies and management measures, where all agencies and their perspectives are equally represented.
 - c. A commitment to share data across sectors. For example, biodiversity data can feed into the RFMO work, and if EBSAs (or PSSAs) are identified, then RFMOs can act upon the information.
 - d. A clear understanding from all sides of the benefits of cooperation, the processes that will be used, and the resources that each side is committing.
 - e. Strengthened collaboration at the national level amongst the various ministries so that a harmonized position is taken by the same government in the various regional and international organizations.
 - f. A commitment to cooperate on specific pilot projects can help to build commitments to resolve broader challenges.
 - g. Openness to receiving input from non-governmental organizations and intergovernmental organizations, as such sources can stimulate and support cross-sectoral cooperation by providing ideas, documents and knowledge to relevant stakeholders.

Appendix 1. Mediterranean region

Contributed by Francois Simard, Deputy Head, IUCN Global Marine Program

In the Mediterranean, both the fisheries management organization and the environment organization have been in existence for more than 30 years.

The Barcelona Convention, the Convention for the Protection of the Mediterranean Sea against Pollution was signed on 16 February 1976, in force 12 February 1978. The Convention was revised in 1995 as the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and activities are developed on the basis of seven specialized protocols and the Mediterranean Action Plan (MAP). The Convention has 22 parties, including the European Union. The MAP is managed by the MAP Coordinating Unit (MedU), which has a diplomatic, political and communicative role. It supervises the elements of the MAP, including six regional activity centres (RACs), one of them being focused on biodiversity conservation, the RAC on Specially Protected Areas (RAC-SPA). This Centre is responsible for the classification of the Specially Protected Areas of Mediterranean Importance (SPAMI).

The General Fisheries Commission for the Mediterranean (GFCM) was created in 1949 and entered into force in 1952. The GFCM has 23 parties, including the European Union and Japan. The GFCM is composed of several subsidiary bodies; one of them is the Scientific Advisory Committee (SAC) which deals with fisheries management measures.

The third organization looking at conservation in the Mediterranean region is ACCOBAMS (Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area). ACCOBAMS has been signed in 1996. It is a cooperative tool for the conservation of marine cetaceans in the Mediterranean and Black Seas. Its purpose is to reduce threats to cetaceans in Mediterranean and Black Sea waters and improve the knowledge of these animals. ACCOBAMS counts 23 parties.

These three organizations had few relations prior to the beginning of the 21th century. Currently there are links through several MoUs and they are trying to develop common or coordinated activities.

In 2004, IUCN Centre for Mediterranean Cooperation and WWF Mediterranean Programme Office began to work together on the conservation of deep sea / high seas features. A first document was released in 2005 (The Mediterranean deep-sea: highly valuable ecosystems in need of protection). It was presented at the GFCM-SAC together with specific recommendations which led to the adoption of 2 decisions:

- The Members of the GFCM shall prohibit the use of towed dredges and trawl nets fisheries at depths beyond 1000 m of depth.
- Fishing with towed dredges and bottom trawl nets shall be prohibited in the areas bounded by lines joining the following coordinates: a) Deep Sea fisheries restricted area "Lophelia reef off Capo Santa Maria di Leuca"; b) Deep Sea fisheries restricted area "The Nile delta area cold hydrocarbon seeps"; c) Deep Sea fisheries restricted area "The Eratosthemes Seamount" (South of Cyprus). For the same areas, Members shall call the attention of the appropriate authorities in order to protect these areas from the impact of any other activity jeopardizing the conservation of the features that characterize these particular habitats.

It is important to mention that some countries do not seem to be keen to extend the conservation measures to other activities than fisheries, due to the possible discovery of oil, gas or mining resources in the sea bottom substrate.

In 2009, another fisheries restriction zone (FRA) has been added to this list: the submarine canyons of the Gulf of Lions south off Marseille, France. IUCN is still currently working together with GFCM and MAP for strengthening these conservation measures.

The RAC-SPA is conducting a large scale project for identification of important areas in the high seas or in deep areas. This project should lead to the designation of SPAMIs in several areas in the Mediterranean. These SPAMI designations would also cover the FRAs under GFCM. The methodology for this project was based on the analysis of how the criteria listed in the Protocol concerning Specially Protected Areas and Biological Diversity (SPA/BD Protocol) can be applied in the Mediterranean areas beyond national jurisdiction in need of protection, considering the significant variation between biogeographic regions in terms of their biological and physical aspects as well as their governance. The application of the other criteria already applied by other organizations such as the CBD Ecologically and Biologically Significant Areas (EBSAs) criteria; the FAO Vulnerable Marine Ecosystems (VMEs) criteria; the IMO Particularly Sensitive Sea Areas (PSSAs) criteria; and the OSPAR criteria, has been explored. The CBD EBSA criteria were considered a helpful supplement to the older SPAMI criteria in that they provide more specific operational guidance.

It is worth noting however that a major issue for cross sectoral cooperation does not lay at the international organization level but at the national level. In many cases the secretariats of the international organization have signed MoUs, have common meetings, have some coordination activities, but this is not brought at the national levels. The national focal points of each organization are from various ministries: Ministry of Environment for the Conservation and Environmental bodies (e.g. MAP for the Mediterranean), Ministry of Agriculture and Fisheries (e.g. GFCM for the Mediterranean). These focal points do not know each other and do not have an internal mechanism to coordinate their action. Hopefully with the implementation of Marine Spatial Planning (as for the European countries) some coordination mechanisms at the national level will be put in place.

In conclusion, the collaborative work amongst regional organizations dealing with conservation of biodiversity and marine resources is still young and needs further development. The role of NGOs such as WWF Mediterranean Programme Office and international organizations such as IUCN is very important in providing ideas, documentations and knowledge to the relevant stakeholders, and bringing the cases to the relevant conferences and secretariat of the Mediterranean governing bodies and authorities.

Systems are in place, but the high number of parties of the organizations as well as the political difficulties within the region does not favor the quick adoption and enforcement of conservation measures. The next step is the designation of SPAMIs in deep areas and in the high sea.

Appendix 2. The North East Atlantic and the Charlie Gibbs Fracture Zone: a tale of two regional management organisations and one NGO

Contributed by Jeff Ardron, Marine Conservation Biology Institute [under revision]

Background

The Charlie Gibbs Fracture Zone (CGFZ) lies in waters beyond national exclusive economic zones in the North Atlantic Ocean, west of Ireland, south of Iceland. Situated on the Mid-Atlantic Ridge (MAR), the CGFZ marks a major geological fault, physically and ecologically separating the MAR to the north towards Iceland from the MAR south towards the Azores. It consists of two deep rift valleys running east-west allowing for deep water flow between the two Atlantic basins on either side of the MAR. Its biological and oceanographic significance has been recognised scientifically and its further study was part of the Mar-Eco project under the Census of Marine Life. It falls within the management boundaries of both the North East Atlantic Fisheries Commission (NEAFC) and the regional management organisation for the North-East Atlantic, the OSPAR Commission (OSPAR).

A short history of its protection

In 2006, the non-governmental organisation (NGO) WWF tabled documents proposing to OSPAR that the CGFZ should be established as an OSPAR marine protected area (MPA). At that time, it was believed that the CGFZ's waters and seabed both lay beyond national jurisdiction, and hence this proposal could mark the first OSPAR MPA in *areas beyond national jurisdiction* (ABNJ). Within OSPAR, such a proposal requires a Contracting Party's support, and the following year The Netherlands gave that support, followed by Portugal, France and later, Germany. In 2007, the WWF proposal was sent to independent reviewers as well as to the International Council for the Exploration of the Sea (ICES) to verify that the site met the OSPAR scientific criteria for an MPA. ICES wanted to wait until more data from the Mar-Eco project became available. This and other comments led to revision of the nomination submission. Other parties requested a review of the legalities of an MPA in ABNJ.

In 2008, Germany sponsored a study by the University of York, UK, to identify areas in the high seas of OSPAR that met the OSPAR criteria and could be candidate MPAs. In that study, the CGFZ was again identified, though with somewhat different (smaller) boundaries. In June 2008, after having reconciled the boundary issue, the OSPAR Commission accepted the CGFZ proposal "in principle" noting the need to resolve questions around its management and the legality of such a measure.

Meanwhile, also in 2008, NEAFC submitted a "fast track" request to ICES to review a set of high seas bottom fishing closures which included the CGFZ, though it had similar but different boundaries to either the WWF version, U. York version, or the reconciled OSPAR version. ICES noted the similarity of this request to the earlier re-submitted OSPAR request and treated them together, suggesting that there be better coordination in the future. In fact, NEAFC and OSPAR had already recognised the need for better cooperation on a number of issues and had spent 2007 and 2008 negotiating a Memorandum of Understanding which was finalised in 2008. The CGFZ was approved "in principle" by OSPAR as an MPA in 2008 and the NEAFC closure for the CGFZ was approved by NEAFC in March 2009, but with different boundaries from the approved "in principle" OSPAR MPA.

Having been approved in principle, many felt that the OSPAR CGFZ MPA was finally ready to move forward. Indeed a "roadmap" to do so had already been agreed. However, in April 2009, in a move that caught many unawares, Iceland claimed about half of the CGFZ as part of its large outer

continental shelf submission to the UN Commission on the Limits of the Continental Shelf. Iceland, which had previously expressed reservations about the CGFZ MPA now became stronger in its insistence that the MPA could not go ahead since it potentially affected the exercise of its rights to the seabed of its continental shelf. A special OSPAR meeting group was set up to deal with the CGFZ question, which met in 2009 and 2010.

At the time of writing this case study (June 2010), it appears that a compromise solution for an area less than half of the original area proposed, plus a political commitment to establish the rest of the area as an MPA in time is possible. However this will not be certain until the OSPAR Ministerial Meeting in September 2010 where it is expected that an announcement for the adoption of dedicated measures to establish and manage the CG-MPA, as well as providing some endorsement of a cooperative agreement with other competent authorities will be made.

Legalities

Regarding the legality of an OSPAR MPA beyond national jurisdiction, in 2009 the OSPAR legal advisory body concluded, *inter alia*:

1. "OSPAR Contracting Parties have an obligation to protect biodiversity in ABNJ.
2. OSPAR has competence to:
 - a. set up a process to designate and establish a network of MPAs in ABNJ;
 - b. identify features to be protected, set conservation objectives and prescribe relevant measures; and
 - c. adopt measures for those human uses for which competence is identified or to co-operate with the competent authorities where such an organisation or organisations are in place.
3. OSPAR can only bind its own Contracting Parties and cannot regulate all human activities in ABNJ.
4. Given the legal competence of other international organisations, it is desirable for OSPAR to work with these organisations with a view to contributing to the production or applications of a wider range of measures."

(OSPAR's Regulatory Regime for establishing Marine Protected Areas (MPAs) in Areas Beyond National Jurisdiction (ABNJ) of the OSPAR Maritime Area. OSPAR Group of Jurists/Linguist 22 June 2009)

At a special Workshop in Madeira in March 2010, representatives of OSPAR, NEAFC and the International Seabed Authority considered potential mutually reinforcing measures for the CGFZ MPA. Experts also reviewed the challenges involved with surveillance of remote marine areas and enforcement of any such measures.

Conclusions

The story of the CGFZ brings out several potential lessons that should be applicable in other places of the world, especially in ABNJ. The following musing are those of the author alone, however, and do not reflect the views of any bodies or institutions:

- NGOs: WWF played a critical role in bringing CGFZ to the attention of the relevant authorities.

- Scientific review: However, some are likely to view such NGO proposals as “biased” and will ask for subsequent independent evaluation(s), often imposing stricter standards than if it came from another source. In the case of the CGFZ, it underwent two ICES reviews as well as reviews from a third ad hoc OSPAR scientific advisory panel, and a separate independent study. No other OSPAR MPA nomination has faced such a series of reviews.
- Governmental champions: The CGFZ proposal owes a lot to the early support of The Netherlands, and subsequently other OSPAR Contracting Parties. Having a national government as “champion” early on can be very important in gaining credibility. NGOs should recognise this aspect and know when to hand over their proposals to such champions.
- Fisheries closure versus MPA: the contrast between the difficulties in establishing an OSPAR MPA and the relative ease in establishing a similar NEAFC fisheries closure is well worth noting. Parties appear to be much more comfortable with fisheries closures than MPAs.
- The interplay of parallel processes and momentum can have significant positive effects. The establishment of the earlier NEAFC fisheries closures in the Northeast Atlantic can be considered, at least in part, as a response to requirements arising from UNGA Resolution 61/105 on sustainable fisheries, which then may have helped pave the way for proposed OSPAR MPAs, which in turn may have encouraged the additional NEAFC fisheries closures, including CGFZ.
- Cooperation amongst competent authorities is essential. While the CGFZ may have gotten off to a rocky start with differing management boundaries, there has been greater cooperation and discussion since that time, with all key organizations (NEAFC, IMO, ISA, OSPAR) discussing its management at a meeting devoted to this purpose that occurred in spring 2010.
- Legality: the protective actions of OSPAR and NEAFC have to date been accepted and have not faced any legal challenges. This suggests that areas beyond national jurisdiction can be effectively protected at the level of regional seas through extensive cooperation and coordination between organizations.
- Initiative: the CGFZ has moved forward only because individuals believed in its ecological value, convinced others, and took initiative. The CGFZ became a test case for OSPAR MPAs in ABNJ, and as such probably faced more hurdles than will others to follow. Protecting a large area beyond national jurisdiction was initially considered by many to be unrealistic. However, as events unfolded, it became very realistic, demonstrating the power of an informed initiative working through due process.

Appendix 3: South West Pacific Region (with a focus on Pacific Island States)

Contributed by Quentin Hanich and Robin Warner, University of Wollongong

The Pacific island region is heavily dependent upon regional cooperation and regional institutions to enable and support effective conservation and management of the extensive exclusive economic zones and protection of the marine environment. Agencies such as the Pacific Islands Forum Fisheries Agency (FFA), the Secretariat of the Pacific Community (SPC) and the South Pacific Regional Environment Programme (SPREP) provide high quality technical advice and support while the Harmonised Minimum Terms and Conditions of Access for Foreign Fishing Vessels (HMTCs), the Nauru Agreement⁴⁴ and the Niue Treaty⁴⁵ and its subsidiary agreements enable collective management, exploitation and enforcement of the Pacific island region's tuna fisheries.

The region has one of the highest quotients of biodiversity in the world with a large population of rare and endangered species such as dugongs, sea turtles and whales which are subject to multiple stress factors including population growth, natural disasters, unsustainable fisheries practices and alien species invasion. The region also faces the externally imposed threat of sea level rise associated with global warming.

The 1986 framework Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Noumea Convention) commits its parties to prevent reduce and control pollution of the Convention Area from any source and to ensure sound environmental management of its natural resources. The Convention area covers the exclusive economic zones established off the coasts of its 21 regional parties as well as those areas of the high seas which are enclosed from all sides by these exclusive economic zones.

The capacity of the small island nations in the Pacific region to manage environmental protection programmes is severely limited and much of the funding and technical expertise for SPREP projects is provided by the developed countries in the region and other sources of international aid. Thirteen Noumea Convention parties took steps to protect the waters of the Convention Area in 1997 with the conclusion of a Strategic Action Programme (SAP). The SAP was designed to provide a blue print for the integrated management of all the waters of the SPREP region and to achieve cooperation towards that objective between SPREP and sector based management regimes.

The transition to integrated management under the SAP comprised two strands of activity, Integrated Coastal and Watershed Management (ICWM) and Oceanic Fisheries Management (OFM). Protection of biodiversity was one of the key objectives under both strands of activity. Under the OFM, SPREP forged links with regional fisheries communities, the FFA and the Western and Central Pacific Fisheries Commission and monitored their management of the extensive tuna fisheries which straddle the region. One of the objectives of the OFM was to assess the impact of tuna fishing on the pelagic ecosystem of the region. The SPREP Parties will adopt an updated SAP for 2011-2015 in 2010.

⁴⁴ The 1982 Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest (Nauru Agreement) comprises the equatorial Pacific island States whose waters include the most significant fisheries (Papua New Guinea, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Solomon Islands and Tuvalu). The Nauru Agreement became the cornerstone for regional cooperation and enabled subsequent cooperative agreements to develop increasingly harmonised approaches to common fisheries that would extend beyond the limited membership of the Nauru Agreement. Nauru Agreement. (Accessed online 10 March 2009 at <http://www.ffa.int/node/93#attachments>)

⁴⁵ The Niue Treaty on Co-operation in Fisheries Surveillance and Law Enforcement in the South Pacific Region (Niue Treaty) entered into force in 1993 and provides a framework for FFA member States to cooperate in surveillance and enforcement and share surveillance assets. Reprinted in Commonwealth Law Bulletin. 702. 1993. 32. International Legal Materials.

The Coral Triangle Initiative (CTI) is a further example of non-treaty based maritime cooperation in the Asia Pacific region which has positive side effects for the conservation of biodiversity. The Coral Triangle is a region located along the equator at the confluence of the Western Pacific and Indian Oceans which covers all or part of the EEZs of six countries – Indonesia, Malaysia, the Philippines, PNG, the Solomon Islands and Timor L’Este. The CTI is regarded by scientists as one of the richest repositories of marine biodiversity on earth containing 76% of all known coral species, 37% of coral reef fish, 33% of the world’s coral reefs as well as being the most prolific region for mangrove forests. The CTI is a multilateral partnership proposed by Indonesia in 2007 to protect the region’s coastal and marine resources. Member States have committed to five overall goals over ten years:

- The designation of priority seascapes;
- Implementing an ecosystem approach to managing fisheries and other marine resources;
- The establishment of marine protected areas
- Developing strategies to adapt to climate change
- The protection of threatened species

The member States are also committed to guiding principles including the recognition of the transboundary nature of important marine resources and threats and the need to align their activities with existing international instruments such as LOSC, CBD, RFMO agreements and UNFCCC.

A further step towards collaborative oceans governance in the Pacific has been taken recently with the endorsement of the Pacific Oceanscape initiative by the Pacific Island Forum (PIF) leaders⁴⁶ at their annual meeting in August 2010. This is the largest oceans governance initiative on earth encompassing an area of 38.5 million square kilometres. Its framework emphasizes integrated oceans management across all sectors with the following guiding principles:

- Improving oceans governance, engaging leaders and other decision makers in strengthening governance mechanisms
- Sustainably managing ocean resources, educating and training scientists, policymakers and other stakeholders in better management practices, including multi-use marine protected areas
- Maintaining ocean health, reducing negative impacts of human activities and protecting and conserving biodiversity
- Expanding our understanding of the ocean and increasing scientific knowledge to better inform decision making
- Protecting ocean security and bringing together the economic, environmental, political and military sectors to fight illegal and criminal practices
- Facilitating partnerships and cooperation and fostering collaboration to make conservation efforts more effective from the exclusive economic zones to the high seas.

⁴⁶ The Pacific Islands Forum (PIF) includes Australia, the Cook Islands, the Federated States of Micronesia, the Republic of Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, the Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

PIF leaders directed agencies in the Council of Regional Organizations of the Pacific (CROP)⁴⁷ to implement the framework in conjunction with other relevant organizations

A strong example of regional cooperation for non-conservation reasons but with strong conservation benefits in the Pacific is the Nauru Agreement. In 2008, the Pacific island members of the PNA updated their requirements for licensed foreign fishing vessels and introduced new additional licensing terms and conditions that set global precedents in coastal State management of tuna fisheries. Firstly, the PNA agreed that they would collectively apply additional licensing terms and conditions that introduced new conservation and management requirements within their EEZs. However, more significantly, the PNA agreed that they would also prohibit licensed fishing vessels from fishing in two high seas pockets surrounded by PNA EEZs north and northeast of Papua New Guinea. In 2010, they further expanded these measures by prohibiting purse seine vessels licensed by the PNA from fishing in additional high seas areas between 10 °N and 20 °S, 170 °E and 140 °W. Similarly, the PNA have recently established new management arrangements (Vessel Day Scheme or VDS) which aim to constrain catches to sustainable levels and increase benefits from fishing activities through access fees paid by DWFNs.

These measures were subsequently endorsed by the Western and Central Pacific Fisheries Commission (WCPFC). This RFMO includes all DWFN and coastal States that participate in the western and central Pacific tuna fisheries. Although contentious, in 2008 the WCPFC endorsed the PNA 3IA's closure of the high seas pockets and the VDS and incorporated them within the WCPFC bigeye and yellowfin conservation and management measure (CCM, 2008-01).

Conclusions

The highly collaborative approach developed by the Pacific islands region provides an important example of the benefits of regional and sub-regional cooperative approaches, particularly amongst small developing States with minimal institutional capacity and large maritime domains. Through the establishment of cooperative capacity building institutions, the Pacific island states have collectively established some of the world's most sophisticated conservation and management tools and developed a collective influence in negotiations that is arguably far greater and more effective than anything they could have achieved individually. The recent endorsement by the PIF leaders of the cross sectoral Pacific Oceanscape initiative covering the EEZs and proximate high seas areas surrounding 15 Pacific Island nations is indicative of the strong commitment to sustainable oceans governance across the region.

⁴⁷ The PIF leaders established the Council of Regional Organizations of the Pacific (CROP) in 1988 with the mandate to improve cooperation, coordination and collaboration among the various intergovernmental regional organizations to work towards achieving the common goal of sustainable development in the Pacific region. CROP comprises the heads of the intergovernmental regional organizations in the Pacific. In addition to the PIF Secretariat, it includes the Fiji School of Medicine, the Pacific Islands Forum Fisheries Agency (FFA), the Pacific Islands Development Programme, the Secretariat for the Pacific Community, the Pacific Islands Applied Geoscience Commission, the South Pacific Board for Educational assessment, the Secretariat of the Pacific Regional Environment Programme (SPREP), the South Pacific Tourism Organization, the University of the South Pacific and the Pacific Power Association.

Appendix 4: Southern Ocean: Australia and CCAMLR cooperation to manage the Heard Island and McDonalds Islands deep sea fishery and protect marine biodiversity

Contributed by Sarah Gotheil, IUCN Global Marine Program

The life-history of deep-sea fishes, which are usually slow-growing, long-lived, late maturing and of low fecundity, makes them particularly vulnerable to large-scale harvesting. The Australian Heard Island and MacDonal Islands (HIMI) deep-sea fishery, which targets Patagonian toothfish (*Dissostichus eleginoides*) and Mackerel icefish (*Champtocephalus gunnari*), provides an informative example of a deepwater fishery that has adopted a precautionary and ecosystem approach, within the framework of an adaptive management system since the commencement of fishing operations in 1996. The model appears rather successful, as the fishery is considered to date as neither overfished, nor subject to overfishing. While the status of some associate species and the impact on the marine environment are uncertain, the management regime provides for specific measures and continuous monitoring and research to minimize impacts on the ecosystem.

The Heard Island and MacDonal Islands are part of Australian external territories, and lie in the southern Indian Ocean approximately 1000km north of the Antarctic continent. They are uninhabited, and the primary activity in the waters surrounding the islands is made of fishing operations. The islands have been added to the World Heritage List in 1997, and the adjacent territorial sea within 12 nautical miles (n.m.) has been declared a strict nature reserve, thus being closed to commercial fishing. The reserve also covers 16% percent of the EEZ (39% of waters shallower than 1000 meters) as well as the seabed and subsoil to the depth of 1000 m. Management of the HIMI Marine Reserve is the statutory responsibility of the Australian Antarctic Division, based on specific provisions of Australia's Environment Protection and Biodiversity Conservation Act of 2000, which manages human activities other than fisheries.

Interestingly, as part of both the Australian Fishing Zone and the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) area, fisheries in the waters from 13 to 200 n.m. around the HIMI islands are managed by the Australian authorities (the Australian Fisheries Management Authority [AFMA]) in conformity with conservation measures adopted under CCAMLR. The HIMI fishery has therefore adopted the ecosystem-based management model used by CCAMLR since its commencement. The conservation and management measures of the model are a minimum standard to abide by, which Australia can further supplement with more stringent rules.

In terms of management measures, the Total Allowable Catches (TACs), set for target and non-target species and divided among Statutory Fishing Right (SFR) holders, and the deduction of overcatch from the next season's quota are the two main output controls provisioned for in the Management Plan. The calculation of the TACs is based on rigorous species assessments and accounts for the food requirements of the dependent species, as well as the estimated catch by illegal vessels. Input controls include limited entry set at a maximum of three vessels at one time, area closures, strict gear restrictions and move-on provisions when provisions for non-target species, including corals and sponges, are exceeded. To maximise compliance, a set of monitoring and control measures have been put in place, including observers' presence on all voyages and a mandatory International Telecommunications Union radio/call sign (IRCS) on all vessels for the identification of legal vessels. A Vessel Monitoring System is required on all vessels as well, to allow for real time control of fishing activities, and has become centralised by CCAMLR since 2004. Fishing operators must report when they enter and exit the fishery, and have the duty to complete a daily logbook, whose data are transmitted to AFMA and the Australian Antarctic Division (AAD). Independent officers are in charge of notifying and monitoring the unloading and export of all catches, in accordance with CCAMLR's Catch Documentation Scheme, and inspectors appointed under CCAMLR sometimes inspect boats in

port. Most infringements to the rules, such as overcatch, the use of smaller mesh sizes than authorised, etc. are punished by a reduction of fishing quotas defined in “penalty units”.

In order to tackle the significant problem of Illegal, Unreported and Unregulated (IUU) fishing, which also harms legal fishers as their TACs are lowered and could even reach zero should a stock fall below given reference points, Australia introduced in 2004 an armed patrol vessel, called *Oceanic Viking*, to intercept illegal vessels. Observers and operators are also charged to collect information on suspected IUU fishing in their area. These steps may have proved to be extremely effective, as illegal catches of toothfish have decline steadily in the HIMI area, and were estimated at 112 tonnes during the 2005-06 season, compared to about 7000 tonnes in 1997.

While there remains some uncertainties with regards to the sustainability of the fishery in terms of its impact on non-target species and the marine environment, they are counter-balanced by precautionary approaches, continuous research and monitoring programmes and management arrangements capable of integrating new information into their processes. The AFMA Board takes decisions based on CCAMLR requirements and on recommendations from an advisory committee and a resource assessment group, both composed of a variety of stakeholders including the industry, the scientific community, conservation organisations and government representatives. Stocks are assessed on an annual basis, as is the fishery management plan. Through CCAMLR and the proximity with French Kerguelen Island, Australia cooperates with France and other countries for common research and combating IUU fishing.

Australia’s careful management of the HIMI deepwater fishery and marine reserve thus provides a positive example of cross-sectoral management inside of an EEZ. One of its most striking features is AFMA’s use of an advisory committee and a resource assessment group comprised of a variety of stakeholders that provides them access to the best available information for setting fisheries measures within very clear ecosystem objectives. Australia’s cooperation with CCAMLR and the French also showcases the benefits of regional cooperation for common research and combating IUU fishing.

Appendix 5: Building capacity for management of areas beyond national jurisdiction: a GEF project in the southern Indian Ocean

Contributed by Sarah Gotheil, IUCN Global Marine Program

Since the beginning of 2009, the International Union for the Conservation of Nature (IUCN) is managing the so-called *Seamounts Project*, the first project funded by the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP) looking at governance and management of areas beyond national jurisdictions (the high seas).

The overall aim of the project is to demonstrate innovative approaches to improve conservation and management of unique biodiversity and ecological resources in the high seas, based on an ecosystem-approach. It focuses on seamount ecosystems, known to be hotspots of biodiversity, on the Southwest Indian Ocean Ridge. The project will reach this goal through four main objectives:

1) Improve scientific understanding of seamount ecosystems and build capacity

Deep-sea ecosystems in the Indian Ocean have been little explored and the fauna inhabiting seamounts in the Indian Ocean are particularly poorly known. To fill a gap in the global knowledge of seamounts and to be able to feed scientific findings into management options, two research cruises were included on five seamounts of the Southwest Indian Ocean Ridge.. The data and specimens collected will provide crucial information for management purposes, including location and composition of vulnerable marine ecosystems and potential important bird areas. The expeditions also provide a capacity building opportunity for young scientists and professionals of the western Indian Ocean region⁴⁸.

2) Enhance governance frameworks for high seas resources conservation and management

A comprehensive analysis of current and future/potential anthropogenic threats to seamount ecosystems is being developed. It highlights the lack of knowledge of cumulative impacts and the need for a better understanding of them, and presents a baseline against which proposals for the coordinated management of seamount ecosystems and biodiversity can be developed and evaluated. In addition, an analysis of the institutional and legal framework governing the Indian Ocean is being undertaken, including compliance and enforcement mechanisms, in order to identify the weaknesses, gaps and opportunities, and to set out recommendations for improvement. These two papers will provide key background studies that aim to pave the way for determining options to move towards cross-sectoral and ecosystem-based management of biologically significant and commercially important areas in the high seas.

3) Identify management and compliance options for deep and high seas biodiversity in the southern Indian Ocean, based on precautionary and ecosystem approaches

Based on the results of the first two objectives, the project aims to develop a model management framework for seamount ecosystems in the high seas of the Indian Ocean based on the ecosystem approach. This exercise represents an additional step in the direction of cross-sectoral management of biodiversity-rich areas of the high seas, by providing a concrete plan that could serve as an inspiring model for future implementation. At the least, it will help to test whether the existing governance regime would actually hold and implement a real conservation and management plan for high seas areas.

⁴⁸ A weekly diary, together with picture galleries, of the first research cruise can be found at: http://news.bbc.co.uk/earth/hi/earth_news/newsid_8363000/8363108.stm

4) Awareness raising and knowledge sharing

This project will contribute greatly to global knowledge of seamount ecosystems and provide a concrete example of how remote oceanic ecosystems could be sustainably managed. It will widely publicise its findings and results to raise awareness of the importance of deep-sea biodiversity conservation and highlight new discoveries for the attention of decision-makers, the private sector, scientific institutions and the wider public. It also collaborates with other projects and entities concerned with the southern Indian Ocean and high seas resources.

Additional information on the project and the project partners can be found on the website: www.iucn.org/marine/seamounts. All documents resulting from this project will be published on the website as they become available.