

Towards Ecosystem-based Management of the Global Ocean

Strengthening Regional Cooperation through a New Agreement for the Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction

Citation

Gjerde, K. and Wright, G., "Towards Ecosystem-based Management of the Global Ocean: Strengthening Regional Cooperation through a New Agreement for the Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction", STRONG High Seas Project, 2019.

Authors

Kristina Gjerde, Senior High Seas Advisor, IUCN Global Marine and Polar Programme

Glen Wright, Research Fellow, International Ocean Governance, Institute for Sustainable Development and International Relations (IDDRI)

Design and Layout

Sabine Zentek

Editing

Ben Boteler and Carole Durussel, Institute for Advanced Sustainability Studies (IASS)

Acknowledgements

Ben Boteler, Institute for Advanced Sustainability Studies (IASS)
Nichola Clark, Pew Charitable Trusts
Dr. Carole Durussel, Institute for Advanced Sustainability Studies (IASS)
Carolina Hazin, BirdLife International
Prof. Robin Mahon, University of the West Indies
Tim Packeiser, World Wildlife Fund (WWF)
Méntor Villagómez, Permanent Commission for the South Pacific (CPPS)

Supported by:





based on a decision of the German Bundestag

The STRONG High Seas project is part of the International Climate Initiative (IKI; www.international-climate-initiative.com/en/). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag.

The STRONG High Seas project contributes to the work of the Partnership for Regional Ocean Governance (PROG), a partnership hosted by UN Environment, the Institute for Advanced Sustainability Studies (IASS), the Institute for Sustainable Development and International Relations (IDDRI), and TMG – Think Tank for Sustainability.

© STRONG High Seas 2018. STRONG High Seas, an independent scientific project, is responsible for the content of this publication. This policy brief does not necessarily reflect the views of the funding agencies.

www.prog-ocean.org/our-work/strong-high-seas/

DOI: 10.2312/iass.2019.055

© Cover Photo: Thierry Meier (219007)/Unsplash

Executive summary

Following more than a decade of informal deliberations, States at the United Nations (UN) are currently negotiating an "international legally binding instrument for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction" ("BBNJ Agreement"). The negotiations aim to strengthen the international legal framework for the protection and management of the global ocean by addressing gaps in the current framework and building on existing obligations under the UN Convention on the Law of the Sea (UNCLOS) to cooperate to protect and preserve the marine environment and conserve marine living resources.

This policy brief explores how integrated ecosystem-based management (EBM) in marine areas beyond national jurisdiction (ABNJ) can be advanced at the regional level and how the BBNJ Agreement can build on experiences in other legally binding agreements to strengthen regional cooperation, coordination and coherence. To this end, five building blocks are identified: 1. A robust global body such as a Conference of Parties capable of taking decisions and adopting recommendations; 2. A suite of regional mechanisms for integrated policy development and coordination; 3. Effective science-policy advisory mechanisms; 4. Overarching environmental obligations and principles; and 5. Operational principles to ensure good governance.

A review of the current President's draft text of the BBNJ Agreement highlights where the text could be strengthened to advance EBM. In particular, the BBNJ Agreement could draw inspiration from a range of existing instruments and craft specific obligations to: cooperate to promote in-situ conservation of ecosystems and natural habitats; mainstream biodiversity into all decision-making bodies and processes; and strengthen regional cooperation by supporting existing institutions and by building cross-sectoral platforms for cooperation

1) Introduction

States at the United Nations (UN) are currently negotiating an "international legally binding instrument for the conservation and sustainable use of marine Biodiversity in areas Beyond the limits of National Jurisdiction" (BBNJ Agreement). These formal negotiations follow more than a decade of deliberations that have focussed on the weaknesses of the current governance system and opportunities to strengthen the international framework for the protection and management of the global ocean (Wright et al., 2018). The negotiations aim to address gaps in the current framework, building on existing obligations under the UN Convention on the Law of the Sea (UNCLOS) to cooperate to protect and preserve the marine environment and conserve and manage marine living resources.1

The focus to date has been on four elements: 1. Area-based management tools (ABMTs), including marine protected areas (MPAs); 2. Environmental impact assessments (EIAs); 3. Marine genetic resources (MGRs) and questions relating to benefit sharing; and 4. Capacity building and technology transfer. Regional approaches to cooperation, coordination and implementation have been a frequent topic of discussion as part of cross-cutting issues, but the negotiations are yet to address in detail the possible role for a BBNJ Agreement in developing and utilising regional governance frameworks for advancing the implementation of integrated ecosystem-based management (EBM).

This policy brief builds on prior STRONG High Seas Project publications that explored the existing framework for regional oceans governance in the Southeast Atlantic and the Southeast Pacific.² The aim here is to develop options to strengthen regional cooperation and advance EBM through the future BBNJ Agreement. Section 2 introduces the general context for the UN discussions while section 3 outlines some of the governance challenges and opportunities.

Section 4 considers how the Agreement may strengthen regional cooperation and advance EBM: Firstly it provides a preliminary assessment of the current draft text for a BBNJ Agreement released by the President of the Intergovernmental Conference ("President's draft text");³ secondly, it explores options for strengthening the President's draft text, drawing inspiration from a range of existing instruments; thirdly, it provides a table summarising these options, highlighting examples from existing instruments and how these could be elaborated in the BBNJ agreement.

¹ UNGA Resolution A/72/249. Available at: https://undocs.org/A/RES/72/249.

² See: https://www.prog-ocean.org/our-work/strong-high-seas/.

³ Draft text of an agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction – Note by the President (advance, unedited version in English only), May 2019. Available at: https://undocs.org/en/a/conf.232/2019/6.

Towards an agreement on the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction

Marine areas beyond national jurisdiction (ABNJ) represent nearly half of the Earth's surface and host a significant portion of its biodiversity. Comprising both the water column ("high seas")⁴ and seabed ("the Area")⁵ beyond national jurisdiction, ABNJ provide a wealth of resources and vital ecosystem services, including: provisioning services, such as seafood, raw materials, and genetic and medicinal resources; regulating services, such as climate regulation, carbon sequestration, air purification and habitats; cultural services, including spiritual significance and historical value; and scientific and educational benefits (United Nations, 2016; Wright et al., 2018).

In recent years, traditional maritime activities in ABNJ, such as shipping and fishing, have expanded and intensified, while new activities are being developed, such as seabed mining and exploitation of marine genetic resources. Other activities are also being investigated, including meso-pelagic (midwater column) fisheries, open ocean aquaculture and marine geoengineering. However, regulatory and implementation gaps in the management framework have hampered effective stewardship of resources, ecosystems and biodiversity in ABNJ (Freestone, 2018; Gjerde et al., 2018; Wright et al., 2018).

Cognisant of the growing pressures on marine biodiversity in ABNJ and gaps in the existing regulatory framework, in December 2017 the United Nations General Assembly (UNGA) adopted a landmark resolution to launch formal diplomatic negotiations for an international le-

gally binding instrument under UNCLOS to conserve and sustainably use marine biodiversity in ABNJ.⁶ The BBNJ Agreement is intended to build on the existing provisions of UNCLOS and other international laws in a manner that complements, but does "not undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies".⁷

The four primary elements forming the basis for negotiations identified as part of a "package deal" in 2011 are:8

1. Area-based management tools (ABMTs), including marine protected areas (MPAs)

In addition to MPAs for the comprehensive protection of nature,9 current examples of ABMTs are primarily at the single sector level, for example: Particularly Sensitive Sea Areas (PSSAs) for shipping; Areas of Particular Environmental Interest (APEIs) for deep sea mining; and fisheries closures, including to protect "vulnerable marine ecosystems" (VMEs) from deep sea bottom fishing. As components of ecosystembased management (EBM), these sectoral tools could be deployed on their own or combined within a specific geographical area. This could be at the scale of an MPA, such as ABMTs deployed to create a buffer zone or complementary management measures, or at ecosystem or bioregional scales through, for example, marine spatial planning (MSP) (Scrimgeour et al., 2018; Wright et al., 2019).

⁴ i.e. all parts of the sea not included in the Exclusive Economic Zone (EEZ), in territorial seas, or in archipelagic waters (UNCLOS, art. 86).

⁵ i.e. the seabed, ocean floor and subsoil, beyond the limits of national jurisdiction (UNCLOS, art. 1).

⁶ UNGA Resolution 69/292. Available at: https://undocs.org/en/a/res/69/292.

⁷ Ibid.

⁸ Note that while the headings reproduced here reflect agreed wording, further definition and content is yet to be negotiated. The descriptions of these elements in this brief are therefore offered to provide an initial reflection as to what may be included in the future BBNJ Agreement.

⁹ Day J., Dudley N., Hockings M., Holmes G., Laffoley D., Stolton S. & S. Wells, 2012. Guidelines for applying the IUCN Protected Area Management Categories to Marine Protected Areas. Gland, Switzerland: IUCN. 36pp. Available at: https://cmsdata.iucn.org/downloads/iucn_categoriesmpa_eng.pdf.

2. Environmental impact assessments (EIAs)

An EIA is a procedure for evaluating the likely impact of a proposed activity on the environment. A strategic environmental assessment (SEA) is a related tool that provides a broader assessment in order to better understand and factor biodiversity considerations into the early stages of policies, plans or programmes for future development of activities in an area or sector. Thresholds and procedures for EIAs have been the primary focus in prior sessions, but interest in the potential role of SEAs as a component of EBM is growing.

3. Marine genetic resources (MGRs), including questions related to access and sharing of benefits

MGRs have an intrinsic value, as well as "ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values, including for evolution and for maintaining life sustaining systems of the biosphere" (Harden-Davies and Gjerde, 2019). The negotiations involve complex questions regarding: access to MGR samples, data and information; the possible obligations and modalities for sharing the benefits of products using or derived from MGRs; and the various associated tools, technologies and expertise (Harden-Davies and Gjerde, 2019).

4. Capacity building and the transfer of marine technology

Capacity building is a long-term and continuing "process by which individuals, organizations, institutions and societies develop abilities to perform functions, solve problems and set and achieve objectives" (Harden-Davies, 2017). Marine technology includes "instruments, equipment, vessels, processes and methodologies required to produce and use knowledge to improve the study and understanding of the nature and resources of the ocean and coastal areas", as well as scientific training, research cruise participation, and research exchanges and cooperation (Harden-Davies, 2017). The President's draft text includes an Annex highlighting the various types of capacity building initiatives that might fall within the parameters of the BBNJ Agreement, many of which could be relevant to fostering EBM for conservation and ensuring uses are environmentally sustainable.

¹⁰The CBD defines genetic resources as "genetic material of actual or potential value", whereby genetic material is "any material of plant, animal, microbial or other origin containing functional units of heredity" (CBD, art. 2).

¹¹ e.g. Shipping is regulated by the International Maritime Organisation (IMO) and seabed mining is regulated by the International Seabed Authority (ISA), while fisheries are managed by a myriad of regional fisheries management organisations (RFMOs).

¹² Including the European Union (EU), the African Union (AU), the Association of Southeast Asian Nations (ASEAN), and the Caribbean Community Secretariat (CARICOM).

¹³ e.g. the Micronesia Challenge and the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security.

¹⁴e.g. the Sargasso Sea Commission.

3) Governance challenges and opportunities

The negotiations for UNCLOS were intended to produce a framework convention, settling key issues such as maritime boundaries and the rights and obligations of States within the various zones of national jurisdiction and ABNJ. Scientific knowledge of BBNJ was also highly limited at the time of negotiation. UNCLOS therefore establishes a general legal framework and places obligations on States to protect and preserve the marine environment (and to cooperate for those purposes), but lacks detail on the modalities and institutional mechanisms needed to operationalize this duty, particularly in relation to ABNJ (Gjerde et al., 2019).

A range of sectoral and regional agreements and organizations have been developed in order to regulate different human activities and provide some means for cooperation, but these each operate according to their own rules, evidentiary requirements, and decision-making processes. It is now widely recognised that this fragmented governance regime is insufficient to ensure the sustainability of marine resources

and ecosystems (Houghton and Rochette, 2014; Tladi, 2011; Wright et al., 2018).

In particular, implementation of the precautionary principle is limited and coordination between competent organizations to safeguard biodiversity remains weak (Freestone, 2018; Gjerde et al., 2019; Wright et al., 2018; Wright and Rochette, 2018). Adoption of legally binding management measures for advancing ecosystem approaches to fisheries management has also been limited, despite the adoption of the 1995 United Nations Fish Stocks Agreement (UNFSA) that called for the implementation of such approaches in regional fisheries management (Crespo and Dunn, 2017; Juan-Jordá et al., 2018; Wright et al., 2015).

In this context, placing responsibility for implementation of the BBNJ Agreement on existing organizations is unlikely to lead to more integrated governance or improved biodiversity outcomes (Gjerde, et al., 2019; Freestone, 2019).

Box 1: Existing mechanisms for regional cooperation (Wright et al., 2017; Mahon and Fanning, 2019)

The main mechanisms for regional cooperation on ocean governance at present include:

- → Regional seas programs some of which are part of the UN Environment Regional Seas

 Programme while others operate independently;
- → Regional fisheries bodies that may be either advisory or regulatory (Regional Fisheries Management Organizations, RFMOs);
- → Large Marine Ecosystem Projects (LMEs), which largely focus on boundary currents adjacent to coastal waters with high primary productivity; and
- → Other regional initiatives, such as those taken by political and economic organizations, ¹² leaders and heads of State, ¹³ and ad hoc groups bringing together a range of actors. ¹⁴

Some of these bodies have sectoral mandates, others are multi-purpose and still others serve as regional coordination mechanisms. Few of these initiatives and organizations currently have a clear mandate to work in ABNJ, though many could play a role in ABNJ if their mandates and capacities are strengthened, e.g. by mainstreaming biodiversity into their processes and mandates, improving application of best-practice governance principles, and enhancing scientific research and policy advisory processes (see, e.g. Rochette et al., 2015).

An important cross-cutting component of discussions has been the roles and responsibilities of States, existing competent organizations, and a future global decision-making body, such as a Conference of Parties (Gjerde et al., 2019). Two other core components not yet fully explored are:

- 1. How responsibilities for implementation at the regional level might be operationalized; and
- 2. How the BBNJ Agreement can reinforce regional cooperation, building on experiences in other legally binding agreements.

These topics are further explored below, following an introduction to the concept of integrated EBM and the challenges and opportunities for regional cooperation.

3.1. Elements of integrated ecosystembased management

A succinct definition of "ecosystem-based management" has been offered by WWF: the "comprehensive, integrated management of human activities based on best available [scientific and traditional] knowledge about the ecosystem and its dynamics, in order to identify and take action on influences that are critical to the health of ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity" (WWF International, 2019). The incorporation of temporal and spatial dynamics into EBM is increasingly stressed as crucial for taking into account changes in the vertical and horizontal distribution of biodiversity on a seasonal basis, and increasingly, due to climate change.

Box 2: Elements of ecosystem-based management¹⁵

- → Emphasize conservation of ecosystem structures and their functioning and key processes, and seek to restore degraded marine ecosystems where possible;
- ightharpoonup Be applied within geographically specific areas based on ecological criteria;
- → Emphasize the interactions between human activities and the ecosystem and among the
 components of the ecosystem and among ecosystems; and seek to minimize adverse impacts
 of human activities, especially on rare and fragile marine ecosystems;
- ☐ Take into account factors originating outside the boundaries of the defined management area that may influence marine ecosystems in the management area;
- → Strive to be inclusive in balancing diverse societal objectives, with stakeholder and local communities' participation in planning, implementation and management;
- → Be based on best available knowledge, including traditional, indigenous and scientific information and be adaptable to new knowledge and experience;
- → Assess risks and apply the precautionary approach;
- Assess the cumulative impacts of multiple human activities on marine ecosystems;
- → Seek the appropriate balance between, and integration of, conservation and sustainable use
 of marine biological diversity.

¹⁵As agreed in UNGA Resolution A/61/156 of July 2006, 'Report on the work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its seventh meeting – Letter dated 14 July 2006 from the Co-Chairpersons of the Consultative Process addressed to the President of the General Assembly', Part A, paragraph 6. Available at: https://digitallibrary.un.org/record/581541?In=eng.

3.2. Building blocks for enhanced cooperation

Five key building blocks could be incorporated into the BBNJ Agreement to galvanize cooperation, enhance coherence and integration, and ensure a level playing field between conservation and resource use interests:

- A robust global body, such as a Conference of the Parties (COP), that can take decisions on issues such as the designation and management of marine protected areas and other area-based management tools, review and monitor environmental impact assessments, and promote consistent implementation of the BBNJ Agreement across regions, ocean basins and sectors;
- Clearly identified regional mechanisms for integrated policy development and coordination, as are already developing in most regions (Mahon and Fanning, 2019);

- Effective science-policy advisory mechanisms to ensure that critical scientific knowledge is acquired and communicated effectively;
- 4. A globally agreed set of environmental principles for conservation and sustainable use, such as the ecosystem and precautionary approaches, combined with obligations and mechanisms for their implementation (Gjerde et al, 2019); and
- Operational principles to promote good governance and enable informed decision-making, such as transparency, accountability, participation, and efficiency.

In order to support development of these elements in a BBNJ Agreement, there is also a need to further elaborate, enhance and operationalize the core conservation and cooperation obligations set out by UNCLOS and other international legal instruments (WWF International, 2019). The importance of such obligations for building effective regional institutional mechanisms is further explored below.

Overall, the current framework for managing ABNJ remains fragmented and uncoordinated, making it difficult to pursue comprehensive protection of areas of conservation interest or EBM of marine resources. As a result, the ocean is subjected to multiple activities and stressors that can affect water quality, marine species and habitats, and the structure and functioning of ecosystems. There are limited opportunities for coastal States (or States with a conservation interest) to participate, to be consulted, or to appeal decisions that may be contrary to their interests or to the best available scientific advice.

The BBNJ Agreement provides an opportunity to ensure that all States have equal opportunity to participate in the conservation and sustainable use of marine biodiversity. To be effective, however, new provisions and platforms for cooperation need to redress both global and regional governance weaknesses and gaps.

4) Strengthening regional cooperation and advancing ecosystem-based management

4.1. The President's draft text

The President's draft text for a BBNJ Agreement consolidates many of the views expressed in the first two sessions of the Intergovernmental Conference (IGC),16 but still contains many possible options and variations. While the third session of the Intergovernmental Conference (IGC3) advanced discussions, as highlighted in the Statement by the President at the closing of IGC3, many differences remain.17 Thus, the time before the fourth session of the Intergovernmental Conference (IGC4) presents an important opportunity to consider the priority elements that will advance regional interests and capacity for the conservation and sustainable of use of marine biodiversity in ABNJ. A revised version of President's draft text to reflect IGC3 discussions will be released prior to IGC4. In the interim it is possible to study the oral reports of the Facilitators on each of the elements (contained in the President's Statement),18 and the Earth News Bulletin daily summaries to learn more about the various positions.19

Based on an initial analysis of the President's draft text, it contains core obligations to cooperate, promote coherence and complementarity, and to conduct environmental impact assessments (EIAs). It outlines objectives and processes for the adoption of area-based management tools (ABMTs), including marine protected areas (MPAs). However, the draft provisions on international cooperation for conservation and sustain-

able use do not appear to significantly improve on existing standards and includes neither clear provisions for integrated ABMTs like strategic environmental assessments (SEAs) and marine spatial planning (MSP) nor mechanisms for their operationalization. Ways that the President's draft text could be strengthened to enhance regional cross-sectoral cooperation for EBM are highlighted below. Additional elements for consideration are explored in the section thereafter.

4.1.1. Part 1. General Provisions

Draft Article 1. Use of Terms

Key terms to be used in the BBNJ Agreement (currently defined in Draft Article 1) should be clear and consistent to ensure that they can be applied as part of an ecosystem-based approach. In particular, the current definitions of ABMT, EIA, cumulative impacts, MPA and SEA should be clarified. EIAs and SEAs should be designed to address cumulative impacts and include broad consultation, including of other States, organisations and stakeholders. Clear definitions of ABMT and MPA are needed to ensure that MPAs are clearly distinguished from other types of ABMTs and allow for MPAs of various types. The definition of MPAs in Article 1.10 should be consistent with the standard IUCN definition to ensure comparable reporting in the World Database on Protected Areas (WDPA) and compatible protection standards within and beyond national jurisdiction.²⁰ The differentiation between

¹6 A/Conf.232/2019/6 (May 2019), 'Draft text of an agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction – Note by the President'. Available at: https://undocs.org/en/a/conf.232/2019/6.

¹⁷ A/CONF.232/2019/10 (August 2019), 'Statement by the President of the conference at the closing of the third session', with the oral reports of the facilitators of the informal working groups to the plenary on 30 August 2019. Available at: https://www.un.org/bbnj/sites/www.un.org.bbnj/files/bbnj_presidents_closing_statement_-_advance_unedited.pdf.

¹⁸ Ibid.

¹⁹ IISD Reporting Services at the 3rd Session of the Intergovernmental Conference (March-April 2019). Available at: https://enb. iisd.org/oceans/bbnj/igc3/about.html.

²⁰As defined by IUCN and applied by the WDPA, an MPA is: "A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values". See: Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. x + 86pp. WITH Stolton, S., P. Shadie and N. Dudley (2013). IUCN WCPA Best Practice Guidance on Recognising Protected Areas and Assigning Management Categories and Governance Types, Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland: IUCN. Available at: https://portals.iucn.org/library/sites/library/files/documents/PAG-021.pdf.

MPAs and other ABMTs is important as sectoral organizations should be encouraged to make use of their existing mandates to adopt ABMTs to redress the impact of their specific sector on marine biodiversity, to consult, and to cooperate in large scale cross-sectoral spatial planning and management initiatives. A definition of EBM should also be included.²¹

Draft Article 4. Relationship between the BBNJ Agreement and other instruments

This article is important for fostering enhanced conservation outcomes. Whereas the BBNJ Agreement is not intended to directly regulate fishing, shipping or seabed mining, experience to date suggests that it will be extremely challenging to advance EBM unless there is: a global decision-making body, such as a Conference of the Parties (COP), with the power to adopt stronger measures to protect biodiversity directly amongst the States Parties; obligations on States Parties to promote the adoption of more biodiversity-inclusive measures within competent international organizations; and regional platforms for cooperation and coordination that strengthen governance, rather than simply solidifying the status quo (see e.g., Gjerde et al., 2019).

The wording in Article 4.3 - "[respects the competence of and] and not undermine" - is of concern as it could be construed as narrowing the competence of States Parties acting through the BBNJ Agreement to address the biodiversity impacts of activities and limit the ability of States or other actors within regional platforms to overcome the existing imbalance between conservation and exploitation interests. Instead, the focus could be on strengthening the effectiveness of competent international organizations. The existing text - "promotes coherence and coordination with those instruments, frameworks and bodies" - is important. This may be especially relevant in areas such as in the Southeast Atlantic and Southeast Pacific where biodiversity impacts have not yet been adequately assessed and there have been few conservation measures advanced by competent international organizations.

Draft Article 5. General principles

Draft Article 5 recognises the need for an integrated approach (though this still needs to be defined) that builds ecosystem resilience to the adverse effects of climate change and ocean acidification and restores ecosystem integrity. Key principles essential for advancing integrated regional ocean governance are nonetheless absent, including: the ecosystem approach; the precautionary principle; and the responsibility to act on behalf of present and future generations. These widely supported principles should be core elements of the new BBNJ Agreement in order to integrate their application across all sectors and activities.

Draft Article 6. International cooperation

The duty to cooperate set out in draft Article 6 remains vague. In order to move beyond the status quo, the duty to cooperate should be further developed to indicate that, building on obligations in the Convention on Biological Diversity and the UN Fish Stocks Agreement,²² it includes a duty to:

- ✓ Achieve specific objectives, e.g. enhance conservation, maintain ecological integrity, advance ecosystem-based approaches, develop networks of MPAs, protect special and representative habitats, protect vulnerable species throughout their range, build resilience and ensure sectoral activities are ecologically sustainable taking into account cumulative impacts;
- Require specific actions, directly and through competent organizations, e.g. adopt management measures, conduct integrated assessments, incorporate biodiversity considerations into management decisions and apply precaution, share data and information, support science and build capacity; and
- ✓ Guide decision-making processes, to strengthen decision-making processes to ensure decisions are taken in an inclusive, precautionary and transparent manner.

²¹ See Section 3.1 above for a possible definition of ecosystem-based management.

²² See Section 4.2.1 below for further elaboration.

4.1.2. Part III. Measures such as Area-Based Management Tools, including Marine Protected Areas

Part III is crucial for enhancing regional ecosystem-based management and cooperation to protect biodiversity, yet the current draft text refers only to the objectives for ABMTs/MPAs and the duty to promote coherence and complementarity. Still absent is a core obligation to cooperate to establish ABMTs to safeguard marine biodiversity in ABNJ and to promote the development of such ABMTs through competent international organizations. None of the options presented in draft Article 15.2 on International Cooperation contain strong elements for regional cooperation.

To improve the current framework, the BBNJ Agreement will also need to require States Parties to cooperate directly through the BBNJ Agreement and as members of regional and sector-based organizations to promote a more biodiversity-inclusive, integrated and ecosystem-based approach. The BBNJ Agreement could also require or recommend the establish-

ment or strengthening of regional coordination mechanisms through which States are to cooperate. Without such obligations, the BBNJ Agreement will not actually shift priorities to include biodiversity conservation and sustainable use, nor will it create the necessary impetus to ensure that States Parties in Regional Fisheries Management Organisations (RFMOs), the International Maritime Organisation (IMO), the International Seabed Authority (ISA) or regional seas organizations adopt measures to protect vulnerable marine ecosystems (VMEs) and species or require that ongoing or any future activities do not cause significant adverse effects.

Moreover, without further detail, there is little assurance that measures to ensure compatibility across national and international boundaries will be adopted, that outcomes will be consistent or coherent across regions, or that global biodiversity values will be maintained. More specific suggestions for how obligations to cooperate in Draft Article 6 and Draft Article 15 could be elaborated to advance regional EBM are explored in Section 4.2 below.

To enable effective global and regional cooperation, the BBNJ Agreement will need to include more explicit State obligations to cooperate to adopt measures to safeguard marine biodiversity and include a mechanism to enable and to require States to cooperate in good faith to achieve conservation objectives.

4.2. Options for advancing ecosystembased management

To effectively implement EBM at a global, regional or sub-regional scale, all Parties and members of the various global and regional organizations will need to be aligned to achieving and applying the same goals, standards and principles. The BBNJ Agreement will accordingly need to create an enabling environment that can: promote the conservation of ecosystem structures, functions and processes; enable

ecosystem-scale management that considers environmental and human interactions and connectivity at multiple levels, including those beyond boundaries; proactively assess risks and cumulative impacts and seek to minimize them; ensure that decisions are based on the best available knowledge as well as the precautionary principle; balance diverse societal objectives and leave options for future generations, and integrate the need for conservation and sustainable use into all activities.

To illustrate how the BBNJ Agreement might operate to achieve these purposes, the following section highlights four ways existing agreements have served to promote EBM by:

- → Building on existing obligations to cooperate;
- → Ensuring in-situ conservation of ecosystems and natural habitats:
- Developing environmental assessments, strategies and action plans to mainstream biodiversity conservation at all levels; and
- → Cooperating in developing effective regional platforms for EBM.

Though not discussed here, it is recognized that the existing bodies as well any new bodies will all need to be supported, enabled and incentivized via robust provisions for good governance, consultation, financial support, capacity building at the individual, institutional, national and regional scales, and cooperation in science and the development and transfer of technologies. Some potential options to more specifically elaborate and operationalize the duty to cooperate to more effectively achieve the goals of the agreement are detailed below and summarized in the table on Page 21.

4.2.1. Building on existing duties to cooperate

Duty to cooperate for the purpose of developing rules for environmental protection and preservation

Article 197 of UNCLOS explicitly requires States to cooperate on a global basis and, as appropriate, on a regional basis "in formulating international rules, standards and recommended practices and procedures... for the protection and preservation of the marine environment." This duty to cooperate to develop additional rules, standards, and recommended practices and procedures is further reinforced by UNCLOS Article 237, which recognizes that States may go further than the UNCLOS provisions on protec-

tion and preservation, provided these are carried out in a manner consistent with the general principles and objectives of UNCLOS.

The current President's draft text could be revised to enhance this duty to cooperate at the global and regional levels to address modern challenges of marine environmental degradation, global biodiversity loss and climate change. The contents of such a provision could be informed by a number of recent global commitments and declarations, including the 2030 Agenda for Sustainable Development, and a range of existing international legal instruments, including: ²³

→ The 1972 Convention on Migratory Species (CMS)

Calls for Parties to act directly as well as to cooperate in the conservation and management of migratory species; and uses the term "Range State" to include States, the flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species." (CMS, article 1(h)).

→ The 1992 Convention on Biological Diversity (CBD)

Obliges Contracting Parties to cooperate for the conservation and sustainable use of biodiversity in ABNJ, both directly and where appropriate, through competent international organizations (Article 5).

- → Article 3 reiterates the customary duty and responsibility of States to not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.
- Article 4 (b) on Jurisdictional Scope clarifies
 that while the CBD does not directly apply
 to components of biodiversity beyond the
 limits of national jurisdiction, its provisions
 do apply to processes and activities under
 national jurisdiction and control regard less of where their effects occur.

²³ Of the three agreements, the CBD is the most universally subscribed to, with 196 Parties as of 21 June 2019. The CMS has 128 Parties (with additional States as parties to CMS-related Agreements or MoUs) and the UNFSA has 89.

→ The 1995 UN Fish Stocks Agreement (UNFSA)

Spells out how States are to give effect to their duty to cooperate under UNCLOS, thereby providing practical means to create common practices across different regions.

- Article 5, States Parties are to: "(a) adopt measures to ensure long-term sustainability of straddling fish stocks and highly migratory fish stocks; (b) ensure that such measures are based on the best scientific evidence available; (c) apply the precautionary approach in accordance with obligations elaborated in Article 6, and (d) assess the impacts of fishing, other human activities and environmental factors" (emphasis added).
- Article 5(e) further calls for States Parties to: "adopt, where necessary, conservation and management measures for species belonging to the same ecosystem or associated with or dependent upon the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened" (emphasis added).
- ✓ Article 5(g) even explicitly calls for Parties to "protect biodiversity in the marine environment", although elaboration is left to subsequent development (emphasis added).

The duty to cooperate to promote marine scientific research

Science cooperation is another foundational element for integrated EBM, as all participants will need to be informed, resourced, and well-equipped to ensure the adoption of science-based measures for marine biodiversity and ecosystems in ABNJ and for those that tran-

scend national boundaries. The President's draft text regarding international cooperation for marine scientific research (Article 6.2) does not yet advance beyond the basic provisions of UNCLOS. The BBNJ Agreement would be more effective if it included provisions for research and training on biodiversity conservation, sustainable use, and innovation and development, as well as measures to take when information is sparse. Both the UNFSA and the CBD may provide inspiration:

UN Fish Stocks Agreement

Sets out specific requirements for obtaining the scientific evidence needed upon which to base decisions

- ¬ In addition to "assess the impacts of fishing," UNFSA Article 5 (j) and (k) call for States to i) collect and share, in a timely manner, complete and accurate data concerning fishing activities, ii) promote and conduct scientific research, and iii) develop appropriate technologies in support of fishery conservation and management.
- Article 14 more specifically obliges States
 to i) "ensure that fishing vessels flying
 their flag provide such information as
 may be necessary in order to fulfil their
 obligations under this Agreement;" and
 ii) undertake their information provision
 obligation in accordance with Annex I,
 which sets forth further requirements for
 data collection and sharing.
- → Article 14(3) specifically calls for cooperation in strengthening scientific research capacity for the benefit of all.
- → Article 6 and Annex II set forth specific requirements on what to do when information is uncertain, unreliable or inadequate.

- → Article 6(1) requires States to apply the precautionary approach widely to protect the living marine resources and preserve the marine environment.
- → Article 6(2) elaborates that States shall be more cautious when faced with insufficient information, and that absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.
- → Article 6(3) details that in implementing the precautionary approach, States shall, among other things, develop data collection and research programmes to assess impacts on non-target and associated or dependent species and their environment.
- Annex II contains guidelines for the application of precautionary reference points in conservation and management of straddling fish stocks and highly migratory fish stocks.

Convention on Biological Diversity

Obliges Contracting Parties to promote, support and encourage scientific and technical research and training

- → Article 12 requires all Contracting Parties to: i) establish and maintain programmes for scientific and technical education and training; (ii) promote and encourage biodiversity relevant research; and iii) promote and cooperate in the use of scientific advances in developing methods for conservation and sustainable use of biological resources.
- → Article 18 specially requires Contracting
 Parties to promote international technical and scientific cooperation, including
 joint research programmes and joint
 ventures for the development of technologies relevant to the objectives of the
 convention.
- Other relevant CBD Articles include 13 (Public Education and Awareness), 16 (Access to and Transfer of Technology), and 17 (Exchange of information).

To build on the duty to cooperate as set out in UNCLOS, the BBNJ Agreemen could include fundamental obligations to cooperate to adopt measures necessary to ensure the effective conservation and sustainable use of marine biodiversity in ABNJ, and spell out in further detail how this is to be accomplished. This could include obligations to:

- 对 Adopt measures to ensure the in-situ conservation of ecosystems and natural habitats;
- Apply the best available science and traditional knowledge;
- → Apply the precautionary principle and spell out specific rules, practices and procedures in another article;
- → Assess impacts; and
- → Adopt measure for associated and dependent species and ecosystems.

To boost the capacity of all nations to participate knowledgeably in relevant bodies, the BBNJ Agreement could, in addition, **elaborate on the duty to cooperate in scientific research** and to publish and sharemdata and information and strengthen capacity. The BBNJ Agreement could further specify how States Parties are to cooperate both directly and through relevant competent organizations, including new organizations where necessary, and stimulate both precautionary measures and further research when information is inadequate to make informed decisions.

4.2.2. Ensuring in-situ conservation of ecosystems and natural habitats

The BBNJ negotiations have to date primarily focused on procedures for MPAs and not on other ABMTs. However, to enhance integrated EBM, it will also be necessary to ensure that all management activities implement EBM (see Section 3.1), in particular by: emphasizing conservation of ecosystem structures and their functioning; addressing geographically specific areas based on ecological criteria; focusing on the interactions between human activities and the ecosystem and among the components of the ecosystem and among ecosystems; and taking into account factors originating outside the boundaries of the defined management area.

For these purposes, there is much that could be learned from the CBD which recognizes that "the fundamental requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings" (Preamble). As is reflected in CBD Article 8 on in-situ conservation, this could include obligations to cooperate to:

Establish a representative and coherent network of MPAs and other ABMTs with the explicit objective of conserving biodiversity;

- Regulate or manage resources with a view to ensuring their conservation and sustainable use (whether within or outside protected areas);
- → Promote the protection of ecosystems, natural habitats, and the maintenance of viable populations of species in their natural surroundings;
- → Promote environmentally sustainable development in areas adjacent to protected areas with a view to furthering the protection of these areas; and
- → Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species (e.g. through the development and implementation of corresponding plans or other management strategies).

Article 8 also contains other important obligations regarding the control of risks associated with modified living organisms and alien species, compatibility, traditional knowledge and practices, protection of threatened species; management of significant adverse impacts from human activities and providing financial and other support to achieve in-situ conservation.

The BBNJ Agreement could **extend conservation obligations** to include **ecosystem-based approaches to management**, the establishment of **comprehensive MPA systems** and the protection of marine ecosystems and habitats as well as migratory species throughout their range.

4.2.3. Mainstreaming biodiversity

At the sectoral level

Similarly, the CBD is instructive on the modalities for advancing EBM and sustainable use goals existing within management and decision-making processes at the sectoral levels.

Articles 6, 7, 10 and 14 offer useful examples of mechanisms to promote integration without "undermining" the mandates of existing organizations, i.e. by placing obligations directly on Parties (Gjerde et al., 2019). As in UNFSA (Article 13), Parties can be required to cooperate to strengthen existing organizations, with the relevant organizations invited to participate.

- ✓ CBD Article 6 requires Contracting Parties to:
 i) develop national strategies, plans, or programmes to reflect the measures set out in the Convention; and ii) "integrate, as far as possible and as appropriate, the conservation and sustainable use of biodiversity into relevant sectoral or cross sectoral plans, programmes and policies."

 ✓ CBD Article 6 requires Contracting Parties to:

 i) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and policies.

 I) develop national strategies, plans, or programmes and policies.

 I) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and strategies.

 I) develop national strategies, plans, or programmes and policies.

 I) develop national strategies, plans, or programmes and plans, programmes and plans, programmes and policies.

 I) develop national strategies, plans, or programmes and plans, programmes and policies.

 I) develop national strategies, plans, or programmes and plans, programmes and plans, programmes and plans, programmes and plans, pl
- ✓ CBD Article 7 requires Contracting Parties to, among other things, "Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques."
- ✓ CBD Article 10 specially requires Contracting Parties to integrate consideration of the conservation and sustainable use of biological resources into national decision-making; and to use the knowledge gained through monitoring under Article 7 to adopt measures to avoid or minimize adverse impacts on biodiversity. To engage the private sector, Parties are further required to "Encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources".
- ✓ UNFSA Article 6 calls for States to assess fishing impacts on non-target and associated or dependent species and their environment and to adopt plans to ensure the conservation of such species and to protect habitats of special concern.

The BBNJ Agreement could call for States to adopt biodiversity strategies and action plans that include ways to reduce biodiversity impacts of activities and processes in both ABNJ and waters under national jurisdiction and control, and to promote the development of similar sectoral and cross-sectoral plans, programs, and policies.²⁴

Through environmental assessments

Environmental impact assessment (EIA) provisions in the BBNJ Agreement could build on CBD Article 14 by setting forth a more precautionary threshold for and include an explicit obligation to avoid harm. CBD Article 14 requires EIAs of proposed projects "that are likely to have significant adverse impacts" on biodiversity,

with a view to avoiding or minimizing such effects. The new agreement could also build on the more proactive and precautionary standards adopted with respect to deep sea bottom fishing and exploration for seabed minerals, where activities must be managed to prevent vulnerable marine ecosystems from "serious adverse impacts" and "serious harmful effects" respectively.²⁵

²⁴ Although the CBD Conference of the Parties could itself call for existing National Biodiversity and Action Plans (NBSAPs) to be expanded to include processes and activities under national jurisdiction and control, it may be more effective to have such expansion required through the BBNJ Agreement. This could serve to clarify and reinforce this obligation, encourage a broader national level understanding of the activities and processes that are under national jurisdiction and control that have the potential to affect BBNJ, and promote the establishment of domestic cross-sectoral platforms for national consultation and coordination.

²⁵ See: UNGA Resolutions 61/105 and 64/72 on bottom fishing (available at: https://undocs.org/A/RES/61/105; https://undocs.org/A/RES/64/72) and ISA Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area ISBA/19/C/17 (available at: https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/isba-19c-17_0.pdf).

The Environmental Principles in Madrid Protocol Article 3 may also provide important parameters for consideration of EIAs.

- ✓ Article 3(c) stipulates that activities in the Antarctic Treaty area shall be planned and conducted on the basis of information sufficient to allow prior assessments of, and informed judgments about, their possible impacts on the Antarctic environment and dependent and associated ecosystems and on the value of Antarctica for the conduct of scientific research. Of special relevance to the remote and poorly studied open ocean and deep sea in ABNJ, the Madrid Protocol in Article 3 also sets forth considerations that such judgments are to be based on, including:
 - (i) the scope of the activity, including its area, duration and intensity;
 - (ii) the cumulative impacts of the activity, both by itself and in combination with other activities in the Antarctic Treaty area:
 - (iii) whether the activity will detrimentally affect any other activity in the Antarctic Treaty area;
 - (iv) whether technology and procedures are available to provide for environmentally safe operations;
 - (v) whether there exists the capacity to monitor key environmental parameters and ecosystem components so as to identify and provide early warning of any adverse effects of the activity and to provide for such modification of operating procedures as may be necessary in the light of the results of monitoring or increased knowledge

- of the Antarctic environment and dependent and associated ecosystems; and
- (vi) whether there exists the capacity to respond promptly and effectively to accidents, particularly those with potential environmental effects.

Strategic environmental assessments (SEAs) are another tool required under CBD Article 14 to ensure that environmental consequences of national programmes, plans and policies likely to have a significant adverse impact on biodiversity are duly considered. SEAs could be evolved under the BBNJ Agreement. Potential triggers could include, for example:

- A proposal for the introduction of a new technology or type of activity in ABNJ (as per UNCLOS Article 196),²⁶ e.g. dumping, deep sea mining, mesopelagic fisheries, offshore aquaculture and geoengineering.²⁷ This would facilitate better understanding of the range of potential impacts on a generic or region-specific basis, before focusing on a specific site.
- → A proposed activity in an area that is already the subject of a designation through an existing ABMT or has been identified as potentially being of high conservation interest. This could include, for example: recognition by the CBD Conference of the Parties (COP) that an area meets the requirements for an Ecologically or Biologically Significant Area (EBSA); designation by Regional Fisheries Management Organisations of vulnerable marine ecosystems (VMEs); and designation by the International Maritime Organisation of a Particularly Sensitive Sea Area (PSSA). Prioritisation in this way would help to further refine and update scientific information and assess pressures and drivers of change.

²⁶ UNCLOS, art. 196: "States shall take all measures necessary to prevent, reduce and control pollution of the marine environment resulting from the use of technologies under their jurisdiction or control, or the intentional or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto"

²⁷ Even though some of these activities may be covered in part by existing competent organisations (ocean dumping & deep sea mining), the impact assessment requirements for these activities focus on target sites, may have limited membership, and don't consider broader regional impacts.

In considering how SEA may be applied to areas already identified by the EBSA process, Dunstan et al. 2016 have developed a five-step framework:

- Scoping: Understanding the political/institutional and social domain and motivations for management;
- Scientific information on the status and important assets and values of the system (from EBSA descriptions when available);
- 3. Impact: Understanding the interaction between ecological/biological values and pressures;
- 4. Informing a management response based on the values, pressures and socioeconomic values; and
- 5. Monitoring the effectiveness of management through indicators that can detect changes on the values.

This is similar to the Transboundary Diagnostic Analysis (TDA) conducted for Large Marine Ecosystems (LME) under the Global Environment Facility (GEF) Operational Strategy. The GEF strategy invites "nations sharing an LME [to] begin to address coastal and marine issues

by jointly undertaking strategic processes for analysing science-based information on transboundary concerns, their root causes, and by setting priorities for action on transboundary concerns. Countries then determine the national and regional policy, legal, and institutional reforms and investments needed to address the priorities, and based on the strategies prepare and initiate an LME wide Strategic Action Program (SAP). This allows sound science to assist policy making within a specific geographic location for an ecosystem-based approach to management that can be used to engage stakeholders" (Rochette et al., 2015, citing Sherman and Hempel 2008).

Such an iterative process could build on the UN-CLOS obligation to monitor the risks or effects of pollution (UNCLOS Article 204), the UNFSA obligation to assess fishing impacts on other species and the environment, and CBD Article 7 which includes the proactive identification and ongoing monitoring of any activity or process which has or is likely to have "significant adverse impacts on conservation and sustainable use of biodiversity" (Dunstan et al., 2016b). Such a process could also help to reduce sectoral conflicts while protecting the marine environment and increasing cross-border cooperation (Flannery et al., 2015; Kull et al., 2019).

To strengthen the integration of biodiversity and reinforce regional ecosystem-based management, the BBNJ Agreement could thus call for the development of

- 1. Targeted national biodiversity strategic and action plans that address processes and activities under the jurisdiction and control of the State that may affect marine biodiversity in ABNJ as a basis for enhancing national-level interagency coordination;
- 2. Regional strategic environmental assessments;
- 3. Cross-sectoral regional strategies and action plans and associated measures; and
- 4. Regional monitoring programs.

4.2.4. Building regional platforms for cooperation

The regional level can be an important vehicle for advancing integrated ecosystem-based management as it can create context-specific platforms through which States, stakeholders and competent regional and global management organisations can communicate, coordinate and collaborate. However, there is no guarantee that such cooperation will in fact occur without strong global oversight and support.

Robust oversight arrangements could help to foster effective cooperation across jurisdictions as well as between sectors and involve stakeholders with both uses and values at stake. Otherwise, as has been found in some marine spatial planning processes, the results may rather serve to consolidate sectoral priorities rather than finding a way to effectively incorporate biodiversity considerations (Jones et al., 2016).

To enhance progress towards regional integrated management, the BBNJ Agreement will need to advance collaboration through both top-down oversight as well as support for bottom-up initiatives. To secure active collaboration, it can do this by specifying requirements for: 1. Cooperation in strengthening or establishing regional coordination and collaboration mechanisms; 2. Consultation, collaboration and compatibility of measures across boundaries; 3. Assistance to meet the special requirements of developing States; and 4. Upskilling all participants via specific requirements for institution strengthening e.g. through research, data sharing and training.

The BBNJ Agreement could ensure that SEA and marine spatial planning (MSP) are identified as crucial processes and planning tools for cross-sectoral and cross-jurisdictional consultations and that regional cooperative arrangements are recognized as a means to deliver holistic and integrated EBM. Participation in any such regional arrangements could be open to any State with a real interest in the conservation and sustainable use of the biodiversity of the region, so as to ensure the international legitimacy of any such arrangements.

The BBNJ Agreement could also support EBM by offering a high-level forum or multiple fora to resolve the conflicting objectives and priorities competent organisations. In addition to establishing a compliance committee, an alternative dispute resolution procedure could be established that could be empowered to investigate allegations of breach, find facts as necessary and, where appropriate, recommend to the State(s) in question the action that they should take to fulfil the obligation (WWF International, 2019). Another option tabled by WWF is to endow the International Tribunal for the Law of the Sea (ITLOS) with the competence to give advisory opinions relating to the interpretation and application of the BBNJ Agreement, given that its practice with the giving of advisory opinions so far, while admittedly limited, has proved useful and valuable.

Committees of the Conference of Parties on compliance, capacity building and technology transfer, and finance, could also be important mechanisms to oversee, incentivize and facilitate implementation and compliance of the BBNJ Agreement. The UNFSA again provides some useful examples of ways to enhance the duty to cooperate through explicit provisions (Gjerde et al., 2019):

- ✓ To promote regional cooperation, UNFSA Article 8 sets out the duty to: i) pursue cooperation either directly or through regional fisheries management organisations (RFMOs), ii) pursue effective conservation and management, and iii) become members/participants of the relevant RFMO or to agree to apply the measures adopted by the relevant RFMO.
- ▼ To enhance coherence and compatibility at the ecoregional scale across boundaries, UNFSA Article 7 allocates roles and responsibilities to coastal States and distant water fishing States to ensure that measures established for stocks in the high seas do not undermine the effectiveness of measures taken within national boundaries (and vice versa). It also prescribes a duty to exercise best efforts to achieve results, with an option for dispute resolution proceedings if no agreement can be reached within a reasonable period of time.

✓ To support the special requirements of developing States, UNFSA Article 24 obliges States to, among other things, provide assistance either directly or through appropriate international and regional organizations and bodies; take into account the vulnerabilities

of developing States and peoples depending on living marine resources and the need to avoid transferring "a disproportionate burden of conservation action onto developing States".²⁸

The BBNJ Agreement could include duties to:

- 1. Pursue cooperation at the regional level directly and through the relevant organizations and mechanisms;
- 2. Pursue in good faith effective conservation and management measures to enable biodiversity protection, conservation and sustainable use;
- 3. Become members of relevant regional coordination and cooperation mechanisms orto agree to apply the measures adopted by the relevant regional mechanisms;
- 4. Cooperate to achieve compatible measures for biodiversity and ecosystem conservation and sustainable use:
- 5. Take into account existing measures;
- 6. Take into account ecological and biological connectivity as well as associated and dependent species and ecosystems, including migratory species;
- 7. Exchange information on measures adopted;
- 8. Recognize and support the special requirements of developing States;
- 9. Exercise best efforts to agree on compatible measures within a reasonable period of time and to agree to participate in dispute resolution procedures; and
- 10. Assist developing states to lift capacity.

²⁸ UN Fish Stocks Agreement, art. 24. Available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/N95/274/67/PDF/N9527467.pdf?OpenElement.

Table 1: Options for advancing ecosystem-based management through the BBNJ Agreement

Principle	Example provisions in existing instruments	Options for BBNJ Agreement
Building on the duty to cooperate as set out in UNCLOS, CBD and UNFSA	CMS: Parties must act directly as well as cooperate with others in the conservation and management of migratory species. CBD: Parties must cooperate for the conservation and sustainable use of biodiversity in ABNJ, both directly and where appropriate, through competent international organizations. UNFSA: Specifies how States are to give effect to their duty to cooperate, including through the adoption of conservation and management measures and cooperation through regional management organisations.	Include fundamental obligations to cooperate to adopt measures necessary to ensure the effective conservation and sustainable use of marine biodiversity in ABNJ. Specify how States Parties are to cooperate both directly and through relevant competent organizations including new organizations where necessary. Elaborate on the duty to cooperate in scientific research.
Ensuring in-situ conservation of ecosystems and natural habitats	CBD: Prioritises in-situ conservation and establishes numerous obligations to conserve, manage and restore biodiversity inside and outside of protected areas.	Extend conservation obligations to include ecosystembased approaches to management, the conservation of ecosystems and natural habitats, the establishment of a network of global marine protected areas, and the protection of marine migratory species throughout their range.
Mainstreaming biodiversity	At the sectoral level: CBD: Parties must integrate biodiversity into national planning and take measures to minimise adverse impacts.	Call for adoption of national action plans to reduce impacts in ABNJ from activities under national jurisdiction and control and to promote the development of sectoral and cross-sectoral policies.

Principle	Example provisions in existing instruments	Options for BBNJ Agreement
Mainstreaming biodiversity	UNFSA: Parties must cooperate to strengthen existing organizations. Through environmental assessments: CBD: Assessment of activities likely to have significant adverse impacts; Strategic assessments required to ensure consideration of environmental impacts of national programs and policies. Madrid Protocol: Activities shall be planned and conducted on the basis of information sufficient to allow prior assessments of, and informed judgements about possible impacts, and shall include consideration of whether technology, procedures and capacity exist to provide for environmentally safe operations. UNGA Resolution A/61/105 and ISA Exploration regulations: Bottom fishing and seabed mining: activities must be managed to prevent vulnerable marine ecosystems from "serious adverse impacts" and "serious	Require Parties to apply the precautionary approach widely to protect the living marine resources and preserve the marine environment. This includes being more cautious when faces with insufficient information. The absence of adequate information shall not be used as a reason for postponing or failing to take conservation and management measures. Adopt more specific precautionary standards, such as reference points, environmental indicators, triggers and pre-agreed responses. Encourage a list of triggers for strategic assessment to stimulate further study of ecosystem-level processes and activities and to inform management.
	harmful effects" respectively.	
Building regional platforms for cooperation	UNFSA: Obligations to act in good faith to pursue effective outcomes both directly and through regional fisheries management organisations, ensure compatibility with coastal State measures and assist developing States.	Include duties to cooperate at the regional level directly and through the relevant organizations and mechanisms, pursue effective conservation and management measures, cooperate to ensure compatibility amongst measures, and take into account ecological and biological connectivity.

References

Crespo, G.O., Dunn, D.C., 2017. A review of the impacts of fisheries on open-ocean ecosystems. ICES Journal of Marine Science. https://doi.org/10.1093/icesjms/fsx084

Dunstan, P.K., Bax, N.J., Dambacher, J.M., Hayes, K.R., Hedge, P.T., Smith, D.C., Smith, A.D.M., 2016a. Using ecologically or biologically significant marine areas (EBSAs) to implement marine spatial planning. Ocean and Coastal Management 121, 116–127. https://doi.org/10.1016/j.ocecoaman.2015.11.021

Dunstan, P.K., Bax, N.J., Dambacher, J.M., Hayes, K.R., Hedge, P.T., Smith, D.C., Smith, A.D.M., 2016b. Using ecologically or biologically significant marine areas (EBSAs) to implement marine spatial planning. Ocean and Coastal Management. https://doi.org/10.1016/j.ocecoaman.2015.11.021

Durussel, C., Wright, G., Wienrich, N., Boteler, B., Unger, S., Rochette, J., 2018. Strengthening Regional Ocean Governance for the High Seas Opportunities and Challenges to Improve the Legal and Institutional Framework of the Southeast Atlantic and Southeast Pacific. STRONG High Seas project. https://doi.org/10.2312/iass.2018.025

Flannery, W., O'Hagan, A.M., O'Mahony, C., Ritchie, H., Twomey, S., 2015. Evaluating conditions for transboundary Marine Spatial Planning: Challenges and opportunities on the island of Ireland. Marine Policy. https://doi.org/10.1016/j.marpol.2014.07.021

Freestone, D., 2018. The Limits of Sectoral and Regional Efforts to Designate High Seas Marine Protected Areas. AJIL Unbound 112, 129–133. https://doi.org/10.1017/aju.2018.45

Gjerde, K., Boteler, B., Durussel, C., Rochette, J., Unger, S., Wright, G., 2018. Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction: Options for Underpinning a Strong Global BBNJ Agreement through Regional and Sectoral Governance. STRONG High Seas project. https://doi.org/10.2312/iass.2018.015

Gjerde, K.M., Clark, N.A., Harden-Davies, H.R., 2019. Building a Platform for the Future: the Relationship of the Expected New Agreement for Marine Biodiversity in Areas beyond National Jurisdiction and the UN Convention on the Law of the Sea. Ocean Yearbook 33, 3–44.

Harden-Davies, H., 2017. Deep-sea genetic resources: New frontiers for science and stewardship in areas beyond national jurisdiction. Deep-Sea Research Part II: Topical Studies in Oceanography 137, 504–513. https://doi.org/10.1016/j.dsr2.2016.05.005

Harden-Davies, H.R., Gjerde, K.M., 2019. Building Scientific and Technological Capacity: a Role for Benefit-sharing in the Conservation and Sustainable Use of Marine Biodiversity beyond National Jurisdiction. https://doi.org/10.1163/9789004395633

Houghton, K., Rochette, J., 2014. Introduction: Advancing governance of areas beyond national jurisdiction. Marine Policy 49, 81–84. https://doi.org/10.1016/j.marpol.2014.04.008

Johnson, D.E., Barrio Froján, C., Turner, P.J., Weaver, P., Gunn, V., Dunn, D.C., Halpin, P., Bax, N.J., Dunstan, P.K., 2018. Reviewing the EBSA process: Improving on success. Marine Policy 88, 75–85. https://doi.org/10.1016/j.marpol.2017.11.014

Jones, P.J.S., Lieberknecht, L.M., Qiu, W., 2016. Marine spatial planning in reality: Introduction to case studies and discussion of findings. Marine Policy. https://doi.org/10.1016/j.marpol.2016.04.026

Juan-Jordá, M.J., Murua, H., Arrizabalaga, H., Dulvy, N.K., Restrepo, V., 2018. Report card on ecosystem-based fisheries management in tuna regional fisheries management organizations. Fish and Fisheries 19, 321–339. https://doi.org/10.1111/faf.12256

Kull, M., Moodie, J.R., Thomas, H.L., Mendez-Roldan, S., Giacometti, A., Morf, A., Isaksson, I., 2019. International good practices for facilitating transboundary collaboration in Marine Spatial Planning. Marine Policy 0–1. https://doi.org/10.1016/j.marpol.2019.03.005

Mahon et al., Volume 2: Areas Beyond National Jurisdiction (referring to the Pacific Islands Forum and its Council of Regional Organisations of the Pacific (CROP) in the South West Pacific, the Antarctic Treaty System, the Arctic Council and in the Mediterranean as examples of relatively more advanced regional integration mechanisms).

Popova, E. et al. 2019. Ecological connectivity between the areas beyond national jurisdiction and coastal waters: Safeguarding interests of coastal communities in developing countries. Marine Policy 104, 90–102. https://doi.org/10.1016/j.marpol.2019.02.050

Rochette, J. et al. 2015. Regional Ocean Governance Mechanisms: A Review. Marine Policy 60, 9–19

Scrimgeour, R., Fletcher, R., Martin, J., Fletcher, S., 2018. A review of area-based planning tools. What is the potential for cross-sectoral planning in areas beyond national jurisdiction? UNEP-WCMC.

Tladi, D., 2011. Ocean governance: A fragmented regulatory framework, in: Jacquet, P., Rachaur, R., Tubiana, L. (Eds.), Oceans: The New Frontier – A Planet for Life 2011. TERI Press, pp. 99–111.

United Nations, 2016. The First Global Integrated Marine Assessment. United Nations 2016.

Webster, M.S., Marra, P.P., Haig, S.M., Bensch, S., Holmes, R.T., 2002. Links between worlds: Unraveling migratory connectivity. Trends in Ecology and Evolution 17, 76–83. https://doi.org/10.1016/S0169-5347(01)02380-1

Wright, G., Ardron, J., Gjerde, K., Currie, D., Rochette, J., 2015. Advancing marine biodiversity protection through regional fisheries management: A review of bottom fisheries closures in areas beyond national jurisdiction. Marine Policy 61, 134–148. https://doi.org/10.1016/j.marpol.2015.06.030

Wright, G., Gjerde, K.M., Johnson, D.E., Finkelstein, A., Ferreira, M.A., Dunn, D.C., Chaves, M.R., Grehan, A., 2019. Marine spatial planning in areas beyond national jurisdiction. Marine Policy. https://doi.org/10.1016/j.marpol.2018.12.003

Wright, G., Rochette, J., 2018. Regional Ocean Governance of Areas Beyond National Jurisdiction Lessons Learnt and Ways Forward. STRONG High Seas. https://doi.org/10.2312/iass.2018.015

Wright, G., Rochette, J., Gjerde, K., Seeger, I., 2018. The Long and Winding Road: negotiating a treaty for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction (No. 08), Studies. IDDRI.

Wright, G., Schmidt, S., Rochette, J., Shackeroff, J., Unger, S., Waweru, Y., Muller, A., 2017. Partnering for a Sustainable Ocean: The Role of Regional Ocean Governance in Implementing SDG14.

WWF International, 2016. Matters for inclusion in a new international legally-binding instrument under UNCLOS: enhanced cooperation and effective dispute resolution, prepared by D. Owen, Prof. R. Churchill and Duncan Currie.

Published by

Institute for Advanced Sustainability Studies e. V. (IASS) Berliner Strasse 130 14467 Potsdam Germany

Tel: +49 (0) 331-28822-340 Fax: +49 (0) 331-28822-310

E-Mail: media@iass-potsdam.de

www.iass-potsdam.de

Contact

Kristina Gjerde, IUCN: kristina.gjerde@eip.com.pl STRONG High Seas Project Team at IASS: stronghighseas@iass-potsdam.de

ViSdP

Prof. Dr. Ortwin Renn, Managing Scientific Director

December 2019









About the STRONG High Seas project

The STRONG High Seas project is a five-year project that aims to strengthen regional ocean governance for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. Working with the Secretariat of the Comisión Permanente del Pacífico Sur (CPPS; Permanent Commission for the South Pacific) and the Secretariat of the West and Central Africa Regional Seas Programme (Abidjan Convention), the project will develop and propose targeted measures to support the coordinated development of integrated and ecosystem-based management approaches for ocean governance in areas beyond national jurisdiction. In this project, we carry out transdisciplinary scientific assessments to provide decision-makers, both in the target regions and globally, with improved knowledge and understanding on high seas biodiversity. We engage with stakeholders from governments, private sector, scientists and civil society to support the design of integrated, cross-sectoral approaches for the conservation and sustainable use of biodiversity in the Southeast Atlantic and Southeast Pacific. We then facilitate the timely delivery of these proposed approaches for potential adoption into the relevant regional policy processes. To enable an interregional exchange, we further ensure dialogue with relevant stakeholders in other marine regions. To this end, we set up a regional stakeholder platform to facilitate joint learning and develop a community of practice. Finally, we explore links and opportunities for regional governance in a new international and legally-binding instrument on marine biodiversity in the high seas.

Project duration: June 2017 - May 2022

Coordinator: Institute for Advanced Sustainability Studies (IASS) Implementing partners: BirdLife International, Institute for Sustainable Development and International Relations (IDDRI), International Ocean Institute (IOI), Universidad Católica del Norte, WWF Colombia, **WWF Germany**

Regional partners: Secretariat of the Comisión Permanente del Pacífico Sur (CPPS), Secretariat of the Abidjan Convention Website: prog-ocean.org/our-work/strong-high-seas

Contact: stronghighseas@iass-potsdam.de

Partners of the STRONG High Seas project:

















