

Policy pointers

Negotiators should ensure the new instrument takes an 'ecosystem approach' that recognises the links between ecosystem function and human wellbeing. These links, which are particularly important to vulnerable communities in Least Developed Countries (LDCs), exist between ecosystems beyond, and communities within, national jurisdictions.

Since UNCLOS Parties are also Parties to the Convention on Biological Diversity (CBD), instrument negotiators have a clear rationale for integrating established principles developed under the CBD.

Hence, negotiators should incorporate criteria and guidance on ABMT design, drawn from the CBD, but also from other sources, including the Convention on Migratory Species.

Negotiators must consider LDCs' and other coastal developing states' special requirements in a manner that allows ABMTs to be distributed equitably, and should specify timeframes for decisions on ABMTs that could benefit livelihoods in vulnerable communities.

High seas governance that benefits all: understanding area-based management tools

Parties to the UN Convention on the Law of the Sea (UNCLOS) are negotiating a legally binding instrument to conserve biodiversity in waters beyond national jurisdictions. The instrument will jointly promote conservation and sustainable use, and is expected to draw on area-based management tools (ABMTs), including those for marine protected areas (MPAs). Benefits generated by ABMTs are particularly important for vulnerable developing countries. Siting management areas to protect ecosystem services and provide ecological representativity and connectivity will ensure these areas support livelihoods across scales, as well as protect biodiversity. This briefing establishes the rationale for an 'ecosystem approach' to designing ABMTs; argues that guidance, criteria and standards developed in international conventions on biodiversity should be clearly incorporated into the new instrument; and calls for ABMT design to recognise, and promptly meet, coastal developing states' special needs.

Increasing human pressures in international waters are causing rapid marine biodiversity loss,¹ and are affecting marine ecosystems' capacities to function and produce the 'ecosystem services' on which many developing countries, especially the Least Developed Countries (LDCs) and Small Island Developing States (SIDS), depend. Climate-related changes, shifting migratory patterns and changes in biophysical characteristics of the ocean disproportionately affect developing states and vulnerable communities,² so it is of utmost importance to protect ocean health across the globe.

UN member states are now developing an international legally binding instrument on

biodiversity beyond national jurisdiction (BBNJ) under the UN Convention on the Law of the Sea (UNCLOS).³ This instrument will cover topics agreed in 2011 by the UN General Assembly, namely marine genetic resources, benefit sharing, environmental impact assessments, capacity building and technology transfer, and measures such as area-based management tools (ABMTs, see Box 1).⁴ This last, which includes marine protected areas (MPAs), is the focus here. This briefing discusses how ABMTs can be designed so as to fairly distribute environmental and socio-economic benefits among the Parties to the new instrument, especially with regards to LDCs and other developing country Parties, which need to have their priorities⁵ heard.

ABMTs can contribute to healthier, more resilient and more productive marine ecosystems and their services

An ecosystem approach

The ecosystem approach, which the UN Convention on Biological Diversity's (CBD) Conference of the Parties (COP) defines as "a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way",^{6,7} can help governments conserve biodiversity beyond national jurisdiction, and use it sustainably and fairly, providing a foundation for governing area-based management regimes. The approach prioritises long-term conservation of ecosystem structure and functions in order to maintain or

rebuild biodiversity and ecosystem services, recognising the interlinkages between ecosystem function and human wellbeing. This link between wellbeing and healthy ecosystems was elaborated in the outcome document of the UN Conference on Sustainable Development, 'The Future We Want'.⁸ It was further endorsed by the 'Our Ocean, Our Future: Call for Action' declaration, which clarified the interpretation of SDG 14 targets and their alignment with the ecosystem approach, and with its reliance on spatial management. It called for "effective and appropriate area-based management tools, including MPAs and other integrated, cross-sectoral approaches ... based on best available science, as well as stakeholder engagement and applying the precautionary and ecosystem approaches, ... to enhance ocean resilience and better conserve and sustainably use marine biodiversity."⁹

Box 1. Navigating the terms: useful definitions

ABMTs — area-based management tools.

ABNJ — areas beyond national jurisdiction, sometimes known colloquially as 'the high seas'.

BBNJ instrument — Biodiversity Beyond National Jurisdiction instrument. A new legally binding international instrument being developed under the UN Convention on the Law of the Sea.

Best available science — a commitment to using the best, reputable, independent scientific and commercial data to inform decisions. The US' Endangered Species Act (ESA) requires that agencies use the best available scientific and commercial data to guide key decisions.

CBD — UN Convention on Biological Diversity.

Ecosystem services — the goods and services ecosystems provide to human society.

EBSAs — ecologically or biologically significant areas, as defined under the UN CBD.

Least Developed Countries (LDCs) — the UN-recognised category of countries that are characterised by the lowest socioeconomic indicators. There are currently 47 LDCs.

MPAs — marine protected areas. Management regimes vary, and MPAs are not always closed to all human activities.

Natural capital — the world's stock of natural resources, which includes both living and non-living resources.

Other effective conservation measure (OECM) — a geographically defined area, other than a protected area, that is governed and managed in ways that conserve biodiversity and its associated ecosystem functions and services for the long term. These functions will include economic, cultural and spiritual values.

Small Island Developing States (SIDS) — as well as being islands, these countries often share challenges such as vulnerability to climate change, limited resources, and small (but sometimes growing) populations.

UNCLOS — the United Nations Convention on the Law of the Sea.

The case for area-based management tools

Marine biodiversity in areas beyond national jurisdiction (ABNJ) faces rising pressures from multiple sources, including deep fishing and other extractive industries. These pressures are increasingly compromising ecosystems and, in turn, the services these provide to often-distant human communities. That is because ABNJ do not exist in isolation: marine ecosystems are interconnected (see Box 2) by ocean currents and migrating species.¹⁰ So what happens in ABNJ (for example, turtle bycatch by commercial longline fisheries) can affect natural resources in territorial waters (such as numbers of turtle returning to breeding beaches). Many Least Developed Countries (LDCs) and Small Island Developing States (SIDS) depend heavily on marine resources, whether for extractive or non-extractive uses.

Area-based management tools in ABNJ can help safeguard ecological processes that provide goods and services (such as seafood, marine genetic resources, carbon sequestration) across scales and across human-defined boundaries. By protecting ecosystems *beyond* national jurisdiction, area-based management also supports livelihoods and human development in areas *within* national jurisdictions.

As noted in the UN World Ocean Assessment,¹¹ "In [deep-sea] habitats, recovery from physical damage to the specialised habitat features and/or depletion of the biological populations is often extremely slow and uncertain, just because of the harshness of the background

conditions in adjacent areas, and/or the particularly high specialisation of the species to these special environments, and/or to complexity of the specialised habitat itself".¹²

Rather than tackling individual threats, ABMTs establish ecologically representative networks of MPAs, often alongside other effective conservation measure areas (OECM areas). However, in designing ABMT in international waters, negotiators must consider not just ecological needs, but also how the resulting benefits will 'flow' — otherwise these will not be fairly distributed. The aim is to simultaneously reduce multiple human impacts on important biodiversity and preserve ecosystem services (including in areas within national jurisdiction).¹³

Legal basis

The legal basis for establishing ABMTs is found in Article 194(5) of UNCLOS, which requires rare or fragile ecosystems, and habitats of depleted, threatened or endangered species, as well as other forms of marine life, to be protected and preserved by UNCLOS Parties.

UNCLOS, however, does not provide criteria for identifying such areas, relying on other instruments to do so, and these are discussed more fully below. But considering that all UNCLOS Parties are also Parties to the CBD, BBNJ instrument negotiators have a clear argument for integrating established principles, such as the ecosystem approach, and criteria and standards developed under the CBD, when designing ABMT governance regimes.

Existing criteria and standards

In terms of sustainable development, incorporating livelihood considerations in the early stages of planning and designing conservation and management measures in ABNJ will lead to more equitable and effective outcomes. With this in mind, the process of identifying areas important for biodiversity and for ecosystem services that need protection under the BBNJ instrument would benefit from using existing criteria and guidance already developed and adopted under the CBD.

Indeed, the CBD offers a wealth of criteria and guidance. Its ecologically or biologically significant areas (EBSAs) criteria, adopted by CBD Decision IX/20, Annex I, include the following features: uniqueness or rarity; special importance for life history stages of species; importance for threatened, endangered or declining species and/or habitats; vulnerability, fragility, sensitivity, or slow recovery; biological productivity; biological diversity; and naturalness.

Box 2. Connectivity and 'representativity'

CBD guidance on integrating protected areas and OECM areas into wider seascapes, and on how to make these management regimes part of mainstream policy, suggests steps for enhancing **connectivity**. The guidance proposes that marine spatial planning should be used to enhance connectivity of species, ecosystems and ecological processes, including those vulnerable to climate change impacts.¹⁷

Incorporating CBD criteria for '**ecological representativity**'¹⁸ of MPAs, including those in open waters and deep-sea habitats, would also contribute to the new instrument. These criteria define 'ecological representativity' as including EBSAs, showing connectivity, and having replicated ecological features and adequate and viable sites.

CBD guidance on the four initial steps to be considered when developing representative networks of MPAs is also important.¹⁹ These include: 1) developing biogeographical classification systems for the pelagic (open water) and benthic (bottom-dwelling) realms; 2) applying the precautionary approach when scientific information is not available; 3) using both qualitative and quantitative techniques to identify sites; and 4) considering size, shape, boundaries, buffer zones and management measures.

The new instrument should refer to these CBD criteria as an indicative set that should inform the design of ecologically representative MPA networks and individual MPA planning. The criteria could be part of an annex to the BBNJ instrument, facilitating later updates by the governing body, based on best scientific advice provided by its scientific body.

In 2010, CBD Decision X/29 initiated a global process for describing EBSAs. To date, 69 out of 319 areas that meet the EBSA criteria are found totally or partially in marine waters beyond national jurisdiction.

The EBSA descriptions are a scientific and technical exercise. They do not have specific management requirements under the CBD, but the scientific information they contain (for example details of spawning, breeding, feeding grounds for threatened species, endemic communities, specialised habitat, etc) serve as a sound basis for developing and adopting ABMTs, for environmental impact assessments and strategic environmental assessments, and for supporting marine spatial planning by states and competent organisations, as indicated in CBD Conference of the Parties decisions.

Although it is crucial to protect ecologically and biologically important areas in their own right, equal (if not more) weight needs to be given to areas where biodiversity and ecosystem services are connected to (sometimes distant) coastal communities. So in addition to ecological and biological considerations, the new BBNJ instrument should also consider 'areas of socioeconomic significance' that deliver ecosystem services to coastal developing states in general, and to LDCs in particular.¹⁰ This will be particularly important when the international

community has to make trade-offs in prioritising which areas should be protected.

The Convention on Migratory Species (CMS) has worked on including ecological corridors¹⁴ and connectivity¹⁵ into MPA network design, and the scientific body of the new BBNJ instrument should incorporate these advances. Additionally, Target 10 of the CMS Strategic Plan 2015–2023 requires that “all critical habitats and sites for migratory species are identified and included in area-based conservation measures, so as to maintain their quality, integrity, resilience and functioning in accordance with the implementation of [CBD] Aichi Target 11”,¹⁶ showing the complementarity of the two conventions.

Restoring as well as conserving

Notwithstanding ABMT's focus on conserving biodiversity and ecosystem services, the BBNJ instrument's scientific body should also take account of opportunities to restore degraded areas and strengthen overstretched ecosystem services when advising on, and evaluating, ecological network design, functionality and implementation.

By integrating such elements, areas needed for different life stages of important species (eg those important for tourism or fishing industries in developing countries) could be protected and restored. This would ensure that socio-economic as well as ecological objectives are pursued. ‘Best available science’, ‘natural capital’ approaches and ‘ecosystem services’ methodologies will be needed to identify who benefits from such ecosystem services and where a particular ABMT should be located. Doing this should be regarded as part of meeting developing countries’ special requirements under the new instrument, so that they can benefit from ABMTs and not be left behind.

Properly including areas that provide important ecosystem services within planned MPA networks will help ensure the ecosystem benefits from the world's oceans are shared fairly. Importantly, vulnerable communities in developing countries must have a voice in the

process of developing effective and equitable management regimes,⁵ so they can ensure continuation of the ecosystem services they depend upon (for food security etc). Requirements for MPA networks to show ‘ecological representativity’ (see Box 2) should mean all ocean basins have MPA networks. This should ensure that all regions and countries can benefit. However, developing countries, especially the LDCs and SIDS, are particularly vulnerable. The new instrument should explicitly require MPA/ABMT identification and designation to be geographically well balanced; and should set timeframes so that those areas with the potential to benefit vulnerable communities are considered in a timely fashion.

In conclusion...

Incorporating clear definitions, robust standards and scientific criteria for ABMTs into the new instrument is essential for ensuring coherent governance that safeguards marine biodiversity, ecosystem functions and services. Criteria, standards and guidance provided by the CBD and CMS, among other biodiversity-related conventions, should be fully incorporated into the new instrument. These underpin the ecosystem approach, balancing conservation, sustainability and equity for sustainable development. In designing the instrument, the special requirements of developing countries, including LDCs and SIDS, must be fully considered. This should be done by designating ABMTs that are: important for biodiversity and ecosystem services; representative; well connected; effectively managed; and integrated into seascapes. Such well-designed ABMTs, embedded into a comprehensive governance regime and based on best available science, can contribute to healthier, more resilient and more productive marine ecosystems and their services, across scales and communities.

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Notes

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