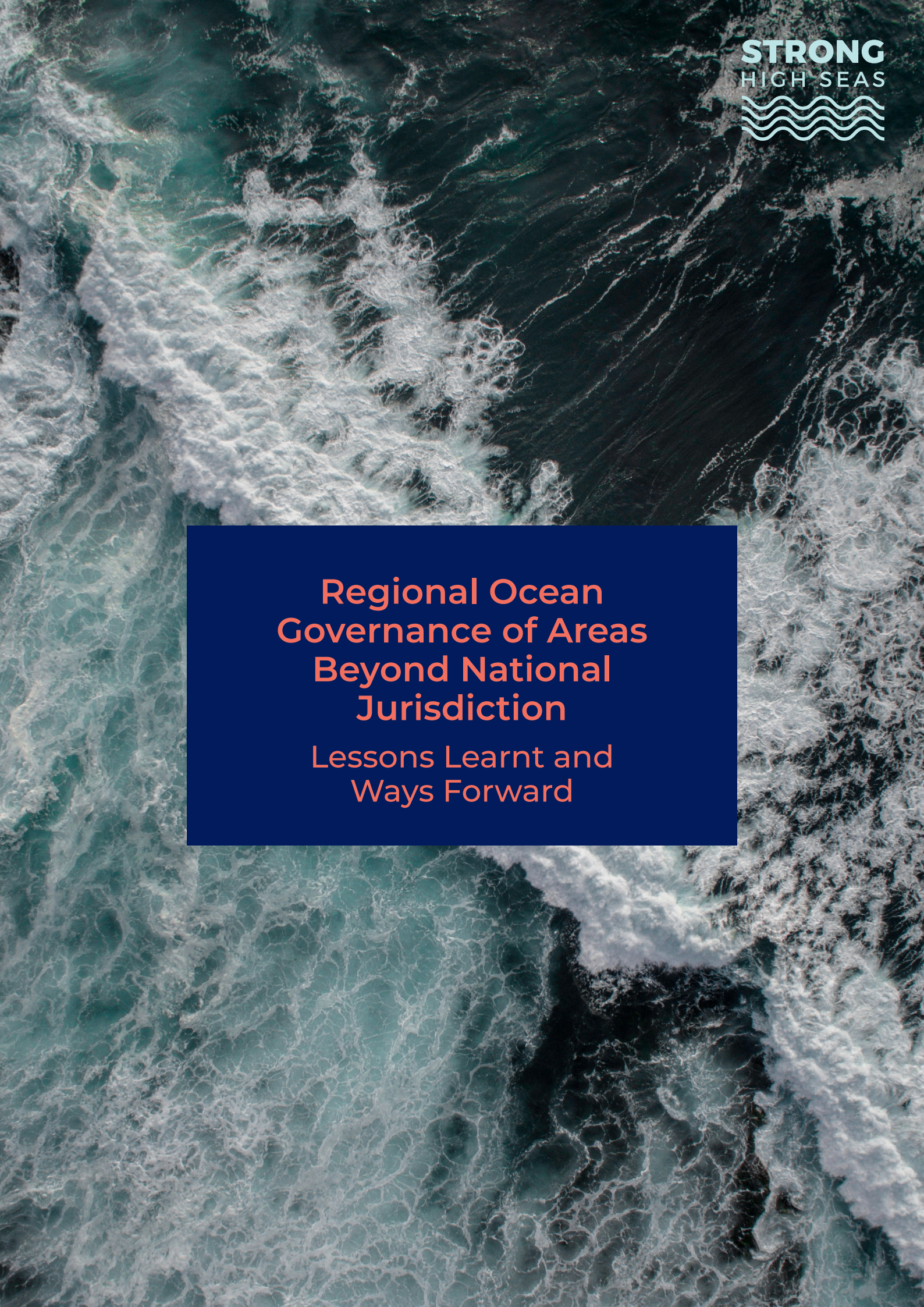

STRONG HIGH SEAS

Regional Ocean Governance of Areas Beyond National Jurisdiction

Lessons Learnt and Ways Forward

Citation

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

Contents

Abbreviations

ABMTs	Area-based management tools
ABNJ	Areas beyond national jurisdiction
ASEAN	Association of Southeast Asian Nations
AU	African Union
BBNJ Working Group	Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction ("biodiversity beyond national jurisdiction working group")
CARICOM	Caribbean Community
CBD	Convention on Biological Diversity
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
COP	Conference of the Parties
CPPS	Comisión Permanente del Pacífico Sur [Permanent Commission for the South Pacific]
DOALOS	Division for Ocean Affairs and the Law of the Sea
EBSA	Ecologically or Biologically Significant Marine Areas
EU	European Union
FAO	United Nations Food and Agriculture Organization
IGC	Intergovernmental Conference
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
ISA	International Seabed Authority
MGR	Marine Genetic Resources
MoU	Memorandum of Understanding
MPA	Marine Protected Area
NEAFC	North East Atlantic Fisheries Commission
NGO	Non-governmental organisation
NPFC	North Pacific Fisheries Commission
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic (Oslo-Paris Convention)
PrepCom	Preparatory Committee
PSSA	Particularly Sensitive Sea Areas
REPCET	Real time plotting of cetaceans
RFB	Regional fishery body
RFMO	Regional fisheries management organisation
SAI	Significant adverse impact
SDG	Sustainable Development Goal
SPAMI	Specially Protected Area of Mediterranean Importance
SSA	Sargasso Sea Alliance
SSC	Sargasso Sea Commission
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFSA	United Nations Fish Stocks Agreement
UNGA	United Nations General Assembly
VME	Vulnerable marine ecosystem

Executive Summary

The vast global ocean that lies beyond the jurisdiction of any nation represents nearly half of the Earth's surface and hosts a significant portion of its biodiversity. In recent years, human activities in these marine areas beyond national jurisdiction (ABNJ) have expanded and intensified.[1] Recognising shortcomings in the existing governance framework covering these areas, States have begun formal diplomatic negotiations for a new international treaty to conserve and sustainably use high seas biodiversity. A new agreement will pave the way for the implementation of management tools to safeguard marine biodiversity, including the designation of marine protected areas (MPAs).

At the same time, many States and stakeholders have also begun to take action at the regional level. Indeed, the development of regional initiatives for the protection of the marine environment has long been a cornerstone of international environmental policies, providing an appropriate scale for the implementation of an ecosystem approach to conservation and management and facilitating political consensus among those sharing similar history, culture and interests. As such, States and observers are actively considering the possible role of regional organisations within the framework of any future international instrument.

This report provides an overview of a range of ongoing initiatives to improve governance of ABNJ at the regional level, including: novel modalities, such as the "Collective Arrangement for the North-East Atlantic", whereby the OSPAR Commission and the North East Atlantic Fisheries Commission (NEAFC) seek to strengthen cooperation between organisations with a management mandate in the region; coalition-based initiatives, such as the Sargasso Sea Commission and the Pelagos Sanctuary for Mediterranean Marine Mammals; and the international legal framework of the Antarctic Treaty System (ATS), under which parties have agreed to develop a representative system of MPAs and have designated the world's largest MPA in the Ross Sea.

These experiences provide a number of useful lessons learnt that can facilitate further development of regional initiatives and inform the construction of an efficient and effective new international treaty. In particular, this report highlights the need for: effective mechanisms for cooperation and coordination between organisations with a management mandate in ABNJ; the role played by champions and leaders with the political will to drive the process and garner support for improved management; and the importance of developing a dynamic science-policy interface that can provide policy-relevant scientific information to decision makers and stakeholders.

In spite of significant efforts and progress, these experiences also suggest that negotiation of a new international treaty is an opportunity to bring coherence to a fragmented and ineffective governance regime, by providing additional support for improved cross-sectoral cooperation and fresh impetus for the establishment or strengthening of regional integration mechanisms.

1 ABNJ comprise both the water column ("high seas") and the seabed ("the Area") beyond States' 200 nautical mile Exclusive Economic Zones (EEZ).

1. Introduction

The ocean provides ecosystem services that are fundamental to human survival and well-being (Peterson and Lubchenco, 1997; United Nations, 2016; Wright, Rochette, Gjerde, *et al.*, 2018). Our seas provide the primary source of protein for about 1 billion people,[2] and present a variety of opportunities for sustainable economic growth, from aquaculture to renewable energy (OECD, 2016; Johnson, Dalton and Masters, 2018). The ocean is also the backbone of international trade and communication systems (The International Cable Protection Committee, 2016; UNCTAD, 2018), and is at the heart of many recreational and cultural activities (United Nations, 2016). There is, however, growing recognition that our use of the marine environment and its resources is unsustainable.

Comprising both the water column ("high seas")[3] and the seabed ("the Area") outside of the 200-mile Exclusive Economic Zones (EEZ),[4] areas beyond national jurisdiction (ABNJ) represent nearly half of the Earth's surface and host a significant portion of its biodiversity. They are fundamental for our collective wellbeing, as they provide a wealth of resources and vital ecosystem services, including: provisioning services, such as seafood, raw materials, genetic and medicinal resources; regulating services, such as climate regulation, carbon sequestration, air purification and habitats; cultural services, such as recreation and aesthetic enjoyment, spiritual significance and historical value, science and education; and supporting services, such as nutrient recycling and primary production (United Nations, 2016; Wright, Rochette, Gjerde, *et al.*, 2018).

ABNJ contain unique oceanographic and biological features (UNEP, 2006),[5] extensive open ocean and bottom habitats that play a range of important roles in wider ocean ecosystems and climatic processes (Snelgrove, 1999; Maxwell *et al.*, 2017), and migration routes for many species of commercial importance and conservation interest. Many of these ecosystems and migration routes naturally span waters both within and beyond national jurisdiction and scientific understanding of this connectivity is rapidly developing (Horton *et al.*, 2017; Harrison *et al.*, 2018; Leary and Roberts, 2018; Votier, 2018).

In recent years, traditional maritime activities in ABNJ, such as shipping and fishing, have expanded and intensified, while new activities are on the horizon. At the same time, it is widely recognised that the fragmented ocean governance regime is ill-equipped to ensure the sustainability of marine resources (Tladi, 2011; Houghton and Rochette, 2014; Wright, Rochette, Gjerde, *et al.*, 2018). This is particularly true for ABNJ, where the expansion of ocean uses has rapidly outpaced development of scientific knowledge and governance (Wright, Rochette, Gjerde, *et al.*, 2018). The first UN World Ocean Assessment highlighted how our growing use of ocean space has "the potential for conflicting and cumulative pressures," particularly as, "in most cases, those various activities are increasing without any clear overarching management system or a thorough evaluation of their cumulative impacts on the ocean environment" (United Nations, 2016).

2 See World Health Organization, 'Availability and consumption of fish', http://www.who.int/nutrition/topics/3_foodconsumption/en/index5.html.

3 I.e. all parts of the sea not included in the Exclusive Economic Zone (EEZ), in territorial seas, or in archipelagic waters.

4 I.e. the seabed, ocean floor and subsoil, beyond the limits of national jurisdiction.

5. Such as seamounts, hydrothermal vents and cold seeps. See, e.g. Watling and Auster (2017); Van Dover *et al.* (2018)..

Box 1: Human activities in ABNJ

Shipping: Around 90% of world trade is now carried by the international shipping industry, with 10.7 billion tonnes of cargo loaded in 2017 (UNCTAD, 2018). This has a range of environmental pressures, including air and noise pollution, carbon emissions, collisions with cetaceans, discharge of sewage and other wastes, and introduction of invasive species. Shipping is regulated through international conventions adopted in the framework of the International Maritime Organisation (IMO).[6]

Fishing: High seas catches grew from approximately 450,000 tonnes (US$639 million) in 1950 to around 5,165,000 tonnes (US$10.6 billion) in 1989, far outpacing global growth in coastal zone catches and value in the same period (Pauly and Zeller, 2016; Dunn *et al.*, 2018). Since 1990, catch and value of high seas fisheries have remained relatively stable (FAO, no date), yet fishing effort more than doubled between 1990 and 2006 (Merrie *et al.*, 2014). High seas fisheries can have significant environmental impacts. In addition to depleting stocks of target species, non-target species are also heavily impacted and vulnerable habitats are damaged through destructive fishing practices (Clark *et al.*, 2016; Pauly and Zeller, 2016). Most fishing in ABNJ is managed at the regional level by States cooperating through regional fisheries management organisations (RFMOs).

Seabed mining: Exploration for mineral resources in the Area is underway, with 29 exploration contracts signed between contractors and the International Seabed Authority (ISA).[7] Seabed mining is likely to have a range of impacts on marine ecosystems, including: disturbance of the benthic community where nodules are removed; plumes impacting the near-surface biota and deep ocean; and deposition of suspended sediment on the benthos (Morgan *et al.*, 1999; Van Dover *et al.*, 2017). The rules, regulations and procedures that cover prospecting and exploration are gathered in the "Mining Code",[8] while the ISA is currently developing regulations for eventual exploitation of these resources.[9]

Pollution: The vast majority of marine pollution, around 80%, comes from land-based sources (e.g. chemicals, particles, industrial, agricultural and residential waste). Eutrophication (the enrichment of waters by nutrients) is a result of such pollution and causes algal blooms that can lead to extensive dead-zones, while potentially toxic chemicals are taken up by plankton and concentrated upward within ocean food chains (Biello, 2008; Altieri and Gedan, 2014). Detrimental are also the effects of plastic pollution: living organisms are affected through ingestion, through exposure to chemicals within plastics, or through accumulation of microplastics in their tissues (UNEP, 2016).

Greenhouse gas emissions: Rising sea temperatures, deoxygenation and ocean acidification resulting from anthropogenic climate change are predicted to compound the above-mentioned impacts and place further pressure on marine ecosystems (Hoegh-guldberg, 2010; Gattuso, Mach and Morgan, 2013; Gattuso *et al.*, 2015).

6 While the IMO's original mandate was principally concerned with maritime safety, it has adopted a wide range of environmental measures. The Marine Environment Protection Committee (MEPC) addresses issues including: the control and prevention of ship-source pollution covered by the MARPOL treaty; ballast water management; anti-fouling systems; ship recycling; pollution preparedness and response; and identification of special areas and particularly sensitive sea areas (PSSAs). See: http://www.imo.org/en/OurWork/Environment/Pages/Default.aspx.

7 The ISA was established in 1994 by an implementing agreement to UNCLOS and is the competent body through which Parties "organise and control activities in the Area, particularly with a view to administering the resources of the Area" (Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982).

8 Available at: https://www.isa.org.jm/mining-code.

9 In August 2017 the ISA released a first set of Draft Regulations on Exploitation of Mineral Resources in the Area, which currently remain under development. See Draft Regulations on Exploitation of Mineral Resources in the Area, issued 30 April 2018, https://undocs.org/ISBA/24/LTC/WP.1/

Cognisant of the growing pressures on ABNJ, States have been discussing options for ensuring conservation and sustainable use for more than a decade (Figure 2). A landmark United Nations General Assembly (UNGA) resolution was passed on 24 December 2017, marking the beginning of formal diplomatic negotiations for an international treaty to conserve and sustainably use the high seas. Among others, the decision paves the way for the creation of a system to set up ABMTs in ABNJ, including marine protected areas (MPAs) (Wright, Rochette, Gjerde, *et al.*, 2018).

In parallel, some regional organisations have expanded their activities into ABNJ in recent years, working towards the design and implementation of measures to better protect and manage these areas (Rochette *et al.*, 2014; Wright, Rochette, Gjerde, *et al.*, 2018). This report focuses on these regional initiatives and aims to present some key experiences, highlight the main lessons learnt and identify ways forward, including in relation to the future global agreement. Section 2 highlights the rationale underlying regional initiatives in ABNJ, while Section 3 identifies the available tools for regional organisations to initiate the management of ABNJ and presents cases studies from different regions. Section 4 concludes by drawing lessons learnt and possible ways forward.

This report is part of a series of reports covering issues of ocean governance with a focus on the high seas of the Southeast Pacific and Southeast Atlantic. Further reports focusing on the Southeast Atlantic and Southeast Pacific will be published by the STRONG High Seas project on topics such as the legal and institutional framework for high seas biodiversity conservation, ecological state of the high seas, socioeconomic importance of the high seas, options for management measures and recommendations for stakeholder engagement and capacity building in ocean governance. These reports will be made available through the STRONG High Seas project website.[10]

10 Available at: https://www.prog-ocean.org/our-work/strong-high-seas/.

Figure 1: Summary of key meetings and resolutions on marine biodiversity beyond national jurisdiction (BBNJ) (Wright *et al.*, 2018)

2006 13-17 February	First meeting of the BBNJ Working Group	Emergence of an ideological divide regarding the legal status of MGRs found in the Area EU called for adoption of a new agreement.
2008 28 April-2 May	Second meeting of the BBNJ Working Group	Continued discussions and development of State positions.
2010 1-5 February	Third meeting of the BBNJ Working Group	Working Group invited to make recommendations to the UNGA. Numerous proposals for advancing conservation and sustainable use.
2011 31 May-3 June	Fourth meeting of the BBNJ Working Group	Common position reached between EU, G77, China, Mexico; creation of the "Package Deal". Intersessional workshops proposed.
2012 7-11 May	Fifth meeting of the BBNJ Working Group	Discussions focused on the preparation of the intersessional workshops.
2012 20-22 June	Rio+20	Commitment made to decide on whether to negotiate a new agreement; deadline set (September 2015).
2013 2-3 May	Intersessional workshop on MGRs	Scientific expertise provided to delegations.
2013 6-7 May	Intersessional workshop on conservation and management tools	
2013 19-23 August	Sixth meeting of the BBNJ Working Group	Recommended 3 meetings of Working Group on scope, parameters and feasibility.
2014 1-4 April	Seventh meeting of the BBNJ Working Group; first of three special sessions on scope, parameters and feasibility	Beginning of substantive debate; move towards identification of key issues.
2014 16-19 June	Eighth meeting of the BBNJ Working Group; second of three special sessions	Increasing convergence among States on a number of issues. Broader engagement of States in the process, especially CARICOM, the African Union, and the Pacific States.
2015 20-23 January	Ninth meeting of the BBNJ Working Group; third and final special session	Recommendation to the UNGA to decide to open negotiations.
2015 19 June	UNGA Resolution 69/292	Establishment of the Preparatory Committee
2016 28 March- 10 April	First meeting of the Prepcom	'Unpacking' the package.
2016 26 August- 9 September	Second meeting of the Prepcom	Detailed discussion of State positions.
2017 27 March- 7 April	Third meeting of the Prepcom	Narrowing down possible approaches to contentious issues.
2017 10-21 July	Fourth meeting of the Prepcom	Substantive recommendations submitted to the UNGA.
2017 24 December	UNGA Resolution 72/249	Convening of an intergovernmental conference
2018 16-18 April	Organizational meeting	Election of President of the intergovernmental conference (Rena Lee, Singapore) and discussions on rules for the negotiations.
2018 4 – 17 September	1st Intergovernmental Conference (IGC) meeting	
2019-2020	2nd-4th IGC meeting	

2. The rationale for regional ocean governance

Regional initiatives for the protection of the environment are a cornerstone of international environmental governance. The United Nations Convention on the Law of the Sea (UNCLOS) notes the importance of regional cooperation.[11] Under article 197, States are encouraged to cooperate "as appropriate, on a regional basis, directly or through competent international organisations for the protection and preservation of the marine environment, taking into account characteristic regional features". UNCLOS also makes particular mention of regional cooperation with regard to high seas living resources. Other international agreements and policies encourage States to cooperate at the regional level, including the UN Fish Stocks Agreement (UNFSA),[12] the Convention on Biological Diversity (CBD)[13] and the Sustainable Development Goals (SDGs).[14]

The regional approach to marine environmental protection provides an appropriate scale for the implementation of an ecosystem approach to conservation, and often allows for political consensus among limited numbers of parties that share similar history, culture and interests in the region (Rochette *et al.*, 2015; Wright *et al.*, 2017; Gjerde *et al.*, 2018):

> *"regional level institutions, including regional seas conventions and action plans, Regional Fisheries Management Organisations (RFMOs) and scientific bodies, have already made some significant and have a long-standing history of convening regional member states to work together on transboundary marine issues, such as conducing scientific assessments, creating working groups, establishing protocols and making efforts to ensure compliance"* (Gjerde *et al.*, 2018).

In this regard, efforts at the regional level play a crucial role in delivering ocean sustainability by providing for cooperation and coordination by States across territorial and, increasingly, sectoral boundaries.

11 According to its preamble, UNCLOS aims to establish a "legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilisation of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment". Although UNCLOS is recognised as a fundamental international treaty on oceans and plays a leading role in the regulation of marine issues, not all States are Parties to this Convention. To date, 168 States have ratified UNCLOS.

12 United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (8 September 1995) (UNFSA). Article 8(1) encourages States to cooperate directly or through subregional or regional fisheries management organisations or arrangements (RFMO/As), taking into account the specific characteristics of the subregion or region within their respective jurisdictions.

13 Convention on Biological Diversity (1992). While the CBD does not explicitly refer to the regional level, the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets adopted by the CBD's Conference of Parties (COP) in 2010 highlight the need for regional biodiversity strategies and targets. CBD, COP 10, Decision X/2, 'Strategic Plan for Biodiversity 2011-2020 and Aichi Biodiversity Targets' (2010). Although the CBD has no jurisdictional mandate for ABNJ – only, as outlined in CBD art. 4, in the case of processes and activities under the jurisdiction of its contracting parties, it provides a broad cooperation obligation with regard to the conservation and sustainable use of marine biodiversity in ABNJ (art. 5).

14 The SDGs highlight "the importance of the regional and subregional dimensions (...) in sustainable development" and the role of the regional level with regard to the follow-up and review process. UNGA Resolution A/RES/70/1, 'Transforming our world: the 2030 Agenda for Sustainable Development' (25 September 2015), Sections 21 and 80, respectively.

Box 2: Main mechanisms for regional cooperation on ocean governance (Rochette *et al.*, 2015; Billé *et al.*, 2016)

Regional Seas Programmes: More than 143 countries participate in 18 Regional Seas programmes (RSPs) across the globe (Figure 3). Fourteen of these are part of the UNEP Regional Seas Programme, while four have been set up and operate independently. Most RSPs are underpinned by regional framework conventions and specific protocols, and function through Action Plans that serve as the basis for regional cooperation. RSPs mainly focus on pollution and measures for the conservation of marine living resources.

Regional Fisheries Bodies (RFBs): RFBs are a mechanism through which States or organisations that are party to an international fishery agreement or arrangement work together to manage one or more fisheries. If a RFB holds a management mandate to adopt fisheries conservation and management measures that are legally binding on their members, it is called a **Regional Fisheries Management Organisation (RFMO)**. RFMOs are often usually differentiated between tuna and non-tuna RFMOs (Figures 4 and 5).

Large Marine Ecosystems (LMEs): LMEs are vast areas of ocean (approximately 200,000 square kilometres or greater) adjacent to the continents in coastal waters and where primary productivity is generally higher than in open ocean areas. LME mechanisms aim to implement ecosystem-based management by collating and developing knowledge of human activities and their impacts and developing appropriate governance strategies.

Other regional initiatives: Many complementary regional initiatives have been undertaken outside of the above governance structures by political and economic organisations (Including the European Union (EU), the African Union (AU), the Association of Southeast Asian Nations (ASEAN), and the Caribbean Community Secretariat - CARICOM), leaders and heads of State (e.g. the Micronesia Challenge and the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security), and *ad hoc* groups bringing together a range of actors (e.g. the Sargasso Sea Commission). Such initiatives have originated among countries and jurisdictions with shared resources, concerns, and contexts, and therefore have tended to address challenges to their coastal and marine environment from integrated, ecosystem-based, and people-focused perspectives (Wright *et al.*, 2017)

Figure 2: Regional Seas Programmes (UNEP)

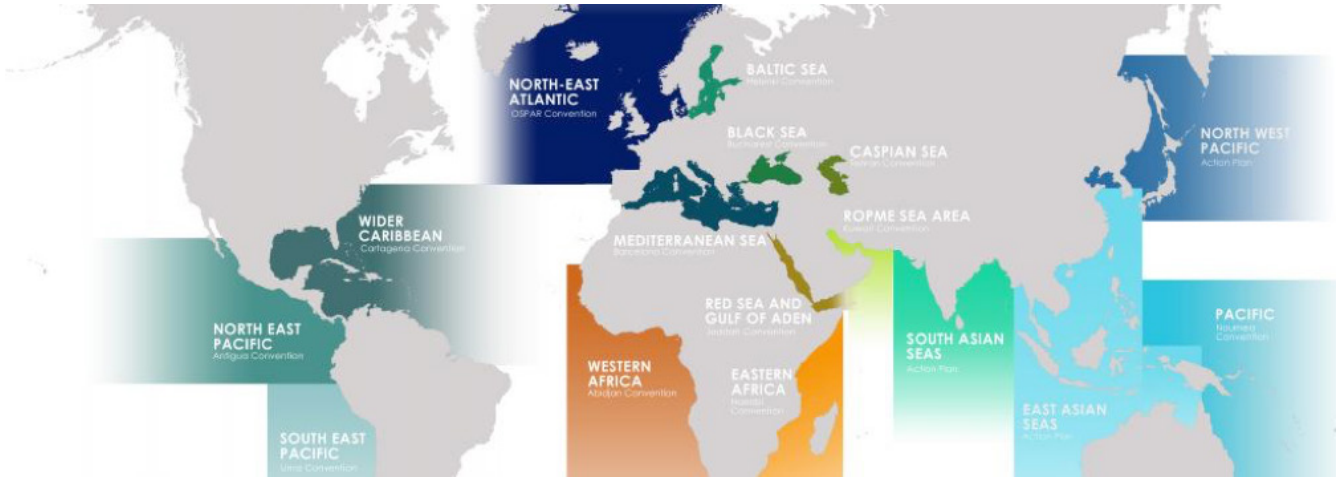


Figure 3: Tuna RFMOs (Ban *et al.*, 2014)

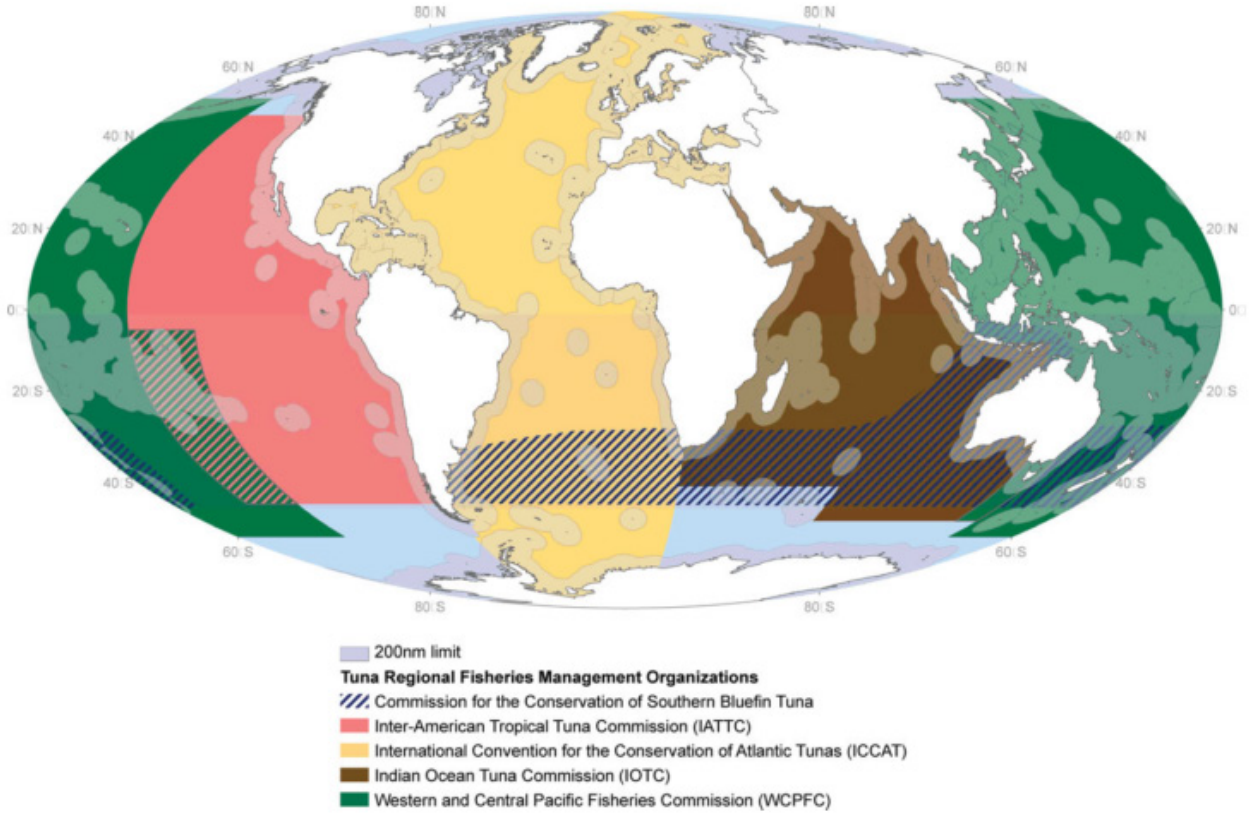
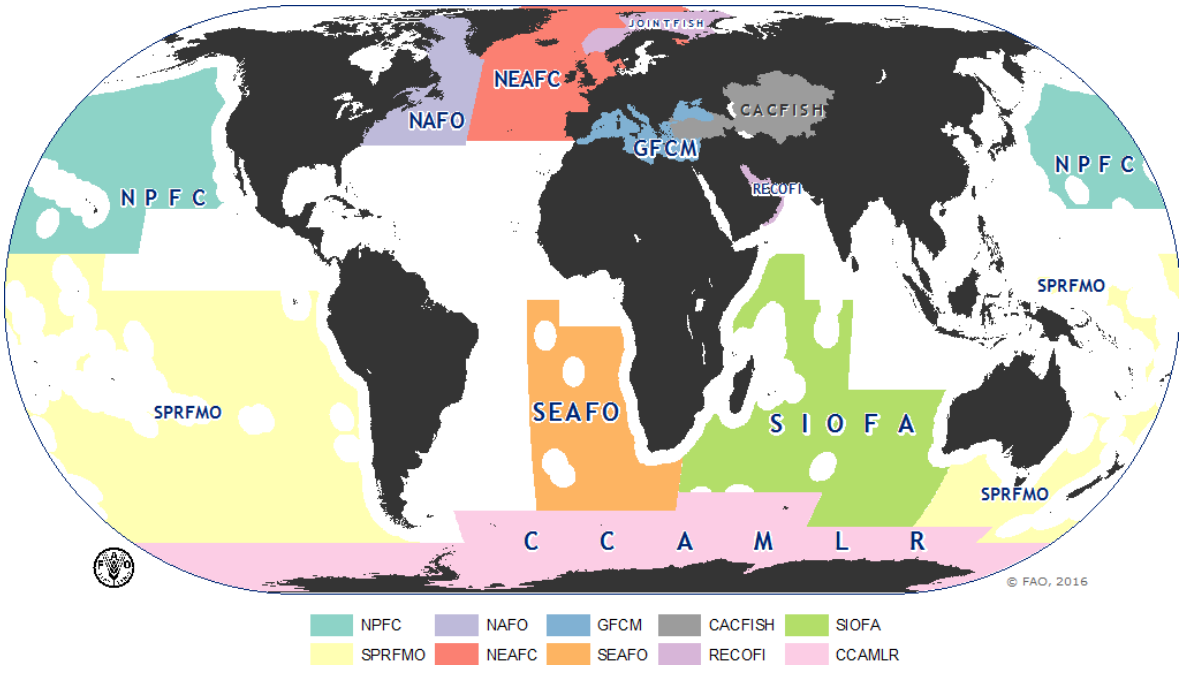


Figure 4: Non-tuna RFMOs (FAO, 2016)



3. The potential contribution of regional cooperation to the conservation and sustainable use of ABNJ

The growing interest in regional approaches to the governance of marine biodiversity in ABNJ has recently been further amplified by the start of negotiations for a new international legally binding instrument for the conservation and sustainable use of marine biodiversity in ABNJ. States and observers (including international and regional organisations, non-governmental organisations (NGOs), research centres, etc.) are increasingly discussing the possible role of regional organisations within the framework of any future international instrument.

The contribution of regional cooperation may be twofold. Firstly, strong regional governance mechanisms can underpin an ambitious and effective international treaty. Secondly, regional initiatives could play a role in facilitating coordination and cooperation between States, institutions and stakeholders.

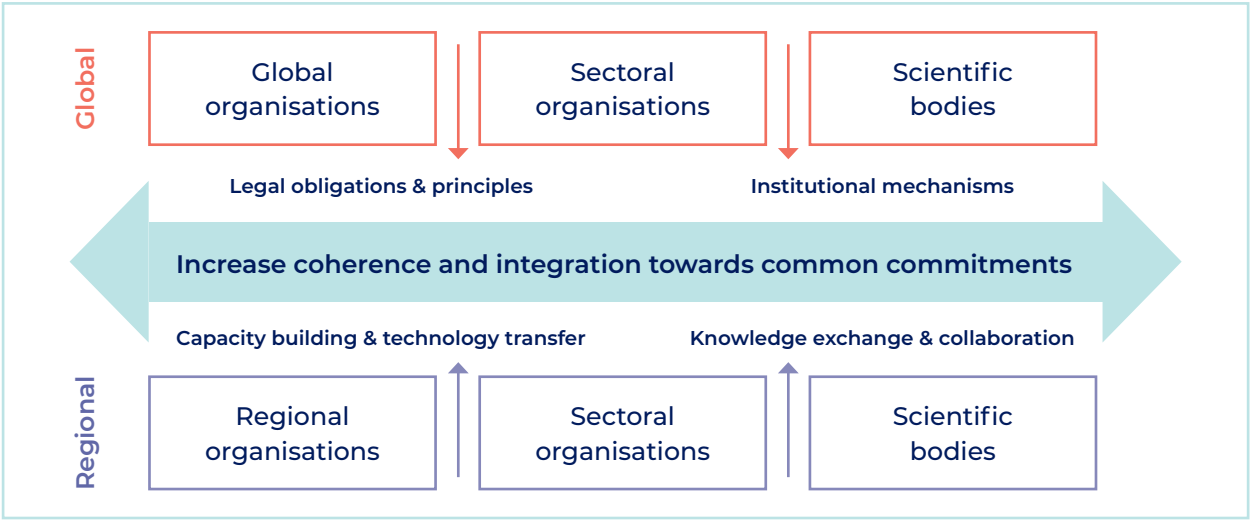
3.1. Underpinning a strong global agreement

According to Gjerde *et al.*, (2018):

> *the regional and sectoral levels can underpin global standards established in a new BBNJ agreement by developing, implementing and enforcing regionally or sectorally based agreements. This allows them to consider the specificity of the region, its challenges and needs, as well as go beyond the standards established by a new BBNJ agreement.*

At the same time, regional developments can feed into the negotiation process by setting examples and providing building blocks for a global mechanism. Furthermore, there is potential for learning and exchange between regions. While each region has its own specific ecological context and related govern-

Figure 5: Coherence and integration between and across regional and global institutions (Gjerde *et al.*, 2018)



ance framework, the experiences and lessons learned from ongoing initiatives will be helpful in informing efforts in other regions.

3.2. Facilitating cooperation and coordination

While a range of agreements and institutions are already in place to advance conservation and sustainable use in ABNJ, they "bear no real relationship to one another and operate independent of each other without an overarching framework to ensure structure, consistency and coherence" (Tladi, 2011). Importantly, while there is a strong interest in the establishment of MPAs in ABNJ, there is currently no global mechanism to make this possible. The prevailing approach to conservation and sustainable use at the global level is sectoral, with several international organisations having certain "area-based management tools" (ABMTs) at their disposal (see Annex 1). Regional cooperation can play a role in strengthening the management framework through, for example: ensuring effective fisheries management through RFMOs; making use of ABMTs and designating MPAs; and developing mechanisms to facilitate cooperation and coordination between actors.

Regionally-led initiatives in ABNJ are of interest for a number of reasons. Such initiatives make it possible to advance governance of ABNJ while the international process to establish an implementing agreement on BBNJ under UNCLOS is ongoing. They also help to raise awareness of the importance of conserving marine biodiversity in ABNJ, and can lead to the development of scientific knowledge and management tools. However, such initiatives suffer from important limitations. In particular, regional initiatives are only binding for Contracting Parties to the regional organisation and there is no mechanism for the creation of internationally recognised legally-binding MPAs. Moreover, since many regional institutions, such as Regional Seas programmes, have no mandate for the regulation of all human activities and impacts, cooperation and coordination with relevant global and regional organisations is needed.

Example 1: Fisheries management measures

The UN Fish Stocks Agreement (UNFSA) provides a framework for cooperation on management of straddling and highly migratory fish stocks. The agreement requires States, individually and through RFMOs, to assess and manage fish stocks, as well as the impacts of fisheries on non-target species and ecosystems. States are also obliged to: minimize bycatch; develop data collection and research programmes; adopt plans to ensure the conservation of affected species and protect habitats of special concern; protect biodiversity in the marine environment. In their efforts to implement the provisions of the UNFSA, States have cooperated through RFMOs to implement a range of management measures, including limitations on fish effort and catches and gear types.

Deep-sea fisheries in ABNJ have been a particular focus at the UNGA and other forums. In 2004, the UNGA called for urgent action and to consider the interim prohibition of destructive fishing practices in ABNJ on a case-by-case basis until appropriate conservation and management measures had been adopted.[15] In 2006, the UNGA adopted a more detailed resolution[16] that required States to take specific actions to protect vulnerable marine ecosystems (VMEs) from the serious adverse impacts of bottom fisheries in ABNJ,[17] including closure of areas to bottom fishing activities where there is likely to be significant adverse impacts to VMEs. Over 30 such

15 United Nations General Assembly, Resolution 59/25 (2004), Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments.

16 United Nations General Assembly. Resolution 61/105 (2006), Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments.

17 The FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas (2009) provide guidance on identifying VMEs and significant adverse impacts. The FAO Guidelines call for consideration of: uniqueness or rarity; functional significance; fragility; life-history traits of component species that make recovery difficult; and structural complexity. The Guidelines note that vulnerability concerns the "likelihood that a population, community, or habitat will experience substantial alteration from short-term or chronic disturbance, and the likelihood that it would recover and in what time frame". Ardron *et al.* (2014) have also developed a systematic process for identifying VMEs.

closures are now in place (Gianni *et al.*, 2016; Wright *et al.*, 2018).[18]

Example 2: Marine Protected Areas

A MPA may be defined as "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".[19] MPAs are an important tool for biodiversity conservation and it is widely acknowledged that ecologically connected networks of MPAs will be crucial for increasing resilience to climate change and sustaining high seas ecosystems (Sumaila *et al.*, 2007; Grüss *et al.*, 2014; Ceccarell and Fernandes, 2017; Roberts *et al.*, 2017; Zupan *et al.*, 2018). Not all MPAs take the same form, but they range from strict no-take zones to areas allowing for sustainable use.

The international community has committed, in numerous global forums, to establish a network of MPAs covering a significant percentage of the global ocean.[20] As of 2018, approximately 3.7% of the global ocean is covered by a total of 13,000 MPAs worldwide (O'Leary *et al.*, 2018).[21]

Box 3: IUCN Protected Area Categories (Dudley, 2008)

Ia Strict Nature Reserve: Human visitation, use and impacts are strictly controlled and limited.

Ib Wilderness Area: Large unmodified or slightly modified area, protected and managed to preserve natural condition.

II National Park: Large natural or near natural area set aside to protect species and ecosystems, providing for environmentally and culturally compatible, spiritual, scientific, educational, and recreational opportunities.

III Natural Monument or Feature: Usually small protected area with high visitor value guarding a specific natural monument.

IV Habitat/Species Management Area: Area managed with the aim of protecting particular species or habitats.

V Protected Landscape/ Seascape: A protected area where the interaction of people and nature has produced a distinct character with significant, ecological, biological, cultural and scenic value.

VI Protected area with sustainable use of natural resources: Ecosystem and habitat protected alongside associated cultural values and traditional natural resource management systems.

18 Assessments conducted by civil society, the scientific community and the UNGA have nonetheless highlighted that implementation gaps remain and, despite increased engagement with these issues, a number of RFMOs are not yet fully implementing the UNGA resolutions to protect high seas biodiversity in the deep ocean (Wright *et al.* 2014; DSCC 2011; Weaver *et al.* 2011; Rogers & Gianni 2010).

19 Guidelines for applying the IUCN Protected Areas Categories to MPAs (2012) Best Practice Protected Area Guidelines Series No.19, http://cmsdata.iucn.org/downloads/uicn_categoriesamp_eng.pdf.

20 The Aichi Biodiversity Targets and the UN Sustainable Development Goals, for example, demand protection of 10% of the world's ocean – although some scientists argue that at least 30% is necessary (O'Leary *et al.*, 2016) maximise or optimise six environmental and/or socio-economic objectives. Results consistently indicate that protecting several tens-of-percent of the sea is required to meet goals (average 37%, median 35%, modal group 21–30%.

21 See http://www.mpatlas.org/map/mpas/.

Given the foregoing, there is a strong interest in the establishment of MPAs in ABNJ - yet there is currently no global mechanism to make this possible. As discussed above, the prevailing approach to conservation and sustainable use at the global level has been sectoral. At the national level, States can unilaterally designate MPAs in their waters, whereas no sovereign entity or global body exists at the regional level to declare such areas in ABNJ.

In this context, three Regional Seas have already developed specific actions in ABNJ, through the creation of MPAs: the OSPAR Commission in the North East Atlantic, Commission on the Conservation of Antarctic Marine Living Resources (CCAMLR) in the Southern Ocean and the Barcelona Convention in the Mediterranean.

4. Selected examples of regional initiatives

4.1. Cooperation between regional and sectoral organisations: the "Collective Arrangement for the North-East Atlantic"

The OSPAR Commission, a Regional Seas Programme, established the world's first network of marine protected areas in ABNJ (O'Leary *et al.*, 2012), while the North East Atlantic Fisheries Commission (NEAFC) has identified VMEs and instated bottom fisheries closures (Kvalvik, 2012). Thus a complementary network of sites has been established by both organisations. The two organisations worked in parallel on their own designation processes, while there is regular exchange between them and both receive scientific advice from the International Council for the Exploration of the Seas (ICES).

In order to coordinate activities relating to the management of the selected areas in ABNJ, both organisations have also agreed on a specific cooperative mechanism,[22] the "Collective arrangement between competent international organisations on cooperation and coordination regarding selected areas in areas beyond national jurisdiction in the North-East Atlantic" (2014).[23] OSPAR and NEAFC are the first participants that have endorsed this arrangement. Other authorities with management competencies in the region, such as the IMO and the ISA, have been invited to participate.

Areas of cooperation include the exchange of information and data, notification of any proposed activities, cooperation with regard to Environmental Impacts Assessments (EIAs) and Strategic Environmental Assessments (SEAs). Formal annual meetings have since been held, bringing together the secretariats of both organisations, representatives of Contracting Parties, observers from other competent international organisations,[24] and NGOs.

OSPAR and NEAFC demonstrated that, despite a lack of an overarching legal framework for the conservation and sustainable use of marine biodiversity in ABNJ of the North-East Atlantic, coordination and cooperation between competent international organisations in ABNJ can be achieved. While promising, it has proved "time- and labour- intensive, particularly in the global bodies, IMO and ISA, to move such an idea forward, with organisations' different levels of technical scrutiny and sometimes complex and mutually incompatible annual meeting cycles" (Johnson, 2013; Matz-Lück and Fuchs, 2014).

4.2. A coalition-based approach: the Sargasso Sea Commission

The Sargasso Sea covers approximately 2 million square nautical miles within the North Atlantic Subtropical Gyre around the islands of Bermuda, most of which is in ABNJ. The diverse and productive Sargasso Sea is a unique ecosystem facing a range of pressures due to human activities. The Sargasso Sea Commission (SSC) was established pursuant to the Hamilton Declaration (2014), a non-binding political declaration adopted and signed by Bermuda, Azores, Bahamas, British Virgin Islands, Canada, Cayman Islands, Monaco, the UK and the US (see Reese, 2017). The SCC is mandated to exercise a stewardship role for the ABNJ

22 NEAFC and OSPAR Commission, 'The process of forming a cooperative mechanism between NEAFC and OSPAR' (2015) 196 UNEP Regional Seas Reports and Studies.

23 OSPAR Agreement 2014-09.

24 For example, the most recent meeting, held in May 2018, was attended by: the Abidjan Convention (The Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region); the International Convention for the Conservation of Atlantic Tuna (ICCAT); the North Atlantic Marine Mammal Conservation Organisation (NAMMCO); and the Caribbean Environment Programme (Cartagena Convention).

surrounding the island of Bermuda working through existing legal agreements and competent management bodies established according to UNCLOS.

The successes of the SSC include: recognition of the Sargasso Sea as an Ecologically or Biologically Significant Marine Area (EBSA) under the CBD;[25] recommendation the International Commission for the Conservation of Atlantic Tunas (ICCAT) use the area as a case study for an ecosystem-based approach to fisheries management;[26] listing of European Eel for protection under the Convention for the Conservation of Migratory Species (CMS);[27] and recognition of seamounts as Vulnerable Marine Ecosystems (VMEs), resulting in closure to bottom fishing and prohibition of certain mid-water trawling gear.[28]

The SSC is now finalising a Sargasso Sea Stewardship Plan – the first of its kind for ABNJ – and is considering a range of sectoral conservation and management actions,[29] including: recognition of the Sargasso Sea as a UNESCO World Heritage Site; regulation of tuna fishing activities that may have adverse impacts on the marine environment through the International Commission for the Conservation of Atlantic Tunas (ICCAT); regulation of navigation through IMO, possibly through the designation of a "particularly sensitive sea area" (PSSA) with associated protective measures;[30] coordination and cooperation with ISA with respect to mining activities; and initiation of coordination and cooperation with relevant actors (UNEP-WCMC, 2017; Wright and Rochette, 2017)

While favourable conditions have enabled the establishment of the SSC and the development of a clear and ambitious work programme,[31] the considerable challenges of working with existing organisations with a mandate in ABNJ has meant that the SSC achievements have been modest in terms of concrete conservation and management measures.

4.3. Multilateral cooperation between States: the Pelagos Sanctuary

In 1999, France, Italy and Monaco established the Pelagos Sanctuary for Mediterranean Marine Mammals to protect the eight resident cetacean species in the area.[32] The Sanctuary incorporates the territorial waters of these three States, but also ABNJ.[33] Entered into force in 2002, the Agreement seeks to coordinate initiatives to protect cetaceans and their habitats from all sources of disturbance, including pollution, noise, accidental capture and injury, and disruption.[34] In 2001, the Sanctuary was recognised as a Specially Protect-

25 Decision XI/17 on Marine and Coastal Biodiversity: Ecologically or Biologically Significant Marine Areas (2012) UNEP/CBD/COP/DEC/XI/17.

26 See Resolution by ICCAT on Ecosystems that are Important and Unique for ICCAT Species (2016).

27 Appendix II covers migratory species that have an unfavourable conservation status and that require international agreements for their conservation and management, as well as those that have a conservation status, which would significantly benefit from international cooperation that could be achieved by an international agreement. The Convention encourages the Range States to species listed on Appendix II to conclude global or regional Agreements for the conservation and management of individual species or groups of related species. See CMS, 'Appendix I & II of CMS' <http://www.cms.int/en/page/appendix-i-ii-cms>.

28 See FAO, 'Vulnerable Marine Ecosystems Database - New England Seamounts' <http://www.fao.org/figis/pdf/fishery/vme/23646/167810/en?title=VME-DB>.

29 These include: recognition of the Sargasso Sea as a UNESCO World Heritage Site; regulation of tuna fishing activities through ICCAT; regulation of navigation through IMO, possibly through the designation of a Particularly Significant Sea Area (PSSA) with associated protective measures; coordination and cooperation with ISA with respect to mining activities; and initiation of coordination and cooperation with relevant actors.

30 The IMO can identify PSSA that, for recognised ecological, socio-economic or scientific reasons, may be vulnerable to damage by international maritime activities. PSSAs are designated by non-legally binding resolutions from the IMO Marine Environment Protection Committee (MEPC) and associated protective measures may subsequently be adopted to protect the area. See IMO, Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs) (2005) A.982(24), http://www.imo.org/en/OurWork/Environment/PSSAs/Documents/A24-Res.982.pdf. No PSSAs have been designated in ABNJ (International Maritime Organization, 2005).

31 See Sargasso Sea Commission, 'Work Programme Priorities (2016-2018)' <http://www.sargassoseacommission.org/storage/documents/MOS_SSC_2016_2_Doc.1_Work_Programme_2016-2018_revised_1.pdf>.

32 Agreement concerning the creation of a marine mammal sanctuary in the Mediterranean, adopted in Rome, Italy, 25 November 1999.

33 The situation of the Mediterranean Sea is particular in that there is no point located at a distance of more than 200 nautical miles from the closest land or island. Therefore, there would be no ABNJ in the Mediterranean if all coastal States declared their EEZs. Despite increasing assertions of jurisdiction over EEZs in the region, some States have not yet declared their EEZ. See Scovazzi (2011)

34 See http://www.sanctuaire-pelagos.org/en/about-us/presentation.

ed Areas of Mediterranean Importance (SPAMI) by the Parties to the Protocol concerning specially protected areas and biological diversity in the Mediterranean, adopted within the framework of the Barcelona Convention.[35] This means that all Contracting Parties to this Protocol must abide by the regulations adopted for the Sanctuary.

A joint management plan of the Sanctuary was approved in 2004 and additional steps have been taken to ensure the protection of marine mammals in the area. The General Fisheries Commission of the Mediterranean (GFCM) has closed the Sanctuary to fishing with towed dredges and bottom trawlnets.[36] The Italian Navy has refrained from conducting naval exercises in the area, and the Italian Ministry of the Environment discontinued discharge of certain wastes in Sanctuary waters. A few shipping companies have also accepted to use the REPCET system to avoid collisions with cetaceans[37], and the founding States are discussing the opportunity of seeking recognition as a PSSA (Mangos and André, 2008; Mayol *et al.*, 2013). Concerns are however regularly expressed on the management and conservation tools developed in the Sanctuary (Notarbartolo-di-Sciara *et al.*, 2008).

4.4. Regional cooperation on fisheries closures: examples from the Northwest Atlantic and the Southern Indian Ocean

States have been cooperating through RFMOs in many regions to work towards implementing an ecosystem-based approach to fisheries management, which accounts for impacts on non-target species and associated ecosystems, as well as on target stocks (Garcia *et al.*, 2003; Heenan *et al.*, 2015) which is also impacted by other human activities, they need to be managed in an ecosystem context. The meaning of the terms "ecosystem management", "ecosystem-based management", "ecosystem approach to fisheries" (EAF). Recent reviews have found that tuna RFMOs, for example, have improved with regards to research and monitoring, and now have many of the foundational elements needed for implementing an ecosystem approach in place, but are yet to take the necessary action for effective management (Juan-Jordá *et al.*, 2018; Pons, Melnychuk and Hilborn, 2018). Similarly, non-tuna RFMOs are taking action to conduct impact assessments and close VMEs to fishing, though performance is highly variable and significant gaps remain in the implementation of the provisions of the UNFSA and the UNGA resolutions on bottom fisheries (Wright *et al.*, 2015; Gianni *et al.*, 2016).

By way of example:

- The Northwest Atlantic Fisheries Organisation (NAFO) has closed 15 areas to protect sponges, sea pens and corals, and prohibited bottom fishing on 6 seamount areas. The Scientific Council of NAFO is also working towards an ecosystem approach by: further developing ecosystem production modelling and multi-species assessment; developing "ecosystem summary sheets" as a means of communicating ecosystem level advice to managers; and ensuring that assessments are conducted for all NAFO bottom fisheries for significant adverse impacts on vulnerable marine ecosystems.[38]

- Parties to the South Indian Ocean Fisheries Agreement (SIOFA) recently declared five areas closed to bottom trawling.[39] This represents significant process, as previous meetings had failed to reach agreement on closures. However, many observers and some Contracting Parties have signalled that stronger measures

35 UNEP/MAP, Report of the twelfth ordinary meeting of the Contracting Parties to the Convention for the protection of the Mediterranean Sea against pollution and its protocols, Monaco; 14-17 November, 2001,UNEP(DEC)/MED IG.13/8, 30 December2001, Annex IV.

36 REC-GFCM/30/2006/3. There are no particular regulations for pelagic fishing.

37 See <http://www.repcet.com/docs/SE_2014_01_03_Pres-REPCET_en.pdf>

38 NAFO, Annual Meeting Press Release (21 September, 2018) https://www.nafo.int/Portals/0/PDFs/press/NAFO_PressRelease_AnnualMeeting2018.pdf. Following its second Performance Review, parties to NAFO recently agreed to task the Scientific Council to monitor and provide regular updates on relevant research related to the potential impact of activities other than fishing in the Convention Area, such as oil exploration, shipping and recreational activities, and how they may impact biodiversity.

39 The closures do not apply to other fishing gear, such as bottom long lining and traps, though vessels are obliged to have observers on board at all times if fishing in the designated areas.

should have been adopted,[40] in particular by instituting full closures in line with the precautionary approach. It has been suggested that 13 voluntary "Benthic Protected Areas", previously declared by the Southern Indian Ocean Deepsea Fishers Association (SIODFA), could be formalised as SIOFA VME closures, though parties have not been able to reach agreement on this (Wright and Rochette, 2017).

4.5. An international legal framework: the Antarctic Treaty System

The Antarctic Treaty System (ATS) is an international legal framework for the conservation and management of the Southern Ocean, comprising a number of instruments, in particular the Antarctic Treaty and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).[41] At the time of its adoption, CCAMLR was the first fisheries management organisation to incorporate an ecosystem approach into its mandate and is often cited as an example of good practice in ecosystem-based management of fisheries (Everson, 2017; Österblom and Olsson, 2017)the tasks have extended to ecosystem-based management through the concept of marine-protected areas into habitats and biodiversity. These diverse requirements have placed enhanced responsibilities on fisheries management organizations. Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). With regard to marine protection, Parties to CCAMLR have, inter alia, adopted a wide range of conservation measures (Everson, 2017; Österblom and Olsson, 2017) and:

- Agreed to develop a representative system of MPAs based on the best available science;[42]
- Designated the South Orkney Islands Southern Shelf MPA (2009);[43]
- Adopted Conservation Measure 91-04 (2011), which provides a framework for creating the network of MPAs and identified nine planning domains;[44] and
- Designated the world's largest MPA in the Ross Sea (2016).[45]

However, as consensus between all 24 members is required to designate MPAs, successful conclusion of the negotiations for the Ross Sea MPA necessitated intense diplomatic efforts, while discussions to designate further MPAs have recently stalled (Nilsson *et al.*, 2016; Everson, 2017) the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR.)[46] Commentators have noted that changing national interests and political considerations have led to a shift in the dynamic of CCAMLR discussions (Brooks, 2013; Brooks *et al.*, 2016; Nilsson *et al.*, 2016; Everson, 2017) CCAMLR joined the international movement to designate a representative network of marine-protected areas (MPAs), with Parties beginning to "disregard the best available science, distort the foundational rules of their convention, break trust, and threaten the integrity of one of the world's most well-regarded science-based multinational governance efforts" (Brooks *et al.*, 2016).

40 https://www.iucn.org/news/marine-and-polar/201807/progress-southern-indian-ocean-towards-better-protection-biodiversity-high-seas

41 The Antarctic Treaty was signed in Washington on 1 December 1959 and entered into force on 23 June 1961. The Treaty is supplemented by the Protocol on Environmental Protection to the Antarctic Treaty (Madrid, 1991 – Madrid Protocol), and two additional conventions dealing with the Conservation of Antarctic Seals (London 1972) and the Conservation of Antarctic Marine Living Resources (Canberra 1980). A further Convention on the Regulation of Antarctic Mineral Resource Activities (Wellington 1988) was negotiated but never entered into force; it has now been superseded by the Madrid Protocol.

42 See https://www.ccamlr.org/en/science/marine-protected-areas-mpas.

43 See https://www.ccamlr.org/en/measure-91-03-2009.

44 See https://www.ccamlr.org/en/measure-91-04-2011.

45 See https://www.ccamlr.org/en/measure-91-05-2016.

46 See "Anger as Russia, China block world's biggest marine sanctuary" (SBS, 3 November 2018), available at https://www.sbs.com.au/news/anger-as-russia-china-block-world-s-biggest-marine-sanctuary.

4.6. International cooperation on marine science: Ecologically or biologically significant marine areas (EBSAs)

In 2008, the Parties to the Convention on Biological Diversity (CBD) adopted scientific criteria for identifying ecologically or biologically significant marine areas in need of protection in open-ocean waters and deep-sea habitats (Convention on Biological Diversity, 2009; Dunn *et al.*, 2014; Johnson *et al.*, 2018). To date, 14 regional expert workshops have described more than 300 EBSAs. Description of an EBSA is a scientific process that does not result in any management measures, though EBSAs that have been reviewed by the CBD Conference of Parties (COP) are added to an EBSA repository and States and competent international organizations are requested to consider mechanisms to enhance protection and management. It has been suggested that EBSAs could provide the basis for the development of management measures (Weaver and Johnson, 2012; Dunstan *et al.*, 2016) and efforts are underway to further strengthen the scientific and technical robustness of the EBSA process and enhance their utility for defining and mapping existing conditions (Johnson *et al.*, 2018).

4.7. Recent developments

The conservation and sustainable use of ABNJ has become an issue of interest for several regional organisations. Initiatives conducted in the Mediterranean, Southern Ocean and North-East Atlantic have inspired other regions to progressively include ABNJ in their priorities and workplans:

- In the South Pacific, the Permanent Commission for the South Pacific (CPPS) adopted in 2012 the Galapagos Commitment, in which signatories committed to promote a coordinated action "regarding their interests on living and non-living resources in marine areas beyond national jurisdiction" (Durussel, Oyarzún and Osvaldo Urrutia, 2017).[47]
- In the Western Indian Ocean, Contracting Parties to the Nairobi Convention adopted in 2015 Decision CP8/10 urging States "to cooperate in improving the governance of areas beyond national jurisdiction, building on existing regional institutions including the Nairobi Convention and developing area based management tools such as marine spatial planning to promote the blue economy pathways in the Western Indian Ocean Region" (Wright and Rochette, 2017).
- In the Southeast Atlantic, Contracting Parties to the Abidjan Convention has established a working group to study all aspects of the conservation and sustainable use of marine biodiversity in ABNJ.[48]

47 The Galapagos Commitment for the XXI Century, Permanent Commission for the South Pacific, VIII Meeting of Ministers of Foreign Affairs, Puerto Ayora, Galápagos, Ecuador, 17 August 2012.

48 Following Decision CP 11/10 adopted in 2014.

Table 1: Overview of selected regional initiatives

Initiative	Type	Key enabling conditions	Key challenges
Collective Arrangement for the North-East Atlantic	MoU/ cooperation arrangement	Strong existing institutions with overlapping memberships and a history of cooperation.	it has proved "time and labour intensive, particularly in the global bodies, IMO and ISA, to move such an idea forward, with organisations' different levels of technical scrutiny and sometimes complex and mutually incompatible annual meeting cycles" (Freestone *et al.*, 2014).
Sargasso Sea Commission	NGO	Concerted effort on behalf of civil society and the scientific community. Government of Bermuda acting as a vocal and supportive champion for the initiative.	Few competent organisations in the region through which to pursue management measures. Limited progress in terms of concrete management action.
Pelagos Sanctuary	Multilateral MPA	Small number of motivated parties aiming to address specific goals and conservation values.	Concerns have been expressed regarding the efficacy and implementation of the management and conservation tools developed in the Sanctuary (Notarbartolo di Sciara, 2009). Longstanding plans to submit the Sanctuary as a PSSA have not come to fruition.
Regional cooperation on fisheries closures	RFMO	Legal obligations in UNFSA to establish and cooperate through RFMOs and UNGA resolutions obliging States to take action on bottom fisheries.	States have frequently acted counter to the advice of RFMO scientific bodies.[1] RFMO effectiveness appears to be highly dependent on external factors (Pons, Melnychuk and Hilborn, 2018)[2] and there has been limited integration of broader biodiversity concerns (Gilman, Passfield and Nakamura, 2014) There has been "reluctance on the part of many States and RFMOs to close high seas areas to protect VMEs" (Gianni *et al.*, 2011) and gaps remain in the implementation of the UNGA bottom fisheries resolutions (Gianni, Fuller, Currie, Schleit, *et al.*, 2016).
Antarctic Treaty System	International treaty	Multilateral environmental treaty system incorporating modern governance principles. Strong, high-level political commitment to establish MPAs.	Diplomatic negotiations required to reach consensus are increasingly fraught and recent meeting have failed to establish the additional MPAs necessary for the creation of a network.
Ecologically or biologically significant marine areas (EBSAs)	International scientific process	Collaborative scientific process established under the auspices of an international treaty with near-universal participation. Mobilisation of the scientific community.	Parties to the CBD are encouraged to take action based on EBSA information, but there is no obligation to do so and no defined process for developing appropriate management actions. Early experience suggests EBSAs are yet to spur action within the various sectoral organisations

1. For example, "Throughout the histories of the International Commission for Conservation of Atlantic Tunas and the Western and Central Pacific Fisheries Commission, policymakers have followed the advice of their scientists only 39% and 17% of the time, respectively" (Galland *et al.*, 2018)
2. I .e. RFMOs tend to engage less in research, management and enforcement where there is a greater number of member countries, greater economic dependency on tuna resources, lower mean per capita gross domestic product, a greater number of fishing vessels, and smaller vessels.

5. Lessons learnt and ways forward

5.1. Improving cooperation and coordination

Given that there are various international bodies responsible for the management of different human activities in ABNJ, it is not possible for a regional organisation to take all of the management measures that will be required to ensure integrated management of ABNJ. Cooperation and coordination with organisations with a management mandate in ABNJ is therefore essential.

In this context, States and organisations may wish to consider developing processes and communication mechanisms to enhance cooperation and coordination. This could range from formal MoUs and exchange mechanisms, as with the Collective Arrangement, to the development of new institutional structures, such as with the Sargasso Sea Commission. Partnerships, working groups or other shared arrangements for communication and cooperation between relevant States, organisations and stakeholders might also be developed.

To this end, tailor-made and context-specific regional stakeholder platforms could be established to provide a mechanism through which States, stakeholders and competent regional and global management organisations could cooperate towards harmonised and integrated management of ABNJ. Such platforms could give relevant actors a much-needed space for dialogue and exchange on implementation challenges within a region, facilitating dialogue and exchange that could lead to improved cooperation and integrated management.

5.2. Championing regional action

The initial steps towards the development of regional activities concerning ABNJ are often taken by one or more champion States, organisations or stakeholders. In the North-East Atlantic, OSPAR took the initial steps towards establishing a mechanism for coordination with other regional actors, while in both the OSPAR and CCAMLR contexts, NGOs and champion States have led the proposal of MPAs. This suggests that it is important that efforts to strengthen governance at the regional level are supported by political will from one or more leaders that are able to drive the process, build momentum, and garner support for enhanced cooperation and management action.

5.3. Building a dynamic science-policy interface

Marine policy making is closely tied to marine science: uncertainties and gaps of knowledge stifle the process, while a favourable scientific context can make regional organisations and Contracting Parties more inclined to address ABNJ issues. Regions where measures in ABNJ have already been developed have seen the development of various scientific assessments of marine biodiversity, thereby further encouraging the building of knowledge.

For example, a key facet of the Collective Arrangement between OSPAR and NEAFC is that both organisations receive scientific advice from the International Council for the Exploration of the Sea (ICES) and have collaborated with ICES to review the results of an EBSA workshop conducted for the North East Atlantic (NEAFC and OSPAR, 2015).[49] At the same time, many RFMOs already have infrastructure in place for monitoring, control and

49 Note that NEAFC relies wholly on the ICES advice and does not conduct additional scientific work, whereas ICES is not necessarily the sole source of scientific information for OSPAR.

surveillance of fisheries that could potentially provide data to support ecosystem-based management and oversight of other activities, e.g. for the enforcement of MPAs.

5.4. Strengthening the international framework

A new international legally binding instrument is therefore an opportunity to build on the provisions of UNCLOS to promote an integrated, coherent and consistent approach to governance of ABNJ and support improved cross-sectoral cooperation at the regional level by providing (Gjerde *et al.*, 2018):

- Overarching governance and environmental principles to guide decision-making;
- Rules and standards for practices and procedures to ensure that human activities are assessed effectively and transparently;
- Global biodiversity conservation objectives, targets and obligations;[50] and
- For the establishment or strengthening of regional integration mechanisms.

50 E.g. Building on the UNFSA and CBD, such obligations might include minimising impacts, developing biodiversity strategies and actions plans and adopting proactive and precautionary protective measures through ABMTs including protected areas, EIAs and other measures.

6. Conclusion

The interconnected nature of the global Ocean necessitates a transition away from traditional single-sector approaches to management towards cooperation and integration. Regional initiatives can contribute to strengthening governance of ABNJ by bringing together different actors, facilitating the development of a strong scientific basis for management action, and coordinating the proposal of measures to ensure conservation and sustainable use through existing instruments. However, regional initiatives face a range of challenges and limitations: their mandates are limited and management measures are not globally applicable; efforts to improve cooperation and coordination can be time-consuming and costly; existing sectoral organisations may have limited interest or capacity to participate in broader ocean governance processes; and a region may not be covered by competent regional or sectoral organisations. Regional ocean governance initiatives could be strengthened by the provision of mechanisms for intra- and inter-regional exchange, such as stakeholder platforms, while a strong international treaty could support regional ocean governance by, inter alia, providing the common principles, objectives and standards needed to ensure more effective cooperation and coherence between management bodies. Regional initiatives can, in turn, inform the development of a new agreement and underpin its implementation.

Annex 1: Existing ABMTs applicable to ABNJ

Agreement/body	Area-based tools in ABNJ	Usage
Agreement relating to the implementation of Part XI of the UNCLOS, 1994 (establishing the International Seabed Authority)	Areas of Particular Environmental Interest (APEI); preservation reference zones[1]	9 APEIs in the Clarion-Clipperton Zone (North Central Pacific)[2]
International Convention for the Prevention of Pollution From Ships, 1973 (as modified by the Protocol of 1978)	Special Areas (SAs)	2 SAs in ABNJ (Mediterranean and Antarctic)
International Maritime Organization	Particularly Sensitive Sea Areas (PSSAs)[3]	None designated in ABNJ
International Convention for the Safety of Life at Sea, 1974	Areas To Be Avoided (ATBAs)	None designated in ABNJ
International Convention for the Regulation of Whaling, 1946	Sanctuaries	Two established: Indian Ocean (1979) and Southern Ocean (1994)
Convention for the Protection of the World Cultural and Natural Heritage, 1972	World heritage sites	None designated in ABNJ
Regional Fisheries Management Organisations/Arrangements (non-tuna)	Fisheries closures (pursuant to UNGA resolutions)	Fisheries closures established in the North-East Atlantic (NEAFC), North-West Atlantic (NAFO), and South-East Atlantic (SEAFO); "footprint" approach in Southeast Pacific (SPRFMO) effectively closes Convention Area.

1. ISA. Decision of the Council of the International Seabed Authority relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters. 2013; ISBA/19/C/17; Section V.31.6.

2. ISA. Decision of the Council relating to an environmental management plan for the Clarion-Clipperton Zone. 2012. ISBA/18C/22. http://www.isa.org.jm/files/documents/ EN/18Sess/Council/ISBA-18C-22.pdf.

3. IMO. Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs), 2005; A.982(24)

Annex 2: Existing regional initiatives for the conservation and sustainable use of marine biodiversity in ABNJ

Area	Organisations/Conventions	MPA-related actions/measures
The North-East Atlantic	OSPAR NEAFC	First network of MPAs in ABNJ (OSPAR) NEAFC fisheries closures Collective Arrangement between competent organisations on cooperation
Mediterranean	Mediterranean Action Plan (MAP), Barcelona Convention General Fisheries Commission for the Mediterranean and Black Sea (GCFM)	First MPA partly covering high seas (Pelagos Sanctuary) MoU between MAP and GCFM Project on developing a network of SPAMIs in the Open seas, including the deep seas Proposal to designate parts of the Sanctuary as a Particularly Sensitive Sea Areas (PSSA)
The Southern Ocean	CCAMLR	South Orkney Islands and Ross Sea MPAs Process to establish a circumpolar network of MPAs is ongoing
South Pacific	SPREP	SPREP Convention applies to four “high seas pockets” (no measure through SPREP taken so far)
South East Pacific	CPPS	Member States of CPPS committed themselves in 2012 “Galapagos Commitment” to promote action to protect living resources in ABNJ
Western Africa	Abidjan Convention	Establishment of a working group to study all aspects of the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction within the framework of the Abidjan Convention (COP 11 in 2014: Decision CP. 11/10)
Western Indian Ocean	Nairobi Convention	Feasibility of the extension of the geographical coverage of the Nairobi Convention to ABNJ in progress, in the context of a project funded by the French GEF 2015 Contracting Parties decision to “cooperate in improving the governance of areas beyond national jurisdiction, building on existing regional institutions including the Nairobi Convention and developing area based management tools such as marine spatial planning (...)”
Sargasso Sea	Sargasso Sea Commission 2014 Hamilton Declaration (signed by Azores, Bermuda, Monaco, UK and US).	Encourages and facilitates voluntary collaboration toward the conservation of the Sargasso Sea; aims to encourage the adoption of measures through competent management authorities.

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ViSdP

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February 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 (ABNJ). 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
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