

Protecting the ‘blue heart of the planet’: Strengthening the governance framework for marine protected areas beyond national jurisdiction

Amy Hammond*, Department of Geography, University College London, United Kingdom

Peter JS Jones, Department of Geography, University College London, United Kingdom

*Corresponding author: amy.hammond.18@alumni.ucl.ac.uk

HIGHLIGHTS

- High seas negotiations present opportunity for new chapter in ocean governance.
- Global model with some decentralisation could improve on existing weak framework.
- That model would strengthen basis for implementing effective high seas MPAs.
- MPA Governance Framework useful to understand required conditions for high seas MPAs.

ABSTRACT

The ongoing negotiations towards a new implementing agreement to the United Nations Convention on the Law of the Sea (UNCLOS) regarding conservation and sustainable use of biodiversity beyond national jurisdiction (henceforth, ‘BBNJ Agreement’) present a unique opportunity to begin a new chapter in ocean governance. This paper draws on expert interviews to consider how such an agreement could establish a strengthened governance framework for areas beyond national jurisdiction (ABNJ) and the potential implications for the governance and effectiveness of high seas marine protected areas (MPAs) designated thereunder. The results support calls for a BBNJ Agreement to establish a global body, with a mandate and mechanism for MPA establishment and oversight of the currently fragmented ocean governance landscape, but within a model that also incorporates bottom-up approaches including a degree of decentralisation to regional organisations and engagement with coastal communities, with conditions attached. In applying the guidance of the MPA Governance (MPAG) framework, this paper concludes that enshrining a global model along these lines would provide a strengthened basis for effective, resilient MPAs in ABNJ by adding and strengthening governance incentives across five key incentive categories. The paper concludes by looking to the final round of negotiations, where states must take ambitious stances in addressing remaining weaknesses in the draft Agreement to ensure the potential for an improved ocean governance framework is delivered upon.

KEYWORDS

Marine protected areas; BBNJ; High seas; UNCLOS; Governance frameworks.

This is the authors’ version of the final accepted [Marine Policy](#) manuscript. Elsevier © 2020. This manuscript version is made available under the CC-BY-NC-ND 4.0 license. <https://doi.org/10.1016/j.marpol.2020.104260>.



1. INTRODUCTION

The ocean is Earth's principal life support system [1] and home to vast biodiversity. Despite persistent narratives of the ocean as 'wilderness' [2], human activity has now significantly altered 66% of the marine environment [3], including previously unreachable frontiers. The primary direct threat remains fishing [4], with 34.2% of stocks fished at biologically unsustainable levels [6]), but the major overarching threats are the cumulative stressors of climate change and subsequent ocean acidification [1]. With impacts of both fishing and climate change escalating rapidly in recent decades [4], there are growing calls globally to protect the "blue heart of the planet" (Sylvia Earle).

Growing evidence supports the establishment of ecologically connected networks of marine protected areas (MPAs) to conserve biodiversity and build resilience to climate change (e.g. [7], [8], [9]). Furthermore, increased support for MPAs also stems from growing awareness of inextricable links between healthy marine ecosystems and human survival and development [10]. Indeed, a recent analysis considering the five most pervasive impacts on areas beyond national jurisdiction (ABNJ) finds area-based management tools (ABMTs), including MPAs, to be the only consistently effective mitigation option [4]. However, progress in MPA designation has yet to match the scale of the threat: just 7.44% of the ocean has protected status (some only nominal), and only 1.18% of the high seas [11].

ABNJ account for 70% of Earth's habitable space [12] and 90% of its biomass [13]. Their ecosystems provide almost half of the ocean's total biological productivity and store over 1.5 billion tonnes of CO₂ annually [14]. There are also international equity motivations for their conservation, e.g. just six countries account for 80% of high seas fishing effort [15], yet such exploitation could have global livelihood and resilience implications (see [16], [17]). Despite their importance, there is no coherent governance framework for ABNJ, and no mechanism to establish binding, multi-sectoral MPAs in these areas.

The global ocean governance framework is built on a legal regime established by the near-universally ratified United Nations Convention on the Law of the Sea [18], [19]. UNCLOS establishes States' sovereign rights over a territorial sea extending to 12 nm and an exclusive economic zone (EEZ) to 200 nm, thereby establishing ABNJ as a global commons beyond those. ABNJ consist of 'The Area' ("the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction") and 'The high seas' ("parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State") [18]. UNCLOS establishes 'freedoms' of the high seas, including fishing, but these are conditional and must be exercised with regard to other states [20]. Below UNCLOS sits a highly fragmented governance structure of activity-specific agreements and regional or sectoral bodies (Fig. 1), for which conservation is generally a secondary concern [22]. These operate largely independently, with no overarching framework to ensure consistency [23] or facilitate network-building. There is no mandate for the integrated, ecosystem-based management [24], [25] required by an interconnected ocean [26]. Amidst this multitude of ocean-related agreements and bodies, biodiversity protection and equity appear to have "fallen through the cracks" of the current ocean governance framework [27].

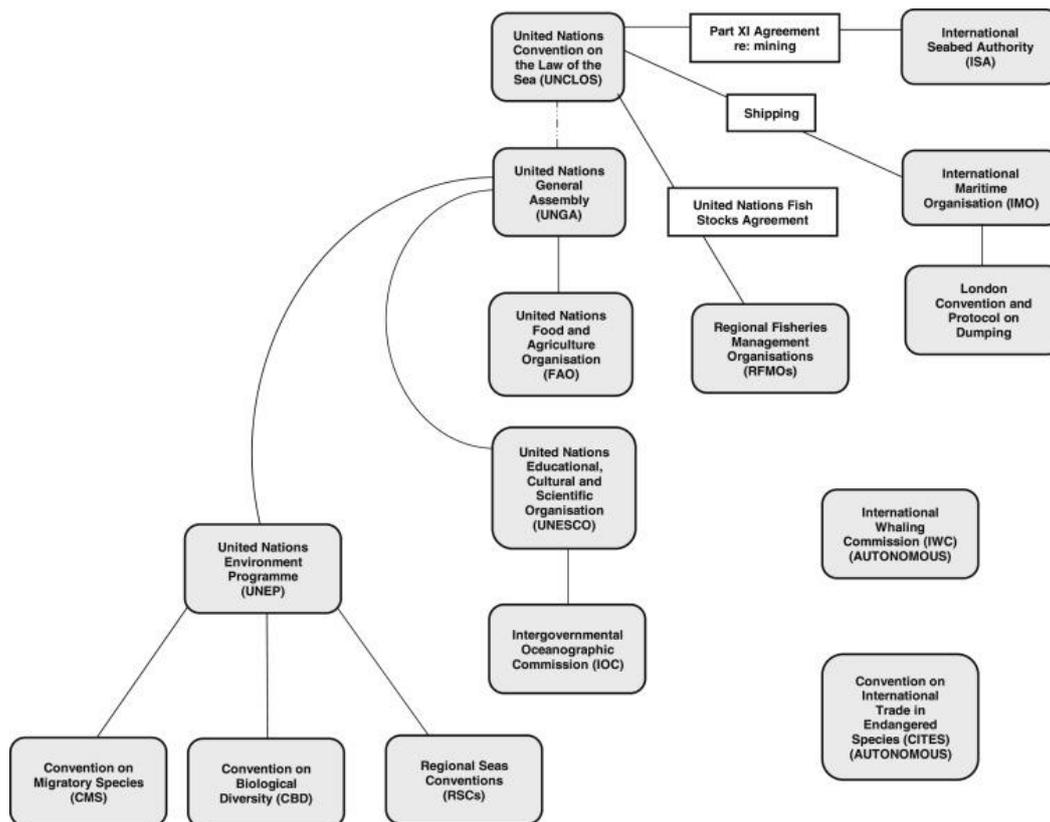


Figure 1: The fragmented ocean governance framework (adapted from [21])

While UNCLOS stipulates duties on States Parties to cooperate to protect and preserve the marine environment [25], it lacks effective means to implement many of these stipulated duties [28]. Most notably, it lacks any global mechanism for establishment of MPAs in ABNJ [20]. While bodies with a mandate to manage activities in ABNJ can implement protection measures, these are binding only on parties to the relevant convention ([20]), meaning there is no requirement that third parties comply. Due to its numerous regulatory and implementation gaps (Table 1), the existing governance framework does not offer sufficient protection for biodiversity in ABNJ.

Table 1: Regulatory and implementation gaps in the existing governance framework

Regulatory	Implementation
Fragmented governance; sectoral implementation	Incomplete geographical coverage and varying mandates of regional/ sectoral bodies (integration of biodiversity concerns highly variable)
No global mechanism for MPA designation/ establishment	Varying performance of implementing bodies e.g. issues with RFMOs contravening scientific advice regarding fishing quota
No overarching global principles	Lack of cross-sectoral coordination
No framework for monitoring and review	Enforcement/ compliance issues e.g. flags of convenience

Following decades of campaigning to address these gaps, a formal process through an intergovernmental conference (IGC) at the United Nations is presently underway. The IGC was planned to meet for four sessions [25], the last of which was scheduled for March 2020 (see Table 2) but postponed due to the coronavirus pandemic. The purpose of the IGC is to negotiate a new, international legally-binding ‘agreement under UNCLOS on conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction’ (henceforth, ‘BBNJ Agreement’). The IGC negotiations towards a BBNJ Agreement are focussed on a ‘Package Deal’ of four issues, one of which is Area-Based Management Tools (ABMTs) (including MPAs). The other three issues which form the package are marine genetic resources (MGRs), environmental impact assessments (EIAs), and capacity building and technology transfer. The negotiations have been described as “one of the main frontiers in developing the environmental governance of the oceans” [25].

Table 2: A timeline of the United Nations negotiation process towards a BBNJ Agreement

Date	Event
2006-2015	Meetings of informal BBNJ Working Group established by UNGA.
2015	States recommend to UNGA the development of BBNJ Agreement.
2016-2017	Preparatory Committee established by UNGA convenes four times.
2018-2020	Intergovernmental Conference (IGC) convened by UNGA. Negotiations over four sessions (IGC1, IGC2, IGC3 & IGC4) to consider a ‘Package Deal’ of issues: Marine Genetic Resources; ABMTs, including MPAs; Environmental Impact Assessments; and capacity-building and technology transfer.
March-April 2019	Delegates at IGC2 discussed options outlined in ‘President’s Aid to Negotiations’ [29].
June 25, 2019	Draft treaty text [30] released.
August-September 2019	Penultimate negotiation session (IGC3).
November 2019	Updated draft treaty text [31] released.
March 2020 (postponed; rescheduled dates tbc)	Final negotiating session (IGC4) scheduled to take place.

A BBNJ Agreement is intended both to address specific governance gaps (see Table 1) and to strengthen the overall suitability of the UNCLOS regime to address contemporary challenges [32]. Given major technological advances since UNCLOS entered into force [20], new threats are continuously emerging, including bioprospecting [26] and seabed mining. Meanwhile, sustained demand for fish has both spread and intensified fishing pressure and all this is in the context of rapid and drastic climate change. UNCLOS’ provisions reflect a time when these threats were not anticipated [33], when tools including MPAs had not been devised [34] and before any international political consensus around 10% ocean protection targets [28].

Nonetheless, considerable divergence persists amongst states, and other stakeholders, on both the desirability of a BBNJ Agreement and its potential form and function. Much disagreement is underpinned by a fundamental conflict between perspectives aligned with the prevailing regime of ‘freedoms of the high seas’ [35] and those favouring a shift towards a paradigm based on growing recognition of the global common benefits of functioning ocean ecosystem services and therefore of

the need for their management in the common interest. This debate reflects Rayfuse and Warner's [36] characterisation of the entire history of the law of the sea as being one of "oscillation between freedom and restriction". They suggest that the central challenge to high seas is the overexploitation resulting from freedom of access (and the inadequacy of flag state jurisdiction in controlling this) and express an alternative vision for a new governance paradigm based on an expansion of the application of the Common Heritage of Mankind (CHM) principle. UNCLOS (Article 136) enshrines the Area and its resources as 'the Common Heritage of Mankind', stipulating that their exploration and exploitation "shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States", but this does not apply to the high seas and their resources, including fisheries, for which a common property regime prevails. Rayfuse and Warner [36] acknowledge that expansion of the direct application of a CHM principle to the high seas is perhaps unlikely but suggest that it may be possible to some extent to bridge the "divide between the common property and CHM camps" through some reference to the CHM principle as well as other concepts or principles of international law relating to cooperation and sustainable development.

Practically, ongoing debate revolves largely around the form, function and interactions of the improved institutional structure that would be required to achieve an Agreement's provisions [20] by enabling Parties to make decisions and coordinate, assess and review implementation [37]. Overarchingly, there is significant discord regarding potential allocation of responsibility for issues such as MPA designation and implementation between global and regional levels [25], including whether a new global body is required. A spectrum of theoretically possible options for institutional arrangements exist within the literature and broader discourse. These range from an entirely regional model, with no global decision-making or oversight, to an entirely global model in which a new body would actively unilaterally implement Agreement objectives, alongside any number of conceivable formats in between these two 'extremes'. Note that ratification of a global BBNJ Agreement need not automatically imply a 'global model' – it could simply establish shared principles then devolve all responsibilities to regional bodies [37]. Current failings do suggest a need for more oversight [20] by a global decision-making body. This would also enable strategic MPA network development. This body could theoretically take any number of forms from a centralised 'global ocean authority' through to a Conference of Parties [38] making decisions with some degree of input from and devolution to regional levels. Freestone [39] suggests the former is unlikely to be accepted by the majority of states, but a 'lighter touch' approach, such as a Conference of Parties, could offer the greatest chances for success. This is reflected in the draft Agreement text. Nonetheless, a few actors remain reluctant to negotiate an Agreement at all and reject any new bodies or processes, instead supporting a status quo model based entirely on the authority of existing bodies for decision-making and implementation. Economic or strategic concerns arguably shape such positions [37].

Another major area of debate is how the BBNJ Agreement (and any new bodies or processes established) would interact with existing bodies and agreements with mandates covering ABNJ, given that various elements of the Package Deal intersect with the competencies of existing bodies [40]. These interactions should be managed such that the Agreement integrates institutional siloes [41], rather than causing further fragmentation. Vertical integration between the Agreement and existing bodies is required to overcome the primary failing of the existing system – its lack of centralised oversight – such that perspectives of regional and sectoral bodies can inform global objectives [42] and centralised standards drive required reforms of those bodies [26]. Horizontal integration amongst bodies is also required [43] such that measures, including MPAs, are successfully cross-sectoral and widely respected [44].

Central to this debate on how to manage interplay between different regimes are divergent interpretations of UN Resolution 72/249, which states that the Agreement “should not undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies” [25]. This provision’s, arguably intentional [22], [35], [40], [45] vagueness prompts disagreement between those interpreting it to mean ‘not undermine the effectiveness of’, which would enable the Agreement to establish common principles and objectives and require parties to strengthen institutions accordingly (i.e. creating some degree of hierarchy), and those who consider undermining to mean anything encroaching on the mandates of existing organisations. The latter, relied upon by those seeking to exclude fisheries from the scope of the Agreement on the basis that a regime already exists [40], would effectively serve to cap the Agreement’s regulatory scope [45], not to mention would depart only minimally from the (ineffective) status quo [40]. Different uses of the term by different delegations at the negotiations reflect much broader divergences of opinion over the appropriate scale for environmental governance and even the “utility and desirability of international law in general” [35] and parties remain far from consensus on this issue.

2. METHODOLOGY

Within the context outlined above, the discussion below presents results from a series of interviews conducted between IGC2 and IGC3 (Table 2). While the discussion has some relevance to other elements of the Package Deal because features such as overarching principles and institutional arrangements would apply across the Agreement, the specific objective is to explore interviewees’ perspectives on the potential framework a BBNJ Agreement could establish, and the strengthened basis this could provide for high seas MPAs.

The following discussion is based on a series of semi-structured interviews with individuals who had particular experience and expertise regarding ABNJ and/or the BBNJ Agreement negotiations. Target interviewees from all relevant stakeholder groups were identified through a literature and document review (including IGC participant lists) and personal suggestions, and were approached via email; further recommendations made by interviewees were also approached. However, response rates were highly variable for reasons which likely included the interviewer’s positionality as a conservation student. Therefore, interviewees represent fewer stakeholder groups than the initial target list and can be considered to provide a wide-ranging and illustrative, rather than representative, sample of perspectives.

Overall, 15 individuals were interviewed, of which 10 from civil society (academia, NGOs, law, consultancy); four from governmental/ intergovernmental bodies; and one from industry. Interviews were conducted from May–August 2019, five in person and ten remotely, lasting 25–90 min each. Based on the approach adopted by Jones [46], an interview report was produced immediately after each interview and edited for clarity, retaining much of the information discussed but not reproducing the exact way information was presented by the interviewee. Reports were verified by interviewees. Any quotes included here are from interview reports, not verbatim. For the purposes of this paper, the perspectives and views reported have been anonymised and not attributed to any specific individual or category, to maintain confidentiality on issues that are potentially sensitive in the context of ongoing negotiations.

Interview data was complemented by a variety of literary and documentary evidence: an exploratory literature review used to map interviewees and enable informed interviewing was later supplemented by a targeted analysis of the President’s Aid to Negotiations (produced ahead of IGC2), the draft

Agreement text released between IGC2 and IGC3, and statements made at IGC2, alongside broader literature.

Interview data were analysed using ‘open coding’ [47], whereby sections of speech from interview reports are organised with similar items from other reports under topic headings, or ‘codes’. which emerge from data through a process of repeated reading and re-categorisation. The same codes were considered in reading other literature, such that these were used to triangulate with interview data.

Results presented here also draw on the Marine Protected Area Governance (MPAG) framework [10], [48], which was devised to provide a structured analytical framework enabling examination of five categories of incentive (“particular types of institution... which promote commitment, cooperation and compliance” amongst MPA users [10]) required for effective MPA governance: legal, economic, participatory, communication and knowledge incentives. This framework rejects the commonly assumed dichotomy of top-down versus bottom-up management solutions, proposing that successful governance requires both, alongside market-based approaches. It is underpinned by the view that, as species diversity confers resilience on an ecosystem, diversity of governance incentives does so for an MPA governance system [10], thus ensuring effectiveness. Reference to this framework represents a novel methodology as it has previously only been applied to MPAs under national jurisdiction. As a prevalent theme in the BBNJ literature relates to possibilities for the effective interplay of global and regional approaches, the premise for this work was the authors’ view that the MPAG framework’s explicit focus on the combination of a variety of incentives as a means of conferring resilience might provide a useful lens through which to add to the existing debate on this topic.

An additional negotiating session (IGC3) has taken place subsequent to the research period and a newly updated draft Agreement released following those negotiations. IGC3 and the updated draft are addressed briefly at the conclusion of this paper, but the results and discussion presented below focus entirely on results of primary research conducted between IGC2 and IGC3.

3. RESULTS AND DISCUSSION

This discussion draws primarily on interviews conducted as described above, alongside some supplementary literature and documentation, to consider how a BBNJ Agreement could establish a more integrated, effective governance framework for ABNJ, and the implications for MPA governance thereunder. The discussion finishes with some concluding thoughts from the authors on the relevance of the MPA Governance Framework.

A detailed analysis of the proceedings of IGC negotiating sessions themselves is beyond the scope of this work. The following discussion details interviewees’ perspectives on their preferred, or ideal, outcomes for the ongoing negotiations with regards to the ABMT/MPA element of the Package Deal specifically. It is worth noting at the outset, however, that the positions of some states involved in those negotiations undoubtedly remain far from those outlined here. States’ positions at the negotiations will likely be shaped not only by their views on MPA governance but also on other components of the Package Deal and arguably by broader geopolitical considerations too. Ultimately, as a number of interviewees noted, the latter may prevail to some extent, which could result in a BBNJ Agreement which differs significantly from the perspectives presented here.

Regarding weaknesses of the existing framework, interviewees focused primarily on the failings of RFMOs, for reasons including their variable performance, failures to adopt ecosystem-based approaches and/ or breaching of Maximum Sustainable Yield (MSY), as well as the risk of ‘lowest common denominator’ outcomes resulting from RFMOs’ consensus-based decision-making models.

However, areas of best practice were also highlighted - several interviewees presented OSPAR and CCAMLR as models, although scalability is debatable. Reflecting the broader divides evident in the literature and in negotiations, interviewees' perspectives on regional bodies ranged from beliefs that these could be strengthened with funding and political support, to rejections of any suggestion that adaptation of the existing system was sufficient (for example, because "the system is broken as it has always given exploiters too much power"). Asked to define 'success' regarding a strengthened governance framework, interviewees differed in detail but broadly reflected the literature in envisaging replacement of what one described as the existing "non-integrated patchwork of different organisations with different sectoral interests or regional coverages" with a cohesive approach in which states consistently manage their activities in ABNJ.

Interviews focussed primarily on how an improved overarching legal and policy framework, established by a legally binding BBNJ Agreement, could facilitate the creation of future high seas MPAs and provide a strengthened basis for their effective governance. The discussion presented here is framed around the MPAG framework's [10], [48] five incentive categories. Considering the failings of the existing system, described in the literature and in interviews, and the risk these would be repeated without some degree of global authority and strategic oversight, this discussion focusses primarily on the benefits of a global model over the status quo, where a global model is understood as one which, as one interviewee summarised, "enables global MPAs and a global process that can reach down and use the powers of the state to control their own activities in places designated as MPAs", but with some devolved responsibilities. Nonetheless, varying and alternative opinions expressed by interviewees are highlighted where these arose. It must be kept in mind that a high degree of uncertainty regarding everything discussed remains until an Agreement is finalised and interviewees differed significantly in the degree to which they expected a radical transformation to result from any BBNJ Agreement eventually secured. While broadly expressing optimism and ambition, many highlighted compromises as being inevitable such that this passes as a 'package deal'; the broader literature on this topic also emphasises the importance of being realistic about what a BBNJ Agreement can and cannot accomplish within the framework of the agreed-upon Package Deal [49] Some interviewees consequently expressed disappointment that elements of the draft text fall short of their potential, or that a bolder approach was not taken altogether.

3.1 Cross-cutting theme: overarching framework established by BBNJ agreement

A BBNJ Agreement must establish strong institutions [50], building upon existing successes while adding vital oversight. These institutional arrangements, which will be applicable across the Package Deal, will shape MPA governance by determining the decision-making framework and basis for international cooperation. Some interviewees, like some negotiating states, questioned the need for new bodies, for reasons including cost, logistics, or beliefs that greater synergies exist regionally. However, interviewees, like negotiators [22], broadly agreed that the Agreement must establish certain key bodies: a decision-making body, most likely a Conference of Parties (COP) (one interviewee suggested a virtual network format COP); a Secretariat; and a science body. Notable overarching provisions in the draft text include a commitment to an integrated approach, and obligations on parties not to undermine existing instruments, frameworks and bodies, and to cooperate internationally in support of conservation. One interviewee highlighted the importance of such provisions in engaging these bodies with the development of a governance framework, rather than imposing one on them, but another warned of 'not undermining' language being used as a "smokescreen" by opponents of a global agreement.

3.2 Legal incentives

It can be suggested that this is the category of incentives (Table 3) for which a BBNJ Agreement has most direct potential to strengthen MPA governance incentives, by providing a legally binding oversight framework to underpin implementation and operationalisation of UNCLOS duties. States Parties to UNCLOS are already legally bound by it to protect and preserve high seas marine environments (Article 192) and biodiversity (Articles 116–119) and to cooperate globally, and as appropriate regionally, in doing so (Article 197). However, the issue is the absence of globally recognised mechanisms to operationalise these commitments, notably a mechanism for designating MPAs [22] that all States Parties are legally required to adhere to. Therefore, the ability of a BBNJ Agreement to strengthen the legal and regulatory regime for effective high seas protection is dependent on establishing such a mechanism. The draft Agreement does indicate it would establish a standardised, legally binding process for MPA identification, designation and implementation (i23, see Table 3), albeit one still under discussion.

Table 3. Summary of legal incentives *Y = incentive already in place; N = incentive not appropriate for ABNJ context; Y* = BBNJ Agreement could, or is likely to, add/ strengthen incentive; N* = incentive requires adding/strengthening, perhaps outside scope of BBNJ Agreement. Numbers before incentives follow the structure of the 36 MPAG incentives [10], [51] (same for Table 4, Table 5, Table 6, Table 7 and throughout the text).*

Incentive	Key	Notes
i17. Hierarchical obligations	Y*	Agreement should establish standardised, legally binding procedure for operationalising BBNJ conservation; should include obligation to establish MPAs and MPA networks.
i18. Capacity for enforcement	Y*	Some international agreements already in place regarding specific activities e.g. PSMA. Capacity of technological tools to support enforcement is strong and improving. Agreement unlikely to add further penalties but would provide a legal basis, given political will, for enforcement. Some stakeholders (e.g. High Seas Alliance) support establishment of compliance committee.
i19. Penalties for deterrence	Y	
i20. Protecting from incoming users	Y*	Measures under Agreement (incl. MPAs) would be legally binding on all States Parties.
i21. Attaching conditions to use	Y*	MPAs designated under Agreement could entail legally binding conditions for use.
i22. Cross-jurisdictional cooperation	Y*	Could be strengthened via establishment of systematic cooperative mechanisms through Agreement; significant disagreement remains regarding form these would take.
i23. Clear and consistent legal definitions	Y*	Establishment under Agreement of standardised definitions/ procedures; concerns remain re lack of separate MPA provisions.
i24. Clarity concerning jurisdictional limitations	Y*	Jurisdictional limits of ABNJ vs EEZs already established by UNCLOS; some overlap and lack of clarity remains re jurisdiction and mandates of competent bodies – Agreement could provide some clarification.
i25. Legal adjudication platforms	N*	Likely to rely on existing measures; potentially inadequate.

i.26 Transparency, accountability and fairness	Y*	Agreement would establish transparent consultation process; states and bodies would be accountable to global body under a global model of Agreement.
---	----	--

While disagreeing considerably on details, the majority of interviewees favoured some degree of regionalised delivery within a framework of global objectives, standards and/or procedures. One favoured global standards but not decision-making, while many more supported an Agreement establishing legally-binding decision-making at a global level. Interviewees highlighted advantages of the latter including the potential for a more systematic approach, for MPA designations to be mandatory and third parties obliged to respect them (i20), and for centralised agenda-setting and oversight to check competent bodies (i17, i21, i26). There was considerable anxiety amongst interviewees, as well as in the broader literature, that the draft text does not specifically oblige parties to establish ABMTs or MPAs, as well as debate as to whether the Agreement should specify separate provisions for MPAs versus other ABMTs.

Amongst those interviewees who favoured a global decision-making body, there was disagreement as to whether this should manage MPAs to avoid loss of strategic oversight through devolution, or whether it should recognise competent bodies as responsible for management (i24 & i31). Acknowledging that responsibility ultimately lies with states, several interviewees felt the only feasible delivery mechanism was via existing bodies or new alliances of states, due to the practicalities of these already being in place and the need for conservation to incorporate regional specificities. It was suggested, therefore, that the Agreement could act to strengthen regions to implement global-level decisions. Some of the same interviewees did also acknowledge issues relating to those bodies but felt that there is potential for centralised standards to drive improvement towards best practice. No interviewees rejected altogether a role for regional bodies, but some highlighted the existence of perspectives that would do so.

A further legal priority for the Agreement is clarification and elaboration of UNCLOS' duty to cooperate [22] through concrete mechanisms [50] for reporting, monitoring and consulting (i22). Interviewees expressed concern that there was little detail thus far on how this would be achieved. They disagreed as to whether vertical mechanisms should be binding, serving as what one interviewee described as "a gentle thumb on top of the RFMOs" (e.g. reporting obligations and requirements for States Parties to promote complementary measures across other bodies), or instead non-binding "encouragements" to do so (i17, i21). Interviewees also highlighted the importance of horizontal cooperation amongst regional/ sectoral bodies through both formal binding mechanisms and less formalised participatory collaboration aimed at relationship-building, and, furthermore, the need for improved national-level cooperation to prevent contradictory policies emerging from ministries' or agencies' siloed working (i22). The latter was described by one interviewee as "the lynchpin both for implementing an MPA and making states' activities more sustainable overall" but there was disagreement between interviewees as to whether it was a likely outcome of a BBNJ Agreement.

Finally, reporting and monitoring obligations must be supported by enforcement capacity. Satellite technology developments, such as Global Fishing Watch and Ocean Mind, meant interviewees broadly felt, as one described it, that "monitoring and enforcement are not a primary challenge to high seas conservation", beyond issues common to all marine enforcement (i18). However, some felt that the Agreement's state-centric nature posed challenges, firstly regarding strength of compliance tools adopted, as negotiating states are essentially deciding what burden of compliance to impose upon themselves, and also because issues remain regarding states that flout international rules-based

Hammond A and Jones PJS (in press) Protecting the 'blue heart of the planet': Strengthening the governance framework for marine protected areas beyond national jurisdiction. *Marine Policy* 104260. doi: [10.1016/j.marpol.2020.104260](https://doi.org/10.1016/j.marpol.2020.104260). One of 20 papers in a special section of 28 case studies on [MPA Governance](#)

systems, although it was noted that the Port State Measures agreement (PSMA) [5] can support compliance where flag state responsibility is unreliable. Furthermore, interviewees highlighted that as states are generally unwilling to sanction each other due to the diplomatic cost involved [50], it will require considerable political will for the Agreement's legal incentives to have effect (i19). Finally, interviewees highlighted that effective dispute resolution will be critical, with one expressing concern over whether existing UNCLOS dispute chambers would be capable of dealing with this, if that option was chosen, and indeed whether countries would be willing to be bound by their rulings (i25).

3.3 Economic incentives

Table 4: Summary of economic incentives

Incentive	Key	Notes
i1. Payment for Ecosystem Services	N*	Potential for e.g. blue carbon funding for high seas protection not covered by Agreement.
i3. Reducing the leakage of benefits	Y*	MPAs established under Agreement could protect fish populations that local coastal communities depend on.
i4. Promoting profitable and sustainable fishing	Y*	Agreement could enable establishment of MPAs with fishing-related restrictions and could drive RFMO reform. Subsidy reform still also required.
i6. Promoting diversified and supplementary livelihoods	N	Opportunity costs of high seas closures low compared to EEZs; high seas fishing livelihoods not location-specific.
i9. Provision of state funding	Y*	Funding mechanism (ideally mandatory) should be established; this is a key area of disagreement between negotiating states.
i10. Provision of NGO, private sector and user fee funding	Y*	Agreement, and subsequent MPA proposals, could drive further funding from NGOs, philanthropy etc.

A BBNJ Agreement could strengthen economic incentives (Table 4) for high seas MPAs by devising funding mechanisms for implementation and capacity-building. This has proved particularly challenging during negotiations. Many states remain unwilling to commit resources, particularly on a mandatory basis, and a central focus of disagreement throughout the IGC has been the question of what developed states should provide to developing countries in terms of capacity-building but also technology transfer and benefit-sharing [49]. Consequently, it is possible that an Agreement might be reached without securing funding for implementation. Some interviewees felt many states are overly optimistic regarding potential for Marine Genetic Resource proceeds to fund conservation. Overall, interviewees generally felt that States Parties remain the most feasible funding source and their unwillingness to commit risks diminishing the functioning capacity of any global body (i9). However, on the basis of negotiations to date, interviewees were not optimistic regarding an Agreement requiring mandatory state contributions, and suggested a broader range of potential funding sources, including the Global Environment Facility, private sector, philanthropists/ philanthropic foundations, industry bodies (in areas/circumstances where commercial activities continue), alongside more innovative mechanisms such as trust funds (i10).

Several interviewees also highlighted the need for states to end current funding of destructive activities, specifically subsidisation of high seas fishing fleets, many of which would not otherwise be financially viable [37] (i4), and some also highlighted the potential for market mechanisms, including trade sanctions and consumer boycotts, to drive industry behaviour change. One interviewee felt that, given the declining status of the nation state versus corporations, more consideration of the latter is required and campaigners should seek to apply reputational levers to shift behaviour of destructive corporate actors.

Whether fishing falls within the scope of the new instrument has been a major debate. Some interviewees noted that the closeness of the industrial fishing lobby to powerful governments may present obstacles to adding further checks. However, with fishing the primary direct threat to high seas biodiversity [4], it can be argued that any Agreement that omits fishing would be irredeemably weak. Both interviewees and the wider documentary data suggested potential roles for RFMOs in implementation, although frequently with the caveat that the significant need for RFMO reform must be addressed by the Agreement for that to be acceptable, e.g. one interviewee highlighted the ongoing need for all RFMOs to adopt ecosystem-based approaches. In terms of how this could be achieved, interviewees noted that an overarching commitment to such approaches in the Agreement, alongside obligations on States Parties to pursue complementary approaches in RFMOs they are party to, could help instigate this shift (i4).

Some interviewees favoured a total high seas fishing ban, while others supported no-take ocean reserves, which economically would not have the same opportunity costs as coastal MPAs as there are alternative high seas areas for fishing (i6). Others rejected such suggestions, stating that MPAs should balance environmental with socioeconomic objectives, although it was noted by one that this risks setting a higher barrier for conservation than other marine activities. The majority felt that ultimately an effective network requires a combination of strongly protected no-take areas and other MPA types.

Finally, a further considerable threat is posed by seabed mining. There have been calls for a moratorium on its development until there is greater understanding of the potential implications (e.g. [12]).

3.4 Participatory incentives

Table 5: Summary of participatory incentives

Incentive	Key	Notes
i27. Rules for participation	Y*	Agreement should establish formal cooperative mechanisms.
i28. Establishing collaborative platforms	N*	These should be supplemented by regional participatory forums. This would more likely be a response to an Agreement, rather than formally established by it.
i31. Decentralising responsibilities	Y*	Agreement likely to implement some degree of decentralisation to regional/sectoral bodies under umbrella of global oversight.
i32. Peer enforcement	N*	Establishment of regional fora/chambers (see i28) could facilitate peer enforcement; political will required.
i33. Building trust and capacity for cooperation	N*	Regional meetings (see i28) as opportunities to build trust at that level and in eyes of global community.

i34. Building linkages between relevant authorities and user representatives	Y*	Agreement should establish vertical cooperation mechanisms between global level decision-making and user representatives such as RFMOs.
i35. Building on local customs	N*	Possible if Agreement provides means for genuine involvement of e.g. coastal communities.
i36. Potential to influence higher institutional levels	Y*	Agreement should establish obligation for systematic MPA network development. Activity at lower levels (by states/ implementing bodies) feeds into this. Sharing of best practice at regional/ sectoral level can also shape global decision-making.

Application of this category of incentives (Table 5) from the MPAG framework requires consideration of how stakeholders differ for high seas versus EEZs; it is much less clear for the former who local communities are, and therefore what a bottom-up approach entails, and consequently interviewee perspectives on this point varied considerably. Some considered ‘bottom-up approaches’ to mean the work of regional bodies, which consist of representatives of nation states with an interest in that region. On this basis, two interviewees outlined visions they defined as combining top-down and bottom-up approaches in which the Agreement establishes a legal mandate to cooperate, under which coalitions of states (/and NGOs) propose and help manage individual MPAs (i31 & i22). However, others rejected a description of regional bodies as ‘bottom-up’. One felt bottom-up actors were, for example, small-scale fishers from adjacent states, meaning a truly bottom-up approach would be high seas fisheries closure to protect coastal interests.

On this basis, it can be suggested that consideration should be given to the processes by which high seas MPA proposals under an Agreement could aim to incorporate both participation by regional and sectoral bodies, and the participation/ representation of individual citizens. Regarding the former, alongside formalised mechanisms established by an Agreement (i27, i34), interviewees highlighted the importance of informal relationship-building and mechanisms for discussions within trusted environments at the regional level to improve buy-in (i32, i33). Some suggested regular regional stakeholder meetings, while another suggested a formalised “chamber” for implementing organisations (i28), providing a recognised forum for them to meet at COP, discuss their views and present joint positions into the decision-making process with an existing degree of refinement and support. Collaborative forums like these could provide opportunities to share information and best practice, and for activity at the regional level to contribute to and shape global decision-making, supporting the systematic approach to MPA establishment which is required to develop a coherent network [24] (i36).

Involving civil society in formal international decision-making was identified by interviewees as challenging and limited thus far, and interviews revealed considerable disagreement on the potential scope for improvement in this area. Some felt that there is no role for citizens, except in the democratic mandate they give their governments, which evidently vary in their ability and willingness to genuinely reflect citizens’ views. Another suggested civil society groups “are as grassroots as it gets” for citizen engagement with ABNJ - note that interviewees did not suggest that this was desirable, rather that it was the present reality. Looking to the future, some hoped to see a move towards high seas MPAs being driven by communities with interests in their socioeconomic benefits (i35), noting that this would require consideration as to how best to effectively engage these stakeholders and link them with others around the world who are interested in the same topic and may have access to greater resources. It was highlighted that formal consultations established by the Agreement may

Hammond A and Jones PJS (in press) Protecting the ‘blue heart of the planet’: Strengthening the governance framework for marine protected areas beyond national jurisdiction. *Marine Policy* 104260. doi: [10.1016/j.marpol.2020.104260](https://doi.org/10.1016/j.marpol.2020.104260). One of 20 papers in a special section of 28 case studies on [MPA Governance](#)

struggle to reach beyond those already engaged, though NGOs might assist in transmitting information and fostering engagement and connections.

3.5 Communication incentives

Table 6: Summary of communication incentives

Incentives	Key	Notes
i11. Raising awareness	Y*	BBNJ negotiations have raised public awareness via surrounding media/ NGO activity; still scope for improved/ expanded awareness.
i12. Promoting recognition of benefits	Y*	As above; requires more promotion amongst e.g. coastal communities.
i13. Promoting recognition of regulations and restrictions	Y*	Agreement will establish publicly available standardised regulations.

Regarding communication incentives (Table 6), several interviewees highlighted the importance of public support for ocean protection in driving government action (i11). However, present levels of public engagement with the negotiations were broadly considered insufficient, albeit understandably so given the mismatch between the technicality of the UN process and issues of concern to the public, for example species protection or a sense of common concern for the planet. Nonetheless, it was felt by interviewees that policy energy generated by public awareness of more emotive and appealing issues allowed ultimate goals of the process to be defined by a wider audience, albeit unknowingly, and that campaigners must capitalise on existing momentum, using existing public interest in the ocean to take people on a journey to other ocean issues. While high seas ecosystems appear to be “the epitome of out of sight, out of mind”, several interviewees felt we have recently seen what one described as a “communications success story” for the oceans, with a number highlighting specifically the roles of David Attenborough and marine plastics in increasing awareness of, and feelings of connection to, distant or deep-sea ecosystems.

The role of NGOs has also been of key importance in terms of public engagement, as well as in participating in the negotiations themselves (see [52]). For example, Greenpeace’s pole-to-pole voyage was highlighted by one interviewee as having succeeded in raising broader public awareness of the need to protect high seas ecosystems. Interviewees also noted the role of the High Seas Alliance in providing a consistent voice for the NGO community on BBNJ, allowing them to collectively raise awareness amongst their supporters and audiences. Blasiak et al. [52] also highlight that even at the working group (pre-IGC) stage, as in other international negotiations, coalition formation was promoting efficiency and shared messaging amongst NGOs, and that the formation of the High Seas Alliance was a crucial turning point in terms of NGOs being granted a voice in the process.

Overall, however, several interviewees wished to further increase awareness of the need for participation in ongoing discussions, particularly amongst stakeholder groups, such as fishers in developing coastal states, who may not be aware of this process or deem this issue a priority (i13).

3.6 Knowledge incentives

Table 7: Summary of knowledge incentives

Incentive	Key	Notes
i14. Promoting collective knowledge	Y*	Science body should review/ advise on MPA proposals; must consider traditional knowledge, social and natural sciences.
i15. Agreeing approaches for addressing uncertainty	Y*	Agreement should establish precautionary principle and rules for adaptive management.
i16. Independent advice and arbitration	Y*	Science review process assures independent arbitration; formed of independent experts not states' representatives. Potential for additional independent review panel.

With regards to knowledge incentives (Table 7), a key issue at the IGC and in surrounding conversations has been the evidence base for high seas MPAs under a BBNJ Agreement.

It appears from the draft Agreement and from negotiations thus far that a science body will likely be established and advise on proposals (i16). Interviewees noted that this could be supported by specialised MPA working groups. While overall interviewees considered a science body vital, there was disagreement on its ideal form: some suggested a new body is necessary, for reasons including that no existing one is appropriate and governments are more likely to accept advice from an in-house body. Meanwhile, others favoured using science from regional bodies, perhaps via a network of their scientific committee chairs. However, some interviewees suggested that a combination is possible, and could take the form, for example, of a global science assessment that incorporates regional-level assessments.

Several interviewees highlighted the importance of the science body's advice being respected and not corrupted by particular interests. Suggestions made by interviewees to ensure this included electing members based on individual expertise, rather than to represent member states, and/or requiring additional external scientific review of the proposal through to implementation and enforcement, e.g. by IPBES (as one suggested). Regarding powers for the science body, it was noted by one interviewee that the International Seabed Authority's technical commission is empowered to make binding recommendations unless two thirds of States Parties object and also that some RFMOs are moving towards models where, if they ignore scientific advice, they have to provide an explanation.

In contrast to the current framework, a centralised science body would enable MPAs to be identified and designated globally on the basis of standardised criteria, though there has been considerable debate over these criteria throughout the negotiation process, particularly regarding potential inclusion of socioeconomic and cultural values and, as emphasised particularly by Pacific States, incorporation of local and traditional knowledge (i14).

Both interviewees and the broader literature make clear that a process for decision-making under uncertainty is essential (i15). The scale and remoteness of ABNJ versus EEZs mean there is a distinct lack of baseline environmental data to inform conservation, and the Agreement should enshrine the precautionary principle such that data and/or knowledge deficiency does not delay action [16], [17], [44]. Processes for adaptation in light of emerging knowledge [10] also require discussion. Almost all interviewees raised concerns about climate change and whether it had been adequately considered in this debate. It was suggested that high seas MPAs' ability to cope with changing climate will depend

largely on the Agreement's monitoring and reporting requirements. For example, one interviewee felt high-seas MPAs, like fisheries closures, should be reviewed five-yearly, however more rejected outright the concept of temporally-limited MPAs – such suggestions have also caused concern amongst stakeholders at the negotiations (see, for example, statements by Greenpeace and New Zealand, amongst others, at IGC2) Several interviewees focused their solutions for climate change adaptation mostly on expansion of MPA networks, both in terms of types and in percentage coverage, such that they can function in any setting. One highlighted ideas around establishing bands of MPAs located such that they anticipate climate-related migration. As part of a network, interviewees highlighted advantages of flexible closures for specific circumstances, such as moving fishing away from turtle migrations at key times, but expressed concerns about over-reliance on these, highlighting that a network must include both significant MPA coverage and supplementary mobile tools.

3.7 Cross-cutting theme: equity

It was suggested by one interviewee that perhaps the strongest driver for high seas conservation is “a moral duty to protect the planet for generations yet to be born and not rob the future of opportunity”. Certainly, as the benefits and consequences of high seas exploitation are extremely unevenly distributed [53], it can be hoped that the negotiation of a BBNJ Agreement might provide the opportunity to establish a more equitable governance regime, for example one incorporating some reference to Common Heritage of Mankind principles or other principles of sustainable development enshrined in international law [36], as discussed previously. Additionally, it has been suggested that any adoption of ecosystem-based approaches fundamentally operationalises a more equitable approach to MPAs by acknowledging linkages between high seas and coastal waters [54]. However, interviewees disagreed on the extent to which this is important. For example, one disputed the idea that high seas fishing directly impacts livelihoods significantly.

Procedural equity at the negotiation stage allows diverse perspectives to be included in the drafting of an Agreement. For this reason, the UN funds developing states' delegations' attendance at the IGC [55] and NGOs have run capacity-building initiatives to support participation, though continued reliance on parallel negotiating sessions is clearly to the disadvantage of smaller delegations which might not be able to send representatives to numerous simultaneous sessions and consequently are excluded from some such opportunities. Interviewees also highlighted that many developing states' focus at the negotiations has been the hypothetical benefits of marine genetic resources, not the real advantages of MPAs [56] and that there was clear space for countries not benefitting from the existing system to present bolder proposals. Overall, however, while interviewees noted an increasing focus on equity and justice as the high seas debate becomes more intertwined with those on sustainable development, several believed that international negotiations will always be somewhat inequitable as some states have more power and thus greater leverage, and because sectoral interests have greatest access to states and thus ability to drag down ambition. Alternatively, some interviewees highlighted that global agreements can sometimes offer opportunities to balance such factors, by enabling regional groups to form (e.g. the Pacific Islands) to defend their collective interests.

At the MPA implementation stage too, capacity-building will be key to ensuring equity, particularly financial capacity through funding tools and/ or fiscal reform to redirect money from harmful subsidies towards socially and environmentally beneficial activities [57]. A commitment to equitable MPAs could also be enshrined in designation criteria, e.g. by allowing prioritisation of areas with greater connectivity to dependent communities [56], and further through active involvement of those communities in designing management regimes [54].

3.8 Applicability of the MPA Governance Framework

Detailed consideration of the application of the MPA Governance framework to ABNJ warrants development through further work. However, this paper demonstrates that framework's clear utility in structuring holistic analysis of conditions the BBNJ Agreement must establish to facilitate effective and equitable high seas MPAs, and therefore arguably demonstrates its relevance to the design and evaluation of such MPAs. Results presented here demonstrate the potential of a 'global model' BBNJ Agreement to add or strengthen diverse, and interacting, governance incentives. Therefore, in line with the theoretical foundations of the MPAG framework, it can be concluded that such an Agreement would provide a basis for significantly more effective and resilient MPAs than are possible under the status quo.

Consideration of the interactions between incentives (Fig. 2) also supports the conclusion that, while defining a strong legal and regulatory regime undoubtedly underpins improved governance of ABNJ, this must be supported and strengthened by top-down and bottom-up incentives across all five categories. Again, this indicates the relevance of the MPAG framework's overarching focus on combining various approaches in a manner which entails a degree of decentralisation within a hierarchical system, such that strategic objectives can still be achieved. This represents arguably the central challenge of environmental governance: how to devolve some degree of responsibility to 'lower' governance levels in recognition of their greater awareness of localised circumstances and complexities, while ensuring the strategic perspective (and network development potential) provided by 'higher' levels of governance is retained [10], [51], [58]. This general challenge of achieving decentralisation "in the shadow of hierarchy" [59] has proved to be particularly pertinent with regards to BBNJ Agreement negotiations, where substantial debate has centred on the implications of the "not undermining requirement" for establishment of hierarchical relationships [27].

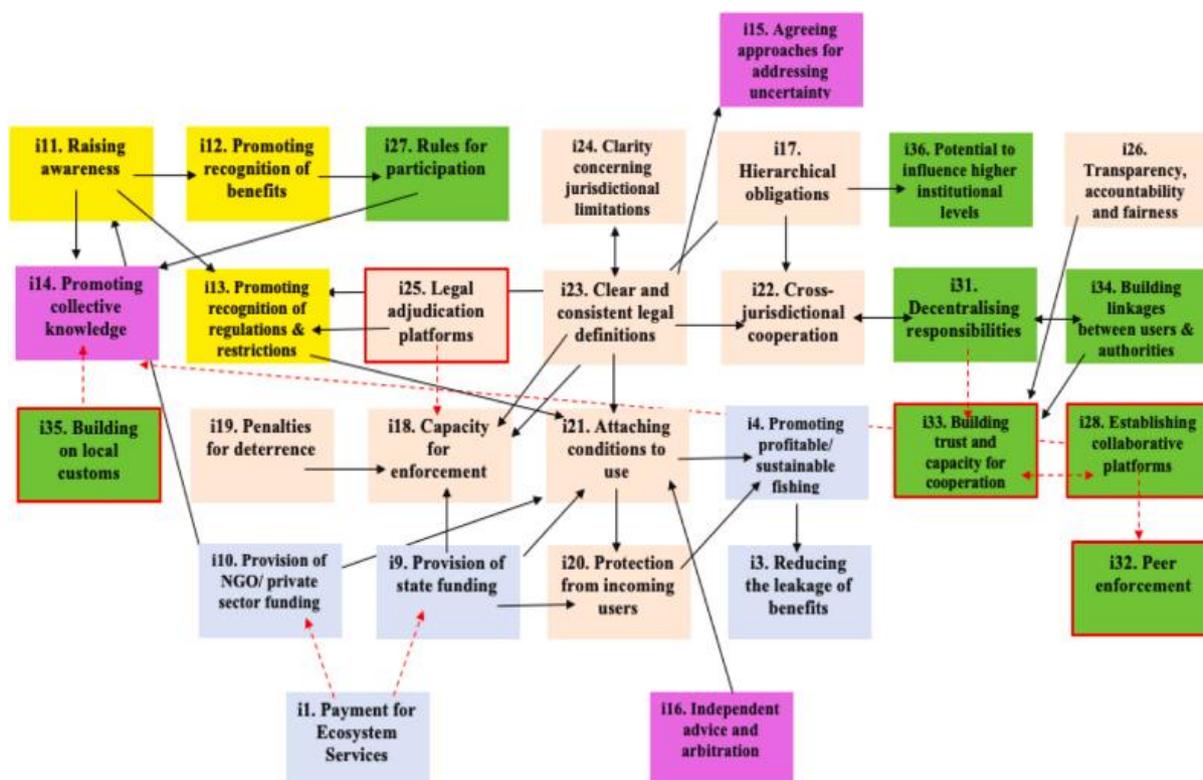


Figure 2: Interactions between governance incentives discussed [boxes = incentives; boxes outlined in red = N* incentives; arrows indicate interactions; dashed arrows indicate incentives to be established if N* incentive established].

The major challenge encountered by the authors in adapting the MPA governance framework to the ABNJ context is the need to reconsider who the relevant stakeholders are. This essentially involves, as one interviewee summarised it, “shifting up” the governance levels applicable to coastal MPAs: the international community (represented by the global agreement and/or body) plays the role filled by the government in national waters, at the top of the hierarchy, with decentralisation to individual or collective states, rather than local governments or communities. Thus, communities and individuals are one step removed, represented primarily through democratic mandates or by NGOs, which poses a challenge in applying the MPAG framework’s participatory incentives. In interpreting these to incorporate participation by regional and sectoral bodies, this paper may detract somewhat from the spirit in which the MPAG framework was devised, and it is clear that much more consideration is needed by negotiators and other stakeholders as to how genuine representation of citizens’ views and interests can best be built into effective, equitable high seas conservation.

3.9 Next steps: update on progress since research period

Following the research period, a further round of negotiations (IGC3) took place in August 2019, at which delegates began textual negotiations [27] based on the ‘zero draft’ treaty text published in June

2019. An updated draft treaty text was subsequently released in November 2019, as discussed briefly below, and delegates have now submitted proposals for textual amendments for consideration at IGC4. These proposals have been made available online by the UN [60] through a portal where all future updates will also be found. Again, IGC3 and the proposals subsequently produced relate to the entirety of the Agreement, not just the ABMT and MPA pillar, but this section focusses on the latter.

An in-depth review of the updated text is beyond the scope of this work and can be found elsewhere (e.g. [61], [62]). Overall, IGC3 did not represent a drastic step forward in negotiations, significant divergence remains between the positions of states involved in these, and it remains the case that nothing is certain until an entire Agreement is signed. However, there are some key points which are worth noting in the context of the research discussed here.

IGC3 saw increasing convergence on several elements of MPA procedure, for example developing proposals on the basis of best available science and incorporating traditional knowledge of local communities [63]. These principles have both been added to the updated text, as notably has the 'common heritage of mankind' principle to the general principles section, albeit bracketed to indicate ongoing discussion. Indeed, De Santo [27] highlights continued ideological polarisation between the CHM and freedom of the seas principles as a defining feature of IGC3.

These developments can perhaps be interpreted as indicating a strengthened environmental justice framing, reflecting calls made at IGC3. Nonetheless, divergence remains on all of the most complex and controversial elements discussed in this paper, notably the role of, and delegation of authority to [27], relevant global, regional and sectoral bodies; the relationship between the agreement and other instruments [27]; and provisions around implementation, monitoring and review [63]. On MPAs specifically, delegates at IGC3 continued to debate potential criteria for their identification, and critical questions remained on designation processes where relevant instruments or bodies already do exist and where they do not, as well as how these instruments and bodies coordinate with each other [27].

Regarding its potential strength, the updated draft still does not contain any obligation on States Parties to establish MPAs. More broadly, IUCN [62] highlights a key omission from the text as the absence of a more explicit obligation to conserve and sustainably use marine biodiversity and to ensure that activities under a States Parties' jurisdictions or control do not cause harm to the environment in ABNJ. Overarchingly, there is still no provision explicitly empowering the COP to take measures in cases where competent bodies fail to act upon its recommendations [61]. Ongoing use of the "not undermining" concept, and related language, to argue that a new instrument should have fewer oversight or coordination functions continues to present a major obstacle in negotiations to empowering the new Agreement to integrate currently fragmented governance institutions [27] to improve conservation outcomes. Indeed it has been suggested that in fact the 'should not undermine' commitment may be undermining the BBNJ process as a whole as, within an international political climate that is "not conducive to the creation of hard law or new institutions", this wording is being deployed to restriction form and functions of a BBNJ Agreement which risks making a "soft law agreement" inevitable [35].

The presently postponed IGC4 (which, due to the ongoing coronavirus pandemic, will certainly not take place before 2021) is the intended final round of negotiations, where an Agreement is expected to be signed. Given the lack of significant progress at IGC3, and the central issues remaining unresolved, it is reported that some have privately expressed concerns about the intended timeline [27]. Prip [25] notes that "negotiation of the instrument is still at an early stage and there is a high probability that the negotiation process will be extended beyond the last scheduled meeting in 2020.

Then many years will elapse before the instrument will enter into force". Nonetheless, there has been no formal discussion thus far of extending beyond the planned four sessions [27]. Any further delays are extremely unwelcome from a conservation perspective, although a weak 'status quo' agreement finalised at IGC4 could have equally negative consequences by entrenching existing practices. If a weak Agreement is signed, many of the issues discussed here will doubtless remain relevant - one interviewee summarised how all the ideal measures discussed "fall by the wayside if we have a weak implementing agreement that largely cements existing arrangements in place and does not provide the mechanisms or resources to properly govern BBNJ." If an Agreement is reached that does not have a funding mechanism (ideally a mandatory one) in place, then funding for implementation would remain to be worked out over time, potentially jeopardising the establishment and implementation of further high seas MPAs despite the existence of a mechanism for this. The current global economic situation has perhaps heightened the risk that states return to the negotiating table at IGC4 with even less willingness than previously to commit to new mandatory financing mechanisms, making this a key concern. As so many key provisions remain bracketed in the current draft, the level of ambition, and ultimately the effectiveness, of the Agreement remain dependent on choices made at IGC4 [61], meaning it is vital that States Parties approach IGC4 with ambition, determination and a high level of political will.

It also appears likely that elements of the governance and implementation of high seas MPAs will remain to be resolved in practice over time on an adaptive basis, even once an Agreement is signed. The extent to which this is the case will depend on the exact nature of the final Agreement text. However, even if a strong global BBNJ Agreement is secured at IGC4, many interviewees emphasised that this would be the beginning of the process, not the end. For example, while the Agreement should hopefully establish in principle how interactions between regional and sectoral bodies or amongst States Parties should proceed, in reality the intricacies of how they work together (including how they respond to instances of non-compliance by each other) will likely emerge, and be fine-tuned, over time. Likewise, if commitments to equity and inclusive participatory mechanisms are established, consideration of these must be actively promoted not only at the drafting stage but also through all stages of implementation.

4. CONCLUSION

It is clear from the evidence presented both by interviewees and the broader literature that the existing framework for biodiversity conservation in areas beyond national jurisdiction is totally inadequate in the face of widespread and escalating threats to the ocean and that, given the severity and urgency of these threats, we cannot rely on minor improvements to the status quo. Therefore, the ongoing negotiations to develop a global BBNJ Agreement could represent a once-in-a-generation opportunity to define a stronger, more integrated ocean governance framework that prioritises conservation and establishes the institutions, structures and mechanisms required to achieve it, most importantly a mechanism for the establishment of vital MPAs.

Current environmental degradation demonstrates the inadequacy of the status quo and there is considerable evidence to support calls for a BBNJ Agreement to establish a global model with strategic oversight. Alongside elements relating to EIAs, MGRs and capacity-building, an essential feature of this Agreement must be the authority and processes required to systematically develop a much-needed network of high seas marine protected areas. Drawing on the MPAG Framework, this paper outlines how such an Agreement could add and strengthen governance incentives and could therefore have significant potential to enable and support the establishment of effective, resilient high seas

MPAs. In line with the theoretical basis of the MPAG Framework, as well as interviewee comments and literature highlighting both the need for global oversight and some of the advantages and practicalities of implementation through existing (regional-level) bodies, this paper proposes that incorporation of the best elements of bottom-up approaches to ABNJ conservation into the top-down mandate of a global model could produce an optimal basis for MPAs. The significant governance challenge posed by seeking a degree of decentralisation “in the shadow of hierarchy” [59] must be a key area of focus at IGC4. In this light, a central concern regarding the draft Agreement text is its failure to establish certain key obligations on States Parties, for example to establish MPAs. At the opposite end of the scale, the analysis outlined in this paper also highlights the relatively limited role an international process affords to interests of and involvement by citizens and communities. This must be improved upon to ensure resulting conservation measures are equitable as well as effective.

In demonstrating the potential for a strong BBNJ Agreement based on a global model to support the establishment of effective high seas marine protection, the findings described here add to the considerable literature in support of such a model. As we approach the final round of negotiations, the draft text arguably does not yet provide for the degree of transformational change required to guarantee resilient, ecologically and socially sustainable ocean governance. It is clear that much work remains to be done to achieve this vitally important outcome. It remains the case that some negotiating states’ positions are far away from many of the perspectives outlined here and that there is a significant risk that geopolitics prevail and impede the conclusion of an Agreement which can ensure effective high seas conservation. Given the stakes, it is imperative that at IGC4 the world’s leaders find a way to finalise and then deliver on an Agreement ambitious enough to match the scale of the crisis, and equally that states support the Agreement through necessary complementary measures in their own policy, such as through the elimination of destructive subsidies.

5. AUTHORSHIP CONTRIBUTION STATEMENT

Amy Hammond: Conceptualization, Methodology, Investigation, Writing - original draft, Writing - reviewing & editing. **Peter Jones:** Conceptualization, Methodology, Writing - reviewing & editing.

6. REFERENCES

- [1] D. Laffoley, J.M. Baxter, D.J. Amon, D.E.J. Currie, C.A. Downs, J.M. Hall-Spencer, H. Harden-Davies, R. Page, P.C. Reid, C.M. Roberts, A. Rogers, T. Thiele, C.R.C. Sheppard, U.R. Sumaila, L.C. Woodall **Eight urgent fundamental and simultaneous steps needed to restore ocean health, and the consequences for humanity and the planet of inaction or delay** *Aquat. Conserv.* (2019), 10.1002/aqc.3182
- [2] L.M. Campbell, N.J. Gray, L. Fairbanks, J.J. Silver, R.L. Gruby, B.A. Dubik, X. Basurto **Global oceans governance: new and emerging issues** *Annu. Rev. Environ. Resour.*, 41 (2016), pp. 517-543
- [3] IPBES, Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 2019.
- [4] B.C. O’Leary, G. Hoppit, A. Townley, H.L. Allen, C.J. McIntyre, C.M. Roberts **Options for managing human threats to high seas biodiversity** *Ocean Coast. Manag.*, 187 (2020), 10.1016/j.ocecoaman.2020.105110
- [5] FAO, Agreement on Port State Measures (PSMA) [online], 2020a. <<http://www.fao.org/iuu-fishing/international-framework/psma/en/>> . (Accessed 13th April 2020).

- [6] FAO, The State of World Fisheries and Aquaculture 2020, Sustainability in action, Rome, 2020b <<https://doi.org/10.4060/ca9229en>>
- [7] B. Worm, E.B. Barbier, N. Beaumont, J.E. Duffy, C. Folke, B.S. Halpern, J.B.C. Jackson, H.K. Lotze, F. Micheli, S.R. Palumbi, E. Sala, K.S. Selkoe, J.J. Stachowicz, R. Watson **Impacts of biodiversity loss on ocean ecosystem services** *Science*, 314 (2006), pp. 787-790
- [8] B.S. Halpern, S.E. Lester, K.L. McLeod **Placing marine protected areas onto the ecosystem-based management seascape** *Proc. Natl. Acad. Sci. USA*, 107 (43) (2010), pp. 18312-18317
- [9] C.M. Roberts **Marine ecology: reserves do have a role in fisheries** *Curr. Biol.*, 22 (2012), pp. R44-R46
- [10] P.J.S. Jones *Governing Marine Protected Areas: Resilience through Diversity*, Routledge, Abingdon (2014) <http://bitly.com/GoverningMPAs>
- [11] UNEP-WCMC and IUCN, *Marine Protected Planet* (online), [August 2020]. <www.protectedplanet.net>
- [12] Blue Marine Foundation, *A Blue Vision for the High Seas*, 2019.
- [13] N. Matz-Lück, J. Fuchs **The impact of OSPAR on protected area management beyond national jurisdiction: effective regional cooperation or a network of paper parks?** *Mar. Policy*, 49 (2014), pp. 155-166
- [14] A.D. Rogers, U.R. Sumaila, S.S. Hussain, C. Baulcomb, *The High Seas and Us: Understanding the Value of High Seas Ecosystems* Global Ocean Commission, 2014.
- [15] E. Sala, J. Mayorga, C. Costello, D. Kroodsma, M.L.D. Palomares, D. Pauly, U.R. Sumaila, D. Zeller **The economics of fishing the high seas** *Sci. Adv.*, 4 (6) (2018)
- [16] E. Popova, A. Bladon, E.Y. Mohammad, D. Vousdon, W. Sauer, *So far, yet so close: ecological connectivity between ABNJ and territorial waters*, IIED Briefing, 2019a.
- [17] E. Popova, D. Vousden, W.H.H. Sauer, E.Y. Mohammed, V. Allain, N. Downey-Breedt, R. Fletcher, K.M. Gjerde, P.N. Halpin, S. Kelly, D. Obura, G. Pecl, M. Roberts, D.E. Raitos, A. Rogers, M. Samoilys, U.R. Sumaila, S. Tracey, A. Yool **Ecological connectivity between the areas beyond national jurisdiction and coastal waters: safeguarding interests of coastal communities in developing countries** *Mar. Policy*, 104 (2019), pp. 90-102
- [18] United Nations Convention on the Law of the Sea, 1982. <https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf>
- [19] Y. Takei **A sketch of the concept of ocean governance and its relationship with the law of the sea** C. Ryngaert, et al. (Eds.), *What's Wrong with International Law?*, Brill Nijhoff, Leiden (2015)
- [20] D. Freestone **Introduction** D. Freestone (Ed.), *Conserving Biodiversity in Areas Beyond National Jurisdiction*, Brill Nijhoff, Leiden (2019)
- [21] J.A. Ardron, R. Warner **International marine governance and protection of biodiversity** H.D. Smith, J.L. Suárezde Vivero, T.S. Agardy (Eds.), *Routledge Handbook of Ocean Resources and Management*, Routledge, London (2018)

- [22] K.M. Gjerde, N.A. Clark, H.R. Harden-Davies **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 Yearb.*, 33 (2019), pp. 3-44
- [23] D. Tladi **Ocean governance: a fragmented regulatory framework** P. Jacquet, et al. (Eds.), *Oceans: The New Frontier – A Planet for Life*, TERI Press (2011)
- [24] N.C. Ban, N.J. Bax, K.M. Gjerde, R. Devillers, D.C. Dunn, P.K. Dunstan, A.J. Hobday, S.M. Maxwell, D.M. Kaplan, R.L. Pressey, J.A. Ardron, E.T. Game, P.N. Halpin **Systematic conservation planning: a better recipe for managing the high seas for biodiversity conservation and sustainable use** *Conserv. Lett.*, 7 (1) (2014), pp. 41-54
- [25] C. Prip **Arctic Ocean governance in light of an international legally binding instrument on the conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction** *Mar. Policy* (2019), 10.1016/j.marpol.2019.103768
- [26] E. Druel, K.M. Gjerde **Sustaining marine life beyond boundaries: options for an implementing agreement for marine biodiversity beyond national jurisdiction under the UNCLOS** *Mar. Policy*, 49 (2014), pp. 90-97
- [27] E.M. De Santo **Stuck in the middle with you (and not much time left): the third intergovernmental conference on biodiversity beyond national jurisdiction** *Mar. Policy*, 117 (2020), Article 103957
- [28] A.G. Oude Elferink **Exploring the future of the institutional landscape of the oceans beyond national jurisdiction** *Rev. Eur. Comp. Int. Environ. Law*, 28 (3) (2019), pp. 236-243
- [29] United Nations, President's Aid to Negotiations, 2018.
- [30] UN, 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, 2019a.
- [31] UN, Revised 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, 2019c.
- [32] E.M. De Santo **Implementation challenges of area-based management tools (ABMTs) for biodiversity beyond national jurisdiction (BBNJ)** *Mar. Policy*, 97 (2018), pp. 34-43
- [33] K. Gjerde **Challenges to protecting the marine environment beyond national jurisdiction** *Int. J. Mar. Coast. Law*, 27 (4) (2017)
- [34] K.M. Gjerde, L.L. Nordtvedt Reeve, H. Harden-Davies, J. Ardron, R. Dolan, C. Durussel, S. Earle, J. Jimenez, P. Kalas, D. Laffoley, N. Oral, R. Page, M.C. Ribeiro, J. Rochette, A. Spadone, T. Thiele, H.L. Thomas, D. Wagner, R. Warner, A. Wilhelm, G. Wright **Protecting Earth's last conservation frontier: scientific, management and legal priorities for MPAs beyond national boundaries** *Aquat. Conserv.*, 26 (S2) (2016)
- [35] E. Mendenhall, E. De Santo, E. Nyman, R. Tiller **A soft treaty, hard to reach: the second intergovernmental conference for biodiversity beyond national jurisdiction** *Mar. Policy*, 108 (2019), Article 103664

- [36] R. Rayfuse, R.M. Warner **Securing a sustainable future for the oceans beyond national jurisdiction: the legal basis for an integrated cross-sectoral regime for high seas governance for the 21st century** *Int. J. Mar. Coast. Law*, 23 (3) (2008), pp. 399-421
- [37] G. Wright, J. Rochette, K. Gjerde, I. Seeger, *The long and winding road: negotiating a treaty for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction*, IDDRI, Studies No. 08/18, 2018.
- [38] M.A. Young, A. Friedman **Biodiversity beyond national jurisdiction: regimes and their interaction** *Am. J. Int. Law*, 112 (2018), pp. 123-128
- [39] D. Freestone **The limits of sectoral and regional efforts to designate high seas marine protected areas** *Am. J. Int. Law*, 112 (2018), pp. 129-133
- [40] A. Friedman **Beyond 'not undermining': possibilities for global cooperation to improve environmental protection in areas beyond national jurisdiction** *ICES J. Mar. Sci.*, 76 (2019), pp. 452-456
- [41] D. Freestone, D. Johnson, J. Ardron, K. Killerlain Morrison, S. Unger **Can existing institutions protection biodiversity in areas beyond national jurisdiction? Experiences from two ongoing processes** *Mar. Policy*, 49 (2014), pp. 167-175
- [42] K. Töpfer, L. Tubiana, S. Unger, J. Rochette **Charting pragmatic courses for global ocean governance** *Mar. Policy*, 49 (2014), pp. 85-86
- [43] K. Gjerde, B. Boteler, C. Durussel, J. Rochette, S. Unger, G. Wright, *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*, 2018.
- [44] D. Smith, J. Jabour **MPAs in ABNJ: lessons from two high seas regimes** *ICES J. Mar. Sci.*, 75 (1) (2017), pp. 417-425
- [45] Z. Scanlon **The art of 'not undermining': possibilities within existing architecture to improve environmental protections in areas beyond national jurisdiction** *ICES J. Mar. Sci.*, 75 (2017), pp. 405-416
- [46] P.J.S. Jones **Fishing industry and related perspectives on the issues raised by no-take marine protected area proposals** *Mar. Policy*, 32 (4) (2008), pp. 749-758, 10.1016/j.marpol.2007.12.009
- [47] A.L. Strauss **Qualitative Analysis for Social Scientists** Cambridge University Press, New York (1987)
- [48] UN Environment, *Enabling Effective and Equitable Marine Protected Areas – guidance on combining governance approaches*, 2019. Authors – Jones, P.J.S., Murray, R.H. and Vestergaard, O. <https://www.unenvironment.org/resources/enabling-effective-and-equitable-marine-protected-areas-guidance-combining-governance>
- [49] R. Tiller, E. De Santo, E. Nyman, E. Mendenhall **The once and future treaty: towards a new regime for biodiversity in areas beyond national jurisdiction** *Mar. Policy*, 99 (2019), pp. 239-242
- [50] WWF, *A New Deal for the Ocean: Brief for Governments for BBNJ IGC-2* [online], 2019. <<http://statements.unmeetings.org/media2/21102654/wwf-3-27.pdf>> . (Accessed 27th August 2019).

[51] Jones and Long (this issue).

[52] R. Blasiak, C. Durussel, J. Pittman, C.A. Senit, M. Peterson, N. Yagi The role of NGOs in negotiating the use of biodiversity in marine areas beyond national jurisdiction *Mar. Policy*, 81 (2017), pp. 1-8

[53] E.Y. Mohammad, *Governing the high seas: priorities for the Least Developed Countries IIED Briefing*, 2017.

[54] D. Diz, *High seas governance that benefits all: understanding area-based management tools IIED Briefing*, 2019.

[55] UN, *Information for IGC3 participants*, 2019b.

[56] M. Watson, *Action for an ocean for all: rethinking the blue economy to be inclusive, sustainable, fair and for everyone IIED*, 2019.

[57] E.Y. Mohammad, *New rules for high seas must include poorest countries' needs IIED*, 2018. <<https://www.iied.org/new-rules-for-high-seas-must-include-poorest-countries-needs>> .

[58] J.S. Dryzek *Rational Ecology: Environment and Political Economy*, Basil Blackwell, New York (1987)

[59] S. Bell, A. **Hindmoor Rethinking Governance: The Centrality of the State in Modern Society** Cambridge University Press, Cambridge (2009)

[60] UN, *Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction*, 2020 [online].

[61] K. Cremers, G. Wright, J. Rochette, K. Gjerde, H. Harden-Davies, *A preliminary analysis of the draft high seas biodiversity treaty IDDRI*, 2020.

[62] IUCN, *International legally binding instrument 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*, 2020. IUCN comments available at: <https://www.iucn.org/sites/dev/files/iucn_comments_on_bbnj_draft_text_-_august_2019.pdf>

[63] IISD, *Earth Negotiations Bulletin (ENB) Volume 25 Number 218: Summary of the Third Session of the Intergovernmental Conference (IGC) on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction*, 2019. Available at: <<https://enb.iisd.org/vol25/enb25218e.html>>

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.