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Dynamic marine protected areas

To what extent may the future BBNJ treaty facilitate dynamic marine protected areas? Kristoffer Joel Høe Master's thesis in Law of The Sea LL.M JUR-3910, September 2021



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List of Abbreviations

ABMT Area-Based Management Tools ABNJ Areas Beyond National Jurisdiction **BBNJ** Biodiversity Beyond National Jurisdiction **CBD** Convention on Biological Diversity **CBTT** Capacity Building and Technology Transfer **COP** Conference of Parties **DMPA** Dynamic Marine Protected Area **EEZ** Exclusive Economic Zone **EIAs** Environmental Impact Assessments FAO Food and Agriculture Organization of the United Nations FSA Fish Stocks Agreement G77/China Group of 77 and the Republic of China **IGC** Intergovernmental Conference **HSD** International Institute for Sustainable Development **ILBI** International Legally Binding Instrument **IMO** International Maritime Organization **IPBES** Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services **ISA** International Seabed Authority **IUCN** International Union for Conservation of Nature (World Conservation Union) **MPA** Marine Protected Area **PrepCom** Preparatory Committee **PSSA** Particularly Sensitive Sea Areas (IMO) **RFMO** Regional Fisheries Management Organization **UN** United Nations **UNCLOS** United Nations Convention on the Law of the Sea UNGA United Nations General Assembly **UNTS** United Nations Treaty Series **VCLT** Vienna Convention on the Law of Treaties

1 Introduction

1.1 Topic

In 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) published a comprehensive global biodiversity assessment.¹ According to the researchers, only 3 per cent of oceans are free from human interference, and coral reefs have decreased by 50 per cent.² Moreover, 33 per cent of global fish stocks are being classified as overexploited, with 55 per cent of ocean areas being subject to industrial fishing.³

Disturbing reports on the state of our oceans are not new. In 2012 the Food and Agriculture Organization of the United Nations (FAO) reported that the percentage of fully exploited and depleted fish stocks had reached 87 per cent, the highest measure ever stipulated.⁴ Additionally, deep-sea ecosystems have suffered destruction, and there is an escalating trend towards shifting species and other biodiversity changes due to ocean warming and acidification.⁵ The FAO has signalised that the trend will only worsen unless significant changes are made to the management of resources in the high seas.⁶

The progress of establishing representative and functional networks of marine protected areas (MPAs) on the high seas and the Area, hereinafter jointly referred to as areas beyond national jurisdiction (ABNJ), symbolises the challenges facing our oceans.⁷ Approximately 60 per cent

Perspectives for Moving Ahead' (2012) The International Journal of Marine and Coastal Law 27, p. 352

¹ IPBES, 'Summary for policymakers of the assessment report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on pollinators, pollination and food production. Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services', Bonn, Germany, Available online: <u>https://ipbes.net/sites/default/files/2020-</u>

<u>02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf</u> (accessed 9 June 2021) p. 24 ² IPBES-report (2019), *Ibid.* p. 24

³ Ibid.

⁴ FAO, 2012b. FAO Committee on Fisheries Thirtieth Session, Rome, 9–13 July 2012 Final Report, Para 72

⁵ KM Gjerde, A Rulska-Domino, 'Marine Protected Areas beyond National Jurisdiction: Some practical

⁶ FAO, 2007. The State of World Fisheries and Aquaculture 2006 (Rome: Food and Agriculture Organization of the United Nations, 2007)

⁷ United Nations Convention on the Law of the Sea, 10 December 1982 (hereinafter LOSC). The "high seas" are defined as "all 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" pursuant to Article 86. The

of the world's oceans are located outside national jurisdiction, and 90 per cent of the oceans total biomass can be found here.⁸ Moreover, technological advances and increased scientific knowledge provides for the growing demand for resources in ABNJ.⁹ Therefore, designating sufficient and functional management tools beyond national jurisdiction is necessary to combat future challenges.¹⁰ In this respect, MPAs are considered a pivotal part of the sustainable utilisation of our future oceans ¹¹ and is the most effective of all ABMTs.¹² However, the majority of current MPAs are located in areas under national jurisdiction,¹³ with only 1,18 per cent of ABNJ currently protected.¹⁴ Therefore, ABNJ is facing substantial mismanagement risk compared to biodiversity within national jurisdiction.¹⁵

In response to this problem, The Conference of the Parties (COP) under the United Nations Convention on Biological Diversity (CBD)¹⁶ set a goal of effectively protecting 10 per cent of marine and coastal areas, including ABNJ.¹⁷ The plan was intended to catapult national and international conservation efforts and reverse negative biodiversity trends. Aichi Target 11 was meant to be reached by 2012 but was later postponed to 2020 due to the parties' slow

[&]quot;Area" is defined in LOSC Article 1 as "the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.".

⁸ KM Gjerde, 'Participant report of the Expert Workshop on Managing Risks to Biodiversity and the Environment on the High Seas, including Tools Such as Marine Protected Areas: Scientific Requirements and Legal Aspects' (2001) International Journal of Marine and Coastal Law 16, no. 3 pp. 515-516

⁹ G Wright *et al.* 'Marine spatial planning in areas beyond national jurisdiction', (2019) (in press) Marine Policy, 103384, Elesvier Ltd., p.2, available online at: <u>https://doi.org/10.1016/j.marpol.2018.12.03</u>, accessed 18 August 2021

¹⁰ Gjerde, *supra note* 8, pp. 515-516

¹¹ Gjerde and Rulska-Domino, supra note 5, p. 353

¹² V Frank, 'Options for Marine Protected Areas under a New Agreement on Marine Biodiversity of Areas beyond National Jurisdiction' (2020) New Knowledge and Changing Circumstances, vol.92, Ch. 6, Brill Nijhoff p. 122

¹³ CBD COP 10 Decision X/29 on Marine and Coastal Biodiversity, para. 4

¹⁴ Protected Planet Digital Report chapter 3, available: <u>https://livereport.protectedplanet.net/chapter-3</u> based on the World Database on Protected Areas (WDPA), accessed 29 August 2021

¹⁵ KM Gjerde *et al.* 'Ocean in Peril: Reforming the management of global ocean living resources in areas beyond national jurisdiction' (2013) Marine Pollution Bulletin 74, p. 541

¹⁶ The Convention on Biological Diversity of 5 June 1992, 1760 UNTS 79 (CBD)

¹⁷ CBD COP Decision VII/5 'Marine and coastal biological diversity' (UNEP/CBD/COP/DEC/VII/5) 13 April 2004 – Aichi Target 11

process of designating MPAs.¹⁸ There is, moreover, a widespread interest among nations to increase the target of MPAs on the high seas and in the Area.¹⁹ Only recently, there has been a call for upscaling the quantitative goal by setting aside 30 per cent of the ocean for conservation through MPAs by 2030.²⁰ Noticeably, the extended deadline for reaching Aichi Target 11 has expired at the time of writing this thesis, and protections schemes in ABNJ are scarce.

In the meantime, the current framework of combating the negative ecological impacts in ABNJ has been criticised for not keeping pace. ²¹ This has led to calls for a new global agreement protecting biodiversity in ABNJ.²² The ongoing Intergovernmental Conference (IGC) is currently negotiating the new Internationally legally binding instrument on the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction (BBNJ agreement) under the United Nations Convention of the Law of the Sea (LOSC).²³ The BBNJ agreement is tasked with developing mechanisms to implement areabased management tools (ABMT's), to which MPAs are included pursuant to part I and III with the addition of Annex I.^{24 25}

²³ United Nations Convention of the Law of the Sea, 1982, 1833 UNTS 3

¹⁸ CBD COP Decision X/2 'The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets' (UNEP/CBD/COP/DEC/X/2) 29 October 2010.

¹⁹ KM Gjerde *et al.* 'Protecting Earth's last conservation frontier: scientific, management, and legal priorities for MPAs beyond national boundaries' (2016) Aquatic Conservation: Marine and Freshwater Ecosystems 26 (Suppl. 2) p. 47

²⁰ IUCN/WCC-2016-Res-050-EN, *Increasing marine protected area coverage for effective marine biodiversity conservation*

²¹ GO Crespo *et al.* 'Beyond static spatial management: Scientific and legal considerations for dynamic management in the high seas' (2020) Marine Policy 122 p.1-3

²² E Druel, KM Gjerde 'Sustaining marine life beyond boundaries: options for an implementing agreement for marine biodiversity beyond national jurisdiction under the United Nations Convention on the Law of the Sea' (2014) Marine Policy 11. Vol 49 p. 90-97, see also Gjerde and Rulska-Domino, *supra note* 5, p. 351-373

²⁴ UNGA, Internationally 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, UNGA Resolution A/RES/72/249 (24 December 2017)

²⁵ UNGA, Revised draft text of an agreement under the United Nations Convention of the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (18. November 2019) A/CONF.232/2020/3

Setting targets for quantitative coverage of MPAs might be seen as a positive step towards protecting ABNJ. Nonetheless, this approach is being criticised for paying limited attention to qualitative considerations. ²⁶ Marine life in ABNJ comprises multiple levels of diversity, including diversity within and between species, and of ecosystems and other ecological complexes. ²⁷ Considering the wide variety of activities and biodiversity in ABNJ, the interaction between them, a pivotal point to future management tools is that they would need to sufficiently account for the biological, physical, and human components of the ecosystem to maintain the overall health and resilience of ABNJ.²⁸

It has also been argued that setting minimum percentage targets for the designation of MPAs creates political comfort but neglect the basis for realistic assessment.²⁹ *Visconti et al.* submit that recent scientific studies uphold that the increase in coverage by MPA has contributed little to biodiversity conservation and protection, thus reassuring the weaknesses of establishing targets based and quantitative goals for protecting the marine environment.³⁰ For instance, species populations within and outside protected areas continue to decline.³¹ Additionally, some MPAs have been designated to avoid areas with substantial fisheries recourses, although overfishing being one of the most dominant threats MPAs can manage.³² Therefore, the single-sector and quantitative focus on MPA designation may be seen as contradictory to ensure ecological benefits for the complex dynamics that naturally occur on

²⁶ S Wells *et al.* 'Building the Future of MPAs – lessons from history' (2016) Aquatic Conserv: Mar. Freshw. 26 (suppl. 2) p.115

²⁷ A Merrie *et al.* 'An ocean of surprises – trends in human use, unexpected dynamics, and governance challenges in areas beyond national jurisdiction' (2014) Global Environment Change 27, p. 19-31

²⁸ LL Nordtvedt Reeve, A Rulska-Domino, KM Gjerde, 'The Future of High Seas Marine Protected Areas'

⁽²⁰¹²⁾ Ocean Governance for Marine Conservation, Ocean Yearbook 26, p. 280

²⁹ S Chape *et al.* 'Measuring the extent and effectiveness of protected areas as an indicator for meeting global biodiversity targets' (2005) Philosophical Transactions of The Royal Society B Biological Sciences, p 9

³⁰ P Visconti *et al.* 'A bold successor to Aichi Target 11' (2019) Science, American Association for the Advancement of Science, Vol. 365 p. 650-651

³¹ P Visconti P *et al.* 'Protected area targets post-2020' (2019), Science, American Association for the Advancement of Science, vol. 364 p. 239

 ³² CD Kuempel *et al.* 'Quantifying biases in marine-protected-area placement relative to abatable threats' (2019)
 Wiley Hoboken, Conservation Biology vol. 33 (6) p. 1358

the oceans.³³ Consistently, the effectiveness of designating MPAs by reference to meeting a percentage target is highly controversial. Owing to the widespread recognition of MPAs potentially pivotal role in ABNJ, the legal focus of establishing a new ABMT regime in ABNJ might benefit from a shift towards the qualitative aspects of ABMTs.³⁴

A central point to the discussion on the qualitative sides of designating ABMTs may lie in recognising the opportunities of dynamic ocean management (DOM). *Maxwell et al.* describe DOM as a comprehensive management tool that changes in time and space in response to the shifting nature of the ocean and its users based on the integration of new biological, oceanographic, social, or economic data in near real-time.³⁵ For example, spatial management responses to shifting circumstances have traditionally portioned the ocean into regions with fixed management boundaries.³⁶ Regarding MPAs, this is exemplified by using fixed latitude and longitude coordinates.

For some areas in need of protection, a static approach for protection is necessary and sufficient. However, for other species, habitats and areas, a static approach does not sufficiently deal with the natural dynamics of biodiversity. ³⁷ Moreover, the emphasis on dynamic management tools can be seen as an essential approach owing to changed circumstances due to climate change and ocean acidification.³⁸ Accordingly, the protection of biodiversity for such species, habitats, and areas in ABNJ could face a disproportional mismanagement-risk unless the future legal framework applicable to ABNJ sufficiently acknowledges ocean dynamics by designating dynamic ABMTs.

³³ JA Ardron *et al.* 'The sustainable use and conservation of biodiversity in ABNJ: What can be achieved using existing international agreements?' (2014) Marine Policy 49 p. 106

³⁴ S Chape *et al. supra note* 29, p. 9

³⁵ SM Maxwell *et al.* 'Dynamic Ocean Management: Defining and conceptualizing real-time management of the ocean' (2015) Marine Policy 58, p. 43

³⁶ AJ Hobday *et al.* 'Dynamic Ocean Management: Integrating Scientific and Technological Capacity with Law, Policy, and Management' (2014) Stanford Environmental Law Journal 125, p. 126

³⁷ SM Maxwell *et al.* 'Mobile protected areas for biodiversity on the high seas' (2020) Science, American Association for the Advancement of Science, Washington p. 252-254

³⁸ Crespo *et al. supra note* 21, p. 3.

The BBNJ agreement was launched to fill the gaps in the current ABNJ management system.³⁹ Moreover, the BBNJ working groups have recognised MPAs as one of two critical management tools to implement ecosystem approaches to sectoral bodies and States.⁴⁰ Provided the current state of protection of ABNJ, the BBNJ process creates a unique opportunity for shifting the focus from the quantitative to the qualitative side of designating MPAs. In this regard, the possible outcome of the BBNJ can be significant.⁴¹

1.2 Objective, Research Questions and Scope

The facilitation of dynamic approaches to conservation and the long-term sustainable use of marine biodiversity in ABNJ is a timely and interesting legal topic to further discuss upon. However, the idea of dynamic MPAs (DMPA) is at an early legal stage of being recognised as a feasible option for ABMT. Therefore, one of the main objectives for this thesis is to conceptualise DMPA. To avoid reasoning within a legal vacuum, the thesis will contribute to the understanding of DMPA in light of the limitations imposed by the current global framework. Lastly, the thesis will aim to investigate to what extent there are meaningful discussions to address these limitations by virtue of the BBNJ agreement.

In this sense, the overall research question is to what extent the new BBNJ agreement may facilitate the designation of dynamic MPA in ABNJ. This research question raises three key sub-questions. As a preliminary matter, the idea of DMPA needs clarification. For this purpose, the first sub-question is formulated as follows: (1) What are the essential elements to a DMPA? Given the increasing extent of academic attention to the idea of DMPA, answering this question helps systematise the following discussions.

The second sub-question moves the focus to the current global legal framework. The main objective of this part is to identify the gaps and challenges under the current global regime for DMPAs in ABNJ, namely the LOSC, CBD and the IUCN guidelines. Therefore, the next sub-

³⁹ SS Yadav, KM Gjerde, 'The Ocean, climate change and resilience: Making Ocean areas beyond national jurisdiction more resilient to climate change and other anthropogenic activities' (2020) Marine Policy 122 p. 1 ⁴⁰ UN, 2012, section 13. Report of the Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction and Co-Chairs' summary of discussions. A/67/95

⁴¹ JA Ardron et al. supra note 33, p. 103

question is (2) to what extent the current global legal framework applicable in ABNJ facilitates designation of DMPA able to shift boundaries. Moreover, the thesis will not generally embark on investigating regional agreements or other arrangements and instruments with competence in ABNJ unless for the purpose of giving specific examples that shed light on the current gaps and challenges.

Lastly, the third sub-question pertains to the current BBNJ process. It seeks to answer the following question: (3) *to what extent does the most recent draft of the BBNJ agreement fill the gaps and challenges under the current global regime for facilitating the designation of DMPA in ABNJ*? The focus in this part is to give more specific insight to the overall research question.

1.3 Legal Sources and Methodology

Article 38 of the Statutes of the International Court of Justice⁴² provide the generally accepted legal sources under international law.⁴³ In this regard, the primary sources for this thesis are the LOSC, CBD and the BBNJ agreement. However, the idea of DMPA is new under international law. Consequently, there are no relevant judicial decisions that add anything to the understanding and facilitation of DMPA in ABNJ under international law. Therefore, relevant legal theory will enjoy particular attention in order to provide interesting discussions under each research question. Furthermore, DMPA is a multidisciplinary topic that enables the application of scientific reports and soft law sources.

Soft law is a non-binding secondary source, however, with a normative, practical and political weight, which can develop into hard law. In this respect, the IUCN guidelines need appreciation. Lastly, as a supplement, reports from the BBNJ negotiations are referred to in order to assess to which extent there have been meaningful discussions for facilitating DMPA under the new legally binding instrument.

In order to address the first research question, I will apply a mixed methodological approach for the purpose to synthesise the knowledge available in multidisciplinary writings. For the

⁴² Statute of the International Court of Justice, adopted 26 June 1945, entered into force 24 October 1945, UNTS
993

⁴³ J Crawford 'Brownlie's Principles of Public International Law', 8th Edition, Oxford University Press (2019)p. 20

following research questions, the thesis will for the most part adopt a descriptive doctrinal analysis *de lege lata* with brief additional discussions *de lege ferenda*. In this respect, The Vienna Convention on the Law of the Treaties (VCLT)⁴⁴ Articles 31 and 32 of VCLT serves as a guideline for interpreting the LOSC and CBD.

Lastly, the BBNJ agreement is still under negotiations. Therefore, this thesis will analyse the most recent draft text with relevant material to the negotiations. The analysis of the draft text is akin to the interpretation of a treaty. However, the current construction of the draft text, with options for alternative wording, allows the author to problematise the text beyond the purposes of *de lege lata* analysis. Furthermore, I will apply different analytical tools following the overall methodology, such as, but not restricted to; comparative perspectives, descriptive and normative analysis, argumentative analysis, and legal-based criticism.

1.4 The Thesis Going Forward

The thesis is structured in the following manner: Chapter 2 conceptualises and clarifies DMPA for the subsequent discussions. Chapter 3 continues by discussing the facilitation of shifting DMPAs under the current global framework pertaining to ABNJ and exposing any gaps and challenges for such designation. Chapter 4 analyses the draft treaty with the purpose of establishing to what extent it may facilitate for shifting DMPA and its ability to alleviate the gaps and challenges as outlined in chapter 3.

⁴⁴ Vienna Convention on the Law of Treaties (VCLT) Adopted 23 May 1969, entered into force 27 January 1980, 1155 UNTS 331

2 Conceptualising Dynamic MPA

Dynamic MPAs are a new way of understanding MPAs under international law. Accordingly, there is no generally accepted legal definition of dynamic MPA, creating a problematic legal landscape for further conceptualisation. This raises a key question; *What are the essential elements to a DMPA*?

For contextual purposes, section 2.1 provides a brief introduction to the concept of MPA. Furthermore, the idea of DMPA is interconnected to the concept of dynamic ocean management. Consistently, section 2.2 introduces DOM while section 2.3 focuses on the elements pertinent to DMPA. Lastly, section 2.4 provides a brief conclusion on DMPA going forward.

2.1 The Concept of MPA

A marine protected areas is a area-based management tool used for a wide range of purposes and is recognised as essential for the conservation and management of oceans.⁴⁵ MPAs are meant to pose restrictions and limitations in ocean uses within a geographically defined area to meet whichever adopted objectives. As a consequence, MPAs vary in size, location, management approaches and objectives. MPAs can be adopted for the protection, maintenance and restoration of species, habitats, ecosystems, and breeding areas. They can range from fully "no-take" areas or allow for restricted exploitation and activities, or a combination of both.⁴⁶ Therefore, *Jakobsen* refers to the concept of MPAs as an umbrella term that covers broad variations of maritime areas, purposes of protection, and the ability to pose different regulations.⁴⁷

⁴⁵ P Nevill 'Area-Based Management Tools, Including Marine Protected Areas' (2017) Proceedings of the Annual Meeting – American Society of International Law, Vol.111, Cambridge University Press, p. 248
⁴⁶ G Wright, J Rochette and E Druel, 'Marine protected areas in areas beyond national jurisdiction' in R Rayfuse (ed.) *Research Handbook on International Marine Environmental Law*, Edward Elgar Publishing Limited (2015), Ch. 13, p. 275

 ⁴⁷ IU Jakobsen 'Marine Protected Areas in International Law, An Arctic perspective' (2016) Leiden; Boston:
 Brill Nijhoff p. 5

2.2 Dynamic Ocean Management

The idea of DMPA merges the traditional sense of understanding MPA with key elements from dynamic ocean management (DOM). The rationale behind DOM is that the ocean is a highly dynamic environment where currents, winds and temperatures change over time and space. Moreover, fish, species, seabirds and human users respond to these dynamic changes.⁴⁸ As a result, traditional static management and ocean uses are consistently complicated by the dynamic spatial and temporal nature.⁴⁹

DOM is a management approach that has emerged as an antithesis to static ocean management.⁵⁰ DOM invites spatial and temporal changes, however, with the critical ability to adjust management approaches. Therefore, DOM can be understood as a new form of ocean management, which could improve the interrelationship between the natural dynamics occurring in our oceans and the corresponding human uses.

DOM has only been practicable in later history due to technological advances.⁵¹ However, examples from current applications have shown that specific tools stemming from DOM are designed with a narrow focus. Therefore, Lewison *et al.* highlight that future DOM applications will need to address more complex considerations to combat future environmental threats.⁵² In relation to ABNJ, *Maxwell et al.* provide a similar rationale, underlining that dynamic management measures focusing on comprehensive conservation are critical to future management approaches.⁵³ DMPA could be understood as one potential vent to this end.

Certainly, it would follow that the idea of a dynamic MPAs would have to account for more complex considerations, either as an inherent consequence of nature, for instance, migration patterns, to more implicit changes due to human activities and/or climate change and ocean acidification. In this respect, the idea behind DOM seems to align well with such a

⁴⁸ AJ Hobday et al. supra note 36, p. 127

⁴⁹ R Lewison *et al.* 'Dynamic Ocean Management: Identifying the critical Ingredients of Dynamic Approaches to Ocean Resource Management' (2015) BioScience vol. 65 nr.5, Oxford University Press, p. 486

⁵⁰ *Ibid.* p. 495

⁵¹ *Ibid.* p. 488

⁵² *Ibid.* p. 495

⁵³ Maxwell et al. supra note 37, pp. 252-253

characterisation of the oceans and with future options for MPA applications. Although DOMs application extends far beyond only ABMTs,⁵⁴ applying DOM to a certain extent to the concept of MPA seems logical to accommodate for better interlinkage between ocean dynamics and corresponding management tools. Indeed, although not expressively defining DMPA, Lewison *et al.* highlight that a dynamic MPA is one potential DOM application.⁵⁵

This raises the issue of which elements to DOM could translate to the concept of MPA for it to be considered dynamic.

2.3 Shifting MPAs in Time and Space

In more detail, Maxwell et al. and Lewison et al. describe the concept of DOM as:

[...] management that changes rapidly in space and time in response to the shifting nature of the ocean and its users based on the integration of new biological, oceanographic, social and/or economic data in near real-time.' ^{56 57}

The idea of being 'dynamic' and facilitating 'change' is interlinked. Both words are broad and could encompass a wide array of considerations. However, provided a contextual interpretation, traditional MPAs are designated using static latitude and longitude coordinates, thus not considering dynamic environmental shifts. Indeed, recent scientific evidence shows that marine species are consistently shifting their distributions due to climate change. Moreover, modelling exercises suggest that these shifts will continue irrespective of strong mitigation of greenhouse gases. Therefore, static boundaries seem to undermine any future benefit of MPAs and their ability to meet conservation goals. ⁵⁸

In reference to using innovative and dynamic tools for ocean management, Maxwell *et al.* highlight the possibility of designating mobile MPA in ABNJ, able to move and possibly

⁵⁴ AJ Hobday et al. supra note 36, p. 131 and R Lewison et al. supra note 49, p. 495

⁵⁵ Lewison et al. supra note 49, p. 495

⁵⁶ Maxwell et al. supra note 35, p. 43

⁵⁷ Lewison et al. supra note 49, p. 488

⁵⁸ T Cashion *et al.* 'Shifting seas, shifting boundaries: dynamic marine protected area designs for a changing climate' (2020) PloS ONE 15 (11), Public Library Science, p. 2

change size correspondingly to the movement of the habitat or species that are being protected.⁵⁹ The authors submit that this can be legally defined in several ways and include demarcating boundaries based on explicit environmental characteristics, such as migratory patterns or sea surface temperature. It can also be arranged by the prediction of habitats or species occupancy through modelling or forecasting. A third option is by the presence of specific species by visual or acoustic detection.⁶⁰

Owing to DOMs overall objective of being a counterpart to static management, it could follow that a possible DOM application to MPA would be the facilitation of changing and shifting boundaries. Surely, the idea of a shifting MPA would uphold the overall objective of applying DOM, namely, to enhance dynamic considerations as opposed to static management. Therefore, to accommodate for the dynamics in the ocean, the MPAs ability to enjoy a degree of mobility would fall as a natural substantive criterion to which the dynamic MPAs must be understood. Consistently, one pathway to ensure 'change' through the application of DOM in relation to DMPA could be the facilitation of MPAs ability to shift boundaries.

Furthermore, the phrase 'space and time' may be pertinent to migratory patterns and changed circumstances due to climate change and other dynamic distributions in the marine environment. Species and habitats shift across space and time.⁶¹ Therefore, the MPAs ability to 'shift' holds both a spatial and temporal element.

In this regard, the ability to change in 'space' and enable protection in response to spatial dynamics is inherently encompassed with DMPAs ability to 'shift' its boundaries. For example, by changing boundaries in tandem with migratory patterns. Another closely connected pathway of applying DOM is the incorporation of facilitating for the MPA being closely connected to the temporal sides of marine nature, with scientific data close in time to execute the mobility-side of the management-scheme successfully. Management that 'changes rapidly' is interconnected to 'time'. Consistently, the ability to change in 'time' could be conceptualised as MPAs ability to shift its boundaries in response to temporal changes. For example, emphasising the temporal element for the designation and management of MPA

⁵⁹ Maxwell et al. supra note 37, p. 253

⁶⁰ *Ibid.* pp. 252-253

⁶¹ *Ibid.* p. 253

could be understood as the facilitation of shifting boundaries during breeding season or even restriction in use under certain times of the year.⁶²

Based on these findings, the element of shifting boundaries in response to spatio-temporal changes translates well to DOM and consequently to the conceptualisation of DMPA.

2.4 Dynamic MPAs Going Forward

Enhancing management-possibilities in reference to spatio-temporal changes in marine nature must be considered a viable option going forward. Moreover, this type of application of DOM could potentially create a smaller footprint of restrictive management on human activities and correspondingly enhance the state of the marine environment. ⁶³ Indeed, MPAs that can shift outperforms static MPAs on all aggregate measures, demonstrating that management tools will be most effective where their spatial and temporal extent is matched with the spatio-temporal predictability of open ocean features.⁶⁴

To conclude, DMPA is understood as an MPA able to shift boundaries in response to spatiotemporal changes in the marine environment through space and time. This approach would consequently mean a shift from static MPAs, encompassing more comprehensive and dynamic considerations in line with the need to focus on the qualitative aspects of management-tools in ABNJ.

A central question for the following chapter is to what extent this understanding of DMPA is feasible under the current global legal framework applicable in ABNJ.

⁶² Maxwell et al. supra note 37, p. 254

⁶³ Ibid.

⁶⁴ Cashion et.al. supra note 58, p. 12

3 The Feasibility of Designating Dynamic MPAs under the Current Global Legal Framework

The focus of this chapter is to further contribute to the understanding of DMPA in ABNJ in light of the possibilities and limitations imposed by the current framework. There is no single multilateral treaty dealing exclusively with MPAs. Therefore, the designation of MPAs in ABNJ is governed by a wide range of multilateral frameworks and agreements.⁶⁵ However, for this chapter, the regulatory framework of the LOSC and the CBD will be investigated. In addition, it is necessary to explore the IUCN guidelines.

This raises a central question to this thesis; *to what extent does the current global legal framework applicable in ABNJ facilitate the designation of DMPAs able to shift boundaries.* Suppose the question does not lead to an affirmative answer. In that case, the following question will be *which gaps and challenges can be identified under the current global framework for the designation of shifting DMPA?*

Going forward, the best option is to tackle each framework separately, however, under the same lens regarding DMPA as outlined in chapter 2. Therefore, section 3.1 deals with the LOSC. Section 3.2 draws attention to the CBD. In section 3.3, the IUCN guidelines are investigated. Lastly, section 3.4 tries to gather the threads and provide conclusions.

Is the designation of DMPA feasible under the current global framework of ABNJ?

⁶⁵ P Drankier, 'Marine Protected Areas in Areas beyond National Jurisdiction' (2012) The International Journal of Marine and Coastal Law (27), p.341

3.1 LOSC

The LOSC has been referred to as 'A Constitution for the Oceans'⁶⁶ and is the superior legal instrument to regulate 'all issues relating to the law of the seas'.⁶⁷ The preamble also recognises the overall importance of ocean conservation with the objective to create '[...] a legal order for the seas and oceans which will [...] promote the equitable and efficient utilisation of their resources, the conservation of their living resources and the study, protection and preservation of the marine environment [...].'⁶⁸

Provided the key role of MPAs in achieving this overall objective,⁶⁹ a relevant question in the following is whether the LOSC facilitates the establishment of DMPA able to shift boundaries.

3.1.1 The Duty to Protect and Preserve the Marine Environment

It follows from Article 192 that States 'have the duty to protect and preserve the marine environment'. In this way, Article 192 prescribes a non-specific and general obligation to protect the marine environment. However, the general duty under Article 192 is supplemented by Article 194 (5), which requires states to adopt measures that are 'necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life'. Therefore, the general obligation under Article 192 is hoisted up also to include more specific protection of the marine environment.

This raises the issue of whether the duty to protect and preserve the marine environment includes advancing DMPA in ABNJ.

Noticeably, the articles do not uphold any reference to DMPA. However, DMPA can be considered as one pathway of adopting necessary measures to protect and preserve. Moreover, the emphasis on 'rare or fragile and habitat of depleted, threatened or endangered' species is a reference to a qualitative standard in which DMPA can be understood. In this respect, it could

⁶⁶ See e.g Koh, Tommy T.B, *A Constitution for the Oceans*, Remarks by the President of the third United Nations Conference on the Law of the Sea (UNCLOS III)

⁶⁷ Preamble, para 4 LOSC

⁶⁸ Preamble, para 4 LOSC

⁶⁹ Frank, *supra note* 12, p. 103

be argued that Article 194 (5) provides a legal basis for adopting DMPA. However, the extent of such an argument is contestable.

Firstly, the open-textured wording in Articles 192 and 194 (5) provides for unclear stipulations towards encompassing the possibility of advancing DMPA. Secondly, the wording does not provide guidance as to how to proceed to fulfil the duty to 'protect and preserve'.

Therefore, a more nuanced approach for understanding Articles 192 and 194 (5) in terms of its facilitation of DMPA, would be to interpret the provisions to depend on implementation by external means. Indeed, one pathway to enhance the substantive scope of Articles 192 and 194 (5) is through the general duty to co-operate. In this sense, the obligation to co-operate is understood to hold a critical role in the overall operationalisation of Article 194 (5) and the other set of rules under part XII of the LOSC.⁷⁰

Article 197 provides that states shall co-operate on a global and a regional level directly or through competent international organisations. Noticeably, Article 197 does not expressively provide for the designation of DMPAs. However, the wording 'formulating and elaborating international rules, standards and recommended practices and procedures' clearly indicates the inclusion of MPAs as a vehicle for cooperation.⁷¹ Moreover, Article 197 requires that the co-operation take 'into account characteristic regional features'. The latter can be understood to emphasise the importance of including measures tailored to the specific ecosystems and could encompass considerations fitting for DMPA, including spatio-temporal considerations for protection and shifting boundaries.

However, read in conjunction with Article 194 (5), such co-operation is only facilitated when deemed 'necessary', thus leaving a wide degree of discretion upon the contracting parties in assessing the threshold for establishing such. Moreover, the co-operation scheme pursuant to Article 197 does not clarify *how* this shall be executed other than envisioning the possibility of cooperation on a global and regional level.

⁷⁰ AG Oude Elferink, 'Coastal States and MPAs in ABNJ: Ensuring Consistency with the LOSC' (2018) The International Journal of Marine and Coastal Law 33 p. 445

⁷¹ Jakobsen, *supra note* 47, p. 53

In this sense, it is difficult to understand Articles 194 (5) and 197 to pose any obligation towards co-operating towards designating DMPAs in ABNJ. This is further substantiated by the inclusion of the wording 'take into account', which cannot be interpreted to provide any strong emphasis on adopting dynamic measures. Also, an essential reservation under Article 197 for the possibility of designating DMPAs in ABNJ, is the express mentioning that the MPA must be consistent with the LOSC. Hence, careful consideration must be given to ensure compatibility with part VII and XI.

Conclusively, Articles 192 and 194 (5) can be understood as an indirect duty to designate MPA in ABNJ. However, the duty to protect and preserve the environment via cooperation cannot be concluded to provide a legally positive facilitation of DMPA able to shift in ABNJ. Any designation of such hinges upon cooperation and consistency with part VII and XII.

Therefore, the next issue that needs appreciation is whether the regime of the high seas and the Area contributes to advancing the designation of DMPA, and who would be responsible?

3.1.2 High Seas and The Area

Article 87 is the legal basis for ocean use of the high seas and is a natural starting point for the following discussion.

Article 87 firmly upholds that the high seas 'are open to all States'. This stipulation holds two important sides. Firstly, the article is commonly understood to provide the overarching principle of freedom of the high seas, which all States enjoy. Secondly, as the ocean uses on the high seas are open to 'all States', jurisdiction and sovereignty over components of the high sea's ecosystems are not conferred to any State entity.⁷² The same also follows from Articles 89, which provides that no 'state may validity purport to subject any of the high seas to its sovereignty'. In relation to the Area, Article 137 (1) provides similar wording, stipulating that 'no state shall claim or exercise sovereignty [...] of the area and its resources'. As the designation of DMPAs will pose restrictions in usage, no State is entitled to

⁷² K Jung-Eun, 'The incongruity between the ecosystem approach to high seas marine protected areas and the existing high seas conservation regime' Aegean Institute of Law of the Sea and Maritime Law (2013) vol.II, Springer Berlin Heidelberg, p. 12.

unilaterally designate DMPA in ABNJ with effect upon other States under the LOSC. Therefore, Article 94 (1) provides that flag states have complete legislative jurisdiction over vessels flying their flag.

However, section II of part VII, Articles 116 through 119, outlines the States' duty to conserve high seas living resources. Specifically, Article 117 poses an obligation to 'co-operate' with other states and take 'necessary measures' upon its 'own nationals' in efforts to conserve marine living resources. In this regard, Article 94 supplemented by Article 117, could provide some legal basis to argue the possibility in which a flag state may designate DMPA directed to its nationals and ships. However, such implementation is consistently deemed inefficient to protect the marine environment as it would only bind the flag States' vessels.⁷³

In relation to fisheries on the high seas, Article 118 specifies that the operationalisation of the duty to co-operate is linked to establishing regional- and subregional fisheries organisations pursuant to the 1995 UN Fish Stock Agreement needs brief mentioning (FSA).⁷⁴ Consistently, RFMOs represent the key mechanism for co-operation in fisheries on the high seas, and subsequently, the facilitation for possible DMPA under the LOSC. However, although the FSA agreement is directed to straddling and highly migratory fish stocks, which naturally would benefit from the designation of DMPAs, it is inherently silent in providing mechanisms for the adoption of such.⁷⁵

Furthermore, an essential restriction regarding the application of the FSA is that it does not deal with all categories of fish that pertains to the high seas. This implies a lack of protection and regulation for deep-sea fish and other components of the ecosystem. ⁷⁶ This is further

⁷³ Jakobsen, *supra note* 47, p. 52

⁷⁴ 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, New York, 4 August 1995, in force 11 December 2001, 2167 UNTS 3.

⁷⁵ A substantial part of the FSA is directed to conservation of straddling and highly migratory fish stocks in ABNJ. Article 5 (g) provides that States fishing on the high seas shall protect biodiversity in the marine environment to conserve and manage straddling and highly migratory fish stocks. Article 8 further provides that such cooperation shall take place through appropriate subregional or regional fisheries management organizations or arrangements (RFMOs).

⁷⁶ Drankier, supra note 65, p. 296

substantiated by Articles 117-119, which are commonly understood to pose the obligation to co-operate for conservation and management of fisheries resources, thusly being sector-specific and not necessarily encompassing the broader scope of protection that could benefit from DMPA.⁷⁷ Therefore, RFMOs remain focused on single-species fisheries management, and only a few have taken proactive measures to protect significant areas, ⁷⁸ affirming an understanding of the LOSCs inefficiency to ensure the designation of MPAs more broadly but also to ensure that such measures are qualitatively representative and functional.

In relation to the Area, the Authority (ISA pursuant to Article 1 (1) of the LOSC) organises and controls activities related to the exploitation and exploration of resources in the Area in accordance with Article 157 (1). The ISA is tasked with adopting appropriate rules, regulations, and procedures for, *inter alia*, the prevention of damage to flora and fauna of the marine environment pertaining to the Area pursuant to Article 145 (b). Article 145 of the LOSC includes similar wording as Article 117, posing a general obligation to take 'necessary measures' in accordance with the convention with respect to 'mining activities' carried out in the Area.⁷⁹ Although Article 145 (b) could be interpreted towards providing some legal basis to suggest the possible designation of DMPAs in the Area, it fails to envisage *how* and *which* measures and would only relate to mining activities. This cannot be interpreted to provide any firm legal basis for the designation of DMPA under the LOSC.

Other management organisations with authority in ABNJ are equally limited and sectorspecific, leading to an overall fragmented and uncoordinated conservation scheme in ABNJ.⁸⁰ One example is the International Maritime Organization (IMO). The IMO can designate Particularly Sensitive Sea Areas (PSSA) to protect areas that, for recognised ecological,

⁷⁷ Gjerde and Rulska-Domino, *supra note* 5, p. 356

⁷⁸ Nordtvedt Reeve, Rulska-Domino and Gjerde, supra note 28, p. 274

⁷⁹ M Till and S Pradeep, 'Promoting Consistency in the Deep Seabed: Addressing Regulatory Dimensions in Designing the International Seabed Authority's Exploitation Code' (2016), Review of European, comparative & international environmental law, Vol. 25 (3), Blackwell Publishing Ltd. P. 360

⁸⁰ For example: The International Whaling Commission (IWC)), The International Seabed Authority (ISA) by the designation if Areas of Particular Environmental Interest (APEI) and preservation reference zones, and RFMOs – which can designate closure of certain fisheries to protect or restore the stocks they manage, or to protect vulnerable marine ecosystems located on the seabed.

socio-economic, or scientific reasons, may be vulnerable to damage by international maritime activities.⁸¹ However, no PSSAs have been designated in ABNJ.⁸²

3.1.3 Conclusions

The LOSC is silent in incorporating newer conservation concepts, such as DOM. Moreover, it lacks reference to MPA and the qualitative enhanced DMPA. One reason for this is that when negotiating the LOSC, substantial environmental impacts in ABNJ were not occurring at the rate they are today. Also, access to the deep sea was also limited, and threats to the marine ecosystem health and biological diversity from climate change were unknown.⁸³ Therefore, key concepts such as MPAs and the new idea regarding DMPA were not part of the negotiations and thusly not reflected in the treaty. Accordingly, interpreting the outlined articles under the LOSC to include dynamic considerations seems contextually misplaced and beyond the objectives of the provisions.

The LOSC must be concluded to provide general obligations to enhance the protection of the marine environment. However, the jurisdictional limitations for advancing DMPA in ABNJ are an obvious downside to the operationalisation of such. Moreover, the open-textured wording in the relevant provisions for DMPA depend on operationalisation by external means. In this sense, co-operation holds a central function. Nevertheless, the legal competence for the relevant RFMOs and other entities in ABNJ are limited, with a sectoral focus, and without an outlined procedure to bring together the various organisations and arrangements to achieve the facilitation of DMPA.

In conclusion, the LOSC do not facilitate the designation of DMPA in ABNJ.

⁸¹ IMO, Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs), 2005; A.982 (24)

⁸² Wright, Rochette and Druel, supra note 46, p. 276

⁸³ Gjerde et al. supra note 19, p. 48

3.2 CBD

The other global instrument relevant to DMPA in ABNJ is The Convention on Biological Diversity⁸⁴ (CBD). CBD represent the primary convention in which global biodiversity targets are agreed upon. Furthermore, the CBD is among the most widely ratified treaties of the world, with 196 parties. Consistently, commitments through the CBD enjoys close to universal recognition.⁸⁵

Article 1 provides that the conservation of biological diversity and the sustainable use of its components are amongst the CBDs core objectives. Moreover, the Conference of the Parties (COP), which is the superior decision-making body of the CBD, has consistently addressed the use of MPAs in areas beyond national jurisdiction as a viable option for marine conservation and protection.⁸⁶

Therefore, a key question in the following is whether the CBD can serve as the legal basis to advance the designation of DMPA in ABNJ.

3.2.1 DMPA under the CBD

Article 8 is the primary provision dealing MPAs under the CBD. It follows from Article 8 (a) that States 'shall, as far as possible and appropriate' establish 'a system of protected areas or areas where special measures need to be taken to conserve biological diversity'. The use of the measure 'protected area' is also reflected in subparagraphs (b) and (c).

MPA is not defined in the CBD. However, the CBD defines the term 'protected area' in Article 2 as a 'geographical defined area' which is 'designated or regulated and managed to achieve specific conservation objectives'. Provided that the term biological diversity pursuant to Article 2 includes marine biodiversity, 'protected areas' can be created in marine spaces, thus including MPA.

⁸⁴ Convention on Biological Diversity, Rio De Janeiro, 5 June 1992, in force 29 December 1993, 1760 UNTS79.

⁸⁵ OK Fauchald, 'International Environmental Governance and Protected Areas' (2021) Yearbook of International Environmental Law, Oxford University Press, p.5

⁸⁶ CBD COP Decision VII/5, para. 29-31

However, this raises the question of whether 'protected areas' include DMPA.

The wording 'protected areas' is broad and could encompass a wide variety of MPAs. Moreover, a 'geographically defined area' is compatible with recognising shifting boundaries, as such areas can be defined in numerous geographically defined ways.⁸⁷ However, notably, there is no inclusion of wording that firmly upholds the MPAs ability to shift in response to spatio-temporal changes. In this sense, the article does not seem to incorporate and support newer protection and conservation ideas for MPAs.

On the other hand, the wording 'specific conservation objectives" and 'special measures' can be understood to indicate a wide variety of design options and purposes from which the contracting parties can choose between. This stipulation could lend itself to DOM more broadly and include objectives such as dynamic spatio-temporal considerations and shifting boundaries. In this regard, DMPA could be recognised as a pathway for achieving 'specific conservation objectives'. However, as the wording seem to point in different directions, additional sources must be investigated in order to further the understanding of CBD's facilitation of DMPA.

In this sense, the ad hoc Technical Group on Marine and Coastal Protected areas under the CBD have adopted a more detailed definition. This definition is also endorsed by the COP. ⁸⁸

'Marine and Coastal Protected Area means any defined area within or adjacent to the marine environment, together with its overlying waters and associated flora, fauna, historical and cultural features, which has been reserved by legislation or other effective means, including custom, with the effect that its marine and/or coastal diversity enjoys higher level of protection than its surroundings'.⁸⁹

The wording 'defined area' does not add anything to the overall facilitation of shifting MPAs. On the contrary, this definition seems to undermine any additional qualitative standards to

⁸⁷ Maxwell et al. supra note 37, p. 252-253

⁸⁸ CBD COP Decision VII/5, para. 10

⁸⁹ Secretariat of the Convention on Biological Diversity (CBD Secretariat), 2004, "Technical advice on the establishment and management of a national system of marine and coastal protected areas," SCBD, CBD *Technical Series* no.13, p. 7

which MPA are understood pursuant to the CBD. This interpretation is further substantiated by the inclusion of the wording 'enjoy a higher level of protection than its surroundings', which sets a low threshold to the qualitative standards of MPA and further adds to an already unclear understanding of CBDs facilitation of DMPAs.

Therefore, it is difficult to understand Articles 8 and 2 as a strong commitment to the overall facilitation of DMPA under the CBD regime. The provisions consistently seem to overlook any firm inclusion of dynamic considerations necessary for the facilitation of DMPA, notably the ability to shift in response to spatio-temporal changes, but instead, seem to uphold a wide degree of discretion upon the contracting parties in which measures to adopt.

In conclusion, it is unclear whether 'protected areas' include the facilitation of DMPA. However, as alluded to in sections 3.1.2 and 3.1.3, an important factor to investigate is whether the jurisdictional mechanisms within the CBD can contribute to the understanding of designating DMPA in ABNJ pursuant to the CBD. Consistently, the next issue that needs appreciation is the interrelationship between the facilitation of DMPA and the jurisdictional competence in ABNJ pursuant to the CBD.

3.2.2 Jurisdictional Limitations in ABNJ

Article 4 is a natural starting point when analysing the CBDs jurisdictional scope in ABNJ.

Article 4 (a) confirms that the treaty is applicable for 'each contracting party' for 'components of biological diversity' to areas within national jurisdiction (AWNJ).⁹⁰ Accordingly, Article 4 (a) stipulates that the provisions dealing with conservation apply only to components of biological diversity in areas within a State's national jurisdiction. Article 4 (b) provides that the treaty's provisions apply to '[...] processes and activities [...]' taking place under jurisdiction and control of the individual State in ABNJ.

In relation to this jurisdictional distinction, *Ardron et al.* submit that the CBD lacks the regulatory authority to adopt binding measures applicable both within and beyond national jurisdiction with reference to Article 4 (b).⁹¹ Furthermore, *Matz-Lück and colleagues* interpret

⁹⁰ Jakobsen, *supra note* 47, pp. 95-96

⁹¹ Ardron et al. supra note 33, p. 100

Article 4 (b) to effectively impede any designation of MPAs in ABNJ, as MPAs would concern the 'protection of components of biodiversity', thus falling under Article 4 (a) and only be applicable for contracting parties in AWNJ.⁹² *Drankier* submits that the applicability of Article 8 in ABNJ relies on whether the MPA protects 'components of biological diversity', thus fall outside the jurisdictional scope of the CBD and is not applicable in ABNJ pursuant to Article 4 (a).⁹³

Consistently, *Drankier* and *Matz-Lück* seem to share the overall rationale outlined in Article 4, namely the distinction between 'components of biological diversity' and 'processes and activities', each pointing to different applications in ABNJ. This raises the issue of whether the CBD effectively hinders the possibility of facilitating DMPA in ABNJ.

Contradictory to *Matz-Lück, Drankier* asserts that the wording 'special measures' pursuant to Article 8 (a) and (b) must be interpreted to extend Article 8 to also apply to ABNJ. *Drankier* substantiates this position by referencing the instance in which 'special measures' include regulating 'processes and activities'. Lastly, *Drankier* submits that the same rationale applies to an interpretation of Article 8 (c), where the '[...] regulation or management of biological resources might imply the regulation of processes and activities in ABNJ'. ⁹⁴ Consistently, *Drankier* asserts that Articles 4(b) and 8 (a)(b) and (c) suggest the possibility in which the CBD accords the possible designation of MPAs in ABNJ. This interpretation draws support from *Jakobsen's* understanding of Article 4 (b). Although not defined in the CBD, *Jakobsen* submits that the wording 'processes and activities' will encompass all activities here, such as fishing, transport, exploitation of natural resources and industry.⁹⁵

Both sets of understandings can be appreciated in relation to DMPA. The concept of DMPAs is pertinent to protecting 'specific components of biological diversity', suggesting that the CBD lacks the regulatory authority and possibility to adopt binding measures by designating

⁹² N Matz-Lück and J Fuchs, 'The Impact of OSPAR on protected area management beyond national jurisdiction: Effective regional cooperation or a network of paper parks?' (2014) Marine Policy 49, p. 158

⁹³ Drankier, supra note 65, p. 297

⁹⁴ Ibid.

⁹⁵ Jakobsen, *supra note* 47, p. 96

DMPAs in ABNJ. Nevertheless, following *Drankier's* rationale, DMPAs can also regulate 'processes and activities' by posing fishing restrictions, thus effectively applying to ABNJ.

However, the conflict clause in Article 22 (2) of the CBD states that the provisions of the CBD regarding marine protection shall be implemented in accordance with the rights and duties of States stemming from the international law of the sea. This stipulation is also reiterated under Article 4 by the inclusion of the wording 'subject to the rights of other States', 'each contracting party', and 'carried out under its jurisdiction and control'.

Wording such as 'carried out under its jurisdiction and control' clearly indicates that Article 4 (b) is meant to be interpreted in relation to each State's obligations as outlined in the LOSC. Indeed, as *Henriksen* submits, Article 4 (b) is directed towards obligating flag States when their vessels engage in activities and processes in ABNJ or within the maritime zones of other states.⁹⁶ This interpretation is further validated by the fact that no State has sovereign competence to establish MPAs in ABNJ with the effect of restricting rights or establishing duties to states in the same area pursuant to the LOSC.

Provided a contextual interpretation, Article 4 rather seems to uphold the zonal management approach outlined in the LOSC, rather than restricting any possibility that ABMTs are designated in ABNJ pursuant to the CBD. ⁹⁷ Therefore, a more reasonable approach to the provisions is that the CBD underlines that no state has the competence to establish DMPAs in ABNJ.

In this regard, Article 5 requires the Parties to co-operate in respect of ABNJ 'for the conservation and sustainable use of biological diversity' or, where appropriate, through 'competent international organisation'. Therefore, Article 5 facilitates the implementation of Article 8 on *in situ* conservation, including the designation of MPAs.⁹⁸ Consistently, arguing that Article 4 (b) effectively impedes the designation of MPAS in ABNJ, including DMPA, seems misplaced, without considerable support in the treaty text and appreciation of the CBDs interrelationship with the LOSC.

⁹⁶ T Henriksen, 'Conservation and Sustainable Use of Arctic Marine Biodiversity: Challenges and Opportunities'

^{(2010),} Arctic Review on Law and Politics, vol. 1, p. 258

⁹⁷ Jakobsen, *supra note* 47, pp. 95-96

⁹⁸ Oude Elferink, supra note 70, p. 446

3.2.3 Conclusions

In conclusion, the CBD does not hinder the possibility to facilitate DMPA in ABNJ. However, it does not reinforce the idea either. The relevant provisions are broadly drafted and lack reference to the qualitative standards under which DMPA must be understood, namely the ability to shift in response to spatial and temporal changes to the environment. Also, the definition endorsed by the COP supports a low threshold for the comprehensiveness of MPA, thus effectively undermining compatibility to the inclusion of new ideas for including more substantial qualitative measures. This creates an unclear understanding of CBDs recognition of DMPA.

Moreover, the interrelationship to the LOSC can be understood to implicitly hinder the facilitation of DMPA in ABNJ. The CBD defers to the jurisdictional limitations in ABNJ and accords co-operation a vital role in the operationalisation of DMPA in ABNJ. Therefore, rather than offering anything new, the CBD confirms status quo under the LOSC for the possible facilitation of DMPA, upholding an overall fragmented, zonal and single-sector-based legal regime for DMPA in ABNJ.

To this end, The International Union for Conservation of Nature (IUCN) has played a vital role in developing the concept of MPAs. The IUCN provides guidelines based on science, practice, and experience related to the overall understanding and implementation of MPA under international law. IUCN enjoys a strong position in the field of protected areas. ⁹⁹ The guidelines are not legally binding, making the IUCN a soft law instrument. However, the guidelines and subsequently IUCN definition of IUCN enjoys broad endorsement by the international community. Together with the applicable legal regimes, it constitutes a practice for the management of MPAs. ¹⁰⁰ Consistently, it will follow that the IUCN guidelines will supplement the understanding of DMPA under LOSC and CBD. This raises the issue *to which extent the IUCN guidelines might contribute to the facilitation of DMPA in ABNJ*.

⁹⁹ OK Fauchald, supra note 85, pp. 14-19

¹⁰⁰ Jakobsen, *supra note* 47, pp. 173-174

3.3 DMPA and IUCN

The IUCN submit that a marine area cannot be considered an MPA unless it meets its adopted definition.¹⁰¹ IUCNs defines a protected area as follows: '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'.^{102 103} Noticeably, the definition is broadly drafted and would encompass a wide variety of MPAs. In this sense, the question that needs to be answered is whether this includes the recognition of DMPA.

The wording 'clearly defined geographical space' upholds the idea of MPA as provided for in the CBD. However, the inclusion of the wording 'clearly' represents a slight shift. Provided an ordinary meaning of the wording, it would seem that MPAs recognised by the IUCN are confound in space to a greater extent than the CBD.

However, the IUCN guidelines from 2008 (2008 guidelines) provide that the wording 'clearly defined' is meant to imply a '[...]spatially defined area with agreed and demarcated borders' and that '[...] these borders can sometimes be defined by physical features that move over time'.¹⁰⁴ Consistently, although seemingly contradictory to an ordinary interpretation of the wording, it would seem that the IUCN appreciates the possibility in which an MPA can shift.

The latter also draws support from the later and updated guidelines from 2019 (2019 guidelines). Here, the IUCN submit that 'clearly defined' implies that MPAs must be mapped and have 'legally defined' boundaries.¹⁰⁵ This wording does not impede the possibility of shifting boundaries, considering that shifting boundaries can be 'legally defined'.¹⁰⁶ This interpretation is further substantiated by the inclusion of the wording 'to achieve long term

¹⁰¹ IUCN (2019), *Guidelines for Applying Protected Area Management Categories to marine protected areas.* Second edition, Best practice Protected Area Guideline Series No.19, Day J, Dudley N, Hockings M, Holmes G, Laffoley D, Stolton S, Wells S and Wenzel L (eds.), Giland, Switzerland, p.14

¹⁰² IUCN (2019), *supra note* 101 p.14 table 2

¹⁰³ IUCN (2008), *Guidelines for Applying Protected Area Management Categories*, Dudley, N (Ed). IUCN: Gland, Switzerland

¹⁰⁴ IUCN (2008), *Ibid.* p. 8 table 1

¹⁰⁵ IUCN (2019), supra note 101, p. 14

¹⁰⁶ Maxwell et al. supra note 37, p. 252-253

conservation'. To 'achieve' implies a level of effectiveness and shows a more robust commitment towards the qualitative aspects in recognising new types of MPAs.

Likewise, 'long term conservation' could be interpreted to include approaches pertinent to DOM, considering the future-orientated wording; 'long-term'. Moreover, 'Long-term conservation of nature' indicates an acceptance of discretion for the overall design of MPAs. This lends itself to a regime of integrated and ecosystem-based considerations which would naturally coincide with the merging idea of a DMPA. This is also supported by the IUCN, which stresses that:

'Because of the highly connected nature of the sea, which effectively transmits substances and forcing factors, an MPA will rarely succeed unless it is embedded in, or is so large that it constitutes, an integrated ecosystem management regime.' ¹⁰⁷

However, The IUCN strongly opposes the idea of vertical and horizontal zoning, which effectively contradicts the emphasis on integrated and ecosystem-based management in which DMPA could have a place. Although recognising that nature is three-dimensional and dynamic, the IUCN submits that such zoning does not make ecological sense considering the lack of information between benthic and pelagic systems and species.¹⁰⁸

It could be argued that limited data should not result in inaction but rather catapult action in a precautionary manner in correlation with the objective of an ecosystem management regime.¹⁰⁹ Moreover, the technological facilitation of DMPA-zoning is feasible. Therefore, effectively being opposed to more dynamic zoning plans, does not seem to strongly emphasise safeguarding and facilitating more dynamic considerations in relation to MPAs. Furthermore, although the guidelines could be interpreted to provide some indications towards the facilitation of shifting boundaries, the IUCN consistently stresses the importance of designating and zoning "*sufficiently large areas*" to abate connectivity challenges for

 ¹⁰⁷ IUCN (1999) Guidelines for Marine Protected Areas, Best Practice Protected Area Guidelines Series No. 3,
 G Kelleher, IUCN, Gland, Switzerland, and Cambridge, UK (1999), xiii, Box 1

¹⁰⁸ IUCN (2019), supra note 101, p. 30

¹⁰⁹ NC Ban *et al.* 'Better integration of sectoral planning and management approaches for the interlinked ecology of the open oceans' (2014) Marine Policy 49, Elsevier, p. 132-133

movement in species and other dynamic occurrences in the ocean.¹¹⁰ Correspondingly, DMPA is not put forth as an option by the IUCN to abate the same challenges, although DMPA might serve as a better solution.

Conclusively, the IUCN guidelines provide some guidance to the extent of its ability to support the facilitation of DMPA. However, it is unclear what the IUCN mean by emphasising an integrating and ecosystem-based management regime. Considering IUCNs emphasis on large MPAs and resistance towards new ideas for zoning schemes, it is debatable how strong the IUCN recognises and contributes to the facilitation of DMPA in ABNJ.

3.4 Gaps and Challenges

The overall question under this chapter was whether the current global framework could facilitate the designation of DMPA able to shift in ABNJ. Furthermore, a central discussion to this thesis was to investigate which gaps and challenges that can be identified under the current global framework for the designation of DMPA.

Section 3.1 found that the LOSC generally lacks reference to ABMT and is silent regarding advancing newer ideas to ocean management such as DMPA. The LOSC do provide general provisions to protect, preserve and co-operate on matters related to ABNJ. However, these obligations are broadly drafted and relies on a sectoral approach that cannot be understood to provide a positive reference for advancing the facilitation of DMPA in ABNJ.

Moreover, the outlined jurisdictional limitations in ABNJ provide for a sectoral, speciesspecific competence-scheme without any outlined procedure to bring together sectors to facilitate the designation of DMPA. The institutional landscape is fragmented and uncoordinated, which effectively impedes the facilitation of more comprehensive approaches for protecting biodiversity in ABNJ, ¹¹¹ in which DMPA is included.

Conclusively, the LOSC does not facilitate the designation of DMPA in ABNJ.

¹¹⁰ IUCN (2019), supra note 101, p. 21

¹¹¹ Frank, *supra note* 12, pp. 106-110

Section 3.2 and 3.3 discussed CBD and the IUCN. Overall, although the discussions found indications under the CBD and the IUCN that point toward recognising ideas pertinent to DMPA, it cannot be concluded any strong significance to this end. This is also affirmed by the reference under the CBD to uphold the zonal- and management approach as outlined in the LOSC. As a result, the CBD ultimately rely on the LOSC for the designation of DMPA in ABNJ. Consistently, the possibility of designating DMPA in ABNJ is largely overlooked in the current global framework pertaining to ABNJ.

Therefore, it must be concluded that the current global framework does not support the facilitation of DMPA in ABNJ. Consistently, there is no formal regime for the designation of DMPA in ABNJ.

4 BBNJ Agreement

The overall focus of enhancing conservation and sustainable use of marine biodiversity in ABNJ with effective means such as MPAs have been a focal point for the United Nations General Assembly (UNGA) since 2004, when the UNGA initiated the first phase.¹¹² The first discussions were had within an open-ended informal working group (BBNJ working group). Since 2015, more formal discussions were had within the Preparatory Committee (PrepCom). In 2017, appreciating the final recommendations from the PrepCom,¹¹³ the UNGA adopted resolution 72/249 establishing an Intergovernmental Conference (IGC) to negotiate a text of a new legally binding instrument under the LOSC for conservation and sustainable use of marine biodiversity in ABNJ (hereinafter referred to as the BBNJ agreement.¹¹⁴ The parties have convened for three sessions, pending a fourth session in 2022. However, in 2019, the UNGA distributed a revised draft text for future negotiations by the IGC.¹¹⁵

As outlined in chapter 2, a vital part of a DMPA is its ability to shift boundaries in response to spatio-temporal changes. Chapter 3 concluded that the facilitation of DMPA in ABNJ under the current global framework is problematic. Consistently, the overall question in this part is to what extent does the most recent draft of the BBNJ agreement fill the gaps and challenges under the current global regime for facilitating the designation of DMPA in ABNJ?

Therefore, section 4.1 with additional subsections investigates the draft treaty text's ability to facilitate DMPA in ABNJ pursuant to Part I, III and Annex I. Section 4.1.1 discusses whether the proposed definition of MPA contributes to the facilitation of DMPA. Section 4.1.2 continues with analysing whether the indicative criteria in Annex I can be a pathway to

¹¹² UNGA resolution 59/24 (A/RES/59/24) 4 February 2005

¹¹³ UNGA, 'report of the Preparatory Committee established by General Assembly resolution 69/292: "Development of an internationally 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" A/AC.287/2017/PC.4/2, (31 July 2017) – hereinafter referred to as the PrepCom Report.

¹¹⁴ UNGA, Internationally 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, UNGA Resolution A/RES/72/249 (24 December 2017)

¹¹⁵ UNGA, Revised draft text of an agreement under the United Nations Convention of the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (18. November 2019) A/CONF.232/2020/3

facilitate better spatio-temporal considerations. Then, section 4.1.3 and 4.1.4 discusses the BBNJ agreements adaptability and governance challenges in ABNJ. Lastly, section 4.2 provides some concluding remarks.

4.1 Identifying New Pathways

Part III, Article 14 outlines the overall objectives for ABMTs and is a natural starting point for the following discussion.

Article 14 (a) refers to the objective of enhancing 'cooperation and coordination' in the use of ABMTs, which 'will also promote a holistic and cross-sectoral approach'. The reference to 'promote' a 'holistic' approach seems to recognise the need for more comprehensive protection-schemes under the future BBNJ agreement. Noticeably, this objective can be regarded as a shift from the LOSC and the CBD. For example, the LOSC emphasises the objective to promote the '[...] equitable and efficient utilisation of [...] resources'.¹¹⁶

Furthermore, Article 14 (e) refers to ABMTs ability to rehabilitate and restore biodiversity and ecosystems, including a 'view to enhancing their productivity and health and building resilience to stressors including those related to climate change, ocean acidification and marine pollution'. Building 'resilience to stressors' to alleviate impacts such as climate change and ocean acidification can be interpreted as an indication of an inherent flexibility throughout the designation of ABMT within the BBNJ agreement and coincides well with the conceptualisation of DMPA.

In this sense, DMPA could be understood as a pathway for 'enhancing [...] productivity and health'. Moreover, 'will [...] promote' is worded in a mandatory manner, which adds weight to the assertion of a stronger objective as such. This raises the issue of *how* the draft treaty envisions the operationalisation of these objectives and whether this *includes* the facilitation of DMPA.

¹¹⁶ LOSC, Preamble, para 4.

4.1.1 Defining MPA under the BBNJ Agreement

A key provision for assessing the extent of the agreement's facilitation of DMPA is Article 1 (10). Article 1 (10) defines MPA under the BBNJ agreement as follows:

"Marine protected area" means a geographically defined marine area that is designated and managed to achieve specific [long-term biodiversity] conservation and sustainable use objective [and that affords higher protection than the surrounding areas]'.

Firstly, the inclusion of a definition of MPAs under a new international agreement applicable in ABNJ must be regarded as an overall strengthening of MPAs future role and importance in ABNJ.¹¹⁷ However, the question is whether the definition contributes to the facilitation of DMPA.

As noted in section 3.2.1, the wording 'geographically defined marine area' does not preclude shifting boundaries, which is essential for DMPA. Noticeably, the definition is similar to the definition adopted under the auspices of the IUCN. However, one difference is the lack of including the wording 'clearly'. Provided an ordinary meaning, the wording 'clearly' implies a more stringent approach to the design plan of MPA, thus not effectively upholding the possibility of shifting boundaries. Consistently, by only referencing to a 'geographically defined area', the definition in the draft treaty text seems to leave more discretion to the spatial planning of the MPA, including shifting boundaries. This can be defined in several ways, all able to be 'geographically defined'.¹¹⁸

However, the definition does not include wording that affirms MPAs ability to shift in response to spatio-temporal changes. Suppose the definition referenced to a 'geographically defined area' that is 'able to shift in response to changes in mobile species or oceanographic

¹¹⁷ UN, 2012, section 13. Report of the Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction and Co-Chairs' summary of discussions. A/67/95

¹¹⁸ Maxwell *et al. supra note* 37, p. 253 – Maxwell *et al.* highlights the possibility of designating mobile MPA in ABNJ, able to move correspondingly to movement of the habitat or species that are being protected. This can be defined in several ways and can include the designation of demarcating boundaries based on explicit environmental characteristics, such as migratory pattern or sea surface temperature. It can also be arranged by the prediction of habitats or species occupancy through modelling or forecasting. A third option is by the presence of specific species by visual or acoustic detection

habitats through space and time', the idea of MPAs ability to shift would follow and DMPA cemented.

However, notwithstanding the lack of apparent reference to MPAs ability to shift, the qualitative standards to the MPA are formulated in a mandatory language. 'Achieve' clearly entails that the States cannot choose to designate MPAs that are not suitable for the 'specific [...] conservation' scheme being planned. Therefore, the provision points to a result-based protection scheme, which could encompass a wide range of design-plans. For the purpose of comparison, wording such as 'aiming' would not obligate to reach any specific result. Accordingly, the provision opens up for the recognition of more dynamic design-options for MPAs in ABNJ, provided that those are necessary to achieve 'specific [...] conservation'.

Nevertheless, the duty to achieve 'specific conservation' do not put forward any precise standard for the required result. Although a DMPAs ability to shift its boundaries might be interpreted as a specific kind of conservation, no concise reference as such is drawing support from the following wording of the preliminary text under Article 1 (10).

Rather, pursuant to Article 1 (10), a MPA shall offer 'higher protection than the surrounding areas'. Albeit in brackets, the wording interlinks the ability to shift in response to the adjacent ocean space instead of spatiotemporal changes. This could be understood to effectively hinder DMPA, considering DMPAs interlinkage to either the species protected or other more dynamic parameters, such as temperature. Another interpretation is that the plural wording in 'areas' points to the possibility that the area outside the MPA can differentiate, which could be understood to recognise the idea of a MPA without any spatial limitations.

Nonetheless, this represents a subtle shift from COPs definition of an MPA, which accords 'higher level of protection than its surroundings'. ¹¹⁹ 'Surroundings' and 'areas' are semantically similar. However, provided an ordinary meaning, the plural 'surroundings' implies a clearer understanding of a shifting ability. This is mostly due to the inherent vagueness of 'surroundings', which does not only cover ocean areas recognised under the law

¹¹⁹ Secretariat of the Convention on Biological Diversity (CBD Secretariat), 2004, "Technical advice on the establishment and management of a national system of marine and coastal protected areas," SCBD, CBD *Technical Series* no.13, p. 7

of the sea but would also include biological diversity in a broader sense and other dynamic considerations, hence recognising flexibility in the parameters.

For example, a DMPA would not benefit from being measured and adjusted in conjunction with the adjacent ocean space. Still, it could be measured and changed in the sense of its achievement of offering higher protection than other sets of species, or even multiple species and ocean areas, all inherently encompassed within the wording 'surroundings'. As a consequence, the latter interpretation opens for a wide variety of design-plans for MPAs, which could include DMPA.'Areas' is more space-bound, thus reflecting a narrower understanding of possible design-options for MPAs. The reliance upon other 'areas' can result in a less practical stipulation of the texts ability to facilitate DMPA and its ability to shift boundaries.

One option to enable DMPA would be to exclude reference to other areas or surroundings, especially concerning wording interlinked with possible design-options. Also, by referencing to the MPAs ability to shift, the definition would constitute a conclusive recognition of the BBNJ agreements facilitation for shifting MPAs. However, at this point, the inherent ambiguity in the definition does not provide for a definite possibility of shifting boundaries in response to spatio-temporal changes.

Moreover, the wording 'higher protection' is broad and does not affirm any specific relationship to the MPAs ability to enable stronger temporal and spatial considerations. As alluded to in section 3.2.1, offering 'higher protection' does not contribute to an added emphasis towards the qualitative standards of MPA. On the contrary, the wording sets a low threshold in relation to how effective the MPA-scheme can be and does not contribute to facilitating more comprehensive conservation and protection approaches by MPAs.

This is further substantiated by Article 1 (3), which functions as an additional element to interpret the substantive scope of Article 1 (10). Article 1 (3) defines ABMT as follows:

"Area based management tool" means a tool, including marine protected area, for a geographically defined area through which one or several sectors or activities are managed with the aim of achieving particular conservation and sustainable use objectives [and affording higher protection than that provided in the surrounding areas]'

A DMPA can be regarded as an end to 'achieve particular conservation'. However, the inclusion of the wording 'aim' cannot be interpreted to suggest a solid emphasis to this end. 'Higher protection' and 'aiming' opens up for a wide degree of discretion upon the contracting Parties protection-scheme for the designation of MPAs in ABNJ. Therefore, it would seem that the definition encourages rather than restricts quantitative standards for the designation of MPAs in ABNJ, which does not harmonise well with the idea of DMPA.

Conclusively, the preliminary definition does not add anything new to future MPAs designoptions and the ability to shift in response to spatio-temporal changes in the marine environment. On the contrary, the definition seems to uphold status quo provided by the LOSC, CBD, and the IUCN. As a consequence, the preliminary definition does not contribute to the facilitation of DMPA.

However, the abovementioned definition should be read in light of other subsequent provisions relevant to DMPA under the BBNJ agreement. Therefore, the next issue that needs appreciation is whether Part III and Annex I adds anything to the BBNJ agreement's facilitation of DMPA.

4.1.2 Identification of New Sites

Annex I provide the indicative criteria for identifying areas for protection in ABNJ. The identification stage is in close connection to the spatial planning process of designating MPAs. The preliminary list includes several criteria which interlink well with the overall facilitation of DMPA and must be considered as a relevant factor to the treaty's ability to facilitate DMPA. This raises the question of whether the indicative criteria identify shifting MPAs as a pathway to facilitate better spatio-temporal considerations.

Annex I include the recognition of 'special importance of the species found therein' under letter (d). Letter (f), (n) and (q) further emphasises the area's 'vulnerability, including to climate change and ocean acidification', 'important ecological processes occurring therein', 'cumulative and transboundary impacts'.

Broadly interpreted, these identification marks could be understood as a recognition to include more adaptive parameters for protection. This aligns well with the overall conceptualisation of DMPA. Moreover, acknowledging 'climate change and ocean

acidification' and 'cumulative and transboundary impacts' as identifications marks can contribute to the general appreciation of dynamic considerations under a new MPA regime for ABNJ and thus provide flexibility under the agreement for facilitating shifting MPAs.

In this regard, Article 16 (3) upholds that the list under Annex I is non-exhaustive, indicative and accords the Scientific and Technical Body (STB) the residual competence for further development. The latter point was also reiterated under the IGC-3 negotiations.¹²⁰ Consequently, it would follow that the outlined procedure could amplify the possibility to identify DMPA as a pathway for new sites. However, there are opposing views in relation to the indicative list, and consequently, STBs future competence to develop existing and additional identification marks.

In relation to the list under Annex I, Norway has suggested that the list might provide a legal framework where every part of the ocean will require special treatment and make the operation of MPAs difficult.¹²¹ Specifically, the recognition of 'climate change', 'ocean acidification', and 'cumulative and transboundary impacts' as indicative criteria are considered controversial under the negotiations.

The Group of 77 and China has gone as far as to propose the deletion of reference to these criteria.¹²² Japan and the US have argued that climate change is adequately covered by 'vulnerability, fragility, sensitivity, and slow recovery'. Switzerland and Singapore have proposed combining vulnerability and ocean acidification. However, New Zealand and others emphasised the preference in referring vulnerability to climate change and its subsequent effects. On the same note, Thailand has underlined the importance of including climate change and ocean acidification in the description of vulnerability.¹²³ As a consequence, the criteria pertinent for recognising DMPA does not seem to draw much support under the negotiations.

¹²⁰ IISD (2019) 'Summary of the Third Session of the Intergovernmental Conference (IGC) on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 19-30 August 2019', T Kantai *et al.* Earth Negotiations Bulletin Vol. 25 No. 218, p. 8-9

¹²¹ *Ibid.* p. 8

¹²² Ibid. pp. 8-9

¹²³ Ibid. p. 9

Moreover, Under the IGC-3 negotiations, discussions were held concerning developing proposals for ABMTs based on 'best available science [...]'. There were converging opinions on this matter.¹²⁴ Canada submitted that references to best available science, ecosystem approach and precaution should apply the whole treaty, and proposed that ABMTs and MPAs and other conservation measures should be defined as in CBD.¹²⁵ Others suggested that the best available scientific data and the precautionary approach should be used for identifying possible ABMTs.¹²⁶ 'Best available science' and 'ecosystem approach' er all relatable to DMPA. However, these broad parameters do not suggest an added emphasis towards dynamic considerations more pertinent for DMPA.

On the other hand, the Russian Federation has argued the necessity to use the best available scientific data and a precautionary ecosystem approach to identify sites, emphasising the need to take measures that are 'time-bound' and adjustable to allow for strengthening, weakening, or lifting restrictions.¹²⁷ Shifting the degrees of restrictions based on temporal parameters can be seen as a positive step towards a dynamic MPA approach under the negotiations. However, it is uncertain if this is the correct understanding of the Russian Federations argument. 'Timebound' could as easily be regarded as the facilitation of MPAs that has an expiration date.

Furthermore, The Russian Federations proposition is the only stipulation of an MPAs temporal side under the IGC-3 and only touches upon a narrow spectrum of the relevant issues concerning DMPA. Reference to shifting MPAs in response to spatial and temporal parameters is thus far not discussed upon. Neither is the ability to shift its boundaries, leaving an unclear implication towards the BBNJ agreements facilitation for shifting MPAs in response to spatial and temporal parameters on the basis of the abovementioned provisions. Moreover, the diverging views on the criteria's and the SBTs future role in identifying sites are problematic.

Therefore, it must be concluded that it is unclear whether the indicative criteria identify shifting MPAs as a pathway to facilitate better spatio-temporal considerations. However, another possibility to facilitate DMPA could be by assessing the extent of the BBNJ

¹²⁷ Ibid.

¹²⁴ IISD (2019), Earth Negotiation Bulletin, supra note 120 pp. 8-9

¹²⁵ Ibid., p. 8

¹²⁶ *Ibid*.

agreement's adaptability regarding MPA. Therefore, the next issue that needs appreciation is whether the draft treaty text includes mechanisms to ensure adaptability for the possible facilitation of DMPA.

4.1.3 Ensuring Adaptability and Advancing DMPA

Blanchard et al. submit that a review mechanism within the BBNJ could be mandated to revise size, location and/or the management of MPAs and other tools.¹²⁸ A review mechanism also has a spill-over effect in that it can ensure the applicability of new knowledge and identify other gaps that need to be addressed.¹²⁹ Therefore, if the BBNJ agreement includes a robust mechanism for review, the agreement's adaptability might be enhanced with a possible effect upon the agreement's facilitation for DMPA. Indeed, as *Blanchard et al.* submit:

'[...] Ensuring that the management of ABNJ is adapted according to new knowledge is also a step forward in safeguarding the resilience of the agreement, and to confirm that the instrument remains relevant in regulating the system'.¹³⁰

Article 21 (2) provides that MPAs 'shall be monitored and periodically reviewed by the Scientific and Technical body'. Furthermore, paragraph (3) provides that the review 'shall assess the effectiveness of measures and the progress made in achieving their objectives and provide advice and recommendations to the Conference of the Parties'.

Noticeably, the wording includes mandatory language. This means that the draft text does not open up for a voluntary review mechanism. It is also clear that the proposed review mechanism would enhance the qualitative aspects of MPAs under the BBNJ agreement, specifically by referencing to the 'effectiveness [...] and progress made in achieving their objectives'. As a consequence, ensuring the effectiveness of a review mechanism could facilitate a possible pathway for designating DMPA under the BBNJ agreement.

¹²⁸ C Blanchard, C Durussel and B Boteler, 'Socio-ecological resilience in the law: Exploring the adaptive capacity of the BBNJ agreement'(2019) Marine Policy 108, 103612, Elesvier Ltd., p. 4

¹²⁹ *Ibid,* see also J Ebbesson 'The rule of law in governance of complex socio-ecological changes' (2010),Global Environmental Change 20, Elesvier Ltd., p. 418

¹³⁰ Blanchard, Durussel and Boteler, *supra note* 128, p. 4

However, reviewing is arguably only consequential when conducted by an independent body and where there are mechanisms in place to ensure that decisions are taken binding upon parties. ¹³¹ Therefore, the facilitation of mechanisms to review, monitor, and provide binding decisions upon State Parties is closely connected to the overall governance and the jurisdictional approach.

As outlined in chapter 3, the governance and jurisdictional gaps effectively impede the facilitation of DMPA in ABNJ. In turn, the effectiveness of the review mechanism depends on how the agreement will be governed and the competence of the institutional bodies under the BBNJ agreement. Accordingly, the next issue that needs appreciation is whether the outlined governance approach in the BBNJ agreement can ensure the effective facilitation of monitoring and reviewing MPAs.

4.1.4 Institutional Arrangements and Governance Approach for the BBNJ Agreement

In relation to the overall operationalisation of the BBNJ, delegations have envisaged three governance models: the regional approach, the global approach, and a hybrid of both.¹³² There is no definition to these models. However, they can be understood as follows: a strict interpretation of a regional approach would mean that the BBNJ agreement is to be operationalised exclusively through existing sectoral and/or regional institutions. A global approach could be envisaged by creating new bodies able to carry out the objectives of the BBNJ agreement. Lastly, the hybrid model could be envisioned by institutional arrangements advancing ocean governance, however, not include centralised global-level decision-making powers.¹³³

The first issue that needs appreciation is which governance approach is best suited for facilitating DMPA.

¹³¹ Blanchard, Durussel and Boteler, *supra note* 128, pp. 4-5

¹³² KM Gjerde *et.al.* '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' (2019) Ocean Yearbook Vol 33. (1) pp. 36-38

¹³³ *Ibid.* p. 36-37

As alluded to in chapter 3, a regional governance approach would risk upholding status quo regarding the facilitation of DMPA. Some delegates favouring a regional approach suggested that the role of other frameworks and bodies for monitoring and review should be reflected in the treaty text.¹³⁴

For comparison purposes, one possible downside in affording other frameworks, such as RFMOs, the competence of reviewing, is that the review mechanisms are undertaken on a voluntary basis and on substantive criteria that the parties have established themselves. This outlined procedure is consistently being criticised for its lack of ensuring adaptability.¹³⁵ Consequently, changes in RFMO practices are mainly due to international pressure.¹³⁶

Therefore, a key challenge with the regional approach is that it would not be able to fill the existing governance gaps in the facilitation of MPAs in ABNJ,¹³⁷ thus effectively impeding the successful designation of DMPA. Consistently, the regional approach would not be suited for DMPA.

Furthermore, there is no clear consensus regarding the functions and duties established under the BBNJ agreement for a hybrid approach. For instance, which subsidiary bodies to include and their functions and powers, vary greatly.¹³⁸ Therefore, it is difficult to depict the extent of its suitableness regarding DMPA.

However, proponents of the global approach underlined the model to be best suited to change status quo for MPAs in ABNJ and facilitate comprehensive and cross-sectoral protection of biodiversity in ABNJ.¹³⁹ Furthermore, a global approach would enable the effective

¹³⁴ IISD (2019), Earth Negotiation Bulletin, supra note 120, p. 10

¹³⁵ Blanchard, Durussel and Boteler, supra note 128, p. 4

¹³⁶ Ibid.

¹³⁷ NA Clark, 'Institutional arrangements for the new BBNJ agreement: Moving beyond global, regional, and hybrid' (2020), Marine Policy 122, Elsevier Ltd. p. 3

¹³⁸ *Ibid.* p. 4

¹³⁹ E.G., Statement by Algeria on behalf of the African group at IGC1, accessed 1 September 2021, available at: <u>http://highseasalliance.org/treatytracker/statements/algeria-on-behalf-of-the-ag-september-10th-ambts-mpas-informal-session/?_sft_issue=abmts&_sft_regional_group=ag;</u> Statement by Argentina at IGC1, accesses 1 September 2021, available at: <u>http://highseasalliance.org/treatytracker/statements/argentina-september-10th-abmts-mpas-informal-session/</u>

establishment of high seas MPAs, which would require a decision-making body, but also a robust scientific committee capable of reviewing MPAs and a secretariat that could help to coordinate the consultation process, thus enabling adaptability and flexibility in design options for MPAs in ABNJ.¹⁴⁰

Consequently, the preferable option for facilitating DMPA in ABNJ is via the global approach. However, as alluded to in section 4.1.3, the review mechanism is only relevant where there are mechanisms in place to ensure an actual outcome.

In this regard, Article 21 (4) provides that following the review; the COP shall 'as necessary, take decisions on the amendment or revocation of [...] marine protected areas [...] taking into account the best available [science])'. Consistently, it would seem that the COP is tasked with the subsequent discission-making. The wording does not stipulate any clear mechanism to ensure that actors oblige to whichever decision is adopted. Still, it is envisioned that the COP will serve as the decision-making body with the power to take decisions binding upon its parties.¹⁴¹

Nonetheless, a remaining issue to the approach in which the COP makes decisions concerning MPAs, is the interrelationship between the BBNJ and existing regional and sectoral organisations.¹⁴² This raises the question of whether the BBNJ agreement effectively can ensure the competence of the SBT and the COP for the designation of DMPA in ABNJ.

A key provision in this regard is Article 4 (3), which provides as follows:

'This Agreement shall be interpreted and applied in a manner that [respects the competence of and] does not undermine [existing] relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies.'

Provided an ordinary meaning, the wording 'shall [...] not undermine' is stringent and could include an obligation to withhold from applying the agreement in a manner that diminishes the mandates stemming from other arrangements. This conflict clause could be understood as

¹⁴⁰ Gjerde et.al. supra note 132, p. 37

¹⁴¹ Clark, supra note 137, pp. 3-6, see also Gjerde et.al. supra note 132, p. 37

¹⁴² Clark, *supra note* 137, p. 4

a possible major shortcoming under the new BBNJ agreement. ¹⁴³ Some delegations have submitted that the designation of MPAs and other ABMTs could conflict with 'not undermining' existing relevant legal instruments and frameworks, ¹⁴⁴ thus effectively impeding DMPA in areas where other arrangements exist.

However, *Scanlon* suggests that the term 'not undermine' in the context of the BBNJ agreement was chosen because of its ambiguity. She submits that the wording can be understood as not to lessen the 'effectiveness, power, or ability of'; however, this meaning can vary in conjunction with the context applied.¹⁴⁵ In this regard, *Scanlon* refers to that 'not undermining' could mean not to undermine the authority or mandate of existing bodies and the measures adopted under their competence, or, conversely, mean just not undermining the effectiveness or objectives of existing frameworks.¹⁴⁶ The two interpretations have very different implications for the interrelationship between the BBNJ agreement and existing bodies for designating DMPA.

Not undermining the 'effectiveness' could constitute a positive step towards facilitating DMPA. This interpretation focuses on the effectiveness of relevant bodies. It would not preclude future institutional elements, such as the STB and the COP, to have an overlapping mandate or competence to adopt measures, provided that such measures would not lessen the effectiveness of the relevant body.¹⁴⁷ This interpretation seems to be more in line with facilitating for DMPA.

¹⁴³ E Papastavridis, 'The negotiations for a new implementing agreement under the UN Convention on the Law of the Sea concerning marine biodiversity' (2020), The International and comparative law quarterly Vol. 69 (3), Cambridge University Press, p. 599-600

¹⁴⁴ IISD (2019) Earth Negotiation Bulletin, supra note 120, pp. 8, 11, 20

¹⁴⁵ Z Scanlon, 'The art of "not undermining": possibilities within existing architecture to improve environmental protections in areas beyond national jurisdiction' (2018), ICES Journal of Marine Science, Vol.75 Issue 1, pp. 406-409

¹⁴⁶ Ibid. p. 407

¹⁴⁷ *Ibid*.

The clause has been discussed during the PrepCom-1 discussions. Here the term was not meant to be used synonymously with "not discussing".¹⁴⁸ Furthermore, during PrepCom-2, it was cautioned against interpreting the term to mean 'non-interference" or "non-duplication'.¹⁴⁹

Consistently, it would seem that the clause should be understood as negatively delimited but not positively. Read in light of the BBNJ agreement's stated goal of conserving and sustainably using marine biological diversity in ABNJ pursuant to Article 2; it could be interpreted to improve the status quo. Consistently the meaning of 'not undermine' can be understood to advance this objective, not restrict it. Surely, as *Gjerde and colleagues* submit:

'[...] rather than seeking to exclude particular sectors or otherwise viewing the new instrument through a negative lens, the focus could be on how the new BBNJ can enable, facilitate, and even strengthen existing global, regional, and sectoral bodies and instruments in fulfilling their responsibilities under UNCLOS to protect and preserve the marine environment'. ¹⁵⁰

However, 'not undermining' the authority or mandate of existing bodies and their adopted measures, would effectively protect the authority and mandate of relevant bodies with competence to adopt DMPA in tandem with any future body under the BBNJ agreement.¹⁵¹ The core of the 'not undermining' clause reflects the principle of *pacta tertiis nec nocent nec prosunt*.¹⁵² This principle provides that treaties and their subsequent obligations and rights are only binding upon the contracting parties. In relation to BBNJs facilitation of DMPA, the draft text would therefore support that the BBNJ agreement and any decisions leading from it

 ¹⁴⁸ IISD (2016a) Earth Negotiations Bulletin, *Summary of the First Session of the Preparatory Committee on Marine Biodiversity Beyond Areas of National Jurisdiction*: 28 March–8 April 2016, 25 (106) E Morgera *et al.* International Institute for Sustainable Development (IISD) p. 5, see also Scanlon, *supra note* 144, p. 408,
 ¹⁴⁹ IISD (2016b) Earth Negotiations Bulletin, *Summary of the Second Session of the Preparatory Committee on*

Marine Biodiversity Beyond Areas of National Jurisdiction: 26 August – 9 September 2016, 25 (118), E

Morgera et al. International Institute for Sustainable Development (IISD) p. 11

¹⁵⁰ Gjerde et al. supra note 132, p.39

¹⁵¹ V De Lucia and P.P. Nickels, 'Reflecting on the Role of the Arctic Council vis-á-vis a Future International Legally Binding Instrument on Biodiversity in Areas Beyond National Jurisdiction' (2020) Arctic review on Law and Politics, Vol 11, p. 194

¹⁵² Papastavridis, supra note 142, p. 600

cannot bind third party States or other global or regional organisations such as the IMO and RFMOs. Therefore, the latter interpretation and application of the article would constitute that all existing bodies and relevant instruments with competence in ABNJ would continue to manage MPAs, within their respective competence, including mechanisms of review and monitoring. This could impede BBNJs facilitation of DMPA in ABNJ.

Additionally, albeit in brackets, Article 4 (3) includes an alternative requirement to apply the treaty in a way that 'respect the competence' of relevant global, regional, subregional, and sectoral bodies. This alternative has a clear indication in which context the clause is meant to be understood. Referencing the 'competence' of sectoral bodies upholds a strict interpretation of the conflict clause, which would hinder the relevance of the SBT and the COP in conjunction with the facilitation of DMPA. Consistently, in terms of facilitating DMPA in ABNJ, it would seem a lot is at stake because of the clause. However, whether the future conflict clause in the BBNJ agreement will include reference to respect the competence of relevant bodies in ABNJ is not settled. ¹⁵³

Consequently, any firm conclusion on Article 4 (3) relevance for the facilitation of DMPA is untimely as delegations are still divided in how this operationalisation should be dealt with under the BBNJ agreement. Therefore, it is uncertain whether the BBNJ agreement can ensure the competence of the SBT and the COP to facilitate the designation of DMPA in ABNJ. The division regarding the governance approach and the competence of the institutional arrangements within the BBNJ agreement is symbolised in the conflict clause. In this sense, if a lesser strict interpretation and application of the requirement to not undermine prevails, the treaty could be understood to facilitate DMPA in ABNJ. However, if a strict interpretation prevails, improving status quo regarding advancing DMPA in ABNJ is more problematic, especially where there are mechanisms in place with competence to adopt MPAs.

Conclusively, as different opinions and options exist, it is difficult to provide a firm answer to what extent the outlined governance approach in the BBNJ can ensure a functional operationalisation of DMPA in ABNJ.

¹⁵³ De Lucia and Nickels, supra note 150, p. 194

4.2 Concluding Remarks

This chapter set out to investigate to what extent the most recent draft of the BBNJ agreement could fill the gaps and challenges under the current global regime for facilitating the designation of DMPA in ABNJ.

Section 4.1 introduced the outlined objectives under Part III. The discussion found that the objective of enhancing co-operation to promote a holistic and cross-sectoral approach in the use of MPA, could be recognised as a shift from the LOSC and the CBD regarding the facilitation of MPA in ABNJ. Moreover, the shift of objectives and the explicit stipulation of enhancing productivity and health and building resilience to stressors was considered to coincide well with the conceptualisation of DMPA. In this sense, section 4.1 concluded by raising the issue if these objectives are matched in the outlined operationalisation of MPA in the draft treaty text, and whether this includes the facilitation of DMPA.

First, section 4.1.1 discussed in which sense the definition of MPA under Article 1 (10) could contribute to the overall facilitation of DMPA. The discussion showed that the definition adopted under the revised treaty text did not add anything new in relation to DMPA. The definition lacks references to accord an MPA to shift in response to spatio-temporal changes in the marine environment. Moreover, there has not been any meaningful discussion under the negotiations to the extent in which the BBNJ agreement can or should facilitate newer ideas for MPAs. Consequently, the definition of MPA under the BBNJ agreement seem to uphold status quo as already provided for under the LOSC, CBD and the IUCN. However, the facilitation of DMPA does not rest solely upon Article 1 (10) and must be read in light of other relevant provisions in Part III and Annex I.

Therefore, the second issue concerned whether the indicative criteria under Annex I identified shifting MPAs as a pathway to facilitate better spatio-temporal considerations. The discussion found that Annex I include criteria that may be pertinent for the identification of DMPA. However, due to diverging views during the negotiations on which criteria to adopt and the lack of clear stipulation on shifting MPAs interlinkage to temporal and spatial parameters, section 4.1.2 concluded that it is unclear to which extent the indicative criteria identify shifting MPAs as a pathway under the agreement.

However, third, section 4.1.3 found that the extent of the agreement's adaptability might serve as a possible pathway for facilitating DMPA in ABNJ. In this sense, the discussions

recognised the outlined review mechanism as a possible solution for enabling the designation of DMPA. However, the section concluded that the feasibility of such depend on the matter in which governance approach the treaty concludes upon and what competence the outlined institutional bodies have in tandem with other relevant instruments in ABNJ.

Therefore, fourth, section 4.1.4 first discussed which governance approach would be best suitable for the facilitation of DMPA. This section found that the outlined global approach, with a strong scientific and decision-making body, is ideal for advancing DMPA in ABNJ. However, the issue raised was to which extent this competence is matched in the draft text to possibly facilitate DMPA. The discussions showed that that the conflict clause is problematic for the effective operationalisation of DMPA. Furthermore, the discussions outlined that the contracting parties are still divided on the governance issue and which competence to accord the institutional bodies under the BBNJ agreement.

Consistently, any firm conclusion to the extent to which the review mechanism's and the overall governance in ABNJ can ensure a functional operationalisation of DMPA in ABNJ would be untimely. In this respect, although the draft treaty text can be seen as a positive step to further the facilitation of DMPA, it is not clear whether it can fill the gaps and challenges under the current global framework in facilitating the designation of DMPA in ABNJ.

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