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Arctic Emergencies

Exploring the Legal Scope of Emergency Measures under the BBNJ Agreement to Protect Vulnerable Marine Biodiversity in the Central Arctic Ocean

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Abstract

The adoption of the BBNJ Agreement in 2023 was a milestone for the protection of marine biodiversity in the areas beyond national jurisdiction (ABNJ) of the oceans as it created a global legal basis for the adoption of marine protected areas (MPAs) in such ABNJ. The Central Arctic Ocean is the region selected for this research as it aligns with the geographical scope of the BBNJ Agreement and because it hosts vulnerable biodiversity, threatened and degraded by the effects of climate change, that would significantly benefit from the protection afforded by MPAs. Moreover, the possibility to adopt emergency MPAs arguably offers a way to prevent or react rapidly to natural phenomena or human-caused disasters that may seriously or irreversibly harm marine biodiversity. Therefore, analyzing the legal scope of such emergency measures in the context of the Central Arctic Ocean is the aim of this thesis.

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List of Abbreviations

ABMT	Area-Based Management Tool
ABNJ	Area Beyond National Jurisdiction
AWNJ	Area Within National Jurisdiction
BBNJ	Biodiversity Beyond National Jurisdiction
BBNJ Agreement	United Nations Agreement on Biodiversity Beyond National Jurisdiction
CAFF	Conservation of Arctic Flora and Fauna
CBD	Convention on Biological Diversity
CCAMLR	Convention on the Conservation of Antarctic Living Marine Resources
COP	Conference of the Parties
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMPA	Emergency Marine Protected Area
ICJ	International Court of Justice
IEL	International Environmental Law
IFB	Relevant Legal Instruments and Frameworks and Relevant Global, Regional, Subregional and Sectoral Body
IGC	Intergovernmental Conference
IMO	International Maritime Organization

ISA	International Seabed Authority
ITLOS	International Tribunal for the Law of the Sea
IUCN	International Union for Conservation of Nature
MPA	Marine Protected Area
NEAFC	North-East Atlantic Fisheries Commission
OPRC	International Convention on Oil Pollution, Preparedness, Response and Cooperation
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PAME	Protection of the Arctic Marine Environment
RFMO	Regional Fisheries Management Organization
SPRFMO	South Pacific Regional Fisheries Management Organization
STB	Scientific and Technical Body
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
UNFSA	United Nations Fish Stocks Agreement
VCLT	Vienna Convention on the Law of Treaties

1 INTRODUCTION

This first chapter provides introductory remarks, setting the stage of the present research. The background section describes the context within which the Biodiversity Beyond National Jurisdiction Agreement[1] ("BBNJ Agreement", "BBNJ Treaty" or "Agreement") was adopted. The next section presents the research question, followed by one on the methodology employed. The structure of this research is presented in the eponymous section. A final section on delimitations defines the perimeter of this thesis.

1.1 Background

It would not be an understatement to claim that, since March 2023, the expression "The Ship Has Reached the Shore"[2] leads to an automatic association with the BBNJ Agreement, at least for international lawyers. Indeed, The BBNJ Treaty has been celebrated as "historic,"[3] "a win"[4] and a "landmark"[5] treaty for the protection of marine biodiversity in the oceans.

The objective of the Agreement is to ensure the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction ("ABNJ") for the present and in the long term.[6] An effective way to achieve this goal is through the establishment of area-based management tools ("ABMTs"), including marine protected areas ("MPAs"). To date, only regional and sectoral legal bases for the establishment of ABMTs, including MPAs, existed in

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[1] Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (adopted 19 June 2023, not yet in force) ("BBNJ Agreement").

[2] United Nations, "'The Ship Has Reached the Shore', President Announces, as Intergovernmental Conference Concludes Historic New Maritime Biodiversity Treaty" (3 March 2023) <https://press.un.org/en/2023/sea2175.doc.htm> accessed 20 March 2024.

[3] New York Times, "Nations Agree on Language for Historic Treaty to Protect Ocean Life" (4 March 2023) <https://www.nytimes.com/2023/03/04/climate/united-nations-treaty-oceans-biodiversity.html> accessed 20 March 2024; The Guardian, "High seas treaty: historic deal to protect international waters finally reached at UN" (5 March 2023) <https://www.theguardian.com/environment/2023/mar/05/high-seas-treaty-agreement-to-protect-international-waters-finally-reached-at-un> accessed 20 March 2024.

[4] European Commission, Oceans and Fisheries, "A win for the ocean: a High Seas Treaty signed at the United Nations" (20 September 2023) <https://oceans-and-fisheries.ec.europa.eu/news/win-ocean-high-seas-treaty-signed-united-nations-2023-09-20_en> accessed 20 March 2024.

[5] Nature, "UN high seas treaty is a landmark – but science needs to fill the gaps" (20 March 2023) <https://www.nature.com/articles/d41586-023-00757-z accessd 15 March 2024> accessed 15 March 2024; WWF, "New ocean treaty is a landmark moment" (8 March 2023) <https://updates.panda.org/new-ocean-treaty-is-landmark-moment> accessed 20 March 2024.

[6] BBNJ Agreement, Article 2.

ABNJ; their use in practice has been infrequent, due to the lack of a clear legal basis for the adoption of MPA in ABNJ.[7] The adoption of the BBNJ Agreement now changes this as it creates the missing legal basis.

Climate change, one of the main stressors on oceans, is mentioned in the BBNJ Treaty's preamble as one of the drivers of oceanic biodiversity loss and ecosystem degradation.[8] A region particularly vulnerable to climate change is the Arctic. Indeed, the Central Arctic Ocean is chosen for this thesis as its marine biodiversity is particularly fragile, further threatened by global warming, and because its portion beyond national jurisdiction aligns with the geographical scope of the BBNJ Agreement, thus allowing for the establishment of MPAs therein, something that to date has not yet happened. However, some climate change-related events (whether natural or human-caused) may cause such serious or irreversible harm to Arctic marine biodiversity so that rapid adoption of measures would be needed.

Against this backdrop, as will be argued throughout this thesis, emergency measures enshrined in Article 24 of the BBNJ Agreement may play a crucial role in the protection of Artic marine biodiversity. Therefore, the intention of the present thesis is to investigate the extent to which MPAs as a type of emergency measures may be used to protect the marine biodiversity in the Central Arctic Ocean against the impacts of climate change. The choice of this topic is also motivated by the fact that only one peer-reviewed article has been published on emergency measures so far,[9] hence it is this author's intention to contribute to the existing literature on environmental protection in the Arctic, whilst focusing on the relevance of EMPAs to protect Arctic marine biodiversity.

1.2 Research Question

The purpose of the present thesis is to explore the legal scope of emergency measures, under the BBNJ Agreement, to establish emergency MPAs ("EMPAs") in the Central Arctic Ocean in order to protect its vulnerable marine biodiversity against the adverse effects of climate change.

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[7] Karen N. Scott, "Area-Based Protection Beyond National Jurisdiction Opportunities and Obstacles" (2019) 4 *Asia-Pacific Journal of Ocean Law and Policy*, 158, 159.
[8] BBNJ Agreement, Preamble, third recital.
[9] As of the date of thesis submission: 31st May 2024.

1.3 Methodology

The chosen methodology is doctrinal legal research. Consequently, law will be observed from the inside.[10] The starting point is naturally the BBNJ Agreement, however comparison and reference to other international treaties and agreements will be included, as appropriate. Regarding the interpretation of emergency measures per se, the Vienna Convention on the Law of Treaties[11] ("VCLT") represents the most authoritative instrument to interpret treaties and will indeed be the point of departure of the discussion on the BBNJ Agreement's provisions. The provision on emergency measures will thus be interpreted "in good faith in accordance with the ordinary meaning" of its terms and in light of "its object and purpose."[12] Case-law from relevant international courts and tribunals alongside literature sources on the BBNJ Agreement and related topics connected to the research question (eg. MPAs, Arctic governance, climate change science, etc) will be referred to as well, particularly to aid in the interpretation of some terms of the provision. Given that the BBNJ Agreement was officially adopted in June 2023, most of the existing legal literature on the topic was published during the lengthy negotiations and to date, limited literature has been published after the Agreement's adoption, especially on the matter of emergency measures.[13] Notably, as the BBNJ Treaty is yet to enter into force, there is no state practice nor have *travaux préparatoires* been made available. Therefore, in congruence with the rules on supplementary means of interpretation,[14] contextual sources will be used as a way to inform the parties' intention with regards to selected provisions. Such sources include the drafting history of the BBNJ Agreement, delegations' interventions during the negotiations, daily reports on informal meetings, and statements submitted by states and/or organizations.

A comprehensive answer to the research question necessitates more than mere discussion on the law, given the multifaceted character of the selected geographical scope: the Arctic region. Thus, a limited survey of political and governance aspects in the Arctic is called for. The Oxford Standard for Citation of Legal Authority is the chosen referencing style.

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[10] Sanne Taekema, 'Relative Autonomy: A Characterisation of the Discipline of Law', in Bart van Klink & Sanne Taekema, *Law and Method, Interdisciplinary Research into Law* (Tübingen: Mohr Siebeck, 2011), 33-52.
[11] Vienna Convention on the Law of Treaties (adopted on 23 May 1969, entered into force on 27 January 1980) ("VCLT").
[12] VCLT, Article 31(1).
[13] As of 30th May 2024, only one peer-reviewed article has been published on this specific topic: Xiaoyi Jiang & Zhiei Wang, "Emergency Marine Protected Areas Under the BBNJ Agreement: A Feasible Solution for Emergencies in ABNJ?" (2024) 54 *Ocean Development & International Law*, 1 ("Jiang and Wang (2024)").
[14] VCLT, Article 32.

1.4 Structure

This present chapter introduces the topic of research and preliminary matters to set the context of the research question. The second chapter looks at the Arctic region: it is divided in sections that explain what makes the Arctic and its biodiversity so unique, how the repercussions of climate change further threaten the already vulnerable biodiversity, and an assessment of environmental protection, or lack thereof, in the Central Arctic Ocean to date.

The third chapter introduces the BBNJ Agreement, before a detailed analysis of emergency measures: an initial overview of the BBNJ Treaty is offered; section assessing the relationship between the BBNJ Agreement with the UN Convention on the Law of the Sea ("UNCLOS")[15] and other instruments follows; a third section delves deep into part III on the adoption and creation of area-based management tools ("ABMTs"), including marine protected areas ("MPAs"), it is emphasised that the BBNJ Agreement fills an important legal gap on the legal basis to adopt MPAs in ABNJ, which prevented comprehensive protection of marine biodiversity.

The fourth and most extensive chapter represents the core of this thesis, and explores: emergency measures in the BBNJ Agreement. A brief overview of existing emergency measures in international conservation law demonstrate that the concept is not a novelty. Subsequently, the analysis of Article 24 is presented through the lense of its preamble and drafting history – due to the absence of state practice, *travaux préparatoires* and publications on the specific provision, to grasp a better perception of the parties' intention – and then by assessing the emergency measures provision itself. Article 24 is then interpreted in the context of Part III through a systematic analysis of each article. The fifth and final chapter draws conclusions by bringing together all the elements discussed: climate change, fragile Arctic marine biodiversity, the BBNJ Agreement's role in filling the legal gap of establishing MPAs in ABNJ, and emergency measures.

[15] United Nations Convention on the Law of the Sea (adopted on 10 December 1982, entered into force on 16 November 1994) ("UNCLOS").

1.5 Delimitations

Ad mentioned, limited literature has been published on the BBNJ Agreement after its adoption; most has focused on the negotiation process and predicting how the BBNJ treaty may impact specific bodies. Since draft provisions on emergency measures only received attention during the fifth and final intergovernmental conference ("IGC")[16] there is an inevitable scarcity of literature on this specific provision. Nevertheless, literature review has been conducted up until and including the 30th of May 2024.

Additionally, similarly to how wider discussions on MPAs and their establishment in ABNJ beg considerations of their effectiveness (often attracting criticism concerning the fact that more needs to be done than simply selecting and designating a circumscribed area),[17] an assessment of the concrete efficiency of emergency measures in the Central Arctic Ocean for the protection of biodiversity therein against climate change is outside the scope of this study.

2 THE ARCTIC

This chapter introduces the geographical scope of the current research: the Central Arctic Ocean. The choice of this region is motivated by a combination of elements. Firstly, the great vulnerability of the Arctic ecosystems to cumulative pressures, especially climate change. Secondly, the global legal basis to adopt MPAs in ABNJ established by the BBNJ Agreement allows for the adoption of MPAs in the Central Arctic Ocean, with a view to protect its biodiversity. By extension, this can operationalize the work of the Arctic Council which already conducted significant research on the need to protect Arctic biodiversity. Emergency measures, particularly EMPAs, may potentially play an even more important role in the protection of marine biodiversity as they allow for fast deployment of MPAs. Also,

[16] Jiang and Wang (2024) 2-3.
[17] Bastian Ewoud Klerk, "From Undermining to Strengthening: Implications of the Forthcoming Agreement on Biodiversity Beyond National Jurisdiction for MPAs Governance in the North-East Atlantic" (2023) 38 *The International Journal of Marine and Coastal Law*, 107, 120; Nele Matz-Luck and Johannes Fuchs, "The Impact of OSPAR on Protected Area Management Beyond National Jurisdiction: Effective Regional Cooperation or a Network of Paper Park?" (2014) 49 *Marine Policy*, 157.

acknowledging the jurisdictional and material scope fragmentation pervading the Arctic region,[18] it is pertinent to see how the BBNJ Agreement may fit into that picture.

For the sake of completeness, it must be noted that there is no unanimously accepted definition of 'the Arctic,'[19] or at least its boundaries. However, for the purpose of this research, this is irrelevant as the geographical scope is the Central Arctic Ocean, a well-defined area that extends beyond the Exclusive Economic Zones of the Arctic Coastal states.

A more scientific undertone pervades this part of the thesis as it is deemed relevant to provide the context that stresses why the Arctic marine realm is a special region that may necessitate the adoption of emergency measures. Accordingly, the first section presents the peculiarities and characteristics of the Central Arctic Ocean. The following part elaborates on the consequences of climate change in the Arctic region. The last section discusses the legal and governance framework (or lack thereof) concerning environmental protection in the region, with focus on the role of the Arctic Council. Concluding remarks reiterate the pertinence of choosing the Arctic as the geographical scope of the thesis, with particular regards to the BBNJ Agreement, vulnerable Arctic biodiversity, and climate change.

2.1 Arctic Biodiversity: What Makes it Unique

The Arctic is a unique area characterized by low population density, a blend of hard and soft law instruments woven into a complex political and regulatory framework, with unique and fragile ecosystems severely endangered by climate change. The Arctic also plays a crucial role in the Earth climate system,[20] indirectly shaping both marine and terrestrial biodiversity across the globe creating ripple effects across the whole food chain, all the way to humans.[21]

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[18] Vito De Lucia, "The BBNJ Negotiations end Ecosystem Governance in the Arctic" (2022) 142 *Marine Policy,* 1, 5.
[19] Elise Johansen and Tore Henriksen, "Climate Change and the Arctic: Adapting to Threats and Opportunities in Arctic Marine Water" in *Research Handbook on Climate Change, Oceans and Coasts* (Edward Elgar 2020) 239.
[20] CAFF, "Marine Ecosystems" in CAFF, *Arctic Biodiversity Assessment – Status and Trends in Arctic Biodiversity* (Arctic Council 2013) 488 ("CAFF, Arctic Biodiversity Assessment (2013)").
[21] CAFF, "State of the Arctic Marine Biodiversity. Key Findings and Advice for Monitoring" (Arctic Council 2017) p.21 ("CAFF, State of the Arctic Marine Biodiversity (2017)"); Robert Danovaro et al, "Marine ecosystem restoration in a changing ocean" (2021) 29 *Restoration Ecology,* 1; Arctic Centre University of Lapland, "Why is it Important to Preserve the Biodiversity of Arctic Nature?" https://www.arcticcentre.org/EN/arcticregion/biodiversity/preserving accessed 18 May 2024.

Despite being the smallest of all oceans (circa 10 million km^2), it hosts over 2,000 species of algae,[22] 5,000 animal species,[23] 64 seabirds,[24] 16 marine mammals,[25] disregarding the unknown species estimated to yet be discovered.[26] An important issue related to information on its biodiversity is that, in order to provide a solid assessment of biological changes, baselines data on species are needed, and those biological indicators and variables have only seldom been collected in the Arctic for limited taxa. Naturally, such poor documentation[27] leads to uncertain baselines from which to assess changes.[28] Highlighting the uncertainty of scientific information with regards to Arctic marine biology is an important point to be borne in mind for a discussion on the use of precaution in environmental law, presented in the subsequent discussions. Hence, from the perspective of protecting marine biodiversity, focusing on the Arctic Ocean is a natural choice as its biodiversity, despite having adapted to extreme conditions, is tremendously fragile to external disturbances such as the threats posed by human activities and climate change.[29]

Moreover, what sets the Arctic region apart from the rest of the world is that in the latter efforts are being made to protect marine environments that have already degraded, mainly through human activities, whereas the former offers the opportunity to protect a region, including its ecosystem, habitats, and biological diversity, before it is even further deteriorated.[30] As a matter of fact, the pristine condition of the Arctic region is highly unusual. Roff underlines that only about twelve per cent of the "world's oceans are in an

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[22] CAFF, Arctic Biodiversity Assessment (2013) 124
[23] CAFF, Arctic Biodiversity Assessment (2013) 124.
[24] Bodil A. Bluhm et al, "Arctic Marine Biodiversity: and Update of Species Richness and Examples of Biodiversity Change" (2015) 24 *Oceanography*, 232, 238.
[25] Ibid, 238.
[26] CAFF, Arctic Biodiversity Assessment (2013) 124; Anthony Buaya & Marco Thines, "Miracula Polaris – New Species of *Miracula* from the East Fjords of Iceland" (2024) 52 *Microbiology*, 117, 120; Bodil A. Bluhm et al, "Arctic Marine Biodiversity: and Update of Species Richness and Examples of Biodiversity Change" (2015) 24 *Oceanography*, 232.
[27] CAFF, State of the Arctic Marine Biodiversity (2017) 13, 17, 19, 21; CAFF, Arctic Biodiversity Assessment (2013) 507.
[28] Bodil A. Bluhm et al, "Arctic Marine Biodiversity: and Update of Species Richness and Examples of Biodiversity Change" (2015) 24 *Oceanography*, 232, 242.
[29] IPCC, "Summary for Policymakers" in IPCC, *Special Report on the Ocean and Cryosphere in a Changing Climate* (Cambridge University Press 2019); AMAP, "Climate Change Update 2019: an Update to Key Findings of Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017" (2019); AMAP, "Snow, Water, Ice and Permafrost in the Arctic: Summary for Policymakers" (2017) vii-xiv; Paul Wassmann, "Arctic Marine Ecosystems in an Era of Rapid Climate Change," (2011) 90 *Progress in Oceanography* 1; Maria Fossheim et al., "Recent Warming Leads to a Rapid Borealization of Fish Communities in the Western Arctic" (20015) 5 *Nature Climate Change*, 673.
[30] WWF Arctic Programme, "Resilience in the Arctic: Facing the Future" (2019) 4 *The Circle*, 1, 14 ("WWF (2019)").

untouched or pristine condition," most being in the Arctic."[31] Nevertheless, for the sake of clarity, the classification "pristine" must be taken with reservations as the Arctic is the unfortunate recipient of vast quantities of pollution (e.g.: persistent organic pollutants,[32] litter and microplastics,[33] heavy metals,[34] and radioactive isotopes).[35] Thus, the term "pristine" must be considered not as absolute value, but rather in comparison to other more polluted marine areas of the world. Pollution is not the only threat to the region as climate change, the focus of this thesis, severely affects the Arctic, as discussed in the next section.

2.2 Climate Change in the Arctic

One of the greatest threats to Arctic ecosystems and ecological balance is climate change and the associated increased human presence it brings about. It is now scientifically proven that climate change is caused by humans.[36] The seas and oceans, importantly, play a crucial role in relation to climate change: they generate 50% of oxygen[37] and have absorbed about 90% of the heat generated by rising greenhouse gas emissions.[38] Inevitably, this is not without consequences as the excessive heat and energy warm the oceans altering their temperature, leading to adverse effects such as melting sea-ice, sea-level rise, marine heatwaves, ocean acidification,[39] fundamentally altering the chemistry of oceans and other oceanic processes,

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[31] Ibid.
[32] See: AMAP, "POPS, Climate change interactions" < https://pops.amap.no > accessed 20 April 2024.
[33] See: AMAP, "Microplastic and Litter in the Environment" < https://litterandmicroplastics.amap.no > accessed 20 April 2024
[34] See: Discovering the Arctic, "Arctic Pollution" <https://discoveringthearctic.org.uk/science/arctic-science/arctic-pollution/> accessed 20 April 2024; Ilka Peeken et al, "Arctic sea ice is an important temporal sink and means of transport for microplastic" (2021) 9 *Nature Communications*, 1.
[35] See: Justin P. Gwynn, "Radionuclides in Marine and Terrestrial Mammals of Svalbard" (2005) 7 Strålevern Rapport 2005. Østerås: Norwegian Radiation Protection Authority, 1, 1-2.
[36] Edward Maibach et al, "Climate scientists need to set the record straight: there is scientific consensus that human-caused climate change is happening" (2014) 2 *Earth's Future*, 295; Andrew E. Dessler and Edward A. Parson, *The Science and Politics of Global Climate Change. A Guide to the Debate* (3rd edn Cambridge University Press 2016) 111.
[37] UN, "The Ocean – the World's Greatest Ally Against Climate Change" <https://www.un.org/en/climatechange/ocean-–-world's-greatest-ally-against-climate-change> accessed 5 April 2024.
[38] UNFCCC, "The Ocean" <https://unfccc.int/topics/ocean> accessed 5 April 2024.
[39] United Nations, "How is Climate Change Impacting the World's Ocean" <https://www.un.org/en/climatechange/science/climate-issues/ocean-impacts> accessed 5 April 2024.

consequently directly detrimentally affecting the lives of marine species that cannot survive at higher temperatures.[40]

The earth's temperatures are not rising equally across the globe. The Poles are the most climate sensitive areas as they are more acutely affected by climate change than other regions, a phenomenon known as "polar amplification."[41] Both Polar Region – the Arctic and Antarctica – play crucial roles in regulating global climates and hydrological cycles[42] but are likewise severely affected. The Arctic over the past half century has warmed more than two times faster than the global rate.[43] Even more alarmingly, the Arctic mean temperature is projected to continue rising significantly higher than the global average over the course of the current century,[44] aptly named "Arctic amplification." The amplified warming in the Arctic is attributed, *inter alia*, to the surface-albedo feedback: due to their white colour, ice and snow in the Arctic reflect much of the incoming sunlight, as they melt they are replaced by the ocean's dark surface, causing more sunlight to be absorbed by the Ocean.[45] Higher temperatures in the Arctic have collateral damages[46] across a broad spectrum, from loss of sea ice to the melting of permafrost soil, resulting equally in the decrease of carbon storage and

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[40] National Geographic, "Ocean Threats" <https://www.nationalgeographic.com/environment/article/ocean-threats> accessed 5 April 2024.

[41] E. Beer et al, "Polar Amplification due to enhanced heat flux across the halocline" (2020) 47 *Geophysical Research Letters*, 1.

[42] IPCC, *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (2021 Cambridge University Press) pp.1927-2058, pages 2016, 2022 <https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Atlas.pdf> accessed 8 April 2024 ("Gutiérrez et al / IPCC(2021)").

[43] NB: scientific articles indicate discording data regarding warming ranging from 2x to 3x faster than the rest; without going into a debate of which number is correct, the key message is that the Arctic warms faster than the rest of the world and, as such, bears more dramatic consequences. See: IPCC, "Polar Regions" in *IPCC Special Report on the Oceans and Cryosphere in a Changing Climate* (Cambridge University Press 2019) 212; Gutiérrez et al (2021) 2022; Mika Rantanen et al, "The Arctic has warmed nearly four times faster than the globe since 1979" 3 *Communications Earth & Environment*, 1; Haixia Xiao et al, "Long-term trends in Arctic surface temperature and potential causality over the last 200 years" (2020) 55 *Climate Dynamics*, 1443; Rajmund Przybylak and Przemyslaw Wyszynski, "Air temperature changes in the Arctic in the period 1951-2015 in the light of observational and reanalysis data" (2019) 139 *Theoretical and Applied Climatology*, 75.

[44] IPCC, "Atlas" in *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the IPCC* (IPCC, AR6 2021), pp. 2024-2026; James Overland et al, "The urgency of Arctic change" (2019) 21 *Polar Science*, 6.

[45] Carbon Brief, "Why does the Arctic warm faster than the rest of the planet?" (11 February 2022) <https://www.carbonbrief.org/guest-post-why-does-the-arctic-warm-faster-than-the-rest-of-the-planet/> accessed 8 April 2024.

[46] See: Marlene Payva Almonte, "Vulnerability in the Arctic in the Context of Climate Change and Uncertainty" (2023) <https://www.thearcticinstitute.org/vulnerability-arctic-context-climate-change-uncertainty/> accessed 10 April 2024; Elizabeth H. Shadwick et al, "Vulnerability of Polar Oceans to Anthropogenic Acidification: Comparison of Arctic and Antarctic Seasonal Cycles" (2013) 3 *Scientific Report*, 1.

release of carbon dioxide and methane, leading to additional global warming.[47] Consequences range from disrupting indigenous communities[48] to wider repercussions at mid-latitude levels,[49] from melting glaciers to coral bleaching. The focal point of this research is the detrimental effects of climate change on marine Arctic biological diversity, inextricably linked to loss of ecosystems and habitats.

Climate change affects Arctic marine biodiversity in two ways: through the chemical and biological changes caused by rising temperatures and by way of increased human presence in the area, directly linked to the melting sea ice and the opening of new activities and routes, previously inaccessible, placing the endemic marine biodiversity under severe pressure and stressors.[50] In turn, marine biodiversity loss can alter ocean functions at their core.

Consequences of global warming in the Arctic ecosystems include,[51] *inter alia*, changes in distribution patterns of species,[52] invasive alien species,[53] changes in ecosystem (e.g. algal bloom),[54] ocean acidification,[55] raising temperatures, marine heatwaves,[56] glacier melting, sea ice loss, among other rare events.[57] As mentioned in section 2.1, baseline data on several Arctic marine species is incomplete or simply lacking. Therefore, anticipating the effects of the above-mentioned events on marine species is challenging; indeed, scientific understanding

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[47] IPCC Report on Polar Regions (2019) 207, 276.
[48] Charlotte Luke, "The Effects of Arctic Warming on Indigenous Communities" (11 February 2021) Earth.org <https://earth.org/effects-of-arctic-warming-on-indigenous-communities/> accessed 8 April 2024
[49] Jennifer A. Francis and Stephen J. Vavrus, "Evidence Linking Arctic amplification to extreme weather in mid-latitudes" (2012) 39 *Geophysical Research Letters*, 1; James A. Screen and Ian Simmonds, "Exploring links between Arctic amplification and mid-latitude weather" (2013) 40 *Geophysical Research Letters*, 959.
[50] CAFF, Arctic Biodiversity Assessment (2013) 124.
[51] IPCC, "Polar Regions" in *IPCC Special Report on the Oceans and Cryosphere in a Changing Climate* (Cambridge University Press 2019) 212.
[52] Laurène Pécuchet et al, "Successive Extreme Climatic Events Lead to Immediate, Large-Scale, and Diverse Reponses from Fish in the Arctic" (2022) 28 *Global Change Biology*, 3728.
[53] Farrah T. Chan, "Climate Change Opens New Frontiers for Marine Species in the Arctic: Current Trends and Future Invasive Risks" (2018) 25 *Global Change Biology*, 25. NB: invasive alien species can be introduced either due to the warming Arctic waters that cause traditionally southern species to relocate there or via the ballast and hulls of ships travelling from other regions to the Arctic.
[54] On toxic algal bloom, see: D. M. Anderson et al, "Toxic Algal Bloom in the Arctic", NOAA (2018) <https://arctic.noaa.gov/report-card/report-card-2018/harmful-algal-blooms-in-the-arctic/#:~:text=Impacts%20of%20Harmful%20Algal%20Blooms,wildlife%20health%20in%20the%20Arctic.; https://oceanographicmagazine.com/news/climate-change-algae-arctic/#> accessed 8 April 2024.
[55] Di Qi et al, "Climate change drives rapid decadal acidification in the Arctic Ocean from 1994 to 2020" (2022) 377 *Science*, 1544.
[56] See, e.g.: Benjamin Richaud et al, "Drivers of Marine Heatwaves in the Arctic Ocean" (2024) 129 *Journal of Geophysical Research: Oceans*, 129; William W. L. Cheung et al, "Marine high temperature extremes amplify the impact of climate change on fish and fisheries" (2021) 7 *Science Advances*, 1; Boyin Huang et al, "Prolonged Marine Heatwaves in the Arctic: 1982-2020" (2021) 48 *Geophysical Research Letters*, 1.
[57] James E. Overland, "Rare events in the Arctic" (2021) 168 *Climate Change*, 27.

of direct and indirect consequences of climate change and other stressors on Arctic ecosystems is deemed "still in its infancy."[58] Nevertheless, climate-related changes have already been observed[59] in relation to species distribution, their abundance, as well as cascading effects,[60] as ice-dependent species are threatened. Yet, a comprehensive picture of species' reaction to climate change is lacking.[61] Given that marine biodiversity is an essential element of the ocean ecosystem, its weakening would also detrimentally impact the ocean and its ability to better adapt to climate change.[62]

The second way in which climate change is predicted to negatively impact Arctic marine biodiversity is due to the retreating sea ice,[63] caused by rising temperatures, which hence unlocks new opportunities for economic development, placing Arctic marine biodiversity under severe pressure and stressors.[64] Examples of such human activities associated to expected global warming in the Arctic Ocean include new sea routes,[65] Arctic tourism,[66] potential commercial fishing[67] (after the current moratorium expires), new transportation

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[58] CAFF, Arctic Biodiversity Assessment (2013) 124.
[59] CAFF, Arctic Biodiversity Assessment (2013) 124.
[60] For instance, certain types of ice algae are needed for the development and survival of a type of zooplankton, consumed by fish, seabirds, seals and bowhead whales; as seals are consumed by polar bears and humans (e.g. in Norway) this is a perfect example of how the melting of ice that is the habitat of this specific type of algae can have cascading repercussions on the entire food chain. See: CAFF, Arctic Biodiversity Assessment (2013) 497-498; Janne E. Søreide et al, "Timing of Blooms, Algal Food Quality, and *Calanus Glacialis* Reproduction and Growth in a Changing Arctic" (2010) 16 *Global Change Biology*, 3154, 3161-3162; Kelton W. McMahon et al, "Benthic Community Response to Ice Algae and Phytoplankton in Ny Ålesund, Svalbard" (2006) 310 *Marine Ecology Progress Series*, 1.
[61] CAFF, State of the Arctic Marine Biodiversity (2017) 6, 12.
[62] Ocean & Climate, "The decline of marine biodiversity" <https://ocean-climate.org/en/awareness/the-decline-of-marine-biodiversity/#:~:text=The%20loss%20of%20marine%20biodiversity,home%20to%20millions%20of%20species.> accessed 8 April 2024.
[63] See, e.g.: Richard L. Thoman et al, "The record low Bering Sea Ice Extent in 2018: context, impacts, and an assessment of the role of anthropogenic climate change" (2020) 101 *Bulletin of the American Meteorological Society*, 53.
[64] CAFF, Arctic Biodiversity Assessment (2013) 124.
[65] Arctic Council, "Arctic shipping update: 37% increase in ships in the Arctic over 10 years" (31 January 2024) <https://arctic-council.org/news/increase-in-arctic-shipping/> accessed 9 May 2024.
[66] For example, Arctic tourism in Svalbard has increased by 73% between 2008 and 2018 in parallel with retreating sea ice. See: Alexandra N. Stocker, "Sea Ice Variability and Maritime Activity Around Svalbard in the Period 2012-2019" (2020) 10 *Scientific Reports*, 1, 2; Julia Olsen et al, "Increasing Shipping in the Arctic and Local Communities' Engagement: a Case from Longyearbyean on Svalbard" in Eva Pongràcz et al, Arctic *Marine Sustinability. Arctic Marine Business and the Resilience of the Marine Environment* (Springer 2020) 307-308.
[67] Ekaterina Urypova, "Climate Change as a Factor Impacting Current and Future Commercial Fisheries in the Arctic Region" (2023) The Arctic Institute <https://www.thearcticinstitute.org/climate-change-factor-impacting-current-future-commercial-fisheries-arctic-region/> accessed 18 May 2024.

routes, new exploratory activities. Advancement in technology[68] and the greater presence of vessels in the region entails higher risks and concerns of damaging the vulnerable biodiversity by exponentially increasing the likelihood of accidents and oil spills (considered far more catastrophic in the Arctic than in the rest of the world), [69] through pollution and the introduction of invasive alien species through the ships' hulls and ballasts, [70] degrading ecosystems through mineral exploration[71] and the likely race to extract fossil fuels which, once burned, contribute to global warming, in a never-ending concatenation of events initiated by climate change (and humans) which in turn feeds back into it.[72]

Given that the effects of climate change have an anthropogenic cause, either manifested as natural events occurring in the Arctic Ocean or through associated human activities, it follows that protecting Arctic marine biodiversity is crucial to offset the negative effects caused by humans in the region and, indeed, MPAs constitute one of the best available tools to do so.

2.3 Environmental Protection in the Central Arctic Ocean

Marine protection in the Arctic has mainly occurred through national implementation of international obligations of Arctic States, as most of the waters falls within the maritime zones of the Arctic Coastal States[73] – Norway, Kingdom of Denmark, United States, Canada, and the Russian Federation – alongside soft law initiatives adopted under the aegis of the Arctic Council,[74] through its Working Groups. The five Arctic Coastal states have always been resistant to any 'outside' interference in the region, as they repeatedly highlighted their

[68] Ekaterina Uryupova, "Global interest in the Arctic region: naval operations impacting scientific-commercial activities" (2023) 59 *Polar Record*, 1, 2.
[69] WWF, Leave it in the Ground (2023) 16-19.
[70] Elizabeth J. Cottier-Cook et al, "Horizon Scanning of Potential Threats to High-Arctic Biodiversity, Human Health and the Economy from Marine Invasive Species: a Svalbard Case Study" (2024) 30 *Global Change Biology*, 1, 2; Chris Ware et al, "Ships as potential dispersal vectors of invasive marine organisms into high-Arctic Svalbard" (2012) University of Tromsø Report: Svalbards Miljøvernfond, 1; Chris Ware et al, "Biological Introduction Risks from Shipping in a Warming Arctic" (2016) 56 *Journal of Applied Ecology*, 340.
[71] WWF, "Leave it in the Ground: Arctic Resources Should Stay Where They Are" (WWF Global Arctic Programme 2023) 1-4 ("WWF, Leave it in the Ground (2023)").
[72] IPCC Report on Polar Regions (2019) 276.
[73] Ingvild Ulrikke Jakobsen, "Protection of Biological Diversity in the Polar Regions by Marine Protected Areas" in Yoshifumi Tanaka et al, *The Routledge Handbook of Polar Law* (Routledge 2023) 222-223, 226-230 ("Jakobsen (2023)").
[74] Jakobsen (2023) 239; Robin Warner, "Principles of Environmental Protection at the Poles" in Karen N. Scott & David L. VanderZwaag, *Research Handbook on Polar Law* (Chelthenham: Edward Elgar 2020) 326.

'stewardship' role in relation to Arctic[75] matters, even resisting the idea of a global legal and governance framework of the BBNJ Agreement during its negotiation phase.[76] It is important to underline the role of politics in this regard as it contextualizes the present research question and explains one of the reasons for the lack of action.

In their Areas Within National Jurisdiction ("AWNJ"), the Arctic Coastal States adopted national laws to protect the marine environment, such as MPAs,[77] while in the ABNJ of the Central Arctic Ocean no corresponding overarching legally binding treaty may be found.[78] The absence of a legal basis that would allow for the adoption of MPAs, for instance, in ABNJ is the motive behind the unprotected status of marine biodiversity in the ABNJ's portion of the Arctic Ocean, leaving it exposed to threats.

Some attempt to establish MPAs have been advanced, such as the Arctic Ice High Seas MPA submitted by WWF at the 2015 OSPAR Biodiversity Committee,[79] although that was inconclusive as the Contracting Parties – particularly Denmark and Iceland – opposed the proposal, leading to the current absence of protection. However, a laudable effort to not damage the marine living resources was the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean[80] ("CAOFA") as, besides being considered an ABMT[81] for its restriction of a specific activity, it effectively established a moratorium to not conduct commercial fishing amongst the Arctic coastal states and other states (Iceland, China, Japan, Korea, and the EU),[82] until more adequate scientific knowledge is available, effectively

[75] The Ilulissat Declaration (Arctic Ocean Conference – Ilulissat, Greenland, 27-29 May 2008).
[76] See: Vito De Lucia, "Reflecting on the Meaning of "not undermine" ahead of IGC-2" (21 March 2019) The NCLOS Blog <https://site.uit.no/nclos/2019/03/21/reflecting-on-the-meaning-of-not-undermining-ahead-of-igc-2/> accessed 18 May 2024 ("De Lucia (2019)").
[77] As an example, Norway designated MPAs off the coasts of Svalbard, see: Jakobsen (2023) 226-230. On Canada and Russia's MPAs, see: Suzanne Lalonde et al, "Marine Protected Areas and Other Effective Area-Based Conservation Measures" (2022) 13 *Arctic Review on Law and Politics*, 312. For an overview of MPAs adopted by the Arctic coastal states, see Suzanne Lalonde (2013) "Marine Protected Areas in the Arctic" in Erik J. Molenaar et al, *The law of the sea and polar regions: interactions between global and regional regimes* (2013 Brill) 93-99.
[78] A small portion of Arctic Ocean is encompassed by OSPAR's MPA, but that is minimal.
[79] OSPAR Commission, Meeting of the Biodiversity Committee, Cork 2-6 March 2015, Summary Record BDC15/10/1-E, para. 5.24.
[80] Agreement to Prevent Unregulated Fisheries in the Central Arctic Ocean (adopted on 3 October 2018, entered into force on 25 June 2021) ("CAOFA Agreement"). Arctic Council, "An Introduction to the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean: <https://arctic-council.org/news/introduction-to-international-agreement-to-prevent-unregulated-fishing-in-the-high-seas-of-the-central-arctic-ocean/> accessed 20 May 2024.
[81] David Balton, "What will the BBNJ Agreement mean for the Arctic fisheries agreement?" (2022) 142 *Marine Policy*, 1, 3.
[82] CAOFA Agreement

concretizing the precautionary approach.[83] This coordinated effort by multiple states, including non-Arctic ones, demonstrates that political will is a key element in environmental protection in the Arctic region and, unfortunately, the same will has not been displayed concerning the protection of marine biodiversity in the ABNJ of the Arctic Ocean.

A body that has continuously conducted substantial work in disseminating scientific information regarding the Arctic marine environment and biodiversity is the Arctic Council. It is considered a high-level forum aimed at promoting cooperation, coordination and interaction amongst the Arctic States on issues related to sustainable development and environmental protection within the Arctic.[84] It is a soft cooperative arrangement, for it is not a treaty-based international organization,[85] that lacks any legal powers; yet that did not deter it from contributing to the development of international law regarding the Arctic.[86] The Arctic Council is made of the five Arctic coastal states alongside Iceland, Sweden, and Finland.[87] Six indigenous peoples organizations have permanent participant status.[88] Non-Arctic states, inter-governmental and inter-parliamentary organizations as well as non-governmental organizations may be granted observer status if the Council determines they may contribute to its work.[89] Moreover, the Arctic Council operates through the following working groups: Arctic Monitoring and Assessment Program AMAP, Conservation of Arctic Flora and Fauna ("CAFF"), Protection of the Arctic Marine Environment ("PAME"), Emergency Prevention, Preparedness and Response,[90] Arctic Contaminants Action Program, and Sustainable Development Working Group.[91]

Over the years, the Arctic Council has been very prolific in terms of providing scientific information and policy recommendations. CAFF created a report that selected more vulnerable marine areas to vessel activities, in light of climate change and new marine

[83] Jakobsen (2023) 230; Warner (2020) 335.
[84] Declaration on the Establishment of the Arctic Council. Joint Communique of the Governments of the Arctic Countries on the Establishment of the Arctic Council (Ottawa, Canada, 26 September 1996) para. 1(a) ("Declaration on the Establishment of the Arctic Council").
[85] De Lucia (2022) 4.
[86] Yoshinobu Takei, "The Role of the Arctic Council from an International Law Perspective: Past, Present and Future" (2014) 6 *The Yearbook of Polar Law*, 349.
[87] Declaration on the Establishment of the Arctic Council, para. 2.
[88] Ibid.
[89] Ibid, para. 3.
[90] Declaration on the Establishment of the Arctic Council, para. 1(b).
[91] Arctic Council, "Working Groups" <https://arctic-council.org/about/working-groups/> accessed 18 May 2024.

uses.[92] The Central Arctic Ocean Large Marine Ecosystem was identified as an area of heightened ecological significance.[93] The loss of sea ice will lead to endangered and potential disappearance of many ice-dependent species, such as the ringed seal and polar bears, among others.[94] To complement such findings, in 2015 PAME developed a framework for a Pan-Arctic network of MPAs in the Arctic Ocean[95] which are yet to be implemented. PAME's recommendations could not be implemented due to the Arctic Council's lack of legal and enforcement powers of its Working Groups' guidelines and recommendations[96] as well as the fact that a global basis for the establishment of MPAs in the High Seas did not exist until 2023. The Convention on Biological Diversity[97] ("CBD"), another important global treaty applicable in the Arctic and focused, *inter alia*, on the conservation of biodiversity,[98] despite calling for its Parties to establish protected areas,[99] also lacked competence with regards to biodiversity in ABNJ.[100] The legal scene completely changed with the adoption of the BBNJ Agreement which aptly filled the existing legal gap.

2.4 Concluding Remarks

The Arctic region did not appear on international political agendas until its sea ice started to melt, which also coincided with heightened risks of damaging the vulnerable Arctic ecosystem and biodiversity due to global warming and associated increase of human activities. Hence, a coordinated response to pre-emptively take measures to protect the vulnerable marine biodiversity is needed. As shown in section 2.3, the protection of marine biodiversity in the Arctic was reliant on the will and efforts of the Arctic coastal states within

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[92] Arctic Council Working Group, Conservation of Arctic Flora and Fauna (CAFF), "AMSA IIC Arctic Marine Areas of Heightened Ecological Significance" https://www.caff.is/work/projects/amsa-iic-arctic-marine-areas-of-heightened-ecological-significance/ accessed 22 April 2024.
[93] AMAP/CAFF/SDWG, "Identification of Arctic marine areas of heightened ecological and cultural significance: Arctic Marine Shipping Assessment (AMSA) IIC" Report (2013) 61-63 ("AMAP/CAFF/SDWG Report (2013)").
[94] AMAP/CAFF/SDWG Report (2013) 61.
[95] PAME, "Framework for a Pan-Arctic Network of Marine Protected Areas" PAME (Arctic Council 2015) http://hdl.handle.net/11374/417 accessed 2 April 2024.
[96] Arctic Council, "About the Arctic Council" <https://arctic-council.org/about/#:~:text=The%20Arctic%20Council%20does%20not,Declaration%2C%20explicitly%20excludes%20military%20security> accessed 19 May 2024.
[97] Convention on Biological Diversity (adopted on 5 June1992, entered into force on 29 December 1993) ("CBD").
[98] CBD, Article 1.
[99] CBD, Article 8.
[100] CBD, Article 4.

their national boundaries.[101] In ABNJ, the role of the Arctic Council was limited to providing scientific input, guidelines and recommendations, as it lacks legal powers. The CBD, a leading global instrument on the conservation of biodiversity, lacks competence with regards to the establishment of protected areas in ABNJ. Therefore, a legal gap concerning the global legal basis for the establishment of MPAs in ABNJ existed. The adoption of the BBNJ Agreement in 2023 fully filled such gap. Even though some authors[102] wished for the inclusion of Arctic waters in the BBNJ Agreement – which did not occur – the Treaty still presents the most appropriate tool to protect such vulnerable biodiversity through the use of MPAs. The uncertainty of the state of the extremely fragile Arctic marine biodiversity, exacerbated by the effects of climate change, calls for precautionary action to adequately protect it.

3 THE BIODIVERSITY BEYOND NATIONAL JURISDICTION (BBNJ) AGREEMENT

This chapter examines the BBNJ Agreement's provisions relevant to the current discussion. It does so through an initial survey of its adoption process and structure. Secondly, an analysis of the relationship between the Agreement and UNCLOS as well as other instruments and treaties relevant in the context of the Arctic is offered. Thirdly, Part III and the legal consequences it generated in the ambit of MPAs is assessed.

3.1 The BBNJ Agreement: An Overview

The BBNJ Treaty was formally adopted on the 19-20th June 2023 and opened for signature from the 20th September 2023.[103] To date, it has been signed by 90 states and ratified by 5

[101] Jakobsen (2023) 239.
[102] Vito De Lucia, "The Arctic Environment and the BBNJ Negotiations. Special Rules for Special Circumstances?" (2017) 86 *Marine Policy*, 234, 237-240; Kamrul Hossain and Miriam Czarski, "Regulating Marine Biodiversity in Arctic Areas Beyond National Jurisdiction" (2018) 48 Environmental Policy and Law, 299, 302-304 ("Hossain and Czarski (2018)"). Hossain and Czarski presented different options to that end, namely: the recognition of Arctic marine biodiversity as common heritage of mankind, negotiating an Arctic chapter; the inclusion in the ABMTs part of the draft BBNJ Agreement of MPA requirements tailored to the Arctic; a call for the establishment of regional ocean committees or regional scientific committees, with one focused on the Arctic; or lastly, a regional seas programme for the Arctic Ocean.
[103] BBNJ Agreement, Article 65.

parties.[104] The Agreement "shall enter into force 120 days after the date of deposit of the sixtieth instrument of ratification, approval, acceptance or accession."[105] Speculations on how long it will take before the Agreement comes into force and whether it will at all be ratified by the needed number of states are outside the scope of this thesis. Its adoption after nearly two decades of negotiations was welcomed by UN Secretary General Antonio Guterres as "a victory for multilateralism and for global efforts to counter the destructive trends facing ocean health, now and for generations to come."[106]

The main objective of the BBNJ Agreement is to "ensure the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, for the present and in the long-term,"[107] with the overall desire to act as stewards of the oceans in ABNJ whilst committed to achieve sustainable development.[108] It is the third implementing agreement of UNCLOS.[109]

The BBNJ Treaty represents the first time that an international convention has directly linked marine biodiversity conservation to the effects of climate change in its preamble[110] and throughout its text,[111] elements were traditionally considered separately by the law of the sea and climate change regime, respectively.[112] It is clear that the Agreement provides a "strong

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[104] Belize, Chile, Monaco, Palau, and Seychelles. See: United Nations Treaty Collection, "Depositary – Status of Treaties: Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity in Areas Beyond National Jurisdiction" <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXI-10&chapter=21&clang=_en> last accessed 30th May 2024.

[105] BBNJ Agreement, Article 68(1).

[106] UN (2023), "UN delegates reach historic agreement on protecting marine biodiversity in international waters", UN News, 5 March 2023 <https://www.un.org/sg/en/content/sg/statement/2023-03-04/statement-attributable-the-spokesperson-for-the-secretary-general-intl-legally-binding-instrument-under-the-un-convention-the-law-of-the-sea?_gl=1*li86ik*_ga*MzEzNjYyNDE4LjE3MDY2OTg0MjY.*_ga_S5EKZKSB78*MTcwODYwNDM0OC4zLjAuMTcwODYwNDM0OS41OS4wLjA.*_ga_TK9BQL5X7Z*MTcwODYwNDM0OC42LjAuMTcwODYwNDM0OC4wLjAuMA.> accessed 10 May 2024.

[107] BBNJ Agreement, Article 2.

[108] BBNJ Agreement, preamble, recital 11.

[109] The other two implementing agreements of UNCLOS are the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (adopted on 28 July 1994, entered into force on 16 November 1994) and the 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 Stocks (adopted on 4 August 1995, entered into force on 11 December 2001) ("UNFSA").

[110] BBNJ Agreement, preamble, recital 3.

[111] See, e.g.: BBNJ Agreement, Article 1(6), 7(h), 17(c), Annex I (f), Annex II (iv).

[112] Pascale Ricard, "The Advent of the 2023 "BBNJ" Agreement: A Preliminary Legal Analysis" (2024) 53 *Environmental Policy and Law,* 1, 3 ("Ricard (2024)").

basis and renewed impetus for the protection of high seas biodiversity,"[113] especially in light of climate change as a leading factor of biodiversity loss. In its preamble, the Agreement recognizes "the need for the comprehensive global regime" under UNCLOS to "better address the conservation and sustainable use of marine biological diversity" in ABNJ,[114] whereby ABNJ includes the High Seas and the Area.[115] The High Seas refer to the water column beyond the EEZ,[116] while the Area encompasses the seabed, ocean floor and subsoil beyond national jurisdiction.[117] It also represents a global and cross-sectoral legal basis to designate MPAs in ABNJ,[118] as it integrates both environmental and economic dimensions.[119] For the purpose of this thesis, only the environmental aspect will be considered.

Given the central role of marine biodiversity in the BBNJ Agreement, it should be stressed that the Agreement offers no definition of 'marine biological diversity', albeit it does define "marine genetic resources."[120] Similarly, UNCLOS does not explicitly define nor refer to such biodiversity, although it incidentally protects it by providing a framework for pollution prevention and management of living marine resources[121] and by requiring states to adopt measures "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;"[122] still, UNCLOS confers mostly an economic connotation to the expression "marine living resources,"[123] though this has likely changed since its adoption, in line with its evolutive interpretation.[124]

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[113] Glen Wright et al, "'The ship has reached the shore': why the historic Agreement to protect the High Seas matters and what happens next" (9 March 2023) IDDRI <https://www.iddri.org/en/publications-and-events/blog-post/ship-has-reached-shore-why-historic-agreement-protect-high-seas> accessed 22 February 2024.
[114] BBNJ Agreement, preamble, recital 4.
[115] BBNJ Agreement, Article 1(2).
[116] UNCLOS, Article 86.
[117] UNCLOS, Article 1(1).
[118] Vito De Lucia, "After the Dust Settles. Selected Considerations About the New Treaty on Marine Biodiversity in Areas Beyond National Jurisdiction with Respect to ABMTs and MPAs" (2024) 54 *Ocean Development & International Law*, 1, 4 ("De Lucia (2024)").
[119] Ricard (2024) 2, 3-8.
[120] BBNJ Agreement, Article 1(8).
[121] See the definition of "pollution" in UNCLOS, Article 1(4); Gabriela Argüello, "Opportunities for Protecting Biological Diversity in the Arctic Ocean" (2021) 54 *The Yearbook of Polar Law*, 127, 130.
[122] UNCLOS, Article 194(5).
[123] Vonintsoa Rafaly, "The Concept of "Marine Living Resources": Navigating a Grey Zone in the Law of the Sea" (2022) 59 *Canadian Yearbook of International Law*, 285, 288-292.
[124] Jill Barrett, "The UN Convention on the Law of the Sea: A "Living" Treaty?" in Jill Barrett & Richard Barnes, *Law of the Sea: UNCLOS as a Living Treaty* (British Institute of International and Comparative Law 2016) 3-37 ("Barrett (2016)").

The thematic areas of the Agreement are marine genetic resources, ABMTs, including MPAs, environmental impact assessment ("EIA"), and capacity building and technology transfer. In terms of structure, Part I lists general provision; Part II deals with genetic marine resources; Part III addresses measures such as ABMTs, including MPAs; Part IV focuses on EIAs; capacity-building and the transfer of marine technology are discussed in Part V; Part VI is devoted to institutional arrangements; financial resources and mechanism are outlined in Part VII; implementation and compliance is contained in Part VIII; Part IX addresses settlement of disputes; Part X regulates non-parties to the Agreement; Part XI is concerned with good faith and abuse of rights; and lastly, Part XII concludes with final provisions. Annexes are included as well; notably Annex I contains indicative criteria for identification of areas – several of the listed criteria are applicable to the Arctic region (e.g. uniqueness, rarity, fragility, sensitivity, etc).

3.2 The BBNJ Agreement and Other Treaties

This section analyses the relationship between the BBNJ Agreement and other international legal instruments by looking, firstly, at UNCLOS and, secondly, at other relevant instruments for the purpose of this thesis.

3.2.1 UNCLOS takes priority over the BBNJ Agreement

The BBNJ Agreement explicitly indicates the primacy of UNCLOS as the former shall be interpreted and applied "in the context of and in a manner *consistent* with" the latter[125] (emphasis added). Such requirement of consistency is a direct consequence of the BBNJ Treaty being an implementing agreement of UNCLOS,[126] as its objective is to be achieved "through effective implementation of the relevant provisions" of UNCLOS.[127] By the same

[125] BBNJ Agreement, Article 5(1).
[126] Wen Duan, "Area-Based Management Tools under the BBNJ Agreement: Ambition or Illusion?" (2024) 33 *Review of European, Comparative & International Environmental Law*, 1, 3; Fernanda Millicay, "Marine Biodiversity of Areas Beyond National Jurisdiction: Securing a Sound Law of the Sea Instrument" in David Joseph Attard et al, *The IMLI Treatise on Global Ocean Governance – Volume I: UN and Global Ocean Governance* (Oxford University Press 2018) 167, 176.
[127] BBNJ Agreement, Article 2.

token, the United Nations Fish Stock Agreement [128] ("UNFSA") is the second (in chronological order) implementation agreement of UNCLOS and contains a provision to the same effect.[129]

Article 237 of UNCLOS explicitly dictates that provisions under Part XII of UNCLOS, on the protection and preservation of the marine environment, are "without prejudice to the specific obligations assumed by States under special conventions and agreements concluded … in furtherance of the general principles set forth in this Convention." [130] Additionally, any obligation "assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principles and objectives" [131] of UNCLOS. Moreover, Article 311 governs the relationship of UNCLOS vis-à-vis other conventions and agreements, providing that UNCLOS "shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention."[132] Given that the BBNJ Treaty is an implementing agreement of UNCLOS and bearing in mind the provisions that expressly highlight the latter's primacy, it follows that the Agreement ought to be read consistently with UNCLOS and, in the event of a conflict of rights or duties, the latter is to prevail over the former.

3.2.2 The Relationship between the BBNJ Agreement & IFBs

In relation to other relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies ("IFBs"), Article 5(2) clearly stresses that the BBNJ Agreement "shall be interpreted and applied in a manner that does *not undermine*" relevant IFBs and that "promotes *coherence* and *coordination* with those instruments, frameworks and bodies."[133] (emphasis added). The provision thus contains two distinct yet related rules: the 'not undermine' notion and the need to promote coherence and coordination. While the

[128] UNFSA.
[129] UNFSA, Article 4.
[130] UNCLOS, Article 237(1).
[131] UNCLOS, Article 237(2).
[132] UNCLOS, Article 311(2).
[133] BBNJ Agreement, Article 5(2).

meaning of 'not undermine' remains ambiguous,[134] it has an innate negative dimension[135] as it would appear to focus on conflict of competences instead of synergies,[136] however the inclusion of more positive language signaled by the focus on coherence and coordination balances out this provision. The inclusion of such a provision allows, at least in theory, the integration of the BBNJ Agreement in a web of international and regional instruments, frameworks and bodies.[137]

In the case of the Arctic, the most immediately relevant legal instruments are the following: UNCLOS, the CAOFA, and the CBD. Relevant bodies to the specific context of this research are: the International Maritime Organization ("IMO"), the International Seabed Authority[138] ("ISA"), OSPAR and North East Atlantic Fisheries Commission ("NEAFC"), in relation to the limited portion of Arctic waters beyond national jurisdiction wherein they are competent. Their pertinence is tightly linked to Part III of the BBNJ Agreement as each of these bodies may adopt measures and tools that restrict human activities to ensure special protection in marine areas: the IMO may designate particularly sensitive sea areas ("PSSAs"),[139] the ISA may adopt Regional Environmental Management Plans to manage mining in specific areas,[140] OSPAR may establish MPAs,[141] NEAFC may decide on conservation or management measures for its regulatory area.[142]

The Arctic Council would seem to fall into a separate category as it is not an international organization but may be considered a body[143] for the purpose of Article 24, albeit a larger discussion on that is outside the scope of this paper. Its role as political and diplomatic forum for coordination and cooperation, and its capacity to develop scientific outputs and policy

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[134] Jianye Tang, "Form Follows Function: An Initial Evaluation of the BBNJ Agreement's Achievements Regarding the "Not Undermining" Proviso" (2024) 159 *Marine Policy*, 1, 2 ("Tang (2024)"); De Lucia (2019).
[135] Zoe Scanlon, "The art of "not undermining": Possibilities Within Existing Architecture to Improve Environmental Protections in Areas Beyond National Jurisdiction" (2018) 75 *ICES Journal of Marine Science*, 405, 408.
[136] Vito De Lucia & Philipp Peter Nickels, "Reflecting on the Role of the Arctic Council vis-à-vis a Future International Legally Binding Instrument on Biodiversity in Areas Beyond National Jurisdiction" (2020) 11 *Arctic Review on Law and Politics*, 189, 205-206 ("De Lucia & Nickels (2020)").
[137] De Lucia & Nickels (2020) 190.
[138] UNCLOS, Articles 156-158.
[139] IMO, Particularly Sensitive Areas <https://www.imo.org/en/OurWork/Environment/Pages/PSSAs.aspx> accessed 26 May 2024.
[140] ISA, Regional Environmental Management Plans <https://www.isa.org.jm/protection-of-the-marine-environment/regional-environmental-management-plans/> accessed 26 May 2024.
[141] OSPAR, Marine Protected Areas <https://www.ospar.org/work-areas/bdc/marine-protected-areas> accessed 26 May 2024.
[142] NEAFC, Management Measures <https://neafc.org/managing_fisheries/measures> accessed 26 May 2024.
[143] For an in-depth discussion, see De Lucia & Nickels (2020) 202-204.

advice is likely to remain of great importance in the application of the Agreement's provisions.

Notable is also the fact that the same provision on 'not undermine' is reiterated in Article 22(2) of the BBNJ Treaty; reference to 'coordination' with IFBs is mentioned throughout the Article in relation to taking decisions compatible with the ones adopted by IFBs,[144] in relation to enhancing cooperation and consultation,[145] and in close cooperation with IFBs in case a measure falls within their competence.[146] The term 'coherence' is no longer present in this article but is mentioned in relation to the COP. From the reading of Article 5 and 22, it may be inferred that there is a general duty to ensure coherence between the BBNJ Agreement and other relevant IFBs, while concerning implementation of specific rules and provisions, there must be cooperation and coordination.

3.3 Part III of the BBNJ Agreement: A Milestone

Until 2023, there was no legal basis to establish MPAs in ABNJ. Such legal gap is precisely what prompted the BBNJ process. Hence, this section, after a brief survey on the use of MPAs in ABNJ prior to 2023 to highlight the absent global legal basis, explores Part III of the BBNJ Agreement on the establishment of ABMTs, including MPAs, by analyzing each provision and their relevance to emergency measures. Concluding remarks stress that the missing legal basis for MPAs in ABNJ are the reasons for inaction in the Central Arctic Ocean.

3.3.1 Legal Scene prior to 2023

Considering that MPAs fall under the umbrella term ABMTs, for the sake of completeness it is fitting to briefly explain the correlation between the two notions. ABMTs and MPAs are closely intertwined, despite embodying different concepts.[147] ABMTs include different types

[144] BBNJ Agreement, Article 22(1)(b).
[145] BBNJ Agreement, Article 22(3).
[146] BBNJ Agreement, Article 22(7).
[147] Alex Oude Elferink, "Protecting the Environment of ABNJ through Marine Protected Areas and Area-Based Management Tools – Is the Glass Half Empty of Half Full and Whose Glass Is It Anyway?" in Vito De Lucia et

of tools[148] or measure aimed at managing human activities in a specific area, whereas MPAs represent a type of ABMT with the primary objective of conservation.[149] The former focus on sustainable management, while the latter are centered on conservation, although in different gradations, ranging from total bans on human activities to multi-use zones where, for instance, fishing, tourism and aquaculture may be permitted. Regardless, for the purpose of the present research, only MPAs in ABNJ will be assessed.

As noted in section 2.3, the CBD is another important global treaty focused on biodiversity conservation. It envisages protected areas, with no specification as to terrestrial or aquatic ones,[150] though Prip understands this provision as establishing a system of protected areas "irrespective of the legal condition of the sea water concerned."[151] However, the CBD has jurisdiction on "components of biological diversity" only in AWNJ,[152] while in ABNJ, it calls for cooperation among its Contracting Parties for the "conservation and sustainable use of biological diversity."[153] Article 22(1) stipulates that the CBD shall not affect the rights and obligations of Contracting Parties from other instruments, unless their exercise would cause serious damage or threat to biological diversity; conversely, Article 22(2) affirms the primacy of UNCLOS over the CBD, reflecting Article 237 of UNCLOS. According to Prip, the CBD's competence to establish protected areas can be extrapolated from the above provisions.[154] It would follow then that the regimes of the CBD and UNCLOS, respectively, exist in parallel: both Conventions have mandates to protect biodiversity in ABNJ.[155] Only in the instance that the rights and obligations UNCLOS were to be infringed by application of CBD provisions, would UNCLOS prevail.[156] Importantly, however, the establishment of protected areas under the CBD may infringe on the freedom of high seas under UNCLOS. Consequently, the option

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al, *International Law and Marine Areas Beyond National Jurisdiction* (Brill Nijhoff 2022) 205-206 ("Elferink (2022)").

[148] ABMTs may include Vulnerable Marine Ecosystems, Marine Protected Areas, Particularly Sensitive Areas, Areas of Particular Environmental Interest, MARPOL Special Areas.

[149] High Seas Alliance, "Area-Based Management Tools (ABMTs) Briefing #2: How do MPAs and Other ABMTs Differ?" <https://www.highseasalliance.org/wp-content/uploads/2021/04/ABMTs-BRIEFING-2_-How-do-MPAs-and-other-ABMTs-differ_.pdf> accessed 15 March 2024.

[150] CBD, Article 2.

[151] Christian Prip, "Identifying and Describing Ecologically or Biologically Significant Marine Areas (EBSAs): A Key Tool for the Protection of Ocean Biodiversity (2022) 13 A*rctic Review on Law and Politics*, 171, 178 ("Prip (2022)").

[152] CBD, Article 4(a).

[153] CBD, Article 5.

[154] Prip (2022) 179.

[155] Prip (2022) 179.

[156] Prip (2022) 179; Rudiger Wulfrum and Nele Matz, "The Interplay of the United Nations Convention on the Law of the Sea and the Convention on Biological Diversity" (2000) 4 *Max Planck Yearbook of United Nations Law*, 445.

of adopting protected areas under the CBD in ABNJ was never chosen. Discussions on the authority and competence of the CBD and the global lack of legal authority to establish MPAs in ABNJ led to the commencement of negotiations to create a legally binding instrument in ABNJ.[157] This ultimately resulted in the adoption of the BBNJ Treaty.

With regards to UNCLOS, considering that in the decades it was drafted, the regulation of marine living resources was characterised by an exploitative orientation,[158] as opposed to conservation, it is not surprising that UNCLOS does not expressly mention ABMTs nor MPAs. However, in providing a framework for the management and conservation of marine living resources, it does envisage their use incidentally to the exercise of State Parties' rights and obligations,[159] consistent with legal and political developments following its adoption, in line with its "living instrument"[160] character. Part XII, specifically Articles 192, 194(5) and 197 all implicitly lay the foundations to justify the establishment of MPAs in all maritime zones, thus in areas within and outside national jurisdiction.[161] Article 192 provides a clear obligation to protect the marine environment, without distinction of AWNJ from ABNJ as it reads: "states have the obligation to protect and preserve the marine environment," [162] understood as supporting the use of ABMTs, including MPAs[163] by providing the relevant legal basis. Article 194(5) is specifically dedicated to the protection and preservation of "rare and fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life;"[164] in the *Chagos*[165] Arbitration, the exercise of the obligation under this provision was confirmed to include MPAs; additionally, the article also does not specify AWNJ or ABNJ, placing the emphasis instead on fragile ecosystems. Article 118 calls for states' cooperation in the conservation and management of living resources while Article 197 requires global and regional cooperation for the protection and conservation of the marine environment; both Articles could very well be interpreted as justifying the creation of MPAs

[157] Prip (2022) 179-180.
[158] Nele Matz-Luck & Johannes Fuchs, "Marine Living Resources" in Donald R. Rothwell et al, *The Oxford Handbook of the Law of the Sea* (Oxford University Press 2015) 492-493.
[159] See, e.g.: UNCLOS, Articles 117 and 194.
[160] Barrett (2016) 3-37.
[161] Arguello (2021) 136-137.
[162] UNCLOS, Article 192.
[163] Kristina M Gjerde and Anna Rulska-Domino, "Marine Protected Areas beyond National Jurisdiction: Some Practical Perspectives for Moving Ahead" (2012) 27 *The International Journal of Marine and Coastal Law*, 351, 356.
[164] UNCLOS, Article 194(5).
[165] Chagos Marine Protected Area Arbitration, Mauritius v. United Kingdom, Final Award (18 March 2015) Permanent Court of Arbitration, para. 538.

in ABNJ, as they make no reference to different territorial jurisdictions. Therefore, UNCLOS can be said to contain the legal basis to establish MPAs in ABNJ.[166] Von Rebay goes as far as stating that the restriction of activities at sea should be the norm, with limited activities such as fishing, navigation and mining as the exception to the protection of the marine environment.[167]

Despite the possibility to extrapolate the legitimacy to establish MPAs in ABNJ from UNCLOS, such a reading intrinsically collides with sovereign rights of states and the freedom of high seas,[168] according to which all states enjoy the freedom of navigation, of overflight, to lay submarine cables and pipelines, of fishing and of scientific research.[169] By extension, this entails the prohibition of any state to claim sovereignty over any portion of the high seas[170] as it may infringe upon the freedom of high seas. And given that MPAs, by definition, would regulate or restrict, *inter alia*, certain human activities, the regulation of fishing by Regional Fisheries Management Organizations ("RFMOs"), and the pivotal freedom of navigation, it is no surprise that a tension exists between user interests and marine interests. The most evident tension arises from the fishing industry,[171] however tourism,[172] new commercial shipping lanes, and mining[173] may frustrate the conservation objectives of such MPAs. Additionally, regulations associated with an MPA established by a state or several states would only be applicable to their own nationals and vessels and the parties to the agreement,[174] questioning their effectivity. Alternatively, given that the freedom of the high seas is equally enjoyed by all states, all of them would need to agree on the establishment of MPAs wherein such freedom is restricted,[175] so as to ensure a sufficient level of environmental protection.[176] Such reasoning would apply to the BBNJ Treaty too, as it would be binding only on its Parties.

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[166] For an interesting discussion, see: Jakobsen (2016) 51-54; Reeve et al (2012) 272-273.
[167] Anna von Rebay, *The Designation of Marine Protected Areas* (Springer 2023) 273 ("Von Rebay (2023)").
[168] V Rebay (2023) 4.
[169] UNCLOS, Article 87.
[170] UNCLOS, Article 89.
[171] Elferink (2022) 207-208. See also: Manuela Pulina and Marta Meleddu, "Defining a Marine Protected Area Strategy: a Stakeholder Perspective" (2012) 66 *Ocean & Costal Management*, 46.
[172] Priscilla F. M. Lopes et al, "Tourism as a driver of conflict and changes in fisheries value chains in Marine Protected Areas" (2017) 200 *Journal of Environmental Management*, 123.
[173] Wherein the International Seabed Authority has a key coordinating role.
[174] Ingvilg Ulrikke Jakobsen, "Marine Protected Areas as a Tool to Ensure Environmental Protection of the Marine Arctic: Legal Aspects" in Elizabeth Tedsen et al (ed) *Arctic Marine Governance* (Springer 2013) 215.
[175] Jakobsen (2023) 51-52; Erik J. Molenaar and Alex G. Oude Elferink, "Marine protected areas in areas beyond national jurisdiction: The pioneering efforts under the Ospar Convention," (2009) 5 *Utrecht Law Review* 5, 9.
[176] Jakobsen (2023) 51-52; Robin Churchill, "The growing establishment of high seas marine protected areas: implications for shipping" in Richard Caddell and Ridhian Thomas, *Shipping, Law and the Marine Environment*

While MPAs in the AWNJ are regularly established, the adoption of MPAs in ABNJ has been more modest. Nevertheless, some MPAs in the ABNJ portion of the seas have been established[177] in a sectoral fashion, often attracting criticism;[178] the most notable include the MPAs established under the OSPAR Convention[179] and the Convention on the Conservation of Antarctic Living Marine Resources[180] ("CCAMLR") – they all represent regional bodies.

It is important to underscore that UNCLOS does not designate any central body to manage such MPAs in ABNJ, even more so considering that the legitimate authority in the high seas rests with the flag state.[181] This in turn leads to several interrelated concerns, including the absence of specific criteria to establish MPAs, fragmentation intrinsic to the sectoral and/or regional nature of MPAs, enforceability concerns and, naturally, the lack of a clear legal basis.[182] Therefore, up until the adoption of the BBNJ Agreement, there was no legal regime that conferred an explicit legal basis to establish MPAs in ABNJ, including High Seas and the Area,[183] and in case such MPAs were established, due to the different activities regulated, this inevitably resulted in a fragmented picture of MPAs in ABNJ. Consequently, the BBNJ Treaty aptly fills the legal vacuum that prevented the identification of an explicit legal basis to establish MPAs in ABNJ.

3.3.2 ABMTs, including MPAs, under Part III of the BBNJ Agreement

Part III and IV of the BBNJ Agreement created a needed legal framework that now facilitates the conservation and protection of high seas marine biodiversity by setting rules for ABMTs,

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in the 21st Century: Emerging Challenges for the Law of the Sea (Oxford: Lawtext Publishing 2013) 60 ("Churchill (2013)")

[177] See, e.g.: OSPAR's practice of establishing MPAs in the High Seas, but also CCAMLR in Antarctica. Churchill (2013) 53-88.

[178] Elferink (2022) 225-229.

[179] Convention for the Protection of the Marine Environment of the North-East Atlantic (signed 22 September 1992, entered into force 25 March 1998) ("OSPAR Convention").

[180] Convention on the Conservation of Antarctic Living Marine Resources (signed 20 May 1980, entered into force 7 April 1982) ("CCAMLR").

[181] Konrad Jan Marciniak, "New implementing agreement under UNCLOS: a threat or an opportunity for fisheries governance?" (2017) 84 *Marine Policy*, 320, 322-323 ("Marciniak (2017)").

[182] Marciniak (2017) 323.

[183] Ingvild Ulrikke Jakobsen, *Marine Protected Areas in International Law* (Brill Nijhoff 2016) 51-52 ("Jakobsen (2016)"); Lora Reeve et al, "The Future of High Seas Marine Protected Areas" (2012) 26 *Ocean Yearbook*, 265 ("Reeve et al (2012)") 272.

including MPAs, and environmental impact assessments of planned activities.[184] However, this section will focus only on Part III providing a brief article-by-article analysis with the view of providing context for the central analysis on emergency measures, also contained therein.

Article 17 sets the tone by introducing the objectives of Part III which are multiple and include: the conservation and sustainable use of areas in need of protection, including through the use of ABMTs and "well-connected networks of MPAs;"[185] the need to strengthen cooperation and coordination among states and IFBs;[186] wide-encompassing obligations in relation to the protection of marine biodiversity and ecosystems, including their protection, preservation, restoration and maintenance with the intention of enhancing their productivity and health as well as strengthening their resilience to stressors such as climate change;[187] the goal of promoting food security, other socioeconomic goals and protecting cultural values;[188] and lastly the objective of implementing capacity-building "and development and transfer of marine technology"[189] so as to support developing states, particularly "least developed countries, landlocked developing countries, geographically disadvantaged States, small island developing States, coastal African States, archipelagic States and developing middle-income countries."[190] The fact that climate change, ocean acidification, and marine pollution are specifically singled out as one of the stressors against which resilience of biological diversity and ecosystems must be strengthened,[191] further indicates the appropriateness of Part III as a whole, and emergency measures specifically, to protect the vulnerable Arctic marine biological diversity against the effects of climate change.

Article 18 reiterates that the geographical scope of application of ABMTs, including MPAs, is clearly ABNJ. The process to propose such ABMTs, including MPAs, is outlined in Article 19: notably, Parties may, individually or collectively submit proposals to the secretariat,[192] a

[184] Md Saiful Karim & William W. L. Cheung, "The new UN high seas marine biodiversity Agreement may also facilitate climate action: a cautiously optimistic view" (2024) 8 *Nature Portfolio Climate Action,* 1, 2.
[185] BBNJ Agreement, Article 17(a).
[186] BBNJ Agreement, Article 17(b).
[187] BBNJ Agreement, Article 17(c).
[188] BBNJ Agreement, Article 17(d).
[189] BBNJ Agreement, Article 17(e).
[190] Ibid.
[191] BBNJ Agreement, Article 17(c).
[192] BBNJ Agreement, Article 19(1).

duty to collaborate and consult relevant stakeholders is included[193] (e.g. IFBs, scientific community, private sector, indigenous people) and such proposals ought to be formulated on the basis of international environmental law ("IEL") principles;[194] elements to be included in the identification of areas include a geographic or spatial description of the area suggested by reference to the indicative criteria listed in Annex I[195] which, *inter alia*, contains several criteria easily applicable to the Arctic region.[196] Once received by the Secretariat, the proposal shall be made publicly available and passed on to the Scientific and Technical Body ("STB") to be reviewed against the requirements of Article 19; such review shall be publicly available.[197] Detailed provisions on the consultation and assessment of submitted proposals are described in Article 20. Key factors in this regard are the inclusivity and transparency of the process which shall include all relevant stakeholders,[198] the duty for the proposals' proponent to consider the contributions received throughout the consultation stage with wide discretion, indicated by the expression "as appropriate," as to whether revise them accordingly or respond,[199] and the time-bound nature of the consultations,[200] although an upper time limit is not specified.

The central substantive provision of Part III is Article 22, which provides general rules for the establishment of ABMTs, including MPAs. Article 22 confers significant power to the Conference of the Parties ("COP") which shall take decisions on the establishments of ABMTs, including MPAs,[201] which may decide on measures compatible with those adopted by IFBs, in cooperation and coordination with them,[202] or, when the competence of submitted proposals falls within other IFBs' sphere of competence, it may make recommendations to the BBNJ Agreement's Parties and the competent IFB to "promote the adoption of relevant measures."[203] The duty to respect the competence of IFBs is further reiterated in the next paragraph of the provision as the COP has a dual obligation[204] to both *respect* the competence

[193] BBNJ Agreement, Article 19(2).
[194] BBNJ Agreement, Article 19(3).
[195] BBNJ Agreement, Article 19(4)(a).
[196] Indicative criteria relevant to the Arctic region include, *inter alia*,: uniqueness, rarity, special importance of the species found therein, vulnerability, fragility, sensitivity, biological diversity and reproductivity.
[197] BBNJ Agreement, Article 20.
[198] BBNJ Agreement, Article 21(1).
[199] BBNJ Agreement, Article 21(5).
[200] BBNJ Agreement, Article 21(6).
[201] BBNJ Agreement, Article 22(a).
[202] BBNJ Agreement, Article 22(b).
[203] BBNJ Agreement, Article 22(c).
[204] De Lucia (2024) 8-9.

of and *not undermine* the relevant IFBs.[205] The "not undermine" notion[206] contained in this provision thus mirrors the one in Article 5 on the relationship between the BBNJ Agreement and IFBs. Article 5 refers to the *interpretation* and *application* of the BBNJ and reiterates that it "shall be interpreted and applied in a manner that does not undermine relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies,"[207] whereas Article 22 focuses more on the COP's *decision-making* role with regards to ABMTs and MPAs according to which it "shall respect the competences of, and not undermine, relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies."[208]

The next provision of the Agreement, Article 24, is on emergency measures, the central focus of this thesis and will be discussed in depth in section 4.2.2. Article 25 addresses the implementation of Part III. Parties are to ensure that activities under their jurisdiction and control taking place outside their maritime zones are carried out consistently with the decisions adopted under Part III.[209] This appears to indicate that in the event an ABMT, including an MPA, is adopted in a set location in ABNJ, it may have further repercussions in geographically distant areas for all Parties to indeed ensure their activities are consistent with decisions adopted under Part III. For instance, if an MPA regulating specific human activities were adopted in the ABNJ of the Atlantic Ocean, in line with the formal requirements outlined in Part III, Parties to the BBNJ Agreement would need to ensure that activities conducted under their jurisdiction or control taking place in ABNJ would need to be consistent with the MPA adopted in the Atlantic Ocean. As the provision generally refers to Parties' activities taking place in ABNJ would suggest a wider geographical application of the implementation rules concerning ABMTs, including MPAs, to Parties' vessels physically distant than the area where the MPA is established. Additionally, Parties may adopt more stringent measures than the ones adopted under Part III in relation to their nationals and vessels[210] and Parties not party nor participant to any relevant IFB, which is unwilling to

[205] BBNJ Agreement, Article 22(2).
[206] Arne Langlet and Alice B. M. Vadrot, "Not 'undermine' who? Unpacking the Emerging BBNJ Regime Complex" (2023) 147 *Marine Policy* 1; Tang (2024) 1.
[207] BBNJ Agreement, Article 5(2).
[208] BBNJ Agreement, Article 22(2).
[209] BBNJ Agreement, Article 25(1).
[210] BBNJ Agreement, Article 25(2).

apply measured adopted by such IFBs, "shall not be discharged from the obligation to cooperate."[211]

The last article of Part III, Article 26, concerns monitoring and review: Parties shall individually or jointly report to the COP on the implementation of MPAs established herein;[212] the relevant IFBs are to be invited to present information to the COP on the measures' implementation;[213] the established MPAs are to be monitored and periodically reviewed by the STB; lastly, the COP shall, as necessary, "take decisions or recommendations on the amendment, extension or revocation" of the tools adopted and "any other related measure adopted" by the COP, on the basis of IEL principles.[214] This very last the expression referring to 'other related measures' seems to point at emergency measures which can be terminated, extended (albeit no longer than the two years threshold) or revoked following the relevant reviews. The monitoring phase of MPAs and their effect on the protection of biodiversity in ABNJ should not be understated as a duly conducted scrutiny is what sets apart effective MPAs from paper parks.

3.3.3 Relevance of Part III to the Protection of Marine Biodiversity

Besides the creation of a global legal basis for MPAs in ABNJ, another key achievement of the BBNJ Agreement is the definition of MPAs it offers.[215] Prior to 2023, the definition most commonly referred to was the one provided by the International Union for Conservation of Nature which defined an MPA as a "clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values."[216] The CBD also offered a more general definition of 'protected areas' defined as geographically defined areas "designated or regulated and managed to achieve specific conservation objectives."[217] Compared to the CBD's, the BBNJ Treaty's definition is evidently more comprehensive and specifically aimed at marine protected areas.

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[211] BBNJ Agreement, Article 25(6).
[212] BBNJ Agreement, Article 26(1).
[213] BBNJ Agreement, Article 26(2).
[214] BBNJ Agreement, Article 26(5).
[215] De Lucia (2024) 3-4.
[216] Nigel Dudley and Sue Stolton, "Defining Protected Areas: an International Conference in Almeria, Spain" (IUCN 2008) 125.
[217] CBD, Article 2.

The BBNJ Agreement defines an MPA as "a geographically defined marine area that is designated and managed to achieve specific long-term biological diversity conservation objectives and may allow, where appropriate, sustainable use provided it is consistent with the conservation objectives."[218] The definition of ABMTs instead describes them as "a tool, including a 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 in accordance with this Agreement."[219] As De Lucia noted,[220] the key difference between the definitions of ABMTs and MPAs is that the former intends to manage human activities "with the aim of achieving particular conservation and sustainable use objectives,"[221] suggesting a sectoral scope, whereas the latter aims to achieve "long-term biological diversity conservation objectives,"[222] which may allow sustainable use, where appropriate, as long as such use is consistent with the conservation goals. It is important to mention ABMTs for reasons of completeness, though this study focuses on MPAs solely as ABMTs may already be adopted regionally in ABNJ,[223] hence such a research would be redundant, and because MPAs, by focusing on marine biodiversity conservation, provide a fitting tool to protect the vulnerable Arctic marine biodiversity in the Central Arctic Ocean.

3.4 Concluding Remarks

This chapter provided an introduction on the BBNJ Agreement's process, followed by an overview of its relationship with UNCLOS and other relevant treaties and agreements, concluding with Part III of the Treaty, which fills the legal gap that existed until 2023 on the establishment of MPAs in ABNJ. Scientists continuously advocated for the establishment of MPAs in the Arctic[224] as they contribute to increased resilience against climate change and man-made pressures.[225] However, such calls were met with inaction as the legal basis for MPAs in ABNJ was absent, in turn frustrating the protection of marine biodiversity in the

[218] BBNJ Agreement, Article 1(8).
[219] BBNJ Agreement, Article 1(1).
[220] De Lucia (2024) 4-5.
[221] BBNJ Agreement, Article 1(1).
[222] BBNJ Agreement, Article 1(9).
[223] E.g.: the Particularly Sensitive Sea Areas adopted by the IMO in ABNJ.
[224] WWF (2019) 13-15. See in particular John Roff, the interviewed scientist, who has been looking at establishing MPAs for over 25 years.
[225] WWF (2019) 1, 15.

Central Arctic Ocean. The vulnerable ecosystem and biodiversity in the Arctic Ocean clearly necessitate protection. In light of the dramatic effects of climate change, effective action to prevent or respond to harm to the Arctic marine biodiversity calls for even faster response, such as emergency measures. The next chapter will assess the legal scope of emergency measures vis-à-vis Arctic marine biodiversity.

4 EMERGENCY MEASURES

The focus of this chapter is emergency measures – the core of this thesis. Section 4.1 will set the context by describing the different types of emergency measures and the related current international and regional legal instruments that address them. The following section, 4.2, represents the core of the whole discussion as it seeks to present and in-depth interpretation of the provision on emergency measures, enshrined in Article 24 of the BBNJ Agreement, to underscore the relevance of EMPAs for the protection of Arctic marine biodiversity. As such, considerations on the implications of adopting EMPAs in the Central Arctic Ocean will be offered. The following analysis in section 4.3 looks at the interrelation between Article 24 and the wider context of Part III, focusing on specific provisions, identified for their relevance in the establishment of MPAs and the geographical region of the Arctic. Concluding remarks will bring all elements together.

4.1 Emergency Measures in Environmental Protection

The notion of emergency measures is not a novelty in the international law realm[226] as indeed, in response to emergencies that may arise in different contexts (e.g. sanitary, humanitarian, armed conflict-related, nuclear, etc), actions are taken by states or international organizations to mitigate such emergencies. The aim of this section is to provide context on environmental emergencies generally, as regards international and regional treaties that address them, and specific to the law of the sea realm, by looking at UNCLOS and case law of ITLOS to better inform interpretation and potential implications of Article 24 of the BBNJ Agreement regarding the protection of marine biodiversity in ABNJ.

[226] For a historical account, both domestic and international, see Julien Fouret, "Introduction" in Joulien Fouret, "Provisional and Emergency Measures in International Arbitration" (Edward Elgar 2023) 1-17.

4.1.1 Types of Environmental Emergencies

The United Nations Environmental Programme ("UNEP") defines environmental emergencies as "sudden-onset disasters or accidents resulting from natural, technological or human-induced factors, or a combination of these, that cause or threatens to cause severe environmental damage as well as loss of human lives and property."[227] UNEP's definition clearly echoes the BBNJ Agreement's definition of 21 years later – assessed further below – although with some differences. Thus, it is interesting to compare these two definitions: the main difference is that UNEP's definition features the word "sudden" which denotes immediacy of the phenomenon or event that causes damage to the environment, whereas in the BBNJ Treaty's definition there is no reference to such urgency of the event or activity that prompts the measures. In this sense then, for the purpose of the present thesis, the BBNJ Agreement's definition is a better fit to the climate change discourse as its effects typically manifest over longer timeframes, though sudden events such as extreme weather events, may still be attributed to climate change.[228]

The environmental emergencies envisaged by UNEP [229] include, *inter alia*, weapon contamination, public health, humanitarian crisis with environmental impacts, industrial accidents, nuclear and radiological emergencies, marine pollution, transboundary movement of hazardous waste, wildland fires and wildfires;[230] as such, they encompass a wider spectrum of situations where the focus is not only the environment but human health too. Within the wider notion of environmental emergencies, in line with the scope of this research, only emergencies that may threaten marine biodiversity conservation are considered.[231] Indeed, the Agreement goes one step further as it decouples the marine environment from the human element by solely focusing on the conservation and sustainable use of marine biodiversity in ABNJ.

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[227] Governing Council of UNEP, "Further Improvement of Environmental Emergency Prevention, Preparedness, Assessment, Response and Mitigation: Note by the Executive Director" (13 November 2002) UN Doc UNEP/GC.22/INF/5, p.1.
[228] Ben Clarke, "Extreme Weather Impacts of Climate Change: an Attribution Perspective" (2022) 1 *Environmental Research Climate*, 1.
[229] UNEP / UN Office for the Coordination of Humanitarian Affairs Joint Unit, "The Environmental Emergencies Guidelines" (2nd edn 2017).
[230] Ibid, pp.12-15.
[231] Examples of environmental emergencies that may negatively affect land-based biological diversity include, inter alia, natural disasters, chemical spills, nuclear accidents, invasive alien species, deforestation, and disease outbreaks.

4.1.2 Treaties and Conventions Addressing Environmental Emergencies

The current international legal framework for marine emergency response in ABNJ is fragmented, reactive, and lacks cohesion.[232] Nevertheless, a non-exhaustive brief account of the existing legal instruments addressing such emergency measures in the context of the Arctic is appropriate to provide a comprehensive picture of the current legal regime within which the emergency measures provision in the BBNJ Agreement finds itself. The CBD, for instance, mentions emergency measures in the context of impact assessment and minimizing adverse impacts[233] as it calls its Contracting Parties to "promote national arrangements for emergency response to activities or events, whether caused naturally or otherwise, which present a grave and imminent danger to biological diversity." [234] The International Convention on Oil Pollution Preparedness, Response and Cooperation[235] ("OPRC") envisions "emergency action or other immediate response"[236] to oil pollution incidents which entail, *inter alia*, an emergency plan,[237] a reporting procedure,[238] national and regional systems for preparedness and response, [239] as well as international cooperation to such oil pollution incidents. [240] The OPRC emphasises the need to preserve the marine environment in its preamble;[241] threat of damage to the marine environment is what qualifies an occurrence that results in the discharge of oil into an oil pollution incident;[242] the OPRC however does not mention biological diversity anywhere in its text, though a clear link exists between marine environment and biodiversity.[243] The 1972 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter[244] and its 1996 Protocol[245] both contain

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[232] Jiang & Wang (2024) 10-11.
[233] CBD, Article 14.
[234] CBD, Article 14(1)(e).
[235] International Convention on Oil Pollution Preparedness, Response and Cooperation (adopted on 30 November 1990, entered into force on 13 May 1995) ("OPRC").
[236] OPRC, Article 2(2).
[237] OPRC, Article 3.
[238] OPRC, Article 4.
[239] OPRC, Article 6.
[240] OPRC, Article 7.
[241] OPRC, Preamble, recital 2.
[242] OPRC, Article 2(2).
[243] Vito De Lucia, "Regime Interaction Through Concepts. The BBNJ process as a critical juncture in the relation between the Convention on Biological Diversity and the Convention on the Law of the Sea" in Nele Matz-Lück et al, *The Law of the Sea. Normative Context and Interactions with other Legal Regimes* (Routledge 2022) 44-67.
[244] Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted on 13 November 1972, entered into force on 30 August 1975) ("London Convention")
[245] Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted on 7 November 1996, entered into force on 24 March 2006) ("London Protocol").

exceptions in emergency situations to the prohibition of dumping,[246] although in this specific case the emergency rationale is reversed as they relax environmental regulation by allowing dumping in emergencies. Likewise, the International Convention for the Prevention of Pollution from Ships MARPOL[247] includes provisions to a similar effect, although it does not expressly mention emergencies but rather 'incidents', [248] as does the Basel Convention[249] with provisions on procedures for notification and emergency response.[250] Lastly, the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic[251] mentions emergency as one of the defining elements of what constitutes an oil pollution incident.[252] From the above, it is clear that the articulations of emergency measures, or similar ones in response to incidents in the sea, in these instruments are of a reactive nature; the corresponding articulation in the BBNJ Agreement is instead both precautionary and reactive, thus covering a wider range of scenarios.

4.1.3 UNCLOS & ITLOS

As the BBNJ Agreement is an implementing agreement of UNCLOS, it is fitting to look, firstly, at whether UNCLOS includes provisions on emergency measures and, secondly, reviewing the International Tribunal for the Law of the Sea's ("ITLOS") practice in that regard, with a view to formulate likely implications of the BBNJ Treaty. First and foremost, it must be noted that UNCLOS does not explicitly refer to emergency measures, it provides limited options to remedy marine environmental emergencies.[253] As a matter of fact, emergencies under UNCLOS are mentioned only in the following capacities: in relation to orders by[254] and recommendations to[255] the ISA's Council, within the context of pollution

[246] London Convention, Articles V(2) and XIV(4)(e); London Protocol, Articles 8(2) and 18(1)(6).
[247] International Convention for the Prevention of Pollution from Ships (MARPOL 1973) as modified by the Protocol 1978 relating thereto (MARPOL 73/78) (adopted on 2 February 1973, entered into force on 12 October 1983)
[248] Ibid, Article 8, Regulations 13 and 26.
[249] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (adopted on 21 March 1989, entered into force on 5 May 1992).
[250] Ibid, Articles 14(2), 16(1)(g) and (j), 25(1)(e); Annex V A (13), V B (9).
[251] Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (adopted on 15 May 2013, entered into force on 25 March 2016).
[252] Ibid, Article 2(2).
[253] Jiang and Wang (2024) 9.
[254] UNCLOS, Article 162(2)(w).
[255] UNCLOS, Article 165(2)(k).

from vessels,[256] from exploration or exploitation of natural resources of the seabed and subsoil[257] from other installations and devices operating in the marine environment;[258] as well as emergencies as penalties exceptions[259] and in the context of criminal jurisdiction on board of foreign ships.[260] Besides pollution, emergency-related provisions in UNCLOS do not exactly align with emergency measures as intended in the BBNJ Agreement. However, Article 290 of UNCLOS does envisage provisional measures, to be prescribed by a court of tribunal, if it "considers [them] appropriate under the circumstances to preserve the respective rights of the parties to the dispute or to prevent serious harm to the marine environment."[261] As such, provisional measures are directly linked to Part XII of UNCLOS and the conservation of marine living resources, but may only be prescribed during a dispute. In this respect, as they are tied to judicial proceedings, they fundamentally differ from emergency measures, which may instead be adopted outside a dispute by states and international organizations, not only by a court or tribunal.

Within the international law sphere, provisional measures are an instrument commonly used for a variety of purposes,[262] and may indeed be a powerful tool for enforcement and protection in international environmental law.[263] The UNFSA, the second implementing agreement of UNCLOS, also envisages measures that may be taken to prevent damage to fish stocks.[264] They are also enshrined in the International Court of Justice ("ICJ") Statute[265] and ITLOS Statute.[266] Despite the ICJ practice being the most extensive and well documented,[267] as it falls outside of the scope of this essay it will not be assessed. Of great significance is the

[256] UNCLOS, Article 194(3)(b).
[257] UNCLOS, Article 194(3)(c).
[258] UNCLOS, Article 194(3)(d).
[259] UNCLOS, Article 18(3).
[260] UNCLOS, Article 27(3).
[261] UNCLOS, Article 290(1).
[262] They may refer, *inter alia*, to preserving the rights of parties, maintaining the status quo, preventing harm to the marine environment; see Justine Bendel, "The Provisional Measures Order in International Environmental Disputes: A Case for International Courts and Tribunals" (2019) 88 *Nordic Journal of International Law*, 494-495 ("Bendel (2019)").
[263] Bendel (2019) 489-524.
[264] UNFSA, Article 31(2).
[265] ICJ Statute, Article 41.
[266] UNCLOS, Article 290 read in conjunction with ITLOS Statute, Article 25.
[267] For broader discussion on this see: Bendel (2019) 506-523; Justine Bendel, "Prevention and provisional measures of protection" in Justine Bendel, *Litigating the Environment: Processes and Procedures Before International Courts and Tribunals* (Edward Elgar 2023) 148-179 ("Bendel (2023)").

fact ITLOS is concerned with the preservation of its parties' rights but also the protection of the marine environment, seen as global commons.[268]

In *Ghana – Côte d'Ivoire*, ITLOS confirmed that protecting the marine environment could be regarded as a standalone ground for ordering provisional measures,[269] although in this case the Tribunal concluded that there lacked sufficient evidence of "imminent risk of harm to the marine environment"[270] to issue provisional measures. This last point is important to mention for the understanding of 'imminency of the harm' (assessed further below in the relevant provision of the BBNJ) and the central role played by evidence in such situations.[271] In *Southern Bluefin Tuna,* ITLOS found that "measures should be taken as a matter of urgency to preserve the rights of the parties and to avert further deterioration of the southern Bluefin tuna stock"[272] and thus ordered provisional measures.

Another relevant feature of provisional measures to highlight is their nexus with precaution. Judge Treves in his separate opinion in the *Southern Bluefin Tuna* explicitly indicated that a precautionary approach is inherent to the notion of provisional measures, regretting that ITLOS did not make such an explicit statement.[273] The purpose of provisional measures is their fast deployment to quickly respond to threats and other situations to the extent that the situation so requires, as they may be terminated or replaced once the situation that necessitates them ceases. As ICJ Judge Cançado Trindade noted,[274] they are "endowed with a preventive character, being anticipatory in nature, looking forward in time."[275] Their interim nature is a desirable characteristic as it allows them to be changed and adapted to new circumstances and information.[276]

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[268] Bendel (2023) 155.
[269] Dispute Concerning Delimitation of the Maritime Boundary Between Ghana and *Côte* d'Ivoire in the Atlantic Ocean (Ghana/*Côte d'Ivoire*), Case No 23 (25 April 2015), ITLOS Provisional Measures, para. 73.
[270] Ibid, para.67.
[271] For a comparison between legal and factual harm see Bendel (2019) 509-510. In essence, given that in the context of environmental protection, harm to the marine environment may only be factual, a higher threshold to demonstrate the suffered harm is called for.
[272] Southern Bluefin Tuna cases (New Zealand v Japan/ Australia v Japan) Provisional Measures, Order of 27 August 1999 ITLOS Reports 1999, paras. 67 and 80.
[273] Separate Opinion of Judge Treves, Southern Bluefin Tuna cases (New Zealand v. Japan/ Australia v. Japan) (27 August 1999), ITLOS, Provisional Measures, paras.8-9.
[274] Bendel (2023) 158-159.
[275] Separate Opinion Judge of Cançado Trindade, Request for Interpretation of the Judgment of 15 June 1962 in the Case Concerning the Temple of Preah Vihear (Cambodia v Thailand) (Provisional Measures) (2011) ICJ 2011 P 537, para 64.
[276] Jonathan B. Wiener, "Precautionary Principle" in Michael Faure, *Encyclopaedia of Environmental Law: Volume VI* (Edward Elgar Publishing 2018) 174, 182; Jiang and Wang (2024) 19.

4.2 Emergency Measures in the BBNJ Agreement

Emergency measures are the subject of Article 24 of the BBNJ Agreement. The lack of *travaux préparatoires*, jurisprudence, state practice and scholarly writing on emergency measure calls for an analysis of the BBNJ Agreement's preamble and drafting history. This section will thus analyse Article 24 in three steps. Firstly, section 4.2.1 will outline the rules of treaty interpretation; secondly, section 4.2.2 will assess in detail the key elements of the provision; section 4.2.3 will place the provision in the wider context of Part III of the BBNJ Agreement. It should be noted that, even though treaty interpretation would typically commence from the literal interpretation of the text in question, given the considerable length of the provision, an unusual approach is adopted instead whereby the preamble and drafting history are assessed in subsection 4.2.1, before delving into textual interpretation analysis in subsection 4.2.2.

4.2.1 Treaty Interpretation Rules

The authoritative source on treaty interpretation rules is the 1969 VCLT.[277] Article 31 of the VCLT, considered by the ICJ as reflecting customary international law, provides that "a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose."[278] The preamble and annexes are also to be included in the interpretation of any treaty text.[279] To provide further interpretive assistance, any agreement relating to the treaty made among the parties in connection with the treaty conclusion[280] or any instrument made by one or more parties in connection with the conclusion of the treaty accepted by others as instrument to the treaty[281] are to be considered integral part of the context of that treaty. The VCLT envisages supplementary means of interpretation, such as "the preparatory work of the treaty and the circumstances of its conclusion"[282] either to confirm the meaning that stems from applying the standard rules of interpretation under Article 31 of the VCLT or when application of

[277] VCLT, Article 2.
[278] VCLT, Article 31(1).
[279] VCLT, Article 31(2).
[280] VCLT, Article 31(2)(a).
[281] VCLT, Article 31(2)(b).
[282] VCLT, Article 32.

Article 31 would result in ambiguous and obscure meaning[283] or a manifestly absurd or unreasonable result.[284] In the case of the BBNJ Agreement, no such additional instruments were submitted alongside it. No official preparatory work, judicial practice nor state practice are available (as the treaty is not yet in force), and only one[285] academic article has been published on the emergency measures provision of the BBNJ Agreement, at the time of submission of this research. Therefore, supplementary means of interpretation such as the drafting history, statements by states and international organizations, as well as circumstances acquire even more relevance.

Preamble

The preamble, a staple element of international treaties and conventions, holds an important interpretative role. Despite lacking legal force, as they do not give rise to rights and obligations for the parties, preambles have an explanatory function, rather than a regulatory one.[286] They typically do not contain substantive elements,[287] though their interpretative function informs the object and purpose of the treaty at hand.[288] The BBNJ Agreement's preamble follows this custom by reiterating the objective of the Agreement outlined in Article 2 – "to ensure the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction" – throughout its recitals.[289] Furthermore, Lothian indicates that preambles may include incorporative clauses that build upon and/or refer to relevant treaties, international customary law or UN resolutions;[290] the BBNJ Treaty does this by recalling, in its very first recital, the relevant provisions of UNCLOS emphasising Article 192 on the duty to protect and preserve the marine environment.[291] The preamble also refers to the UN Declaration on the Rights of Indigenous People. Notably, the BBNJ Agreement's preamble also mentions climate change in the context of its impacts on marine ecosystems causing

[283] VCLT, Article 32(a).
[284] VCLT, Article 32(b).
[285] Jiang and Wang (2024).
[286] Rainer Lagoni, "Preamble" in Alexander Proelss, *United Nations Convention on the Law of the Sea A Commentary* (C.H. Beck, Munich, 2017) 3.
[287] Sarah Lothian, "The BBNJ preamble: more than just window dressing" (2023) 153 *Marine Policy*, 1, 2 ("Lothian (2023)").
[288] VCLT, Article 31(2); Lothian (2023) 2.
[289] BBNJ preamble, recitals 4 and 11.
[290] Ibid.
[291] BBNJ, preamble, recital 1.

biological diversity loss and degradation of oceans' ecosystems.[292] Even though Lothian highlights that singling out specific threats risks minimizing other activities harmful to the environment,[293] it seems that the reference to climate change, at the opening of the preamble, through the operative words 'recognizing the need to address' would indicate the drafters' intention to take concrete action to mitigate the effects of climate change and, potentially, steer the application of the BBNJ Agreement's provisions in that direction. Lothian's criticisms that the inclusion of climate change in the preamble should have warranted mention of the UNFCC climate change regime,[294] especially when considering that UNCLOS and the UN Declaration on Indigenous Rights were mentioned, is perfectly reasonable and, by going a step further, reference to the Paris Agreement's goals would have conferred more tangibility to the otherwise abstract inclusion of climate change. On a similar note, with regards to elements incorporated in the preamble, there is no mention of international environmental law ("IEL") principles and approaches,[295] particularly the precautionary principle, ecosystem-based management. However, the provision on emergency measures is a clear operationalization of the precautionary principle though entailing reactive measures too, and, whilst Lothian is correct in observing that the IEL principles could have been included in the preamble, their explicit mention in Article 7 and Article 24[296] has stronger normative power. Article 7 of the BBNJ Agreement elevates in fact the listed IEL principles and approaches as guidelines of the Parties' action in achieving the Agreement's objective and in guiding the application of emergency measures' provisions.

Drafting History

This section assesses the most pertinent interventions and statements submitted by states and other organizations during the BBNJ Agreement's negotiations.[297] As part of the negotiations, some closed-door discussions, small group discussions and informal working groups were held whereby matters were discussed orally by delegations. This resulted in limited official

[292] BBNJ preamble, recital 3.
[293] Lothian (2023) 8.
[294] Lothian (2023) 8.
[295] BBNJ preamble; Lothian (2023) 9.
[296] See Articles 24(1) and (3).
[297] Such interventions and statements are publicly available on the UN website at: <https://www.un.org/bbnj/content/documents> accessed 8 April 2024.

statements and the need to rely on summary reports by the International Institute for Sustainable Development. Emergency measures were firstly suggested by the High Seas Alliance [298] and Greenpeace [299] during the Preparatory Committee. During the Intergovernmental Conferences ("IGC"), they were addressed sporadically.[300] In one of IGC-1's informal working group, interim measure provisions and temporary ABMTs were discussed as options to prevent areas in need of protection from becoming degraded pending an MPA establishment, considered in line with the precautionary principle, and as temporary solutions to allow restoration of species or ecosystem components, these two approaches were deemed "not mutually exclusive."[301] In an informal working group during IGC-2, the Holy See called for the inclusion of emergency measures.[302] During an informal working group of IGC-3, New Zealand supported by IUCN and the High Seas Alliance called for inclusion of emergency measures or interim measures to be taken if the need arises "when a natural or human-caused phenomenon has, or is likely going to have an adverse effect on" biodiversity beyond national jurisdiction.[303] Emergency measures were also mentioned at IGC-4 in the context of institutional arrangements by the Core Latin American Group[304] and regarding EIAs by the International Cable Protection Committee.[305] A version more akin to the current

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[298] High Seas Alliance, "Suggestions for Consideration by the Preparatory Committee" (March 2016) <https://www.highseasalliance.org/wp-content/uploads/2013/04/HSASubmissiontoPrepComNRDCfinal.pdf> accessed 5 April 2024.

[299] Greenpeace, "Ten Steps to Marine Protection: Greenpeace's recommendations on the identification, designation, management and enforcement of marine protected areas and marine reserves in areas beyond national jurisdiction under the new UN Ocean Agreement" (July 2016) <https://www.un.org/depts/los/biodiversity/prepcom_files/greenpeace2.pdf> accessed 5 April 2024; Greenpeace, "Options for Legal Text on a process for the designation and implementation of a representative network of Marine Protected Areas, including Marine Reserves in Areas Beyond National Jurisdiction under the new instrument – Greenpeace's rolling submission to the Third Session of the Preparatory Process (PrepCom 3)" (March 2017) < https://www.un.org/depts/los/biodiversity/prepcom_files/rolling_comp/greenpeace3.pdf> accessed 5 April 2024.

[300] For a detailed discussion, see: Jiang and Wang (2024) 20-21.

[301] IISD Earth Negotiation Bulletin, "Summary Report, 4-17 September 2018" https://enb.iisd.org/events/1st-session-intergovernmental-conference-igc-international-legally-binding-instrument-12 accessed 25 May 2024.

[302] NB: no information as to the rationale was found in the official summary report. See: IISD Earth Negotiation Bulletin, "Summary Report, 1 April 2019" https://enb.iisd.org/events/2nd-session-intergovernmental-conference-igc-conservation-and-sustainable-use-marine/daily-2 accessed 25 May 2024.

[303] IISD Earth Negotiation Bulletin, "Summary Report, 28 August 2019" https://enb.iisd.org/events/3rd-session-intergovernmental-conference-igc-conservation-and-sustainable-use-marine/daily-0 accessed 25 May 2024.

[304] UNGA, "Textual proposals submitted by delegations by 20 February 2020, for consideration at the fourth session of the Intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (the Conference), in response to the invitation by the President of the Conference in her Note of 18 November 2019 (A/COND-.232/2020/3) – Article-by-article compilation" (15 April 2020) A/CONF.232/2022/INF.1 < https://www.un.org/bbnj/sites/www.un.org.bbnj/files/a_conf232_2022_inf1_textualproposalscompilation_articlebyarticle15april2020_rev.pdf> p. 246.

[305] Ibid, p. 346.

Article 24 was advanced during IGC-5 and included in the Further Revised Draft of June 2022[306] as "measures to be applied on an interim or emergency basis."[307] Delegates discussed language on interim or emergency measures in small group discussions.[308] In discussing examples of threats to the marine environment (e.g. marine heatwaves, underwater vulcanic eruptions, sudden expansion of invasive alien species) the need to "future-proof the new agreement" and "imagine the unexpected"[309] was strongly highlighted. This would indicate the choice of language that spans from disasters to natural phenomena, with a view to include all possible scenarios, even ones not contemplated yet during the small group discussions. It was also mentioned that the suggested formulation on emergency measures drew from the ones contained in the UNFSA and the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean[310] ("SPRFMO").[311] In UNFSA, within the section on precautionary principle,[312] conservation and management measures are to be taken on an emergency basis "if a natural phenomenon has a significant adverse impact on the status of straddling fish stocks or highly migratory fish stocks" to ensure the fishing activity does not exacerbate the adverse impact or in cases when fishing activity may pose serious threats to the sustainability of stocks.[313] Emergency measures shall be temporary and based on the best technology evidence. The UNFSA's formulation does not set an upper time-limit for the use of such emergency measures but places emphasis on the sustainability of the fish stock in question, with a clear future-outlook. The SPRFMO includes emergency measures in the provision on conservation and management measures.[314] Emergency measures may be adopted if fishing presents a serious threat to the sustainability of fishery resources or the wider marine ecosystem "in which these fishery resources occur or when a natural phenomenon or human caused disaster has, or is likely to have, a significant adverse

[306] Further revised draft text of an agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (1 June 2022) A/CONF.232/2022/5.
[307] Further Revised Draft, Article 48(6).
[308] See: IISD Earth Negotiation Bulletin, "Summary Report, 18 August 2022" <https://enb.iisd.org/marine-biodiversity-beyond-national-jurisdiction-bbnj-igc5-daily-report-18aug2022> accessed 25 May 2024; IISD Earth Negotiation Bulletin, "Summary Report, 19 August 2022 <https://enb.iisd.org/marine-biodiversity-beyond-national-jurisdiction-bbnj-igc5-daily-report-19aug2022> accessed 25 May 2024.
[309] IISD Earth Negotiation Bulletin, "Summary Report, 19 August 2022" <https://enb.iisd.org/marine-biodiversity-beyond-national-jurisdiction-bbnj-igc5-daily-report-19aug2022> accessed 25 May 2024.
[310] Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (adopted on 4 November 2009, entered into force 24 August 2012) ("SPRFMO").
[311] IISD Earth Negotiation Bulletin, "Summary Report, 19 August 2022" <https://enb.iisd.org/marine-biodiversity-beyond-national-jurisdiction-bbnj-igc5-daily-report-19aug2022> accessed 25 May 2024.
[312] UNFSA, Article 6.
[313] UNFSA, Article 6(7).
[314] SPRFMO, Article 20.

impact on the status of fishery resources" to ensure fishing activities do not exacerbate the threat or adverse impact on the fish stock.[315] The next paragraph indicates that emergency measures shall be based on the best scientific evidence available, they shall be temporary and "must be reconsidered for decision at the next meeting of the Commission" and, importantly, such measures shall not be open to the objection procedure.[316]

A draft provision on emergency measures was finally discussed on 24 August 2022,[317] at IGC-5, to be revised at a later stage. From that moment onwards the provision was amended several times. Only the relevant changes are addressed. The High Seas Alliance proposed to remove the mention of "activity posing a threat" but added the requirement that "the effect or potential effects of the phenomenon or disaster are addressed;"[318] it also suggested removing the paragraph that defines when measures may be considered necessary[319] as it deemed "serious threat" too high of a threshold, favouring one single threshold – "has, or may have significant adverse impact."[320] Delegations noted that the focus should be on emergency rather than activities with negative effects;[321] therefore, "interim" was removed as it was considered inherently included in the wording "emergency measures."[322] Some delegations considered appropriate to move the provision on emergency measures to the part on ABMTs, including MPAs, as it was understood that such emergency measures would be area-based,[323] which indeed occurred in the subsequent version of the treaty: the Further Refreshed Draft Text of December 2022.[324] Other notable changes between the 2022 Further Refreshed Draft Text[325] and the 2023 final BBNJ Agreement relate to the removal from the latter of the term "activity" as an event that may trigger such emergency measures, alongside natural

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[315] SPRFMO, Article 20(5)(a).
[316] SPRFMO, Article 20(5)(b).
[317] IISD Earth Negotiation Bulletin, "Summary Report, 24 August 2022" <https://enb.iisd.org/marine-biodiversity-beyond-national-jurisdiction-bbnj-igc5-daily-report-24aug2022> accessed 25 May 2024.
[318] UNGA, Textual Proposals Submitted by Delegations by 25 July 2022 for consideration at the fifth IGC on the Adoption of a Legally Binding Instrument – Article-by-article compilation (1 August 2022) A/CONF.232/2022/INF.5, p.216.
[319] Ibid.
[320] Ibid, 217.
[321] IISD, Daily Report of 19 August 2022 – 5th Session of the Intergovernmental Conference (IGC) on the BBNJ (19 August 2022) <https://enb.iisd.org/marine-biodiversity-beyond-national-jurisdiction-bbnj-igc5-daily-report-19aug2022> accessed 5 April 2024.
[322] Jiang and Wang (2024) 21.
[323] Jiang and Wang (2024)
[324] Further Refreshed Draft Text of an Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (12 December 2022) A/CONF.232/2023/2, Article 20ante ("Further Refreshed Draft Text").
[325] Further Refreshed Draft Text, Article 20 ante (b).

phenomenon or human-caused disaster;[326] the inclusion in the final version of the precautionary approach upon which to base emergency measure;[327] the addition of the expression "shall terminate … or by measures adopted by a relevant legal instrument or framework or relevant global, regional, subregional or sectoral body, or by decision of the Conference of the Parties when the circumstances that necessitated the measure cease to exist;"[328] replacing the vague "significant adverse effect" in the 2022 Further Refreshed Draft Text with "serious or irreversible harm" to the marine environment in the final version; the replacement of ABMTs, including MPAs in the final draft version with the more general "measures" that may be adopted on an emergency basis in the final BBNJ Agreement's version; and lastly, the addition of the consultation requirement with relevant legal instruments or frameworks or relevant global, regional, subregional or sectoral bodies ("IFBs") in the adopted version, effectively creating a new procedural requirement. The amendments, submitted statements, and explicit reference to the UNFSA and SPRFMO's emergency provisions are valuable elements that inform, to the extent possible, the intention of the drafters to be borne in mind in the interpretation of Article 24.

4.2.2 Article 24 of the BBNJ Agreement: Analysis

Emergency measures are found in Article 24 of the BBNJ Agreement. The first paragraph entrusts the COP with the duty to adopt measures on an emergency basis, only if considered necessary. The purpose of emergency measures is to protect marine biodiversity in a pre-emptive way from the threat of serious or irreversible harm or, if an event that caused such harm already occurred, in a reactive way to not further exacerbate it. This section represents the core of the thesis. The analysis addresses each paragraph individually, however, certain elements deemed of relevance are singled out from the provisions and examined either individually or in relationship with one another, as needed. Those elements are the following: the objective of the provision, the event that causes harm, the threshold of harm, precaution, necessity, urgency, consultation, 'not undermine' provision, and procedures and guidance in the establishment of emergency measures.

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[326] BBNJ Agreement, Article 24(1) cf. Further Refreshed Draft Text, Article 20 ante.
[327] BBNJ Agreement, Article 24(3) cf. Further Refreshed Draft Text, Article 20 ante (b). Jiang and Wang (2024) 23.
[328] BBNJ Agreement, Article 24(5).

Objective – Article 24(1)

The objective of Article 24 is arguably not ambitious enough as the "harm" intended by the provision, as the aim of emergency measures is "to ensure that the serious or irreversible harm is not exacerbated." In light of the emergency situation, it would have been more fitting for the intended remedy to be aimed at terminating the harm, not merely refrain from exacerbating it. That is unless a reading of 'exacerbate' would entail measures that cease the damage. Instead, from an objective reading of the expression, it almost appears to entail some degree of acceptance of the harm. Not including further specification of the meaning of "not exacerbate" is a missed opportunity to ensure environmental protection by avoiding such ambiguity and unnecessary vagueness.

Notably, climate change is expressly mentioned as one of the forms of degradation of the marine environment in ITLOS' advisory opinion. [329] This further strengthens the appropriateness of the current research analysis on the effects of climate change on Arctic marine biodiversity.

Natural phenomenon or human-caused disaster – Article 24(1)

What constitutes an emergency is the fact that a "natural phenomenon or human-caused disaster" *has* caused serious or irreversible harm to the marine biodiversity in ABNJ or the likelihood that such damage *will* be caused, pursuant to Article 24(1). The physical events (either natural or human-caused) are what sets in motion the chain of assessments (urgency, necessity, etc) that may ultimately bring about the adoption of emergency measures. From the wording, what type of natural phenomenon or human-caused disaster are intended is not specified, though that is irrelevant for, so long as the event causes serious or irreversible harm to the marine biodiversity, then the first criterion would be fulfilled. The expression "natural phenomenon or human-caused disaster" does not necessitate an analysis scenarios on whether one considers extreme climate-events to be of a natural or anthropogenic cause, as it is scientifically proven that humans cause climate change.[330] Moreover, if one considers events

[329] Ibid, para. 400.

[330] IPCCC, "Climate Change 2007: The Physical Science Basis. Summary for Policymakers, Intergovernmental Panel on Climate Change 2007" (IPCC 2007).

currently happening in the Arctic (e.g. sea ice loss, ocean acidification, marine heat waves) as 'natural phenomena,' they would certainly fulfil the criteria of the provision; while if one instead assumes that (some of) the consequences of climate change may be disastrous, qualifying thus the events happening in the Arctic as 'human-caused disasters,' this would also include climate change-related events in the conditions that trigger the provision. Examples of potential human-caused disasters in the Arctic, driven by climate change, include oil spills or introduction of invasive alien species through ships. However, it ought to be underlined that climate change-related events are not the only ones that may trigger emergency measures, other events and processes may cause the adoption of Article 24.

Serious or Irreversible Harm – Article 24(1)

The harm caused by the natural phenomenon or human-caused disaster must be "serious or irreversible." No further clarification as to what "serious" and "irreversible" mean is offered. While it seems easier to indicate when harm is 'irreversible,'[331] by observing the physical changes occurred, the same cannot be said for the term 'serious.' The 2001 International Law Commission Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries[332] ("ILC Draft Articles") may provide some clarification. The ILC Draft Articles outline several qualifications of harm: significant, serious, substantial, grave[333] - their order mirrors the incremental level of harm the terms refer to. Even though 'serious harm' is not defined *per se*, it is compared to 'significant harm,' as such a brief synopsis is relevant to potentially inform the interpretation of 'serious harm' in the context of Article 24. The ILC Draft Articles clearly state that the word 'significant' is ambiguous and a case-by-case analysis must take place to confirm whether the harm assessed meets the threshold of significant harm.[334] Such an assessment "involves more factual determination than legal."[335] 'Significant' refers to something "more than detectable, but need not be at the level of

[331] For an in-depth analysis of irreparable harm see Noradèle Radjai & Anna Kurshunova, "Risk of Irreparable Harm (Necessity of Imminent Danger or Serious Prejudice" in Julien Fouret, *Provisional and Emergency Measures in International Arbitration* (Edward Elgar 2023) 366-400 ("Radjai & Ku Kurshunova (2023)").
[332] ILC Draft Articles on Prevention of Transobundary Harm from Hazardous Activities, with Commentaries (2001) *Yearbook of the International Law Commission*, vol II, Part two, p. 151 ("ILC Draft Articles (2001)").
[333] ILC Draft Articles (2001)152.
[334] Ibid.
[335] Ibid.

"serious" or "substantial"."[336] The 'significant harm' must lead to "real detrimental effects" which must be measurable with factual and objective standards.[337] Analysing serious harm, in the emergency measures provision, with the aid of the ILC Draft Article`s explanation, it is clear that 'serious harm' entails more severe, evident and concrete consequences than 'significant harm' would. The *Trail Smelter* Arbitration further reiterates that harm arises "when the case is of serious consequences and the injury is established by clear and convincing evidence."[338] No further indications are offered. UNCLOS also refers to "serious harm to the marine environment" in Article 290 on provisional measures[339] while Article 206 uses the expression "significant and harmful changes" in relation to the assessment of potential effects of activities. Thus, ascertaining the presence of serious harm to the marine biodiversity, in order to adopt emergency measures, necessitates a case-by-case analysis, whereby evidence plays a crucial role.

Bendel labels a "missed opportunity"[340] the fact that in *Land Reclamation*[341] and *MOX Plant*[342] cases, ITLOS avoided ordering provisional measures,[343] despite often mentioning the prevention of serious harm.[344] It seems that, in the absence of strong evidence demonstrating that the event or action caused the damage in question, international tribunals would be more reluctant in granting provisional measures.[345] In the *Mox Plant* case, Judge Treves indicated the rationale for not issuing provisional measures was the fact that the evidence was deemed not sufficiently substantial and focused "to permit discussion of whether or not such evidence was conclusive" to indeed prove the causal relationship.[346] The *Southern Bluefin Tuna*[347] case represents an exception as the proof of harm in question was confirmed by both parties that acknowledged the status of the stock had become endangered. However, in the case of disputes at ITLOS concerning the protection of marine environment, proving a risk of

[336] Ibid.
[337] Ibid.
[338] Trail Smelter Arbitration (United States v. Canada) (1938 and 1941) 3 R.I.A.A. 1905, p. 1965.
[339] UNCLOS, Article 290.
[340] Bendel (2019) 498; Bendel (2023) 164-165.
[341] Case Concerning Land Reclamation in and Around the Straits of Johor (Malaysia v. Singapore) (8 October 2003) ITLOS, Provisional Measures, paras. 64, 106(2).
[342] The MOX Plant Case (Ireland v. United Kingdom) No 10 (3 December 2001), ITLOS, Provisional Measures, paras. 63-64, 73.
[343] See: Bendel (2019) 509-510; Bendel (2023) 164-165.
[344] Bendel (2019) 498-499; Bendel (2023) 155-156.
[345] Bendel (2019) 509-510; Bendel (2023) 164-165.
[346] Separate Opinion of Judge Treves, The MOX Plant Case (Ireland v. United Kingdom) (25 October 2001) ITLOS, Provisional Measures, para. 8.
[347] Southern Bluefin Tuna cases (New Zealand v. Japan/Australia v. Japan) (17 August 1999) ITLOS, Provisional Measures, para. 71.

irreparable harm is not sufficient as the risk must relate to the rights of parties in question;[348] this is very different from the framework now created by the BBNJ Treaty as the marine biodiversity is to be protected in its own right, disregarding the parties to the Agreement.

The evidence brought forward thus plays a crucial role as does the entity or body in charge of assessing the gravity of the damage in question, however, nowhere does paragraph (1) indicate who that entity or body is. It would be reasonable to assume that role is held by the STB, instead, only the COP is mentioned in Article 24(1) regarding the decision to adopt emergency measures, which may indicate the COP is intended to hold such role. This would not be ideal as the STB, due to the composition of its members (discussed further below), would be better suited.

Precaution and Prevention – Article 24(1)

As mentioned, what triggers the possibility to adopt emergency measures is the risk of causing serious or irreversible harm, highlighting the need for precautionary, preventive or reactive action. This section's analysis is concerned with precaution and prevention, although precaution warrants a more detailed analysis. The expression "likely to cause" serious or irreversible harm embodies the precautionary approach as it reproduces the definition contained in Principle 15 of the Rio Declaration[349] which also refers to "threats of serious or irreversible damage." Article 24(1) uses the word "harm" while the Rio Declaration employs "damage." The Oxford Learner's Dictionary defines harm as "damage or injury that is caused by a person or event,"[350] while damage entails a meaning that refers mainly to the physical aspect as "physical harm caused to something which makes it less attractive, useful or valuable" or "harmful effects on somebody/something.[351] In a way, harm seems to have a more general meaning than damage and as such may incorporate more scenarios, making it a valuable interpretation for wider-encompassing protection of marine biodiversity. The key elements of precautionary measures must be underscored: precaution is triggered only when

[348] Bendel (2019) 509-510.
[349] UNGA, Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992) Principle 15.
[350] Oxford Learner's Dictionaries, "Harm" <https://www.oxfordlearnersdictionaries.com/definition/english/harm_1?q=harm> accessed 25 April 2024.
[351] Oxford Learner's Dictionaries, "Damage" <https://www.oxfordlearnersdictionaries.com/definition/english/damage_1?q=damage> accessed 25 April 2024.

there is uncertainty *and* the risk of a certain threshold of harm, whereas prevention arises when is harm is certain and irreversible.

In the case of Arctic marine biodiversity, as explained in section 2.1, the lack of baseline data on its biodiversity renders the assessment of future impact of climate change on the marine biodiversity uncertain and insufficient; scientists clearly stated that the effects of climate change on biodiversity, ecosystem and habitats are unknown. This uncertainty makes the application of the precaution even more relevant in the Arctic context, arguably warranting the adoption of emergency measures in and of itself.

An interesting consideration relating to the precautionary principle or approach is the fact that its generally understood meaning refers to the fact that scientific uncertainty should not prevent from carrying out specific actions. In the BBNJ Agreement's, what is remarkable is that not only man-made disasters may trigger the application of precaution through emergency measures to prevent harm to marine environment, natural phenomenon may do so too. Whether the goal is caused by humans or natural processes, the goal is the same: protecting biodiversity in an emergency situation. In a way then, it could almost be said that the BBNJ Agreement by placing nature and man on the same level, in terms of events that can be caused by them, expands what may fall under the scope of precautionary principle definition and so places under the scope of emergency measures more situations, thus guaranteeing a broader protection range to marine biodiversity in ABNJ.

Reaction – Article 24(1)

Besides precaution and prevention of harm, paragraph (1) is also designed as a reaction to harm that has already occurred. Also pertinent to consider is whether the reactionary nature of emergency measures may be applied retroactively. Since the wording of the article states "has occurred" and does not provide any temporal limit as to when the harm to the marine environment has to have occurred, it is natural to question whether instances of harm that occurred previously to the entry into force of the BBNJ Agreement may also be relevant. For instance, if there was a confirmed case of either oil spill or effect of climate change that has been proven to damage the marine biodiversity in the area in question, then the first precondition of this article would be confirmed. When applying such logic to the Arctic region, this becomes even more complex as numerous scientific reports by the Arctic

Council's Working Groups already confirm the deteriorating condition of marine biodiversity, particularly in light of climate change. Hence it may be questioned whether the confirmed degraded state of Arctic marine biodiversity in the Central Arctic Ocean would be sufficient to prompt the application of emergency measures to prevent the harm to biodiversity from being further exacerbated.

Paragraph (1) of Article 24 may be said to consolidate the precautionary aspect of provisional measures (see section 4.1.3) with the reactive aspect of emergency measures contained in other international environmental treaties and conventions (see section 4.1.2). This is a positive development as it essentially created two ways of triggering emergency measures, thus expanding the applicable scenarios that would require further protection of marine biodiversity through the use of MPAs for instance, particularly valuable in the context of the Arctic Ocean.

Necessity – Article 24(1) and (2)

Another essential expression of paragraph (1) is "if necessary" which refers to the measures the COP may adopt on an emergency basis to ensure the serious or irreversible harm is not exacerbated. An objective reading of the text suggests that the emergency measures *must be necessary* to ensure the harm is not exacerbated or prevented.

Paragraph (2) of Article 24 ties with the necessity requirement of paragraph (1) as it describes what measures would be considered necessary. Only *after* consultation with the relevant IFBs, if the serious or irreversible harm *cannot* be managed in a timely manner either by applying other articles of the BBNJ Agreement or by a relevant IFB, then the measures in question would be deemed necessary. What measure the IFB may adopt is not mentioned.

The two necessity requirements, in paragraph (1) and (2) of Article 24, respectively, appear to originate from different angles: in the first case, 'necessity' refers to the decisions on measures needed to address the harm in question (precautionary, preventive or reactionary), whilst in the second case, the notion of necessity is concerned with the actual measures to be adopted, which are labelled *necessary* only after certain procedural steps have occurred (i.e. application of other articles in the BBNJ Agreement, of which the most useful ones are found in Part III, or by intervention of an IFB), including consultation. Hence, the 'necessary'

requirement of paragraph (1) of Article 24 seems to be more of a substantive nature than the one in paragraph (2), which conversely appears more procedural. In the 21st May 2024 advisory opinion on climate change[352] delivered by ITLOS, the Tribunal provides guidance in the interpretation of the term 'necessary' referring to necessary measures to prevent, reduce and control pollution of the marine environment (Article 194(1)) of UNCLOS. While pointing out that Article 194(5) does not indicate criteria to determine what measures may be 'necessary,'[353] it draw attention to the ordinary meaning of the word: "indispensable", "requisite", or "essential. Thus, in the context of Article 194, 'necessary' "should be understood broadly."[354]. It is further reiterated that necessary measures include both measures necessary to prevent, reduce and control marine pollution as well as "other measures that make it possible to achieve that objective."[355] Therefore, by applying the same interpretation to Article 24(1), emergency measures will be considered necessary if they entail measures that will make it possible to ensure the serious or irreversible harm is not exacerbated and may include additional measures beyond ABMTs, and MPAs - the material scope of Part III. It is submitted that within the broader understanding of emergency measures, EMPAs are indicated as the most fitting measure for the protection of the vulnerable and degraded Arctic biodiversity, since their sole focus is on conservation. This does not mean, however, that EMPAs may not be complemented by other emergency measures necessary to achieve the goal of Article 24(1).

Urgency – Article 24(2)

Paragraph (2) stresses that, upon consultation with IFBs, if the serious or irreversible harm cannot be managed in a timely manner by an IFB or by applying other articles of the Agreement, then emergency measures shall be considered necessary. The expression "timely manner" indicates some sort of urgency to manage the harm. However, the omission of any temporal parameters to that end is unfortunate and leaves wide discretion of interpretation. For instance, including the indication of a set number of days or weeks within which the

[352] Request for an Advisory Opinion Submitted by the Commission of Small Island States on Climate Change and International Law (Commission of Small Island States) (21 May 2024) ITLOS, Advisory Opinion ("ITLOS Advisory Opinion on Climate Change").
[353] ITLOS Advisory Opinion on Climate Change, para 402.
[354] ITLOS Advisory Opinion on Climate Change, para. 203.
[355] Ibid.

intervention by an IFB or the application of another provision of the BBNJ Agreement ought to have occurred, after whose expiration the COP would be allowed to adopt the needed measures, would have been highly valuable.

Urgency is considered one of the main standards to be satisfied in applications of provisional measures.[356] Although urgency is not in Article 41 of the ICJ Statute on the issuance of provisional measures, it is read implicitly in the formulation "The Court shall have the power to indicate, if it considers that circumstances so require, any provisional measures, which ought to be taken to preserve the respective rights of either party."[357] Urgency is regarded as the "temporal requirement that the applicant cannot wait for longer before it seeks relief from the relevant adjudicatory body in order to protect its rights."[358] In the emergency measures' provision too, urgency is not explicitly mentioned as such, however the 'timely manner' management of the serious or irreversible harm seems to embody the concept of urgency in the sense that if the measures are not adopted then the marine biodiversity would be harmed.

Urgency is also inextricably linked to harm: some Tribunals consider 'irreparable harm' as a standalone criterion alongside urgency and necessity, while others consider it as part of the necessity or urgency criteria.[359] In Article 24, urgency is tightly linked to 'serious or irreversible harm' to the marine biodiversity and the need for rapid emergency measures to prevent further exacerbating such harm. Separating one element from another does not seem beneficial and thus, when conducting the test of whether measures in question may be considered as emergency ones, both elements ought to be taken into account.

Consultation – Article 24(2)

Another noteworthy element is the requirement of consultation with IFBs to ascertain whether the measures are necessary. In this instance too what would constitute fulfilment of the "consultation" requirement is unclear: would mere request of input from the mentioned instruments or bodies suffice? Would a request for submission of IFBs' statements be

[356] Christian Leathley, "Urgency" in Julien Fouret, *Provisional and Emergency Measures in International Arbitration* (Edward Elgar 2023) 342 ("Leathley (2023)").
[357] ICJ Statute, Article 41(1); Leathley (2023) 343.
[358] Leathley (2023) 342.
[359] Radjai & Kurshunova (2023) 363-364.

considered an equal consultation as holding a meeting between the COP and the relevant IFBs? What would happen in cases of overlapping competence by more than one IFB? In the formulation of IFBs, does the disjunctive "or"[360] suggest that simply consulting one of the mentioned instruments or bodies would fulfil the consultation condition? This last suggestion would make sense if seen together with the "timely manner" specification: given that time is clearly a crucial factor, it follows that, to satisfy such temporal criteria, consultation with one of the bodies (even in the form of a swift letter exchange as opposed to calling an extraordinary international conference) would be sufficient to speed up the process of adopting such emergency measures, which by definition require a rapid response. Furthermore, the absence of any parameter of what constitutes a 'timely manner' coupled with the lack of indications of what may be considered 'consultation' is problematic. Some IFBs may require lengthy processes to adopt extraordinary measures in response to emergencies; it would not be in line with the essence of the provision to wait an indefinite amount of time to take action which, in the context of environmental emergencies, inherently necessitates swift response. As pointed out in section 4.2.1 on the drafting history of the BBNJ Agreement, the requirement to have a consultation with IFBs was only added at the very last minute, as it did not feature in the December 2022 Further Refreshed Draft Version. Such last-minute inclusion would indicate that the drafters strongly desired its incorporation. Considering that consultation with IFBs is one of the steps to confirm the necessity of emergency measures, the lack of further clarification in that regard is unfortunate.

Another consideration concerns the last sentence of Article 24(2) which refers to some action or effort, albeit not specified, by at least one (due to the disjunctive "or") IFB to manage the serious or irreversible harm. If, following consultation with IFBs, the serious or irreversible harm cannot be managed through "application of other articles" or by an IFB, the measures shall be considered necessary. In this occasion too, what "cannot be managed" means is not clear: at a minimum it would seem to impose that the harm is not exacerbated, as that is the end goal of emergency measures. Noteworthy is also the fact that consultation is required "with IFBs" whereas the management of harm by other articles or "by an IFB." The distinction between singular and plural nouns referring to IFBs indicates that only one IFB may be needed to manage the harm, while consultation seems to concern more than one IFB.

[360] Relevant legal instruments or frameworks or relevant global, regional, subregional or sectoral bodies.

International Environmental Law Principles – Paragraph 24(3)

Paragraph (3) links emergency measures to some general principles of IEL while simultaneously emphasising their temporary nature. The IEL law principles are: "best available science and scientific information" and the precautionary approach, though they are not peculiar to this provision as they are found throughout the Agreement. An important omission is the reference to strengthening the resilience of marine biodiversity and their habitats to, among others, climate change. The operative word "shall" indicates a clear requirement to base any emergency measure on these IEL principles. "Shall" is also used in Article 7 of the Agreement according to which "Parties shall be guided by" the same IEL principles and approaches present in Article 24(3)[361] alongside others too (e.g. polluter-pay principle, common heritage of mankind, ecosystem resilience).[362] Given the stronger undertone of the expression 'precautionary principle' as opposed to 'precautionary approach,'[363] it is interesting to see the latter formulation was the chosen one for this provision, whereas both versions are listed in Article 7. This would seem to indicate a softer understanding of precaution regarding emergency measures. Nevertheless, the choice of word between approach and principle is made less relevant by the fact that paragraph (1), as discussed, fully embodies precaution.

Albeit not expressly mentioned therein, this paragraph could also be seen as an operationalization of Article 7(h) of the BBNJ Agreement, according to which Parties shall be guided by "an approach that builds ecosystem resilience, including to adverse effects of climate change and ocean acidification…," as it would bring together all elements (the mentioned IEL principles) needed to strengthen the resilience of Arctic ecosystems, particularly precaution and science regarding the effects of climate change. Such a reading would also reflect one of the objectives of Part III: to strengthen resilience to stressors, "including those relating to climate change, ocean acidification and marine pollution" of marine biodiversity and ecosystems.[364] The frequent reference to climate change is necessary

[361] BBNJ Agreement, Article 7(e), (i), (j).
[362] BBNJ Agreement, Article 7(a), (b), (h).
[363] See, e.g.: Alan Boyle and Catherine Redgwell, *International Law and the Environment* (Oxford University Press, 3rd edn, 2021) 172-183; Nathan Dinneen, "Precautionary Discourse: Thinking through the Distinction Between the Precautionary Principle and the Precautionary Approach in Theory and Practice" (2013) 32 *Politics and the Life Science,* 2.
[364] BBNJ Agreement, Article 17(c).

for the purpose of the present research as it solidifies grounds on which potential emergency measures may be adopted as a rapid response to global warming.

Proposals – Article 24(3)

Article 24(3) also addresses proposals. From the procedural standpoint, Parties may propose measures or the STB may recommend them. Such measures may be adopted intersessionally, thus in a way speeding up the adoption process, they shall be temporary and must be reconsidered at the next COP's meeting.

From a substantive perspective, allowing all Parties to the BBNJ Agreement to make proposals may have strong geopolitical consequences. Within the Arctic context, the fact that all Parties may make proposals for the establishment of measures such as MPAs in the Central Arctic Ocean means that the protection of Arctic marine biodiversity no longer rests solely with the Arctic coastal states which, due to their geographical proximity, where traditionally considered as the stewards of the Arctic.[365] Now, near-Arctic states as well as more distant ones have the opportunity to play a role in the protection of Arctic marine biodiversity in ABNJ portion of the Arctic Ocean. Near-arctic states such as China, which already in 2014 publicly expressed its will to become a "Polar Power,"[366] would then have a greater opportunity to assert their role in the region. Pending acceptance of such proposals via the standard decisional channels, the possibility for all State Parties to the Agreement to potentially suggest the establishment of MPAs is not to be underestimated, at least for the political stance it would signal.

Duration – Article 24(4)

Paragraph (4) of Article 24 stipulates that emergency measures shall terminate in one of the following ways: automatically after two years from their entry into force, further stressing

[365] See section 2 and Ilulissat Declaration.
[366] Institute for Security and Development Studies, "The Ice Silk Road: Is China a "Near-Arctic State"? (2019) <https://www.isdp.eu/publication/the-ice-silk-road-is-china-a-near-artic-state/#:~:text=Factually%20speaking%2C%20China%20is%20not,its%20attention%20toward%20the%20region > accessed 25 May 2024.

their "temporary" quality; upon their replacement by the COP with ABMTs, including MPAs, and related measures, established in accordance with Part III; by measures adopted by an IFB; or if the COP decides that the circumstances that required the emergency measures cease to exist. Regarding duration, paragraph (3) outlined the temporary nature of the measures, whereas paragraph (4) indicates their maximum duration of two years. Duration, however, can be less if one of the circumstances outlined in this paragraph manifests itself.[367]

Interestingly, the means of terminating emergency measures when measures are adopted by an IFB does not include any reference of the latter as having equivalent effect of protection or at least not exacerbating the serious or irreversible harm as the ones that the COP would otherwise adopt. It seems that an emergency measure adopted by the COP could be terminated even if an IFB adopts a corresponding measure with less stringent biodiversity conservation goals. Only in relation to ABMTs, including MPAs, and related measures established in accordance with Part III of the BBNJ Agreement as replacement of emergency measures, the reference to "in accordance with this Part" would suggest that the actions implemented ought to be compatible with the objectives of Part III (i.e. conserve and sustainably use areas in need of protection; protecting, preserving, restoring and maintaining marine biodiversity, etc)[368] and, logically, not exacerbate harm to marine biodiversity.

Not undermine – Article 24(2) and (4)

The omission of any reference to 'not undermine' in Article 24 of the BBNJ Agreement may arguably seem purposeful. Given the preponderance of this notion throughout the BBNJ negotiations and its inclusion in the important Articles of the Agreement, including with regards to the establishment of ABMTs and MPAs,[369] it would be logical to expect the 'not undermine' notion in an article on emergency measures, which by nature are exceptional and with potentially more far-reaching implications vis-à-vis relevant IFBs and their competence. At first glance, thus such omission would indicate that the 'not undermine' provision is not applicable to Article 24.

[367] See also BBNJ Agreement Article 26(5) on the COP's power to revoke 'any related measure'.
[368] BBNJ Agreement, Article 17.
[369] BBNJ Agreement, Article 22(2).

However, upon detailed scrutiny of the provision, another reading would suggest that Article 24 implicitly embodies the 'not undermine' notion. This is done through a tripartite test, (a) procedurally requiring consultation with IFBs as a precondition to adopt emergency measures and, substantively, (b) by providing IFBs with the possibility to manage the harm to the marine environment, instead of adopting emergency measures, and (c) the possibility to terminate emergency measures by taking action themselves. The consultation requirement in paragraph (2) appears to be the first check to avoid undermining the competence of any relevant IFB. It is directly linked to the second way in which 'not undermine' is recognised: consultation needed to ascertain whether an IFB, or the application of other articles, may manage the harm in question, rendering emergency measures unnecessary. The third way in which the competence of IFBs is not undermined is by conferring upon them the possibility of terminating emergency measures by adoption of an measure.[370] It can be said, then, that the 'not undermine' notion is fully incorporated in Article 24 as IFBs can, by adopting measures themselves, first handedly prevent the adoption of emergency measures or terminate them.

According to Jiang and Wang, paragraph (4) of Article 24 reflects the "not undermine" provision by recognizing the mandate of IFBs.[371] They highlight that "if IFBs adopt measures providing the same or more stringent protection" than the emergency measures considered, then the COP may terminate them.[372] However, nowhere does the provision mention "same or more stringent protection measures." Instead, from the reading of the Article, it seems that the option of terminating emergency measures when IFBs adopt measures, given the omission to adopt measures having at least the same effect as the emergency measures envisaged by the COP, would entail a lower threshold of protection to the marine biodiversity. Stressing the formulation of measures having "equivalent effect" is due to its inclusion in Article 23 within the context of decision-making on ABMTs, including MPAs.[373] It seems logical to conclude that, if an objecting Party to a decision regarding ABMTs, including MPAs, must "adopt alternative measures or approaches that are equivalent in effect to the decision to which it has objected," [374] by the same reasoning, measures adopted as replacement of emergency measures should also at least have an equivalent effect. Removing the equivalence

[370] Arguably, this could also be considered as a double test: consultation with IFBs could be seen together with the timely management by an IFB as one single step, while the possibility to terminate emergency measures via adoption of measures by an IFB as the second step.
[371] Jiang and Wang (2024) 23-24.
[372] Ibid.
[373] BBNJ Agreement, Article 23.
[374] BBNJ Agreement, Article 23(6).

requirement may lead to absurd conclusions. For instance, it may cause emergency measures adopted in a specific portion of the Central Arctic Ocean, banning all human activity including shipping, to be replaced by measures adopted by the IMO, such as PSSAs, in the same location which allows limited navigation, effectively providing less protection for the marine biodiversity in ABNJ. This would mean that a comprehensive EMPA could be terminated by a sectoral measure, restricting the geographical and material scope of the measure, hence diminishing biodiversity protection and creating further fragmentation. Such a reading would be inconsistent with the object and purpose of Part III. Therefore, it is submitted that, while highlighting the need to 'not undermine' relevant IFBs and their competence in adopting protective measures, it would be unreasonable to interpret paragraph (4) as allowing the 'not undermine' notion to frustrate the object and purpose of Article 24 – i.e. the emergency protection of marine biodiversity – by replacing emergency measures with less protective ones. This would lead to a double risk of not fulfilling the BBNJ's objective and causing further fragmentation in the management of biodiversity conservation in ABNJ.

Nevertheless, and because of the triple test in Article 24, in the specific context of emergency measures, the relevance of the 'not undermine' provision is actually limited. If the relevant IFB does adopt measures, then emergency measures will not be established. If the IFB does not take any measure or in the interim between the identification of 'serious or irreversible harm' and the deployment of measures by the IFB, emergency measures are adopted by the COP to not exacerbate the harm, they will nevertheless cease as soon as the IFB takes action. In this sense then, the discussion of not undermining the competence of IFBs becomes less relevant as such competence would be respected through the triple test or potentially only temporarily be 'undermined.'

Procedures and Guidance for the Establishment of Emergency Measures – Article 24(5)

The fifth and last paragraph of Article 24 emphasises the role of the STB in elaborating procedures and guidance for the establishment of emergency measures, as necessary, as well as consultation procedures to be considered by the COP, based on inclusivity and transparency. Necessity appears in this section too in the form "as necessary", although, since it refers to what is necessary to achieve the purpose of the provision (i.e. to establish procedure and guidance to establish emergency measures), it seems more watered down than

its counterpart "if necessary" embedded in paragraph (1) of Article 24. Undoubtedly, this characterization of necessity gives the STB wide discretion to elaborate procedures and guidance. The wording "for consideration and adoption" by the COP indicates that such procedures and guidance are not binding upon the COP. The mentioned procedures, though not the guidance, shall be inclusive and transparent. As regards the role of the STB, it would have seemed a better choice to link it to the threshold of harm, outlined in the above discussion of paragraph (1) where it was underscored that the entity in charge of making such an assessment, crucial to trigger Article 24 in the first place, is not defined. Moreover, as was indicated in the section on threshold of harm, what triggers the finding of serious or irreversible harm is a factual assessment, hence further stressing the role played by the evidence adduced and the entity in charge of reviewing such evidence which, because of its very nature, may reasonably involve experts from the scientific field. The STB is comprised of "members in their expert capacity and in the best interest of the Agreement…with suitable qualifications, taking into account the need for multidisciplinary expertise, including relevant scientific and technical expertise."[375] It would have then been reasonable to indicate the STB as the relevant body to determine the serious or irreversible harm to marine biodiversity. However, that is not expressly stated anywhere in Article 24, leaving perhaps too wide room for interpretation and discretion.

4.3 Emergency Measures in the Context of Part III

This section interprets emergency measures in the wider context of Part III of the BBNJ Agreement. It does so by analysing the interaction of Article 24 with the relevant articles of Part III, referring the reader to the assessment of such articles carried out in section 3.3.2.

4.3.1 Objective & Proposals

The first provision of Part III on ABMTs, including MPAs, introduced the objectives of this Part,[376] already mentioned in section 3.3.2. For the context of emergency measures, the most

[375] BBNJ Agreement, Article 49(2).
[376] BBNJ Agreement, Article 17.

relevant ones are the conservation and sustainable use of marine areas,[377] the strengthening of cooperation and coordination of MPAs among states and IFBs,[378] and the protection, preservation, restoration and maintenance of biological diversity and ecosystem, aimed at enhancing their resilience to stressors, such as climate change, ocean acidification and marine pollution.[379] Thus, a reading of the emergency measures' objective - to ensure serious and irreversible harm is not exacerbated - does accommodate both the protection, preservation and restoration of marine biodiversity and its habitat threatened by climate change.

The requirement for consultations on proposals (Article 21) requires them to be inclusive, transparent and open to all relevant stakeholders. In this context, IFBs are invited to submit, among others, views on the merits of proposals and other relevant scientific input. The consultation requirement in Article 24(2) may interpreted, to an extent, in line with the rules on consultations outlined in Part III. Particularly relevant is the requirement that "the consultation period shall be time-bound" (Article 21(6)). However, the upper time limit of such consultation period is not specified. The STB is the body in charge of elaborating the modalities for consultation and assessment process (Article 21(8)) in general under Part III. Thus, it holds the same role under Article 24 as the STB shall elaborate procedures and guidance for the establishment of emergency measures, including consultation procedures (Article 24(5)), allowing Article 24 to integrate coherently in the wider discourse of Part III.

4.3.2 Establishment of measures & decision-making

The COP's competence vis-à-vis MPAs, outlined Article 22, comprises three layers,[380] respectively: the competence *stricto sensu* to establish MPAs; the compatibility of COP's measures with those adopted by relevant IFBs – whereby "compatibility" is understood as "not undermining the effectiveness" of measures adopted by the above-mentioned IFBs;[381] and the recommendatory role of the COP in instances where proposed measures are already within the competence of other bodies.[382] As already reiterated, a clear advantage of the first

[377] BBNJ Agreement, Article 17(a).
[378] BBNJ Agreement, Article 17(b).
[379] BBNJ Agreement, Article 17(c).
[380] Wen Duan, "Area-based management tools under the BBNJ Agreement: Ambition or Illusion?" (2024) 33 *Review of European, Comparative and International Environmental Law*, 1, 6 ("Duan (2024)").
[381] Duan (2024) 7.
[382] Duan (2024) 6-7.

layer of competence is the universal legal basis to establish MPAs in ABNJ, which, as already discussed, previously lacked a legal basis.[383] The compatibility requirement embedded in the second layer of competence implies that measures adopted by the COP should not undermine measures adopted by other IFBs.[384] The third layer of competence would entail that if the COP did recognise an MPA established by other relevant IFBs, it would then become legally binding upon parties to the BBNJ Agreement;[385] however, since no MPA exists in the Central Arctic Ocean – the geographical perimeter of this thesis – there is no need to consider this last hypothesis.

As mentioned in the previous section, the 'not undermine' notion is implicitly contained in Article 24 as the requirement for consultation and management of harm and the possibility to terminate emergency measures as soon as an IFB adopts a measure, reinforcing the drafters' intention to not undermine the competence of relevant IFBs. The requirement to consult relevant IFBs in relation to emergency measures echoes the requirement for the COP to engage in regular consultation with IFB in Article 22(3) of the BBNJ Agreement, although with a different view of enhancing cooperation and coordination as opposed to management of serious or irreversible harm in Article 24(2) of the BBNJ Agreement. Paragraph (7) of Article 22, states that upon establishment of, or amendment to the competence of, an IFB, any ABMT, including MPAs, adopted under Part III (thus including for instance MPAs adopted as emergency measures) "that subsequently falls within the competence" of such IFB, in part of wholly, shall remain in force until the COP "reviews and decides" in close cooperation and coordination with that IFB "to maintain, amend or revoke" that ABMT or MPA as appropriate. The fact that cooperation and coordination between IFBs and the COP are mentioned before the potential termination of an ABMT or MPAs, whereas no such cooperation is offered in the provision on termination of emergency measures is striking and, as already mentioned, represents a point of criticism as regards the equivalent effect that such IFB's measures, with the objectively extensive power terminate emergency measures, are not required to have. The presence of the expression "as appropriate" in the context of potential termination or amendment of ABMTs, including MPAs (Article 22(7)), not mirrored in the corresponding termination clause of emergency measures (Article 24(4)) also appears strange.

[383] See for instance how OSPAR has a practice of designating MPAs but how authors have criticised it as lacking the competence to do so: Elferink (2022) 225-229.
[384] Duan (2024) 7.
[385] Duan (2024) 7.

Article 24 provides no indication of the decision-making mechanism that the COP is to employ in the adoption of emergency measures. However, by reading the article in the wider context of Part III, specifically Article 23, on decision-making, it would be reasonable to infer that the general rules for decisions and recommendations under Part III are to be adopted (i.e. consensus) in deciding on emergency measures too. If no consensus is reached then three-fourth majority would be the modality of decision making.

With regards to objections provided for in Article 23, no such mention is made in the emergency measures provision. At first glance, it appears that such objection clause or any reference to it was purposely left out of the article to indicate that no Party may object to emergency measures. One option for a Party to object to those measures would be to do so during the mandatory consultation stage that precedes the adoption of emergency measures by the COP[386] in its capacity as member to one of the relevant IFB.[387] Another option to object to the envisaged emergency measures would be for a Party to propose measures based on any of the environmental law principles outlined in article 24(3), although these measures would by their nature be more stringent that the ones intended under paragraphs (1) and (2), thus making this a questionable strategy of objection. Regardless of these somewhat forceful readings of the provision, since there is no mention of objection in Article 24 and, given the extraordinary circumstances that may call for the adoption of emergency measures, objecting to them appears not reasonable. The SPRFMO's provisions on emergency measures explicitly states that "such measures shall not be open to the objection procedure."[388] In view of the fact that the BBNJ Agreement's provision on emergency measures was based on SPRFMO's formulation of the measures, it may be plausible to conclude that objection to emergency measures is also not possible. Nonetheless, if Article 24 is grounded on the corresponding provision on SPRFMO, yet the BBNJ Treaty's drafters chose to omit the reference to objections, this may equally indicate that objecting to emergency measures may be allowed. The drafting history of the Agreement is useful in this regard as, during the negotiations on ABMTs, including MPAs, an objection clause (Article 23(5)) was discussed extensively, yet it was never directly or indirectly linked to Article 24. Hence, it may be reasonable to conclude that the BBNJ Agreement drafters did not intend it to be possible to object to

[386] BBNJ Agreement, Article 24(2).
[387] As opposed to the actors that must be consulted with: relevant legal instruments or frameworks.
[388] SPRFMO Convention, Article 5(b).

emergency measures. Such a conclusion would also reflect their *ad hoc* application, during emergencies only.

4.3.3 Implementation & Monitoring and Review

It was pointed out in section 3.3.2 that the provision on implementation according to which Parties to the agreement "shall ensure that activities under their jurisdiction or control" taking place in ABNJ "are conducted consistently with the decisions adopted under this Part"[389] may have wider implications in geographically distant areas than the ones where ABMTs, including MPAs, are adopted. However, such an interpretation does not seem to fit with the exceptional nature of emergency measures as it would be unreasonable to require all Parties to ensure activities under their control are "consistent" with the ones adopted under the emergency measures provision. For instance, the most stringent application of EMPA may ban all human activities from a defined marine area for up to two years. In the case that same EMPA, adopted under Article 24, was replaced by an IFB's measure, which instead allowed limited human activity in the same area of the EMPA, the consequences of the IFB's measure on all Parties would be more limited. The potential far-reaching consequences of Article 25 may already create some uncertainty but, when reading Article 24 vis-à-vis Article 25, the ensuing wide margin of interpretation may be even more problematic in practical applications.

The monitoring and review provision calls for regular review and monitoring by the STB in order to assess the effectiveness of ABMTs, including MPAs. The COP shall, following the review, take decisions or recommendations on the amendment, extension of revocation of ABMTs, including MPAs, based on best available science and scientific information, taking into account the precautionary approach and ecosystem approach. This reiterates the COP's power to terminate emergency measures (art 24(4)), albeit no mention of amendment or extension is included in Article 24. A general reference to the need to reconsideration at the next meeting of the COP is included instead. Another difference worth mentioning is the absence of a corresponding role of the STB in the review, management and assessment of effectiveness of the adopted emergency measures. Under Article 24(5), the STB shall

[389] BBNJ Agreement, Article 25(1).

establish procedures and guidance, including consultation procedures, for consideration by the COP, it may also recommend emergency measures to be adopted intersessionally. However, the STB's power appears more limited in Article 24(5) than when compared to the provision on monitoring and review of Part III, whereby the STB is entrusted with the objectively more "powerful" role to assess the effectiveness of ABMTs, including MPAs. As mentioned, the higher threshold needed to prove "serious or irreversible harm" to the marine environment is directly proportional to the central role played by evidence and, by extension, the body in charge of assessing such evidence to ascertain the presence or absence of the harm in question. Furthermore, the STB is comprised of "members serving in their *expert capacity* and *in the best interest of the Agreement*… with suitable qualifications, taking into account the need for multidisciplinary expertise, including relevant scientific and technical expertise"[390] (emphasis added). Therefore, not recognizing the same power to the STB in the context of emergency measures is very unfortunate.

Lastly, monitoring is relevant in the context of emergency measures too. By reference to the provisional measures discourse, applicable during judicial disputes, such measures faced some difficulty regarding their enforceability and bindingness, as it was deemed that the arbitrator lacked the imperium to enforce them against sovereign states.[391] The situation is different in the context of the BBNJ Agreement as its Parties are entrusted to report individually or collectively to the COP on the implementation of ABMTs, including MPAs,[392] pursuant to Article 26. As such, the monitoring requirement under Part III is important to track progress by the Parties in the implementation of ABMTs, including EMPAs, adopted under this Part.

4.4 Concluding Remarks

This chapter analysed the core of the thesis: emergency measures in the BBNJ Treaty. From an introductory section that highlights how emergency measures are regularly envisaged by international conservation law, in section 4.2 an in-depth analysis of Article 24 was undertaken, whereas in section 4.3, the emergency measures provision was further assessed

[390] BBNJ Agreement, Article 49.
[391] Fouret (2023) 14-15.
[392] BBNJ Agreement, Article 26.

and interpreted in the wider context of Part III. Additionally, this chapter sought to underscore the key role of EMPAs in the protection of Arctic marine biodiversity, in light of a combination of three key elements: its inherent vulnerability, the uncertainty surrounding its biological data (calling for the application of precaution), and the adverse effects of climate change which may result in natural phenomena or human-caused disasters that seriously or irreversibly threaten such biodiversity. Importantly, climate change, or rather its effects, are one among many ways in which emergency measures may be triggered. They are by no means the only one, but were selected for their pertinence. It is submitted that the nexus between climate change and marine biodiversity is an appropriate one as it is heavily emphasized throughout the BBNJ Treaty. Reference to climate change is included in the preamble and Part III of the Agreement, key elements to inform the object and purpose of the Treaty in general and outline the context within which emergency measures may be adopted, respectively. Mentioning, during the negotiations, climate change and the need to "future proof" the provision against unexpected circumstances is also aligned with the rationale behind adopting EMPAs in the Central Arctic Ocean, given that scientists do not know how future effects of global warming on the region and biodiversity will unfold. Nevertheless, literal and contextual interpretation of Article 24, on emergency measures, raises some questions as to its correlation with, inter alia, relevant IFBs and the broader context of Part III. Only time and practice will be able to provide answers to the issues highlighted in this analysis.

Noteworthy is the also the fact that the BBNJ Agreement is primarily and solely concerned with the conservation and sustainable use of marine biological diversity in ABNJ. When compared to UNCLOS, which contained a general protection of the marine environment, the CBD, which entailed the conservation of biological diversity but lacked the relevant legal basis to establish MPAs in the ABNJ, and other regional instruments aimed at protecting marine biodiversity that resulted in a fragmented approach, the BBNJ Agreement is the needed legal instrument that incorporates and harmonizes existing elements from other Conventions, filling the legal and regulatory gap that, in light of climate change, became even more apparent.

5 CONCLUSIONS

The adoption of the BBNJ Agreement is a landmark moment for the protection of marine biodiversity in ABNJ as, by creating a global legal basis for the establishment of MPAs in ABNJ, it represents the missing piece in the mosaic of marine protection in the seas and oceans. This is particularly relevant in the context of the Central Arctic Ocean as its fragile biodiversity is already experiencing severe stress from climate change and will be placed under greater pressure as human presence therein increases. Crucial to the discussion is also the fact that uncertain baseline data on Arctic marine biodiversity leads to unknown effects of global warming, enhancing the need for precaution and protection. The Arctic Council's designation of areas in need of protection coupled with the relevant legal basis, in light of the effects of climate change, signal that adopting MPAs to protect Arctic marine biodiversity is arguably the necessary course of action. Yet, given that extreme climate change events (e.g. marine heatwaves) and human-related disasters (e.g. oil spills from tourism or new shipping routes) may seriously or irreversibly harm Arctic marine biodiversity, measures that may be rapidly deployed become even more crucial. Against this backdrop, the legal scope of emergency measures, particularly the adoption of EMPAs in the Central Arctic Ocean has been scrutinized. Questions were raised in relation to the potential future interpretation of emergency measures. Relevant answers will likely come with state practice if and when the BBNJ Agreement enters into force.

Considering that the ABNJ makes up the majority of our oceans, the potential of the BBNJ Treaty to set the foundations for a harmonious regulation of "conservation and sustainable use of marine biological diversity, for the present and in the long term"[393] becomes apparent. The BBNJ Treaty is also likely to fill the regulatory and governance gap that pervades the Arctic region. It may prove useful in addressing Arctic fragmentation in relation to biodiversity protection by providing a means to achieve effective cooperation among its Parties and relevant IFBs. The latter will retain their relevance and competence within the Arctic as the Agreement does not create a hierarchy between itself and IFBs, instead it respects their competence and seeks cooperation in accordance with the 'not undermine' notion, effectively creating a level playing field. Cooperation acquires even more relevance if one considers that species do not respect maritime or political boundaries; as cross-border cooperation is deemed

[393] BBNJ Agreement, Article 2.

"the key to the conservation puzzle."[394] By extension, the potential establishment of MPAs in the Central Arctic Ocean will require appropriate networks of connected MPAs, or corridors of conservation, which would otherwise result in "isolated aquaria of protection" in a wider degraded sea.[395] The Arctic Council, albeit lacking formal legal status as international organization,[396] may still take a prominent role towards in the achievement of the Agreement's objectives.[397] Although the question on the role of the Arctic Council vis-à-vis the BBNJ Treaty is an open-ended one that falls outside the scope of the present thesis ,[398] it may be expected that the Arctic Council will continue to produce and disseminate scientific knowledge relevant for the conservation and sustainable use of Arctic marine biodiversity.[399] Additionally, near-Arctic and more geographically distant states may join the Arctic coastal states – traditionally having held the role of stewards of the Arctic in the region – in decisions pertaining biodiversity protection.

Another reflection concerns the BBNJ Agreement and The Area. The portion of seabed upon which the ISA has authority in the Central Arctic Ocean is limited, due to the extended continental shelf claims.[400] In the event that a state decides to conduct exploratory activities in the seabed within its national jurisdiction, especially if in close proximity of the limit of its extended continental shelf, that activity is likely to result in transboundary pollution and harm the marine biodiversity in the seabed of the Area, regulated by the ISA (which has the duty to protect the marine environment from harmful effects of mining)[401] as well as the water column beyond that state's national jurisdiction, where the conservation of marine biodiversity is governed by the BBNJ Treaty. The impact of such deep seabed mining activities would likely have even more dramatic repercussions in the vulnerable Arctic marine environment. How such a tension would be resolved remains to be seen.

In conclusion, the BBNJ Agreement may be the culmination of decades of negotiations but it also very much represents just the starting point of international cooperation and efforts to

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[394] Salit Kark et al., "Cross-boundary Collaboration: Key to the Conservation Puzzle" (2015) 12 *Current Opinion in Environmental Sustainability*, 12.
[395] International Union for Conservation of Nature, World Commission on Protected Areas (IUCN-WPCA), Establishing Resilient Marine Protected Area Networks: Making It Happen (Washington, Resilience Report) 13.
[396] De Lucia (2022) 6.
[397] De Lucia & Nickels (2020) 189; Timo Koivurova & Richard Caddell, "Managing Biodiversity Beyond National Jurisdiction in the Changing Arctic" (2018) 112 *American Society of International Law Unbound*, 134.
[398] De Lucia and Nickels (2020).
[399] De Lucia (2022) 5-6.
[400] UNCLOS, Article 76(5)-(6); Annex II.
[401] UNCLOS, Articles 145, 157.

protect marine biodiversity in ABNJ. It is encircled by a momentum to protect marine biodiversity, as demonstrated by the gradually rising number of states ratifying it, an indication of the international community's intention to take concrete action in the protection of marine biological diversity in ABNJ. Hence, the legal basis now created must be met with the necessary political will to protect the marine biodiversity in ABNJ, particularly in light of climate change. To date,[402] none of the Arctic coastal states has yet ratified the Agreement. It would be beneficial for them to ratify the Treaty, sending a strong signal to the international community and be the first ones to commence the necessary new phase of protection of marine biodiversity in the Central Arctic Ocean.

[402] Date of submission of this thesis: 31st May 2024.

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