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Climate Change Obligations under the Law of the Sea: Interpreting UNCLOS in light of the Paris Agreement

Candidate number: 8006

Submission deadline: 1 December 2021

Number of words: 18.000



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CHAPTER I: INTRODUCTION

1.1 The oceans and climate change

In December 2015, the Paris Agreement¹ was adopted, in which the global community anchored its ambition to hold temperature increases ‘well below’ 2° C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5° C.² More than five years have passed, and at the 26th Conference of the Parties (COP) to the UN Framework Convention of Climate Change (UNFCCC),³ COP President Sharma noted with concern that “the pulse of 1.5 is weak”.⁴ Indeed, recent work by the Intergovernmental Panel on Climate Change (IPCC) has revealed that global surface temperatures have already increased by an estimated 1,07° C (see: figure 1).⁵ Whereas climate change used to be an invisible enemy, its effects are becoming increasingly tangible, as was aptly illustrated by the IPCC’s Sixth Assessment Report. In this report, it was shown that climate change is already affecting many weather and climate extremes in every region across the globe, such as heatwaves, heavy precipitation, droughts, and tropical cyclones.⁶ Importantly, this Report removed all remaining doubts (if there were any) regarding the extent to which humanity contributed to global warming, as it was stated that “it is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred”,⁷ and further that “the scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years”.⁸

¹ Paris Agreement (adopted 12 December 2015, in force 4 November 2016).

² Paris Agreement, Article 2(1)(a).

³ United Nations Framework Convention on Climate Change (adopted 9 May 1992, in force 21 March 1994).

⁴ UNFCCC, ‘COP 26 President Concluding Media Statement’, available at <<https://ukcop26.org/cop-president-concluding-media-statement/>> accessed 24 November 2021.

⁵ IPCC, ‘Summary for Policymakers’ in (eds) V. Masson-Delmotte et al, *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2021).

⁶ *Ibid.*, 10.

⁷ *Ibid.*, 5.

⁸ *Ibid.*, 9.

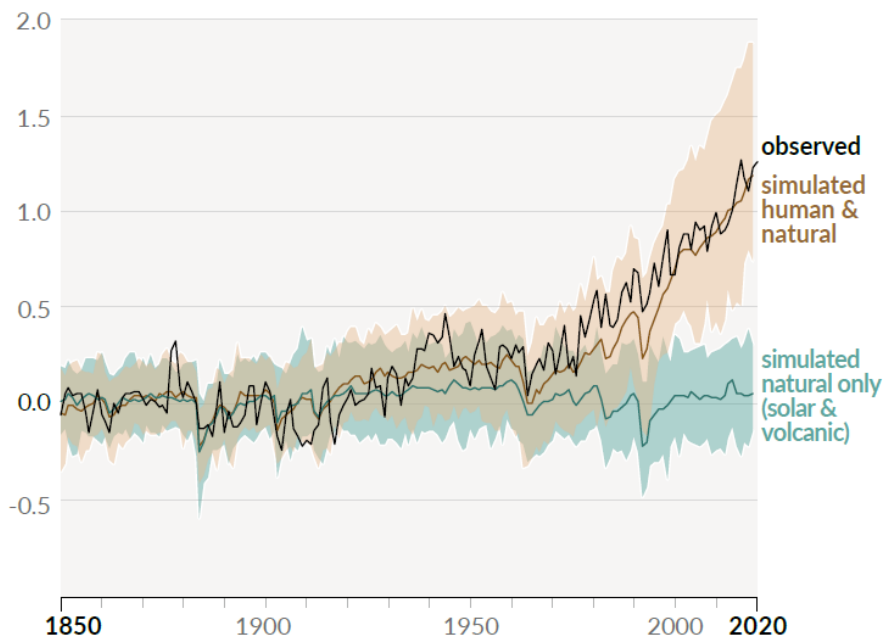


Figure 1: Change in global surface temperature (annual average) as observed and simulated using human & natural and only natural factors⁹

The Report further pays due attention to the effects of climate change on the oceans. It is provided that the global upper ocean has warmed since the 1970s as a result of human influences, and that human-caused CO₂ emissions are the main driver of current global acidification (i.e. the decrease in the pH value of the oceans) of the surface open ocean.¹⁰ Further, melting ice caps and thermal expansion of the oceans have already caused a 0,2 meter increase of global mean sea levels, and it is ‘virtually certain’ that the sea level will continue to rise – up to 1 meter in 2100 in business-as-usual emission scenarios.¹¹ It was already shown in previous work by the IPCC, in particular its Special Report on the ocean and cryosphere,¹² that the oceans are heavily impacted by the consequences of climate change. The oceans have taken up 90% of the excess heat in the climate system, and 20-30% of total anthropogenic CO₂ emissions.¹³ It is therefore unsurprising that the oceans, too, are getting warmer (see: figure 2), leading to an increase in marine heatwaves – which have doubled in frequency and have become longer-lasting, more intense and more extensive.¹⁴ The effects on the marine environment are severe, as large-scale coral bleaching events are occurring at an increasing frequency and

¹⁰ IPCC, *supra* note 5, 6.

¹¹ *Ibid.*, 6, 28.

¹² IPCC, ‘Summary for Policymakers’ in (eds) H.O. Pörtner et al, *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* (2019).

¹³ *Ibid.*, 9.

¹⁴ *Ibid.*

ecosystems are disrupted as certain species are forced to migrate poleward, seeking cooler waters.¹⁵

The oceans are thus severely impacted by climate change, which is not only detrimental to the species living therein, but also for humans, as it is estimated that the oceans provide over 3.3 billion people with at least 20% of their animal protein intake.¹⁶ The oceans are, however, more than just a victim of climate change: they also have an important role to play in combatting it, as they regulate atmospheric gas concentrations, global temperature, and climate. Importantly, the oceans' function as an important carbon 'sink', i.e. a natural reservoir that absorbs and stores the atmosphere's CO₂), and it is estimated that they store a total of 38.000 Gigatons of CO₂.¹⁷

There are thus many scientific interlinkages between the oceans and the global climate. This raises the question to what extent these connections are reflected in their respective legal systems. Although at first sight such interlinkages seem to be non-existent, upon closer examination it becomes apparent that the law of the sea and climate change law interact in numerous ways. This thesis seeks to explore these interactions, with a view to obtain insights in the legal obligations that are placed upon States to protect the marine environment from the harmful effects of climate change.

1.2 Research problem

Given the immense threat posed to the oceans by climate change, it is evident that effective regulatory responses are needed to mitigate these adverse effects. Problematically, however, neither the international climate change regime, nor the international law of the sea specifically address the adverse effects of climate change on the oceans. Whereas the international climate change regime provides the principal legal framework for regulating mitigation greenhouse gas emissions, as well as for adaptation to the adverse effects thereof, it pays scarce attention to the oceans – despite their important role as a carbon sink. The oceans are explicitly mentioned only once in the Paris Agreement, in the preamble.¹⁸ The law of the sea similarly does not directly address climate change. This is perhaps unsurprising, seeing as the UN Convention on the Law

¹⁵ Ibid., 12-13.

¹⁶ UNEP, Inclusive wealth report 2018: Measuring sustainability and wellbeing. United Nations Environment Programme (2018).

¹⁷ B. Metz et al, 'IPCC Special Report on Carbon dioxide Capture and Storage' (2005), 291.

¹⁸ They are also mentioned indirectly in Article 5 (1), which refers to Article 4 (1)(d) of the UNFCCC, which recognizes the role of the oceans as a carbon sink.

of the Sea (UNCLOS)¹⁹ – which forms the very foundation of this legal regime – was adopted in 1982, when understanding of the potential severity of climate change was only just emerging. Although it provides a comprehensive regime for the protection and preservation of the marine environment, this regime was not drafted with climate change in mind, and it could thus be questioned whether it is apt to address this issue – especially when taking into account the magnitude of the threat it poses to the oceans.

Due to this, neither the law of the sea nor the international climate change regime provides a clear set of rules for the protection and preservation of the marine environment against the adverse effects of climate change. This thesis seeks to explore the legal interaction between these regimes, with a view to ascertain what obligations flow from their combined application to the issue of environmental degradation as a consequence of climate change.

On the basis of the above remarks, the central question that this thesis seeks to answer is the following:

What are the obligations under UNCLOS, when interpreted in light of the Paris Agreement, to protect the marine environment from the harmful effects of climate change?

1.3 Methodology and sources

The research conducted in this thesis shall be primarily conducted by means of the doctrinal legal method, focusing on the teleological and normative investigation of the relevant applicable law. More specifically, this thesis investigates the *regime interaction* between the Paris Agreement and UNCLOS. *Trevisanut, Giannopoulos* and *Holst* identify two legal methods of regime interaction research, both of which are deployed in this thesis.

Firstly, formal/treaty-based methods of interaction study regime interactions that are “fostered and steered by formal legal tools or methods which are interwoven in the normative threads of the respective treaties”.²⁰ For instance, numerous treaties contain conflict or relationship clauses that govern their relationship with other agreements. UNCLOS has two such clauses: Article 311, which governs the relationship between UNCLOS as a whole vis-à-vis other instruments; and Article 237, which is only applicable in relation to Part XII on the protection and

¹⁹ United Nations Convention on the Law of the Sea, Montego Bay (adopted 10 December 1982, in force 16 November 1994) UNTS 397.

²⁰ S. Trevisanut, N. Giannopoulos and R.R. Holst, *Regime interaction in ocean governance: problems, theories, and methods* (Publications on Ocean Development, Volume: 91, Brill Nijhoff 2020) 12.

preservation of the marine environment. These provisions form the starting point of the assessment of the interactions between UNCLOS and the Paris Agreement. Another example of treaty-based mechanism for regime interaction are so called rules of reference, which are a characterizing feature of UNCLOS, contributing to its dynamic nature and making it a ‘living treaty’.²¹ Through these rules of reference, external rules and standards are incorporated into UNCLOS, making them binding for its Parties – even if they would not otherwise have been bound to them.²²

The second legal method of regime interaction research entails the studying of ‘interpretation / judicial-based interactions’.²³ This method of interpretation relies heavily on Article 31 of the Vienna Convention on the Law of Treaties (VCLT), which provides a useful set of interpretation tools. Pursuant to this article, when interpreting a treaty provision, one needs to take into account the evolution of the content of their provisions and subsequent developments, including interpretation in light of the object and purpose, subsequent agreements and practice and relevant rules of international law applicable between the parties.²⁴ Of particular relevance for our purposes is Article 31(3)(c), pursuant to which “any relevant rules of international law applicable in the relations between the parties” shall be taken into account when interpreting treaty provisions. This provision has been said to give expression to the principle of *systemic integration*, which provides a useful mechanism to ensure that legal issues are resolved in light of their broader international legal context.²⁵ The ICJ implicitly touched upon this principle in its Advisory Opinion on *Legal Consequences for States of the Continued Presence of South Africa in Namibia*, where the Court recognized that treaties do not operate in isolation, but need to be “interpreted and applied within the framework of the entire legal system prevailing at the time of the interpretation”.²⁶ Interpreted restrictively, Article 31(3)(c) is only triggered when all Parties to a treaty under interpretation are also Parties to an extraneous treaty.²⁷ Such an

²¹ See: J. Barnet and R. Barnes, *Law of the Sea - UNCLOS as a Living Treaty* (British Institute of International and Comparative Law, 2016), further discussed in Chapter 3.

²² See section 4.3.1 for further elaboration.

²³ *Ibid.*, 15.

²⁴ Trevisanut, N. Giannopoulos and R.R. Holst, *supra* note 20, 15.

²⁵ UN General Assembly, ‘Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission Finalized by Martti Koskenniemi’ (2006) A/CN.4/L.682.

²⁶ *Legal Consequences for States of the Continued Presence of South Africa in Namibia* (South- West Africa) notwithstanding Security Council Resolution 276 (1970) (*Advisory Opinion*) [1971] ICJ Rep 16, para 31, cited in S. Trevisanut, *supra* note 20.

²⁷ WTO Panel Report, *European Communities – Measures Affecting the Approval and Marketing of Biotech Products* (WT/DS291/R, WT/DS292/R, WT/DS293/R) [2006] para. 7.68.

interpretation has, however, been said to be overly restrictive.²⁸ In a broader sense, this principle entails the obligation to consider relevant rules of international law where the issues in dispute fall within the scope of those extraneous rules.²⁹ For the purposes of this thesis, the latter interpretation will be used.

Through the combined use of these methods, this thesis seeks to provide the reader with a deeper understanding of the normative regime interaction between UNCLOS and the Paris Agreement. It should, however, be noted that although these instruments are in a non-hierarchical relationship to one another, their interactions are not symmetrical. This follows from their different legal character: whereas UNCLOS is a long-standing framework convention with a very comprehensive scope, the Paris Agreement was adopted fairly recently and provides a more detailed set of rules for a specific subject. Moreover, as will be shown, whereas UNCLOS is a very dynamic legal instrument, the same cannot be said for the Paris Agreement.³⁰ Consequently, UNCLOS is more apt to be interpreted in light of the Paris Agreement than vice-versa. Thus, the primary focus of this study is on how climate change considerations are incorporated into UNCLOS.

As for the selection of relevant sources of international law, Article 38 of the Statute of the International Court of Justice (ICJ)³¹ forms a useful point of departure. The sources listed in this provision provide the principal methodological focus of this thesis. International conventions, as listed in lit. A, form the foundation of the research. The UNFCCC, Paris Agreement and UNCLOS are relied upon heavily, however not exclusively, as consultation of other legal instruments is required to obtain a thorough understanding of the relationship between these instruments and how they are positioned in the broader international legal framework. Further, a wide array of international case law is examined as to obtain insights in the development, relationship and interpretation of the legal instruments that are studied. Case law is also used to identify relevant legal principles, which are a further source that is used to provide interpretative guidance. Lastly, various scholarly works are referred to throughout the thesis, in order to shed light on the complex legal issues at hand.

²⁸ B. McGrady, 'Fragmentation of International Law or "Systemic Integration" of Treaty Regimes' (2008) 42(4) *Journal of World Trade*, 589.

²⁹ *Ibid.*

³⁰ The Paris Agreement is also dynamic, however in a different way. Its dynamism lies in the built-in progression regarding the strength of commitments, see Section 2.2.2.

³¹ Statute of the International Court of Justice (adopted 26 June 1945, in force 24 October 1945) USTS 993.

1.4 Structure of the thesis

This thesis is structured in the following manner: Chapter 2 analyses the Paris Agreement in-depth, paying particular attention to the (limited) role the oceans have to play therein. This chapter seeks to ascertain what is required to be in compliance with the Paris Agreement, i.e. what are the hard-law obligations? It is shown that the Paris Agreement incorporates a delicate interplay of soft-law, non-law and hard-law obligations, which can not be viewed in isolation from each other. In Chapter 3, a similar analysis is conducted, this time with UNCLOS as the main object. With emphasis of its *dynamic* nature, a general overview of the ‘constitution of the oceans’ is provided, and key provisions of part XII – insofar relevant in relation to climate change – are discussed. Further, due note is taken of the ongoing legal developments, in particular the ‘BBNJ’ negotiations.³² Building on the findings of the foregoing chapters, Chapter 4, which forms the core of this thesis, explores the normative relationship between the aforementioned instruments and outlines the obligations placed upon States under UNCLOS to protect the marine environment from the harmful effects of climate change. One key question that is addressed here, is whether compliance with the Paris Agreement is sufficient for a State to be in compliance with its obligations to protect and preserve the marine environment under Part XII of UNCLOS. Finally, Chapter 5 offers some concluding remarks.

³² Biodiversity beyond national jurisdiction – see section 3.5.

CHAPTER II: THE UNFCCC AND THE PARIS AGREEMENT

2.1 Introduction

The decision by 195 countries to adopt the Paris Agreement at the 21st COP to the UNFCCC on 12 December 2015 represents a historic breakthrough for climate change policy and a major success in multilateral diplomacy.³³ In the years following its adoption, a vast body of scholarly literature appeared, discussing all of the Agreement's elements in-depth. One perspective that remains relatively unexplored, however, is the role that the oceans play in the Paris Agreement. This is perhaps not surprising, given that – as will be shown – the oceans play no role of importance in the Agreement. This is, however, difficult to reconcile with the ecological realities of the Earth's climate, as discussed in Chapter 1. It is nonetheless useful to take a closer look at the role that the oceans play in the Paris Agreement, as well as in the broader UNFCCC framework. This chapter does exactly that. It will be shown that, although the textual attention the oceans receive is modest, there seems to be a growing recognition within the international community of the importance of the oceans in combatting climate change.

Following a general overview of the UNFCCC framework and the Paris Agreement in the ensuing section, section 2.3 addresses the question what is required by a State to be in compliance with the Paris Agreement, seeking to identify the legal obligations that flow from it. Thereafter, section 2.4 examines the Agreement through an ocean-oriented lens. Finally, section 2.5 draws some brief conclusions.

2.2 The UNFCCC Paris Agreement: A general overview

2.2.1 *From Rio to Paris*

At the Earth Summit in Rio de Janeiro, in 1992, the UNFCCC was adopted by more than 160 countries. It reflects a compromise between States that envisioned a treaty with specific targets and timetables for emission reductions, and those which wanted only a 'bare-bones' framework treaty that could serve as the basis for future Protocols.³⁴ The result is a treaty that, in a way, limps on two legs, as it is neither a true framework Convention, nor one that contains sufficiently strong obligations to really face the problem of climate change.

³³ D. Bodansky, 'The Paris Climate Change Agreement: A new hope?' (2016) *American Journal of International Law* 110, 288 – 319.

³⁴ P. Sands and J. Peel, *Principles of International Environmental Law* (4th Edn, Cambridge: Cambridge University Press 2019) 299.

The core of the UNFCCC is Article 2, which reflects the goal to stabilize concentrations of greenhouse gases in the atmosphere “at a level that would prevent dangerous anthropogenic interference with the climate system”.³⁵ Article 3 lists a number of guiding principles, including intergenerational equity; common but differentiated responsibilities and respective capabilities (CBDR-RC); sustainable development; and the precautionary principle. Importantly, the UNFCCC makes a distinction between developed and developing country Parties, which are listed in separate Annexes to the Convention. This ‘bifurcated’ approach reflects the principle CBDR-RC, which has long been – and to some extent still is – a key characteristic of the international climate change regime, and has caused extensive debate and conflict throughout the development of the UNFCCC regime. Article 4 reflects this approach, by placing a number of relatively soft obligations upon all Parties, most importantly to develop national inventories of anthropogenic emissions and removals by sinks, and to formulate and regularly update national and regional programmes containing measures to mitigate climate change.³⁶ Developed country Parties, as listed in Annex I, are subjected to more far-going obligations, including to adopt national policies and take corresponding measures on the mitigation of climate change with a view to “return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases”.³⁷

The first COP to the UNFCCC in 1995 determined that the obligations enshrined in Article 4 are not ‘adequate’ and decided to launch a process to strengthen the commitments of the developed country Parties through the adoption of a protocol or another legal instrument.³⁸³⁹ This resulted in the adoption of the Kyoto Protocol in 1997, a discussion of which is beyond the scope of this thesis.⁴⁰ It suffices to say that it failed at adequately addressing climate change, primarily due to the fact that it continued to place the burden solely on developed countries.

Efforts to reshape the global climate change regime continued at the UNFCCC COPs throughout the years, although often with little success. In the years leading up to the adoption of the Paris Agreement in 2015, negotiations finally gathered pace. Countries converged on the

³⁵ UNFCCC, Article 2.

³⁶ UNFCCC, Article 4(1)(a).

³⁷ UNFCCC, Article 4 (2)(a).

³⁸ P. Sands and J. Peel, *supra* note 34, 307.

³⁹ Decision 1/CP.1, Report of the Conference of Parties on Its 1st Session, Berlin, 28 March – 7 April 1995, FCCC/CP/1995/7/Add.1, para 2 (a)

⁴⁰ For a full discussion of the Kyoto Protocol, see: C. Breidenich et al, 'The Kyoto Protocol to the United Nations Framework Convention on Climate Change' (1998) 92 *The American journal of international law*, 315-331

bottom-up structure of the Agreement, and in 2013 at the COP 19 in Warsaw, all Parties were invited to prepare ‘intended nationally determined contributions’ (INDCs) toward achieving the objective of the Convention.⁴¹ Already prior to the adoption of the Paris Agreement, more than 180 countries submitted their INDCs, covering more than 90% of global emissions.⁴²

2.2.2 *The Paris Agreement*

At COP 21 in Paris, the Paris Agreement was adopted as an Annex to a Decision of the COP.⁴³ The Paris Agreement counts a total of 29 provisions, of which Article 2 could be said to form the center of gravity. This provision states the goals of the Agreement, which are threefold: To keep temperature increases well below 2° C, with the aspirational goal of 1,5° C; to increase the ability to adapt to the adverse impacts of climate change; and to create finance flows consistent with a pathway towards low greenhouse gas emissions.⁴⁴ This provision effectively places mitigation, adaptation and finance on the same footing. This is an important change of direction in the UNFCCC regime, in which – up until now – emphasis was placed on mitigation alone. A second important alteration that the Paris Agreement made to the UNFCCC regime is its different approach to differentiation, which been a dividing issue throughout the development of the international climate change regime. In the Paris Agreement, the strongly bifurcated approach that characterized the UNFCCC and the Kyoto Protocol was largely abandoned, and replaced by a system of ‘dynamic differentiation’.⁴⁵ The principle of CBDR-RC remains as one of the core principles underpinning the Agreement, however it is applied in more nuanced and dynamic fashion by recognizing that the application of the principle is responsive to differing national circumstances.⁴⁶ As will be shown later on, the obligations placed upon Parties by the Agreement are now largely symmetrical, although some small differences remain. Differentiation is primarily built into the Agreement by recognizing differing national circumstances, and is inherently present in the bottom-up structure of the

⁴¹ Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, 31 January 2014, UN Doc FCCC/CP/2013/10/Add.1, Par 2 (b).

⁴² P. Sands and J. Peel, *supra* note 34, 318.

⁴³ Adoption of the Paris Agreement (12 December 2015) UN Doc FCCC/CP/2015/L.9/Rev.1. This Decision provides more detailed guidance on many aspects that are only covered briefly in the Agreement, and sets forward a series of decisions to give effect to the Agreement.

⁴⁴ Paris Agreement, Article 2 (1).

⁴⁵ C. Voigt, ‘Dynamic Differentiation’: The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement’ (2016) 5:2 *Transnational Environmental Law* 285-303.

⁴⁶ *Ibid.*, 301.

agreement by which States are free to determine their efforts and ambitions in their respective NDCs.

The primary way in which the Paris Agreement seeks to accomplish the goals enshrined in Article 2 is through the submission of NDCs that reflect each Parties' highest possible ambition within the context of the principle of CBDR-RC.⁴⁷ The content of these NDCs is broader than the goals reflected in Article 2, as they should also cover technological development and transfer; capacity-building; and transparency.⁴⁸ The content of the NDCs is largely left to the Parties, although some guidance is provided in various provisions of the Agreement.⁴⁹ Importantly, the NDCs, which are to be communicated every five years,⁵⁰ ought to represent a progression over time.⁵¹ The notion of progression is a recurring element in the Agreement, which has various built-in mechanisms that seeks to foster a progressive dynamic regarding the strength of commitments. One such mechanism is the 'enhanced transparency framework', enshrined in Article 13, pursuant to which all Parties are required to regularly provide information on their greenhouse gas emissions and removals by sinks, as well as "information necessary to track progress made in implementing and achieving its [NDC]".⁵² Although this mechanism does not in and on itself promote progression, it is nonetheless a crucial element of the broader progression framework built into the Agreement. The importance of this mechanism lies in the fact that the Agreement does not contain any binding obligations of result in relation to the content of Parties' NDCs. The inclusion of a mechanism like this is therefore crucial, as it holds States accountable for doing what they said they would do in their NDCs.⁵³

The transparency framework is complemented by a 'global stocktake' every five years, to assess the collective progress towards achieving its long-term goals of the Agreement. The contours of this mechanism are described in Article 14 of the Paris Agreement, and further specified in Decision 19/CMA.1.⁵⁴ Importantly, it is provided that "the outcome of the global stocktake shall inform Parties in updating and enhancing [their NDCs]".⁵⁵ One ambiguity about the global

⁴⁷ Paris Agreement, Article 3 and 4.

⁴⁸ Paris Agreement, Article 3.

⁴⁹ Paris Agreement, Articles 3, 4, 7, 9, 10, 11 and 13.

⁵⁰ Paris Agreement, Article 4 (9).

⁵¹ Paris Agreement, Article 3.

⁵² Paris Agreement, Article 13 (7).

⁵³ Bodansky D., Brunnée J., Rajamani L., *International Climate Change Law* (Oxford University Press, 2017) 242.

⁵⁴ Decision 19/CMA.1 Matters relating to Article 14 of the Paris Agreement and paragraphs 99–101 of decision 1/CP.21 (19 March 2019) UN Doc FCCC/PA/CMA/2018/3/Add.2.

⁵⁵ Paris Agreement, Article 14 (3).

stocktake is its emphasis on *collective*, rather than individual progress. This is emphasized by Decision 19/CMA.1, where it is provided that “the outputs of the global stocktake should focus on taking stock of the implementation of the Paris Agreement to assess collective progress, have no individual Party focus”. This sits uncomfortably with the connection that is made between the global stocktake and updating NDCs, as well as the prominent role attributed to equity in the stocktake process. As one commentator noted, “what sense is there in keeping them at the collective level, when the ‘light of equity’ naturally shines on the individual level?”.⁵⁶ It remains to be seen to what extent the global stocktake will look at individual countries’ performances, when the first global stocktake is conducted in 2023.

Together, these mechanisms seek to ensure that the aggregated efforts of all Parties represent a “progression over time”.⁵⁷ The envisioned result is an ‘ambition cycle’, as displayed in figure 3. Given that the first round of NDCs are estimated to lead to a 2.7° C temperature rise,⁵⁸ it is crucial that efforts are indeed strengthened overtime, to avoid dangerous anthropogenic interference with the climate system. It is, however, by no means a settled case that the NDCs will actually progress in such a fashion. Given the emphasis placed on collective rather than individual performance, and the weak legal nature of the legal obligations contained in the Agreement (see section 2.4) – which are largely procedural in nature – some commentators are skeptical. *Young*, for one, described the mechanisms for strengthening commitments as “ill-defined and weak”.⁵⁹ Whether they are indeed will be showcased by the global stocktake in 2023, as well as the ensuing round of revised NDCs in 2025.

⁵⁶ A. Zahar, ‘Collective Obligation and Individual Ambition in the Paris Agreement’ (2019) 9:1 *Transnational Environmental Law*, 187.

⁵⁷ Paris Agreement, Article 3.

⁵⁸ Nationally determined contributions under the Paris Agreement. Synthesis report by the UNFCCC Secretariat, 17 September 2021 (FCCC/PA/CMA/2021/8).

⁵⁹ O.R. Young, ‘The Paris Agreement: Destined to Succeed or Doomed to Fail?’ (2016) 4:3 *Politics and Governance*, 131.

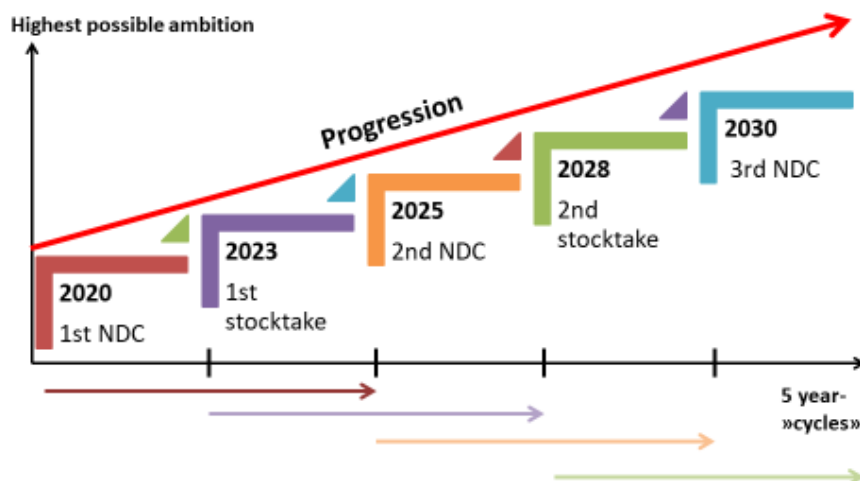


figure 3: the Paris Agreement ambition cycle⁶⁰

2.3 Legal obligations under the Paris Agreement

To answer the question how the Paris Agreement interacts with and informs the normative content of the provisions contained in Part XII of UNCLOS, it is necessary to identify of legal obligations that flow from it. This is no easy task, given the diverse legal nature of the provisions contained therein. One way to conceptualize this is the idea of a *spectrum of legal bindingness*, with on one side provisions that have no binding force and merely provide context, and on the other side provisions that create obligations of result. The provisions of the Paris Agreement span this spectrum of legal bindingness.⁶¹ This section focusses on the provisions more towards the ‘binding’ end of the spectrum, as they bear the most normative value and consequently affect related instruments – like UNCLOS – the most. This is not to say that soft-law and contextual provisions have no such effects. The Paris Agreement must be viewed as a whole, and its provisions cannot be viewed in isolation from one another. Even the contextual provisions have a bearing on the legal obligations that flow from the Agreement, and the combined interplay of its various provisions collectively determine the nature of its obligations. Thus, although emphasis is placed here on a selected number of provisions, these are viewed within the larger context of the treaty as a whole.

One ambiguity about the obligations contained in the Paris Agreement is that a distinction can be made between *collective* (i.e. an obligation held by all Parties collectively) and *individual* obligations (i.e. an obligation held by individual State parties), although this distinction is by

⁶⁰ From the lecture “International Climate Change Law: The Paris Agreement” by Prof. Christina Voigt, on 15 October 2020, on file with the author.

⁶¹ Bodansky D., *supra* note 53, 213.

no means clear-cut. The most important collective obligation is the temperature goal enshrined in Article 2:

This Agreement [...] aims to strengthen the global response to the threat of climate change [...] including by: (a) Holding the increase in the global average temperature to well below 2° C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5° C above pre-industrial levels.

Due to the absence of any indicators of legal obligations – such as, for example, the verb ‘shall’ – no individual obligations can be derived from this provision. Instead, it reflects an obligation that is mandatory for the State parties *collectively*.⁶² Other examples of collective obligations are found in Articles 3, pursuant to which “the efforts of *all Parties* will represent a progression over time” (emphasis added) and Article 4.1, providing that “Parties aim to reach global peaking of greenhouse gas emissions as soon as possible”. All of these provisions are worded in obligatory language, yet no individual obligations can be derived from them. The question arises what the legal properties of these collective obligations are.

The notion of a collective obligation is no novelty in international law. In 1970, the ICJ acknowledged that “an essential distinction should be drawn between the obligations of a State towards the international community as a whole, and those arising vis-à-vis another State”.⁶³ In a similar vein, the International Law Commission (ILC), in its Draft Articles on the Responsibility of States for Internationally Wrongful Acts, recognizes the existence of a collective obligation, which is owed to “a group of States including that State, or the international community as a whole”,⁶⁴ and “established for the protection of a collective interest of the group”.⁶⁵ The difference, however, between the type of legal obligation described here and those reflected in the Paris Agreement, is that the former is held by an individual State. The Paris Agreement, on the other hand, appears to establish an obligation that is not only *owed* to a community of States, but also *held* by it. This could be derived from the wording of the provisions cited above, as the obligations contained therein are placed upon “all Parties” (as opposed to ‘each Party’, which would establish an individual obligation). However, given that this type of collective obligation is not yet present in international law, the mere implicit creation thereof is arguably not sufficient. *Zahar* argues that “a legal innovation of such

⁶² A. Zahar, *supra* note 56, 170.

⁶³ *Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (New Application: 1962) [1962] 1964 ICJ Rep 3.

⁶⁴ ILC, ‘Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries’ (2001) UN Doc A/56/10, Article 42

⁶⁵ *Ibid.*, Article 48.

magnitude would have required explicit language – which is missing from the treaty”.⁶⁶ He goes on to conclude that the Paris Agreement creates “a collective obligation in form”, yet “does not make it a legal obligation with legally binding force in substance. It therefore subsists at the level of an aspiration.” What then, is the function of these collective obligations, and how do they relate to the individual obligations?

To answer this question, it is useful to firstly identify the key individual obligations of result contained in the Paris Agreement. These are, *inter alia*: the obligation to submit prepare, communicate and maintain successive NDCs⁶⁷ that will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition;⁶⁸ to provide the information necessary for clarity, transparency and understanding;⁶⁹ and to regularly provide a national inventory report of anthropogenic emissions by sources and removals by sinks and information necessary to track progress made in implementing and achieving a Parties' NDC.⁷⁰

It is important to note that all these obligations are essentially procedural in nature. This is perhaps most aptly reflected in the fact that States are obliged to submit their NDCs, yet there is no obligation to actually carry forward the commitments contained therein.⁷¹ This does not mean, however, that defining the content of NDCs and the implementation thereof through domestic measures is entirely left up to the Parties' discretion.⁷² Rather, in formulating and implementing their NDCs, parties are under an obligation of *due diligence* – i.e. an “obligation to deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result”.⁷³ This flows from the wording of Articles 4(2) and 4(3), pursuant to which Parties' NDCs shall reflect “its highest possible ambition”, and “pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.” Although these provisions do not create legally binding obligations of result to achieve the content of a Parties' NDC, they arguably establish an obligation to design measures that are necessary, meaningful and effective

⁶⁶ A. Zahar, *surpa* note 74, 179.

⁶⁷ Paris Agreement, Article 4(2).

⁶⁸ Paris Agreement, Article 4(3).

⁶⁹ Paris Agreement, Article 4(9).

⁷⁰ Paris Agreement, Article 13(9).

⁷¹ C. Voigt, ‘The Paris Agreement: What is the standard of conduct for parties?’ (2016) 26 Questions of International Law, 19.

⁷² *Ibid.*, 20.

⁷³ ITLOS Seabed Disputes Chamber, *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion of 1 February 2011) ITLOS Reports 2011, para. 111.

within the parameters of their respective due diligence standards of conduct. How then, is this standard of conduct determined? This is where the collective obligations come into play, as they inform the due diligence standard Parties must pursue in drafting and implementing their NDCs. It could be said that these collective obligations – most importantly the 2° C temperature goal and the requirement of progression overtime – function as a baseline from which all NDCs depart. Then, by applying the principles of CBDR-RC and equity, Parties’ respective due diligence standards can be determined.

2.4 The oceans in the Paris Agreement and UNFCCC framework

It has been previously noted that very modest textual attention is accorded to the oceans in the international climate change regime. They are mentioned once in the UNFCCC, in Article 4, which recognizes their function as a carbon sink, and calls upon Parties to “promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems”.⁷⁴ In the Paris Agreement, reference is made to this provision in Article 5 (1). Besides this indirect reference, the oceans are mentioned only once, in recital 13 of the preamble, which notes the “importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity [...]”. Although this clause may at first sight look insignificant – partly due to its location in the preamble, as opposed to the operative part of the Agreement – it nonetheless bears some normative weight. The primary purpose of a preamble is to provide context, which is important to determine how a treaty positions itself in the broader constellation of international legal frameworks and its relationship with other legal instruments. Indeed, this particular clause has been said to “assume a function of integration and of conflict avoidance with other areas of international law and policy”.⁷⁵ Such areas of international law include, *inter alia*, the law of the sea. By placing emphasis on the integrity of ecosystems, this clause seemingly seeks to encourage complementarity and mutual-reinforcement. The mere inclusion of a – rather vaguely formulated – preambular provision is, however, by no means enough to substantially foster integration between the law of the sea and the Paris Agreement. As noted in Chapter 1, there is a significant degree of overlap between these respective regimes as the earth’s oceans and climate are inherently interwoven, which raises complex legal questions regarding their

⁷⁴ UNFCCC, Article 4 (1)(d).

⁷⁵ D. Klein, M.P. Carazo, M. Doelle, *The Paris Agreement on Climate Change: Analysis and Commentary* (Oxford University Press, 2017) 118.

relationship. The inclusion of a relationship clause in the operational part of the Agreement would have been a useful addition. Given the absence of such a clause, however, States have sought to further integration in other ways. One modest step in this regard was taken in 2018, when the UNFCCC Secretariat joined UN-Oceans, which is an “inter-agency mechanism for the coordination, coherence and effectiveness of competent organizations of the UN System”.⁷⁶ This signals increasing recognition of the relationship between the UNFCCC and the law of the sea within the UN framework. Indeed, in a 2018 statement, the UN Secretary General in 2018 recognized that:

“Increasing linkages are being drawn to the ocean dimension in major intergovernmental fora or processes that are not focused on ocean-related issues was a very positive development during the reporting period.”⁷⁷

Further, in 2017 the ‘Ocean Pathway’ was launched at COP 23 in Fiji. This platform provides a two-track strategy for 2020 supporting the goals of the Paris Agreement, including increasing the role of oceans considerations in the UNFCCC process and increasing action in priority areas impacting or impacted by oceans and climate change.⁷⁸ Further steps towards enhanced integration between the law of the sea and climate change were taken at COP 26 in Glasgow. The ‘Glasgow Climate Pact’⁷⁹ – the formal outcome of COP 26 – contains several references to the oceans. Firstly, a preambular recital notes the “importance of ensuring the integrity of all ecosystems, including [...] the ocean”.⁸⁰ Further, relevant work programmes and constituted bodies under the UNFCCC are invited to “consider how to integrate and strengthen ocean-based action in their existing mandates and workplans”, and an annual dialogue to strengthen ocean-based action will be held by the Subsidiary Body for Scientific and Technological Advice.⁸¹ An informal summary report thereon will be prepared for COP 27.

Another way in which the oceans are being addressed within the UNFCCC framework, is through the NDCs that have been submitted by Parties to the Paris Agreement. A 2016 study⁸²

⁷⁶ See <<http://www.unoceans.org/>>, accessed 15 September 2021.

⁷⁷ Report of the UN Secretary-General, Oceans and the Law of the Sea (5 September 2018) UN Doc A/73/68 2018.

⁷⁸ UNFCCC COP 23 Fiji, ‘The Ocean Pathway: Towards an Ocean Inclusive UNFCCC Process’ <<https://cop23.com.fj/the-ocean-pathway/>> accessed 12 September 2021.

⁷⁹ Decision -/CP.26, Glasgow Climate Pact. Not yet officially published at the time of writing, text accessible via <<https://unfccc.int/documents/310475>>.

⁸⁰ Ibid., preamble.

⁸¹ Ibid, paragraphs 60-61.

⁸² N.D. Gallo, D.G. Victor, L.A. Levin, ‘Ocean commitments under the Paris Agreement’ (2017) 7 Nature Climate Change, 833.

assessed whether and how Parties are focusing on the oceans and marine ecosystems in their NDCs. It was found that, out of the 161 NDCs that were submitted at the time, 70% included some mention of marine issues.⁸³ Coastline impacts, ocean warming and fisheries impacts received the most attention, and were addressed by 92, 77 and 72 States' NDCs respectively. Other pressing issues, like ocean acidification (14), coral bleaching (9) and ocean deoxygenation (1) are only scarcely mentioned in NDCs.⁸⁴

2.5 Concluding remarks

This Chapter sought to provide a holistic overview of the Paris Agreement. It was shown that the Agreement embodies a delicate interplay of individual and collective obligations, and non-law, soft-law, and hard-law provisions. The result is a unique and highly diversified instrument, the legal outputs of which varies greatly among Parties. This makes it a challenging task to determine how the Paris Agreement relates to, interacts with, and affects the content of other treaties, including UNCLOS.

It was further shown that the oceans and the law of the sea are only referred to in a piecemeal fashion within the international climate change regime. Their function as an important carbon sink is recognized by the UNFCCC and the Paris Agreement, and a scanty attempt at fostering integration is made by the inclusion of a contextual preambular provision. Further, although the harmful effects of climate change on the oceans are not directly addressed by the Paris Agreement, marine issues are included in 70% of the NDCs submitted by Parties. Yet, this notwithstanding, questions regarding the relationship between the UNFCCC and the law of the sea remain wide open, and shall be addressed in the ensuing chapters of this thesis.

⁸³ Ibid.

⁸⁴ Ibid., 834.

CHAPTER III: THE UN CONVENTION ON THE LAW OF THE SEA

3.1 Introduction

Having analyzed the international climate change regime, we now turn to the second element of this regime interaction study: the international law of the sea. At the core of this regime is the UN Convention on the Law of the Sea (UNCLOS), often referred to as “the constitution of the oceans”.⁸⁵ UNCLOS does, indeed, share some characteristics with national constitutions, as it contains important substantive obligations and sets up new institutional machinery. Further, UNCLOS is, similar to constitutions, intended to endure and difficult to amend. Due to these very characteristics, it has long been recognized that constitutions are dynamic, or ‘living’, instruments.⁸⁶ To what extent can the same be said about UNCLOS? For our purposes, this question is highly relevant, as UNCLOS does not directly address climate change. This Chapter explores the extent to which UNCLOS is a ‘living’ treaty, seeking to ascertain the nature as well as the limitations of this dynamism, and identifying provisions that function as *hooks* upon which climate change issues can be hung.

To this end, this Chapter is structured as follows. Starting from a general overview of UNCLOS, section 3.3 addresses the ongoing negotiations for an implementing agreement on biodiversity beyond national jurisdiction (BBNJ), having particular regard to the role climate change plays therein. Thereafter, section 3.4 explores UNCLOS’ dynamic nature and the limits thereto. Following this, section 3.5 takes a closer look at the provisions of Part XII on the protection and preservation of the marine environment. Lastly, section 3.6 offers some concluding remarks.

3.2 The UN Convention on the Law of the Sea: An overview

The fourth preambular recital of UNCLOS aptly captures its scope and purpose, providing that it seeks to establish:

“a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the

⁸⁵ ‘A Constitution for the Oceans’ Remarks by Tommy T.B. Koh, of Singapore. President of the Third United Nations Conference on the Law of the Sea, 10 December 1982.

⁸⁶ See, for example, W. Rehnquist, ‘The Notion of a Living Constitution’ (1976) 54 Texas Law Review, 693.

*conservation of their living resources, and the study, protection and preservation of the marine environment*⁸⁷

UNCLOS is, indeed, one of the most comprehensive international legal instruments of its time.⁸⁸ It comprises of 320 articles and nine annexes, and establishes a truly comprehensive regime to govern the oceans. Following its adoption at the third UN Conference on the Law of the Sea in 1982, 168 States have ratified the Convention. Although a number of key States in the international arena – including the U.S. and Turkey – have, for varying reasons, not become Parties to UNCLOS, they are nonetheless bound to many of the rules contained therein, as many of its key provisions have become part of customary international law.⁸⁹ In its 17 Parts, UNCLOS covers a broad range of ocean related issues, ranging from piracy to deep sea mining and scientific research. Although a full discussion of all of its elements is beyond the scope of this thesis, a brief examination of its core provisions is in place here.

The most fundamental rules contained in UNCLOS are arguably those that introduce the various ‘maritime zones’. It divides ocean space into different areas, fragmenting the ocean environment and subsuming each fragment to a different legal regime. This so called ‘zonal approach’ sits uncomfortably with the ecological realities of the oceans. Ecosystems are not bound by jurisdictional boundaries, and often spread out across several of them. This makes it a complex task to effectively manage and protect ecosystems, as they may be subject to different legal regimes. The maritime zones introduced by UNCLOS are, *inter alia*, the following.

In the territorial sea, which extends to up to 12 nautical miles from the baseline, the coastal State enjoys full sovereignty.⁹⁰ Other States do, however, enjoy certain rights here, the most important of which is that of innocent passage.⁹¹ Adjacent to the territorial sea lies the exclusive economic zone (EEZ), which covers the water column and has a breadth of up to 200 nautical miles. Here, the coastal State enjoys sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources.⁹²

The continental shelf regime governs the seabed and extends to at least 200 nm and, similar to the EEZ, allocates sovereign rights to the coastal State to explore and exploit its natural

⁸⁷ UNCLOS, Preamble.

⁸⁸ R. Rothwell and T. Stephens, *The International Law of the Sea* (2nd edn, HART publishing 2016) 14.

⁸⁹ See J.A. Roach, ‘Today’s Customary International Law of the Sea’ (2014) 45:3 *Ocean Development & International Law*, 239-259.

⁹⁰ UNCLOS, Articles 2 and 3.

⁹¹ UNCLOS, Article 17.

⁹² UNCLOS, Article 56 and 57.

resources.⁹³ Beyond the continental shelf and the EEZ lie the Area and the high seas, collectively referred to as areas beyond national jurisdiction (ABNJ). As the name suggests, no State enjoys any sovereignty or legislative jurisdiction in ABNJ. The regime of the Area is underpinned by the principle of *common heritage*, by virtue of which no State can unilaterally exploit the resources of the Area, as they are the ‘common heritage of mankind’.⁹⁴ Paradoxically, the high seas regime is rather permissive, and ultimately reflects the overarching *mare liberum*, or ‘freedom of the high seas’ principle. Article 87 lists the various freedoms that States enjoy in the high seas, which include, *inter alia*, fishing, navigation and the laying of submarine cables and pipelines.⁹⁵ This *laissez-faire* regime is arguably outdated, as it fails to provide the tools to meet the numerous challenges posed to the oceans, including overfishing, climate change and marine pollution. A common understanding in the international community that the existing legal framework in ABNJ is indeed insufficient to protect biodiversity has led to the development of a new international legally binding instrument (ILBI) on biodiversity beyond national jurisdiction (BBNJ).⁹⁶ This Agreement will cover, ‘together and as a whole’, the following four elements: (i) marine genetic resources, including questions on the sharing of benefits; (ii) measures such as area-based management tools (ABMTs), including marine protected areas (MPAs); (iii) environmental impact assessments; (iv) capacity-building and the transfer of marine technology.⁹⁷ This process is now in its final phases, as three out of four intergovernmental conferences have been completed. The following section will further assess the BBNJ negotiations, and the role climate change plays therein.

3.3 The BBNJ Negotiations

Contrary to UNCLOS, which makes no explicit reference to climate change, it is expected that the BBNJ ILBI will contain several such references. This is not surprising, since climate change is now high on the international political agenda, which was by no means the case when UNCLOS was negotiated in the early 1980s. Indeed, prior to the third intergovernmental conference (IGC), the Secretary-General of the IGC underlined that “climate change and the

⁹³ UNCLOS, Articles 76 and 77.

⁹⁴ UNCLOS, Article 136 and 137.

⁹⁵ UNCLOS, Article 87.

⁹⁶ UNGA Res 69/292 (19 June 2015) UN Doc A/RES/69/292.

⁹⁷ Letter dated 30 June 2011 from the Co-Chairs of the Ad Hoc Open-ended Informal Working Group to the President of the General Assembly (30 June 2011) UN Doc A/66/119.

ocean are inextricably linked”.⁹⁸ This section explores how climate change will be addressed by the ILBI, by assessing the most recent Draft text, as well as the negotiating reports and textual submissions by the Parties. These documents provide a useful glimpse of what “the once and future treaty”⁹⁹ will look like. It should be noted, however, that the ensuing analysis is of an inherently tentative character, seeing as the negotiations are still ongoing.

The BBNJ ILBI will presumably address climate change in three ways. Firstly, it seems likely that climate change considerations will be woven into Article 5, which provides the general principles that underpin the ILBI as a whole. Article 5 (h) provides that parties shall be guided by “an approach that builds ecosystem resilience to the adverse effects of climate change and ocean acidification and restores ecosystem integrity”.¹⁰⁰ This paragraph is not placed in brackets, which is an indication that it is likely to be included in the final text. During the most recent intergovernmental conference (IGC) this paragraph received broad support from, among others, the ‘Group of 77’, China, and the European Union.¹⁰¹

Secondly, climate change impacts may be considered in the conduct of environmental impact assessments (EIAs), as States are under an obligation to take into account *cumulative impacts*, when conducting EIAs. Cumulative impacts are defined as “impacts on the same ecosystems resulting from different activities, including past, present or reasonably foreseeable activities, or from the repetition of similar activities over time, including climate change, ocean acidification and related impacts.” This would mean that an EIA that merely focusses on the effects of the planned activity on the marine environment would be insufficient. Rather, the effects of other activities and impacts must be taken into account. At IGC-3, consensus was reached on the need to take into account cumulative impacts in the conduct of EIAs. However, divergent views were noted on the need for, and form of, explicit references to climate change.¹⁰²

⁹⁸ T. Kantai et al, ‘Summary of the Third Session of the Intergovernmental Conference (IGC) on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 19-30 August 2019’ (2019) 25 Earth Negotiations Bulletin, 3

⁹⁹ R. Tiller, E. De Santo, E Mendenhall, E Nyman, ‘The once and future treaty: Towards a new regime for biodiversity in areas beyond national jurisdiction’ (2019) 99 Marine Policy.

¹⁰⁰ 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 (27 November 2019).

¹⁰¹ IGC-3 summary, *supra* note 98.

¹⁰² *Ibid.*, 11.

Lastly, and most importantly, climate change considerations have been a recurring subject of debate throughout the negotiations concerning AMBTs, including MPAs. In the most recent Draft text, two climate change references are included in Part III on AMBTs, including MPAs. The first reference is made in Article 14, which states the objectives of Part III. Paragraph (e), which is entirely placed in brackets, provides the objective to “rehabilitate and restore biodiversity and ecosystems, including with a view to enhancing their productivity and health and building resilience to stressors, including those related to climate change, ocean acidification and marine pollution”.¹⁰³ Further, “vulnerability, including to climate change and ocean acidification” is listed among the indicative criteria for the identification of areas.¹⁰⁴ The inclusion of these references to climate change were, however, subject to extensive debate during IGC-2 and IGC-3.¹⁰⁵ Both of these provisions signal recognition of the adverse effect of climate change on the oceans, and their inclusion could foster the adoption of MPAs in areas that are particularly vulnerable to climate change, such as areas with a high degree of acidification or deoxygenation. Although this is certainly a step in the right direction, more can be done. Negotiators have failed to recognize the role of the oceans as a carbon sink. In the IPCC’s Report on the Oceans and Cryosphere, it was recognized that “networks of protected areas help maintain ecosystem services, including carbon uptake and storage”.¹⁰⁶ Although most of the carbon uptake happens in coastal ecosystems, such as mangroves, tidal marshes and seagrass meadows,¹⁰⁷ the carbon that originates from these areas is exported to the deep sea, where it is stored.¹⁰⁸ The protection of these deposition areas is thus crucial in combatting climate change, since certain activities – like bottom trawling – can disrupt this process and lead to the release of the stored carbon.¹⁰⁹ One way to achieve this would be adding CO₂ storage to the list of identification criteria, or recognize the importance of the deep sea as a carbon sink

¹⁰³ BBNJ Draft, *supra* note 100, Article 14(e).

¹⁰⁴ *Ibid.*, Annex I (f)

¹⁰⁵ T. Kantai et al, ‘Summary of the Second Session of the Intergovernmental Conference on an International Legally Binding Instrument under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 25 March - 5 April 2019’ (2019) 25 Earth Negotiations Bulletin 6, opposition to its inclusion voiced by the Russian Federation, Australia and Singapore. At IGC-3, New Zealand, Thailand ‘and others’ favored its inclusion, opposed by Japan and the U.S, see IGC-3 summary, *supra* note 98, 8-9.

¹⁰⁶ IPCC, *supra* note 12, 30.

¹⁰⁷ *Ibid.*

¹⁰⁸ K. Thompson, K. Miller, P. Johnston and D. Santillo, ‘Storage of carbon by marine ecosystems and their contribution to climate change mitigation’ (2017) Greenpeace Research Laboratories Technical Report, 3.

¹⁰⁹ E. Sala, J. Mayorga, J. Lubchenco, ‘Protecting the global ocean for biodiversity, food and climate’ (2021) 592 Nature, 397-402

in the objectives of Part III. Neither of these possibilities were thus far considered during the negotiations. The following section will explore UNCLOS' nature as a 'living treaty'.

3.4 UNCLOS as a 'living' treaty

Sir Michael Wood, speaking about UNCLOS on the occasion of its thirtieth anniversary in 2012, characterized UNCLOS as a "living instrument", as it was "designed to be flexible".¹¹⁰ In a similar vein, Judge Lucky in his separate opinion to the ITLOS' *Fisheries Advisory Opinion* acknowledged that:

*"The 1982 Convention and the Statute of the Tribunal are "living instruments". This means that they "grow" and adapt to changing circumstances. An act/ statute is always "speaking". The law of the sea is not static. It is dynamic and, therefore, through interpretation and construction of the relevant articles a court or tribunal can adhere and give positive effect to this dynamism"*¹¹¹

It is not a unique feature of UNCLOS that it is capable of evolving. In fact, some degree of flexibility is inherent to all treaties. As noted earlier, when interpreting any treaty, it should never be viewed in isolation, but within its wider international legal context.¹¹² The content of any treaty can, furthermore, evolve through *inter alia* subsequent practice and judicial interpretation.¹¹³

UNCLOS, however, has a number of unique characteristics that allow it to be exceptionally malleable. Most importantly, perhaps, is the extensive use of 'rules of reference'. By means of such rules, UNCLOS does not establish specific prescriptive standards but instead leaves the formulation of these standards to States and competent international organizations. The rules of reference are, in effect, a treaty-based reference to generally applicable international rules and standards (GAIRAS), that are then incorporated in UNCLOS to determine the level of due diligence of states in complying with their relevant obligations.¹¹⁴ These rules are found all throughout UNCLOS, in varying forms, but are most common in Part XII on the protection and preservation of the marine environment – which will be discussed in the following section.

¹¹⁰ M. Wood, 'Reflections on the UN Convention on the Law of the Sea' in (eds) J. Barnet and R. Barnes, *supra* note 21, lxxvii.

¹¹¹ *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission* (Separate Opinion of Judge Lucky, 2 April 2015) ITLOS Reports 2015,

¹¹² See VCLT article 31 (3)(c), and *Namibia*, *supra* note 26, para 53.

¹¹³ For an in-depth discussion of the evolution of treaties, see: M. Fitzmaurice, 'The Practical Working of the Law of Treaties' in Malcolm D Evans (ed), *International Law* (3rd edn, OUP 2010) 171-188.

¹¹⁴ S. Trevisanut, *supra* note 20, 13.

Another characteristic of UNCLOS that fosters flexibility is the dynamic nature of many of its key provisions, allowing their content to evolve overtime. This phenomenon is called evolutive interpretation, and has its roots in the ICJ's *Namibia* judgment, where the Court acknowledged the existence of evolutionary terms in treaties.¹¹⁵ In *Dispute Regarding Navigational and Related Rights*, the ICJ formulated two cumulative requirements for evolutive interpretation: (i) the treaty "has been entered into for a very long time" or is "of continuing duration", and (ii) the parties have used 'generic terms'.¹¹⁶ Additionally, it is well accepted that the intention of the parties to a treaty is also highly relevant in determining the evolutionary nature of its provisions. Treaties are, after all, mere "embodiments of the common will of their parties".¹¹⁷

UNCLOS meets all these requirements. There can be little doubt that it is a treaty of 'continuing duration', given its existence of nearly 40 years, and arguably even longer.¹¹⁸ Large parts of it also meet the second requirement, as many of its provisions contain generic terms.¹¹⁹ The use of such terms, as well as the extensive use of 'rules of reference' are a strong indication that UNCLOS was drafted with the intention of making it a dynamic treaty. This is underlined by the wording of its preamble, where reference is made to the "progressive development of the law of the sea achieved in this Convention".¹²⁰

This dynamism is often invoked as one of the strengths of UNCLOS.¹²¹ Too much flexibility can, however, be dangerous. A treaty should not start living a life of its own: flexibility should always be balanced with stability. This was underlined by the former President of the Supreme Court of the U.K., Baroness Hale of Richmond, who insightfully compared treaties to trees:

A tree has a life of its own, but it can only grow and develop within its natural limits. It is not an unstoppable beanstalk grown from a magic bean. At a time when many are worried about how far the

¹¹⁵ *Namibia* case, *supra* note 26, para 53.

¹¹⁶ *Dispute regarding Navigational and Related Rights (Costa Rica v. Nicaragua)* [2009] ICJ Rep 109-10 para. 66.

¹¹⁷ ILC, 'Draft Conclusions on Subsequent Agreements and Subsequent Practice in Relation to the Interpretation of Treaties' (2013) UN Doc A/68/10, 23.

¹¹⁸ Many of its provisions are rooted in the 1958 Geneva Conventions, and some provisions, such as for example Article 87, can even be traced back to the early 1600s, when Hugo Grotius published his famous work *Mare Liberum* (H. Grotius, *Mare Liberum* (Leiden, 1609)).

¹¹⁹ There is no clear definition of 'generic terms'. The closest thing to a definition the ICJ has given is that they '[refer] to a class of [something]', see: *Aegean Sea Continental Shelf (Greece v. Turkey)* [1978] ICJ Reports 3, para 77. Examples of generic terms include, *inter alia*, 'natural resources' (Articles 56, 77, 193, 194) and 'the marine environment' (Articles 56, 123, 192).

¹²⁰ UNCLOS, preambular recital 7.

¹²¹ M. Wood, *supra* note 110, lxxviii.

*ECHR may develop beyond the original expectations of its framers, it seems reasonable to ask whether there are any natural limits to its growth and what those might be.*¹²²

How then, does one determine the ‘natural limits’ to the growth of UNCLOS? *Sir Michael Wood* noted that “adaptation and change, through interpretation of the Convention and the development of external standards, should be inline with the fundamental principles embodied in the basic package deal”.¹²³ Within the parameters provided by these principles, UNCLOS can grow and adapt. This leaves us with the question whether UNCLOS is flexible enough, taking into account these ‘natural limits’, to address climate change. To answer this question, to which we turn in the following Chapter, the relevant provisions of Part XII must first be assessed.

3.5 Part XII of UNCLOS: Pollution and the protection and preservation of the marine environment

Continuing the metaphor of UNCLOS as a *living tree*, this section focusses on the *branch* that is Part XII, concerning the protection and preservation of the marine environment. This Part contains several dynamic provisions that function as *hooks* upon which climate change law can be hung. This section seeks to provide a general overview of the relevant provisions.

Article 192 forms the core of Part XII, and enshrines the general obligation to “protect and preserve the marine environment”.¹²⁴ The content of this very broadly formulated provision has been fleshed out in case law. The International Tribunal for the Law of the Sea (ITLOS) elaborated upon the meaning of the term ‘marine environment’ in its *Fisheries Advisory Opinion*, where it found that this includes living resources and marine life. It follows from Article 194 (5) that “rare and fragile ecosystems” also fall within the ambit of this phrase. In the *South China Sea Arbitration*, Article 192 was discussed at length. The Tribunal found that the general obligation enshrined therein is one of due diligence, which “extends both to “protection” of the marine environment from future damage and “preservation” in the sense of maintaining or improving its present condition”.¹²⁵ It goes on to find that Article 192 entails a

¹²² The Rt Hon the Baroness Hale, ‘How tall can the European Convention on Human Rights Grow? How tall can the European Convention on Human Rights Grow?’ (2011) Gray’s Inn Reading, available at <https://www.supremecourt.uk/docs/speech_110616.pdf> accessed 30 September 2021, cited in J. Barnes and R. Barnes, *supra* note 21, 36.

¹²³ M. Wood, *supra* note 110, lxxviii.

¹²⁴ UNCLOS, Article 192.

¹²⁵ *South China Sea Arbitration (The Republic of Philippines v. The People’s Republic of China) (Award of 12 July 2016) PCA Case No. 2013–19*, paras 941 and 957.

“positive obligation to take active measures to protect and preserve the marine environment”.¹²⁶ The content of this obligation is informed by other provisions of Part XII and other rules of international law.¹²⁷ A key provision in this regard is Article 194, pursuant to which States are required to take all measures that are necessary to “prevent, reduce and control pollution of the marine environment from any source”,¹²⁸ and to “ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment”.¹²⁹ In its *Fisheries Advisory Opinion*, the ITLOS found that this latter obligation is one of due diligence, which not only requires States to adopt appropriate rules and measures, but also a “certain level of vigilance in their enforcement and the exercise of administrative control”.¹³⁰ Article 194 (3) provides that the measures taken shall deal with ‘all sources’ of marine pollution, including *inter alia* “the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping”.¹³¹

Section 5 of Part XII provides a comprehensive regime to govern pollution to the marine environment from various sources. The most important provisions of Section 5, for present purposes, are Articles 207 and 212 on land-based and atmospheric pollution respectively. Article 207 establishes the obligation to “adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures” and to take other necessary measures to this end.¹³² This list is non-exhaustive, allowing this provision to adapt to changing circumstances and emerging challenges. Further dynamism is woven into this provision by means of the third paragraph, which includes a rule of reference and calls upon Parties to “establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources”.¹³³ Article 212 regulates pollution from or through the atmosphere, and sets a standard of conduct

¹²⁶ Ibid, para. 941.

¹²⁷ Ibid.

¹²⁸ UNCLOS, Article 194 (1).

¹²⁹ UNCLOS, Article 194 (2).

¹³⁰ *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission* (Advisory Opinion, 2 April 2015) ITLOS Reports 2015, para 197

¹³¹ UNCLOS, Article 194 (3).

¹³² UNCLOS, Article 207 (1) and (2).

¹³³ UNCLOS, Article 207 (3).

identical to those of Articles 194 and 207, namely to “prevent, reduce and control” such pollution, and to take other necessary measures to this end. Further, a rule of reference identical to that of Article 207 is included in the fourth paragraph.

3.6 Concluding remarks

Throughout the years, UNCLOS’ ability to address major new challenges that were not foreseen at the time it was negotiated has been put to the test many times. In the nearly 40 years that have passed since its adoption, a lot has changed. The global population almost doubled, and economies all over the world flourished. Entire new industries emerged, such as offshore energy production and deep sea mining, and existing industries like shipping and fisheries intensified. New threats to the marine environment emerged, the scale and gravity of which no one could have predicted in 1982. UNCLOS managed to adapt to many of these changes and challenges, however it should also be understood that it cannot provide and has never been intended to provide an answer to every problem that arises. This is demonstrated by the fact that two implementing agreements were adopted shortly after its conclusion,¹³⁴ and a third one is currently in the making – as discussed in section 3.3. The question remains whether UNCLOS is dynamic and robust enough to face perhaps the biggest challenge of all: climate change. To this we turn in the following Chapter. By exploring the normative regime interaction between UNCLOS and the Paris Agreement, the ensuing analysis seeks to ascertain how the content of the provisions of Part XII has evolved as to encompass climate change.

¹³⁴ Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (adopted 28 July 1994, in force 16 November 1994), and the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (adopted 5 August 1995, in force 11 December 2001) 2167 UNTS 88.

CHAPTER IV: INTERPRETING UNCLOS IN LIGHT OF THE PARIS AGREEMENT

4.1 Introduction

As noted in Chapter 1, UNCLOS contains two compatibility clauses that dictate its relationship to other instruments: Articles 237 and 311. The former governs the relationship of UNCLOS Part XII vis-à-vis other treaties relating to the protection and preservation of the marine environment, whereas the latter applies to UNCLOS as whole. Both provisions take an approach that seeks to foster complementarity, by allowing States to enter into other agreements that govern maritime issues as long as they are compatible with UNCLOS. More specifically, Article 237 provides that “specific obligations 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 of this Convention”.¹³⁵ Although the Paris Agreement’s primary focus is not the protection and preservation of the marine environment, the obligations flowing from it do relate to it, albeit indirectly. As shown in Section 1.1, the marine environment is heavily impacted by anthropogenic greenhouse gas emissions. Consequently, the mitigation thereof, which is among the objectives of the Paris Agreement, undeniably relates to the protection of the marine environment. Parties to UNCLOS should thus carry out their obligations under the Paris Agreement “in a manner consistent with the general principles and objectives of UNCLOS”. This provision has the effect of safeguarding a common standard of marine environmental protection, and simultaneously provides a mechanism for normative interaction between UNCLOS and the Paris Agreement, by allowing the integration of substantive provisions of the Paris Agreement within the overall framework of Part XII of UNCLOS.¹³⁶

This underlines a conclusion drawn in the previous Chapter, namely that UNCLOS’ growth is limited by its fundamental principles. Article 237 allows the incorporation of the Paris Agreement into Part XII *in principle*, within these limits, but leaves unanswered the question *how* this is done. To this we turn in the ensuing section, which assesses the scope of Part XII. Thereafter, section 4.3 provides an in-depth discussion of the obligations placed upon States to address climate change under UNCLOS.

¹³⁵ UNCLOS, Article 237 (2).

¹³⁶ S. Trevisanut, *supra* note 20, 12.

4.2 The scope of Part XII of UNCLOS

As previously noted, the central provision of Part XII is Article 192, by virtue of which States are under a general obligation to protect and preserve the marine environment. This Article is a textbook example of an evolutionary provision, as it is very open ended and contains multiple ‘generic’ terms.¹³⁷ It should thus be interpreted so as to cover all contemporary threats to the marine environment, including those that emerged following its adoption. Given the immense threat posed to the marine environment by climate change, any State seeking to comply with its obligation under Article 192, and arguably Part XII as a whole, needs to take measures to reduce greenhouse gas emissions and protect the marine environment from the adverse effects of climate change. Any other conclusion would render Article 192 void, and would arguably be in violation of the principle of good faith as enshrined in Article 360 UNCLOS and Article 26 and 31 VCLT.

States are thus under a general obligation to protect and preserve the marine environment from the harmful effects of climate change. As discussed in Section 3.5, this entails a “positive obligation to take active measures to protect and preserve the marine environment”.¹³⁸ This obligation remains rather vague, and is given further specificity through the other provisions of Part XII.¹³⁹ The question thus arises whether other provisions of Part XII are similarly applicable to climate change. The vast majority of the remaining provisions of Part XII (including Articles 194, 207 and 212) are concerned with ‘pollution to the marine environment’, a phrase that is defined by Article 1(1)(4) as follows:

*“the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities”*¹⁴⁰

¹³⁷ *Dispute Regarding Navigational and Related Rights*, supra note 116. The dynamic nature of Article 192 was was implicitly recognized in the *South China Sea* arbitration (see n. 125), in which the Tribunal recognized that the content of this obligation is informed by “applicable rules of international law” (para. 141) which is constantly evolving, and so is, consequently, the content of Article 192.

¹³⁸ *South China Sea Arbitration*, supra note 125.

¹³⁹ Ibid.

¹⁴⁰ UNCLOS, Article 1 (1)(4).

Although this provision was not drafted with climate change in mind, it is well accepted that it is broad enough to encompass pollution by greenhouse gasses – in particular CO₂.¹⁴¹ As mentioned in Section 1.1, the oceans absorb enormous amounts of CO₂ which causes ocean temperatures to rise. There is thus an ‘introduction by man’ of a substance (CO₂) as well as energy (heat) to the marine environment. These processes clearly result in ‘deleterious effects’, including large scale coral bleaching, ocean acidification and deoxygenation, all of which harm ‘living resources and marine life’.

Thus, the provisions of Part XII concerned with pollution are, in principle, applicable to climate change. Consequently, States are, by virtue of Article 194, under an obligation to take all necessary measures to prevent, reduce and control the harmful effects of climate change on the marine environment and to “ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment”.¹⁴² These measures include those 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”.¹⁴³ As previously noted, this is an obligation of due diligence¹⁴⁴ – the content of which is further discussed below.

Whereas Article 194 contains a general obligation to combat pollution, the provisions contained in Section 5 of Part XII address specific sources of marine pollution – including land-based pollution (Article 207) and atmospheric pollution (Article 212). Their applicability to climate change thus requires further assessment.

The applicability of Article 207 on land-based pollution to climate change is subject to debate.¹⁴⁵ Various examples of sources of land-based pollution are listed in Article 207, i.e. rivers, estuaries, pipelines and outfall structures. As previously observed, this list is non-exhaustive, allowing this provision to evolve and adapt to changing circumstances. There can

¹⁴¹ See, for example, A. Boyle, ‘Litigating Climate Change under Part XII of the LOSC’ (2019) 34 *The International Journal of Marine and Coastal Law*, 462 and K.N. Scott, ‘Ocean Acidification’ in (eds) E. Johansen, S.V. Busch and I.U. Jakobsen, *The Law of the Sea and Climate Change* (Cambridge University Press, 2021) 113.

¹⁴² UNCLOS, Article 194 (2).

¹⁴³ UNCLOS, Article 194 (5).

¹⁴⁴ *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission*, *supra* note 130.

¹⁴⁵ See, for example, A. Proelß, *United Nations Convention on the Law of the Sea: A Commentary* (Beck, Munich, 2017) 1277–1314, who takes the view that Article 207 does not cover land-based pollution that is transmitted through the atmosphere, since this would be covered by Article 212. On the other hand, Boyle (*supra* note 141, 464) takes the view that the scope of Article 207 has expanded to include pollution from ‘point or diffuse inputs from all sources on land’.

be little doubt that greenhouse gas emissions are a form of land-based pollution, seeing as the bulk of emissions originate from land (e.g. coal-fired power plants, transportation, agriculture). Only a small portion of greenhouse gasses are emitted at sea.¹⁴⁶ Although this provision was carefully drafted as to not produce any strong obligations, allowing States to retain a wide margin of discretion in balancing their economic development against environmental protection, this was done at a time when policymakers were completely unaware of the existential threat that climate change would come to pose to the oceans. The content of Article 207 is affected these new circumstances and challenges, as well as by the transformation of the existing body of international law, through interpretation by means of systemic integration.¹⁴⁷ There is now a vast amount of international environmental treaties, all of which have a bearing on the content of Article 207. These include the instruments discussed here, i.e. the UNFCCC and the Paris Agreement, as well as other global and regional agreements.¹⁴⁸ Other provisions of UNCLOS are also of relevance, including Articles 1(1)(4) and 192, both of which, as we have seen, have evolved to encompass climate change. Taking all this into account, a compelling argument can be made that the scope of Article 207 has evolved to include all land-based sources of greenhouse gasses.

Thus, States are under an obligation to “adopt laws and regulations to prevent, reduce and control pollution of the marine environment” from land-based greenhouse gas emissions, taking into account “internationally agreed rules, standards and recommended practices and procedures”, and to take necessary measures to this end.¹⁴⁹ A stricter standard of conduct is set by the fifth paragraph of Article 207, pursuant to which such laws, regulations and measures “shall include those designed to minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine

¹⁴⁶ Maritime transport emits around 940 million tons of CO₂ annually and is responsible for about 2.5% of global greenhouse gas (GHG) emissions, see: International Maritime Organization, 'Fourth IMO Greenhouse Gas Study' (2020) available at <imo.org/en/OurWork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx> accessed 7 October 2021.

¹⁴⁷ See Section 1.3 and Article 31 (3)(c) VCLT.

¹⁴⁸ Some important instruments in this regard are, *inter alia*, Convention for the Protection of the Marine Environment of the North-East Atlantic (adopted 22 September 1992, in force 25 March 1998) 2354 UNTS (OSPAR Convention), Article 1(e) and Article 3; Convention on the Protection of the Marine Environment of the Baltic Sea Area (adopted 22 March 1974, in force 3 May 1980) 1507 UNTS 166 (Helsinki Convention), Article 2(2) and Article 6; and the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources and Activities to the Barcelona Convention (adopted 17 May 1980, in force 17 June 1983), Article 4 (b). Soft law instruments are also highly relevant, most importantly Agenda 21 UNGA, 'United Nations Conference on Environment & Development Rio de Janeiro' (Rio de Janeiro, 3-14 June 1992) UN Doc A/CONF 151/rev 1 (Agenda 21) para 17.18 – 17.39, and the 2015 Sustainable Development Goals (UNGA Resolution 70/1 (2015)).

¹⁴⁹ UNCLOS, Article 207 (1) and 207 (2).

environment.”¹⁵⁰ This phrase differs slightly from that of Article (1)(1)(4), discussed above, as it adds the requirement that the substances released into the marine environment are *persistent*. Given that the effects of climate change on the oceans cannot easily be reversed, there can be little doubt that they are, indeed, persistent. Article 207(5) is thus also applicable to land-based greenhouse gas emissions.

Article 212 is a somewhat ambiguous provision, and differing views exist on its application to greenhouse gasses.¹⁵¹ Its scope is limited to the air space under a States’ sovereignty and to vessels and aircraft of its registry. In contrast to Article 207, this provision provides an exhaustive list of the sources of pollution it covers (i.e. ships and aircraft), and is thus less apt for evolutive interpretation – as in this exercise the textual limits provided by a provision ought to be given due consideration. It could be argued, however, based on a strict textual interpretation, that this provision covers pollution from ships and aircraft *and* pollution from “the air space under [a State’s] sovereignty”, irrespective of the specific source. Such an interpretation would bring greenhouse gas emissions within the scope of Article 212. Problematically, however, the spatial scope of Article 212 is very limited (‘the air space under their sovereignty’) and sits uncomfortably with the nature of climate change, which is an inherently transboundary issue. Article 212 therefore does not lend itself well to be applied to climate change. However, since the text of Article 212 closely mirrors that of Article 207, it makes little to no difference which provision is relied upon.

4.3 Climate change obligations under UNCLOS: The standard of conduct

Part XII of UNCLOS thus places various obligations upon States to prevent or minimize harmful pollution from greenhouse gas emissions, as shown in table 1.

¹⁵⁰ UNCLOS, Article 207 (5).

¹⁵¹ A. Proelß (*supra* note 145) is of the view that the scope of this provision is limited to pollution from ships or aircraft. On the other hand, Harrison argues that “this provision has a broad scope and it covers both air pollution produced by all activities within the sovereign territory of a State”, J. Harrison, *Saving the Oceans through Law* (Oxford University Press, Oxford, 2017) 256.

Article 192	Protect and preserve the marine environment [from the harmful effects of climate change]		
			<input type="checkbox"/> Due diligence <input type="checkbox"/> Rules of reference
Article 194	Take all necessary measures to prevent, reduce and control pollution to the marine environment [from greenhouse gasses]	Take all necessary measures to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution [from greenhouse gasses]	Take all necessary measures 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
Article 207	Adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based [greenhouse gas emissions] taking into account internationally agreed rules, standards and recommended practices and procedures.	Take other measures as may be necessary to prevent, reduce and control [pollution from land-based greenhouse gas emissions]	Adopt laws and regulations and take measures designed to minimize, to the fullest extent possible, the release of [greenhouse gasses] into the marine environment
Article 212	Adopt laws and regulations to prevent, reduce and control pollution of the marine environment [by greenhouse gasses] from or through the atmosphere, taking into account internationally agreed rules, standards and recommended practices and procedures	Take other measures as may be necessary to prevent, reduce and control [pollution from atmospheric greenhouse gasses]	

Table 1: Climate change obligations under Part XII of UNCLOS

Essentially two categories of obligations can be identified here: Rules of reference and due diligence obligations. Both are informed by the existing body of international environmental law, including the Paris Agreement, albeit in different ways.

4.3.1 Rules of reference

Articles 207 and 212 both incorporate external rules and standards through the use of rules of reference. They refer to “internationally agreed rules, standards and recommended practices and procedures”, which States must “tak[e] into account” when adopting laws and regulations to combat atmospheric and land-based pollution.¹⁵² The standard of conduct set by this provision is very mild, especially when compared to other provisions of Part XII. Take, for example, Article 211 concerning pollution from vessels, which requires States to adopt laws and regulations that “at least have the same effect as that of generally accepted international rules and standards”.¹⁵³ Two questions arise here. Firstly, which are the rules and standards to

¹⁵² UNCLOS, Articles 207 (1) and 212 (1).

¹⁵³ UNCLOS, Article 211 (2).

which Articles 207 and 212 refer, and secondly, what does it mean to take those rules into account?

As for the first question, when applying the principle of systemic integration,¹⁵⁴ these provisions can be interpreted as to refer to the UNFCCC and the Paris Agreement. This follows from the aforementioned conclusion that greenhouse gas emissions fall within the scope of Articles 207 and 212. In this respect, the relevant ‘internationally agreed rules’ are those of the UNFCCC and its and its associated instruments and measures. Problematically, however, the UNFCCC and the Paris Agreement do not lend themselves particularly well for incorporation as rules of reference, as they do not set any hard ‘standards’, nor do they contain ‘rules’ that set out clearly defined legal obligations. As shown in Chapter 2, the obligations that flow from the Paris Agreement are primarily procedural in nature, and the substantive obligations are highly differentiated. The provision that comes closest to setting a standard is, arguably, the temperature goal of the Paris Agreement as enshrined in Article 2 (1)(a). Although this provision sets a collective obligation that is not binding on the individual Parties, this does not automatically mean that it is not binding on Parties to UNCLOS. A unique characteristic of the rules of reference contained therein is that these external rules can become binding, even if States would otherwise not be bound to them – either because the rules are non-binding or because the State in question is not a Party to that particular instrument.¹⁵⁵ It is, however, difficult to argue that Article 2 of the Paris Agreement becomes legally binding through this mechanism, given that it only needs to be ‘tak[en] into account’. This brings us to the second question: the standard of conduct required by these rules of reference. The phrase ‘taking into account’ is the weakest of the qualifications used concerning the States’ obligation with regard to internationally agreed measures.¹⁵⁶ Thus, States are granted significant leeway in adopting laws with regard to marine pollution from land-based and atmospheric greenhouse gas emissions, and are free to adopt less or more stringent measures. However, this only applies to States that are members to UNCLOS and *not* to the Paris Agreement. Such States are not required to comply fully with the UNFCCC and the Paris Agreement – at least not by virtue of Articles 207 and 212 – but should take them into account when designing measures to combat

¹⁵⁴ See section 1.5 above.

¹⁵⁵ See ILC, ‘Articles concerning the Law of the Sea with Commentary’ 1956 Yearbook of the International Law Commission, Vol. II, where it expressly considered that “the more general expression ‘internationally accepted standards’[...] also covers regulations which are a product of international co-operation, without necessarily having been confirmed by formal treaties”.

¹⁵⁶ M.H. Nordquist et al, *United Nations Convention on the Law of the Sea, 1982: A Commentary*, (Brill Nijhoff, volume I, 1991), 127.

harmful marine pollution from atmospheric or land-based greenhouse gas emissions. Needless to say, States that are bound to the Paris Agreement must comply with the obligations that flow from it regardless. As noted by *Boyle*, “any other view would make nonsense of participation in the Paris Agreement”.¹⁵⁷

The rules of reference contained in Articles 207 and 212 are thus of little added value. Although they function as a gateway through which the Paris Agreement is incorporated into UNCLOS, its rules merely need to be taken into account – which is a very lenient standard of conduct that, in effect, only applies to States that are not members to the Paris Agreement. And even for those States, as will be shown below, a more stringent standard of conduct flows from the other provisions of Part XII.

4.3.2 *Due diligence obligations*

The second category of obligations contained in Part XII are due diligence obligations. Although the phrase ‘due diligence’ is not used in UNCLOS, it has been observed that the UNCLOS regime is “mostly based on the due diligence test”.¹⁵⁸ Part XII in particular relies heavily on this concept.

The abundance of due diligence obligations in Part XII derives directly from its nature and objectives. Part XII seeks to protect and preserve the marine environment, and this can only be done by controlling maritime activities, the majority of which are carried out by non-state actors. Thus, obligations of result are not fit to achieve the aims of Part XII, since the State has no direct control over these maritime activities. Instead, Part XII relies on due diligence, which is an obligation of *conduct* that requires the State to “deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result”.¹⁵⁹ The provisions shown in table 1 all reflect obligations of due diligence, albeit in different ways. This follows from the way in which the obligations enshrined in these provisions are phrased. They state goals and objectives, i.e. to ‘ensure’, ‘protect and preserve’ and to ‘prevent, reduce and control’. Although the language used in Articles 192, 194 and 207 thus differs, they all reflect obligations of due diligence. The main difference between these provisions is their scope. Article 192 reflects a due diligence obligation to protect and preserve the marine environment from all the harmful effects of

¹⁵⁷ Boyle A., *supra* note 141, 468.

¹⁵⁸ F.O. Vicuna, ‘State Responsibility, Liability, and Remedial Measures Under International Law: New Criteria for Environmental Protection’, in E.B. Weiss (ed.), *Environmental Change and International Law: New Challenges and Dimensions* (UN University Press 1992).

¹⁵⁹ *Sponsoring States Advisory Opinion*, *supra* note 73.

climate change; Article 194 focusses specifically on pollution to the marine environment; and Articles 207 and 212 focus on specific sources of pollution, i.e. land-based and atmospheric pollution. Taken together, they reflect a due diligence obligation to protect and preserve the marine environment from the harmful effects of greenhouse gasses from all sources.

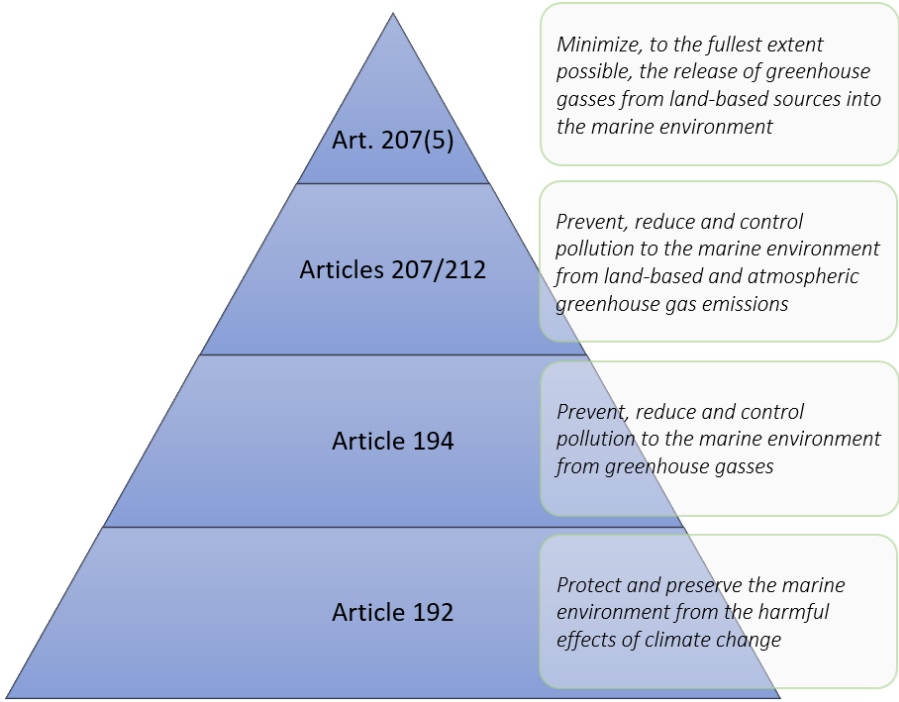


Figure 4: Part XII due diligence obligations in relation to climate change

The question remains how stringent this due diligence obligation is. In other words: What is ‘duly’ diligent? It was recognized by the ITLOS Seabed Chamber that due diligence is a “variable concept”, the content of which “may not easily be described in precise terms”.¹⁶⁰ Various factors can be identified, however, that inform the stringency of the this due diligence obligation.

This is where the UNFCCC framework – and the Paris Agreement in particular – come into play. Although the provisions that reflect this due diligence obligation do not expressly refer to any external standards, the existing body of environmental law nonetheless has a significant bearing on the content of this obligation. This follows from the application of the principle of systemic integration, as enshrined in Article 31(3)(c) VCLT.¹⁶¹ Pursuant to this principle, when interpreting a treaty provision in the context of an issue that falls within the scope of an external

¹⁶⁰ *Sponsoring States Advisory Opinion*, supra note 73, para. 117.
¹⁶¹ See Section 1.3 above.

set of rules, these extraneous rules must be considered. Thus, since Articles 192, 194, 207 and 212 encompass climate change and pollution from greenhouse gas emissions – issues that are at the very core of climate change law – the Paris Agreement must be considered when interpreting the due diligence obligations that flow from these provisions. This view is supported by case law, in particular the *South China Sea Arbitration*, where the Tribunal found that the content of Article 192 is further detailed “by reference to specific obligations set out in other international agreements”.¹⁶²

The question arises what it means to ‘consider’ the Paris Agreement when interpreting these provisions. The most obvious answer is that the Paris Agreement sets the standard of due diligence that is required by States in complying with Part XII of UNCLOS in relation to climate change and marine pollution from greenhouse gasses. As discussed in Chapter 2, the Paris Agreement creates a due diligence obligation to design measures that are necessary, meaningful and effective. The standard of conduct is informed by the collective obligations enshrined in the Paris Agreement, most importantly the 2° C temperature goal and the principle of progression, which are to be balanced against the principles of CBDR-RC and equity. Importantly, due diligence standards are set objectively, rather than subjectively.¹⁶³ Consequently, States can only be treated differently when this is prescribed by a specific norm. Thus, for the vast majority of developed States it could be argued that the measures they take to combat the harmful effects of climate change and marine pollution from greenhouse gasses should reflect a pathway towards the 2° C temperature goal.

It could be argued that a more lenient degree of diligence is required, and that States merely need to consider the Paris Agreement in their efforts to protect the marine environment from the harmful effects of climate change, but that full compliance is not necessary. After all, the provisions discussed here do not directly incorporate the Paris Agreement through rules of reference that set minimum standards – as is, by contract, done in other provisions, such as Article 211. Further, the standard of conduct set by Part XII, to ‘prevent, reduce and control’ and to ‘ensure’, is very general. Although there is some merit in this line of thought, it can be argued more convincingly that full compliance with the Paris Agreement is required – and in some cases States should even go *beyond* the Paris Agreement.

¹⁶² *South China Sea Arbitration*, *supra* note 125, para 942.

¹⁶³ *Sponsoring States Advisory Opinion*, *supra* note 73, para. 158.

This follows from consideration of the other factors that inform the due diligence required of States. One such factor is the nature and degree of harm that would be suffered in the absence of due diligence by States.¹⁶⁴ This was confirmed by the International Law Commission, according to which the standard for due diligence should be “appropriate and proportional to the degree of risk of the transboundary harm”.¹⁶⁵ In a similar vein, the ITLOS found in its *Sponsoring States Advisory Opinion* that “the standard of due diligence has to be more severe for the riskier activities.”¹⁶⁶ As noted at several instances throughout this study, the threat posed to the oceans by climate change is immense, and it affects virtually every aspect of marine life. A due diligence standard that requires anything less than full compliance with the Paris Agreement – which, as we have seen, is not the most burdensome of treaties – would arguably not be proportionate to the degree of harm posed to the oceans by climate change. A related factor is the application of the precautionary approach. To return once more to the *Sponsoring States Advisory Opinion* case: the ITLOS Seabed Chamber found here that “the precautionary approach is also an integral part of the general obligation of due diligence”.¹⁶⁷ The precautionary approach, in its most common definition, entails that “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”.¹⁶⁸ Although the effects of climate change have become so tangible that some commentators argue we live in a ‘post-cautionary’ world,¹⁶⁹ significant scientific uncertainty remains in relation to the severity of the long-term cumulative effects of climate change. Application of the precautionary approach is therefore still warranted, and the standard of due diligence that flows from Part XII should be set accordingly. This underlines the argument that States should, as a minimum, comply fully with the Paris Agreement.

Taking this line of argumentation one step further, it could even be held that full compliance with the Paris Agreement is not sufficiently precautionary. The first round of NDCs submitted by States are estimated to lead to a 2.7° C temperature rise by the end of the century, which

¹⁶⁴ L. Rajamani, ‘Due Diligence in International Climate Change Law’ in (eds) H. Krieger, A. Peters, L. Kreuzer, *Due Diligence in the International Legal Order* (Oxford University Press, 2021) 177.

¹⁶⁵ ILC, ‘Draft articles on Prevention of Transboundary Harm from Hazardous Activities’, 2001 Yearbook of the International Law Commission, Vol. II, UN Doc A/56/10, Article 3 para. 13.

¹⁶⁶ *Sponsoring States Advisory Opinion*, *supra* note 73, para 117,

¹⁶⁷ *Ibid.*, para 131.

¹⁶⁸ UNGA ‘Rio Declaration on Environment and Development’ (Rio de Janeiro, 3-14 June 1992) A/CONF.151/26 Vol. I, Annex I.

¹⁶⁹ L. Heinzerling, ‘Climate Change, Human Health, and the Post-Cautionary Principle’ (2007) 4 O’Neill Institute Papers.

would have a catastrophic impact on the oceans.¹⁷⁰ The effects of climate change on marine ecosystems are already severe, after ‘only’ about a degree of warming.¹⁷¹ The actions that are now being taken are thus not even sufficient to avert the adverse effects of climate change of which scientists are virtually certain they will occur – as described in detail in the IPCC’s sixth assessment report. There are, however, also effects of climate change which are still surrounded by scientific uncertainty, such as the collapse of the Gulf Stream.¹⁷² Taking a precautionary approach to designing measures to combat the harmful effects of climate change on the marine environment, it can be argued that States should take due consideration of such effects in order to comply with their due diligence obligation under Part XII.

A related but distinct issue is that the Paris Agreement is not designed to protect the oceans from the harmful effects of climate change. Emphasis is placed on mitigation of greenhouse gasses, and little attention is paid to the specific adverse effects of climate change and what can be done to combat those. Although in most cases reducing greenhouse gas emissions will, in effect, protect the marine environment from the adverse effects of climate change, this is not always the case. An example to illustrate this is the issue of ocean acidification. Ocean acidification is principally caused by CO₂ sequestration, which causes a decrease in oceans pH levels. The Paris Agreement does not provide any targets for CO₂ emissions or ocean pH values. Thus, States can, in theory, comply with their obligations under the Paris Agreement by significantly reducing their emissions of other greenhouse gasses, whilst not making serious cuts in CO₂ emissions. States could thus be in full compliance with the Paris Agreement without meaningfully addressing ocean acidification.¹⁷³

Hence, there is a disparity between the obligations of the Paris Agreement and those of Part XII of UNCLOS, since compliance with the former does not always effectively protect the marine environment from the adverse effects of climate change. The due diligence obligation under UNCLOS to ‘prevent, control and reduce’ pollution to the marine environment from greenhouse gas emissions is thus not always met when States fully comply with the Paris Agreement. This argument can be further substantiated by applying Article 207 (5), which sets a particularly stringent standard of conduct (‘minimize, to the fullest extent possible’) in relation to the release of persistent harmful substances, such as CO₂. UNCLOS thus appears to set a

¹⁷⁰ IPCC, Sixth Assessment Report, *supra* note 5, 15-30.

¹⁷¹ *Ibid*, see also IPCC, Special Report on the Ocean and Cryosphere, *supra* note 12.

¹⁷² N. Boers, ‘Observation-based early-warning signals for a collapse of the Atlantic Meridional Overturning’ (2021) 11 Nature Climate Change, 680-688.

¹⁷³ K.N. Scott, *supra* note 141, 122.

more demanding standard of conduct – especially when applying the precautionary approach – and requires States to take measures that go beyond their commitments under the Paris Agreement, insofar those commitments (i.e. their NDCs) do not sufficiently address the effects of climate change on the oceans.

This view is opposed by *Boyle*, who argues that UNCLOS Part XII requires States to implement the Paris Agreement, but does not require them to go beyond it.¹⁷⁴ Such an interpretation, he argues, would be incompatible with the doctrine of *lex specialis*. Further, this would be incompatible with Article 193 of UNCLOS, which refers to States’ “sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment”.¹⁷⁵

Although these arguments are deductively valid, it is argued here that a more nuanced view should prevail. The *lex specialis* doctrine entails that if a matter is being regulated by a general standard as well as a more specific rule, then the latter should take precedence over the former.¹⁷⁶ Applying this to the issues at hand, it does indeed seem to suggest that the Paris Agreement – as the more specific rule – should take precedence over Part XII of UNCLOS. This view is, however, oversimplified. In its Report on the Fragmentation of International Law, the ILC found that “the specific rule should be read and understood within the confines or against the background of the general standard”.¹⁷⁷ Thus, rather than incorporating the Paris Agreement directly into Part XII of UNCLOS, it should be interpreted against the background of its purpose, principles and rules. Interpreting the Paris Agreement in this context arguably means that States should take due consideration of the impact of climate change on the oceans, which requires them to take specific measures to this end. Such an interpretation is, contrary to *Boyle’s* view, perfectly compatible with Article 193 – which seeks to safeguard a certain margin of discretion for States in balancing their economic development against environmental protection. Interpreting the Paris Agreement whilst giving due consideration to marine issues does not necessarily require States to make deeper cuts in their emissions, it merely requires States to adopt a more diverse and refined set of measures. Such measures could include, *inter alia*, measures to combat ocean acidification,¹⁷⁸ the protection of ecosystems that are important

¹⁷⁴ A. Boyle, *supra* note 141, 470-472.

¹⁷⁵ *Ibid.*

¹⁷⁶ ILC, Report on the Fragmentation of International Law, *supra* note 25, para. 56.

¹⁷⁷ *Ibid.*

¹⁷⁸ The most important way to combat ocean acidification is reduction of CO₂ emissions, however other measures can also be taken, for example growing sea plants like kelp, eelgrass, as these can effectively absorb CO₂ and

carbon sinks such as mangroves, seagrass and deep sea deposition areas and enhanced scientific research on the cumulative impacts of climate change on the oceans.

reduce acidity in the ocean, see: F. Chan et al, 'The West Coast Ocean Acidification and Hypoxia Science Panel: Major Findings, Recommendations, and Actions' (2016) California Ocean Science Trust, available at <<http://westcoastoah.org/wp-content/uploads/2016/04/OAH-Panel-Key-Findings-Recommendations-and-Actions-4.4.16-FINAL.pdf>>.

CHAPTER V: CONCLUDING REMARKS

5.1 The main findings: Climate change obligations under UNCLOS

The main research question that this study addressed is: *What are the obligations under UNCLOS to protect the marine environment from the harmful effects of climate change?* The answer to this question was primarily sought by exploring the regime interaction between Part XII of UNCLOS and the Paris Agreement, and more specifically how the former should be interpreted in light of the latter. It has been shown that the relationship between these respective instruments is complex and multidimensional, and can not easily be described in precise terms. Various mechanisms of incorporation and interaction exist. Articles 237 and 311 UNCLOS provide the formal basis for their interaction, whereas various dynamic provisions throughout Part XII incorporate the Agreement through interpretation.

It has been shown that essentially two forms of obligations exist in Part XII: external rules of reference and due diligence obligations. Whereas the former category has been shown to be of little significance, the latter requires States to protect the marine environment from the adverse effects of climate change, to take necessary measures to this end and to prevent, reduce and control pollution from greenhouse gasses. The standard of conduct that is required by States is largely informed by the Paris Agreement and the due diligence obligation that flows from it – which, as shown in Chapter 2, requires States to design measures that are necessary, meaningful and effective to combat climate change. This due diligence obligation should be viewed against the background of the “well below 2 degree” temperature goal, as well as the principles of CBDR-RC and equity.¹⁷⁹

It is argued here that compliance with the due diligence obligation flowing from Part XII of UNCLOS requires, *as a minimum*, full compliance with the Paris Agreement. States that are not sufficiently addressing the effects of climate change on the oceans in their NDCs are even required to go *beyond* the Paris Agreement, by taking further measures to protect the marine environment from the adverse effects of climate change and pollution from CO₂. This follows from consideration of various factors that inform the due diligence obligation of Part XII, as identified in the relevant case law. Most importantly, a stringent standard of conduct is justified by application of the precautionary approach, which is an integral part of the obligation of due diligence, as well as by consideration of the nature and degree of harm that would be suffered

¹⁷⁹ See Section 2.5.

in the absence of due diligence by States. Moreover, adopting appropriate rules and measures is but one component of the due diligence obligation flowing from Part XII, as indicated in the *South China Sea Arbitration*. It further entails a “certain level of vigilance in their enforcement and the exercise of administrative control”.¹⁸⁰

5.2 The way forward

A second important conclusion that emerged from this study is the apparent disparity between the obligations of the Paris Agreement and those of Part XII of UNCLOS in relation to climate change, since compliance with the former does not always effectively protect the marine environment from the adverse effects of climate change. This study attempted to clarify the obligations that follow from the combined application of these partially overlapping instruments. The fact remains, however, that this particular legal subject – i.e. protecting the oceans against climate change – is not sufficiently addressed either of the instruments discussed here. Although the due diligence obligation that flows from Part XII, as described in this study, forms a useful starting point, significant uncertainty remains regarding the exact nature and extent of these obligations. Given the magnitude of the threat posed to the oceans by climate change, it is arguably necessary to further specify the obligations placed upon States to protect the marine environment from the harmful effects of climate change. The question is, how?

There are various ways in which this could be achieved. One way would be through the adoption of binding targets or measures that directly address the impacts of climate change on the oceans. Such targets could include ocean pH values to combat ocean acidification, or global, regional or national targets for climate-related MPA coverage (e.g. mangroves, tidal marshes, seagrass meadows and CO₂ deposition areas). However, UNCLOS provides little room for such alterations. Although UNCLOS is dynamic in the sense that its provisions are capable of evolving, is actually a very rigid instrument in many other aspects. It does have a conference of the Parties, however it does not traditionally deal with substantive matters and cannot create obligations for its Parties or adopt resolutions interpreting individual provisions.¹⁸¹ Amendment, although possible in theory, is unfeasible.¹⁸² One way to make a substantive change to the treaty that has been deployed in the past, is the adoption of an implementing

¹⁸⁰ *South China Sea Arbitration*, *supra* note 125, para 944.

¹⁸¹ K.N. Scott, *supra* note 141, 127.

¹⁸² UNCLOS Article 313 provides for ‘Amendment by simplified procedure’, however a proposal to this end can be deterred by a single objection. It is therefore not surprising that in the history of UNCLOS, no attempts to amend it have been made.

agreement. However, for our purposes, this is not a particularly appealing option, for two reasons. Firstly, the adoption of such an agreement takes a considerable amount of time (as evinced by the BBNJ negotiations, that have been ongoing since 2004) and secondly, because States will have little appetite for parallel negotiations whilst the BBNJ process is still ongoing.

Within the UNFCCC framework, on the other hand, there are various ways in which binding targets or measures could be adopted. Here too there is the possibility of adopting an implementing Agreement (to the UNFCCC) that specifically addresses the impacts of climate change on the oceans. However, even if sufficient political will could be assembled, similar objections to those raised above arise here, as this is a very time-consuming process. A more compelling option would be the adoption of some type of Decision by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). One of the strengths of UNFCCC framework is its powerful conference of the Parties, with a broad mandate to take legally binding decisions that are necessary “to promote the effective implementation of the Convention”.¹⁸³ By means of such a decision, ocean-specific targets could be developed under the Paris Agreement. In addition, such a Decision could require States to report on the steps they have taken to address the impacts of climate change on the oceans, as part of the enhanced transparency framework under the Paris Agreement.¹⁸⁴ Another option would be the establishment of a Working Program under one of the Subsidiary Bodies to the UNFCCC, e.g. the Subsidiary Body for Implementation (SBI), with a mandate to provide guidance to the Parties in addressing marine issues in their NDCs and to prepare draft decisions and recommendations on how the impact of greenhouse gas emissions on the oceans can be addressed. The establishment of such a Working Group would ensure that the issue remains on the international agenda.

Arguably the most pragmatic way forward would be the adoption of an advisory opinion or judgment by an authoritative international Court, such as the ICJ or ITLOS. Contrary to the options discussed above, there are no political hurdles that have to be overcome to obtain such a judgement and the process would be comparatively swift. International Courts, in particular the ICJ, have played a paramount role in the development of international environmental law.¹⁸⁵

¹⁸³ UNFCCC, Article 7.

¹⁸⁴ See Section 2.2.2.

¹⁸⁵ See M. Fitzmaurice, ‘The International Court of Justice and International Environmental Law’ in (eds) C.J. Tams and J. Sloan, *The Development of International Law by the International Court of Justice* (Oxford University Press, 2013) 353-374.

The ICJ has been described as a an “advocate” of international environmental law,¹⁸⁶ and ITLOS, in its relatively brief history, has built a reputation as a progressive tribunal, in particular in the development of the principles on the protection and preservation of the marine environment.¹⁸⁷ A judgement or advisory opinion by either of these Courts that specifically addresses the relationship between the Paris Agreement and UNCLOS, and more specifically the legal obligations that flow from their combined application to ocean preservation in the context of climate change and marine pollution from greenhouse gasses could promptly remove a lot of the uncertainty that surrounds these issues.¹⁸⁸ Ideally, such a judgment would address the standard of due diligence required by States under Part XII of UNCLOS to protect the marine environment from the harmful effects of climate change.

¹⁸⁶ Ibid., 353.

¹⁸⁷ H. Dipla, ‘The Role of the International Court of Justice and the International Tribunal for the Law of the Sea in the Progressive Development of the Law of the Sea’ in (eds) A. Strati, M. Gavouneli and N. Skourtos, *Unresolved Issues and New Challenges to the Law of the Sea* (Martinus Nijhoff Publishers 2006) 246.

¹⁸⁸ The prospects of the instigation of such case have recently increased with the creation of the Commission of Small Island Developing States on Climate Change and International Law, prior to COP 26. This Commission will be authorized to request an advisory opinion from ITLOS concerning, *inter alia*, climate change and the protection of the marine environment and international responsibilities (see: A.N. Honniball, ‘Antigua and Barbuda/Tuvalu: Accord to Establish Commission of Small Island States on Climate Change & International Law’ (2021) De Maribus).

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