

Part XII of the United Nations Convention on the Law of the Sea and the Duty to Mitigate Against Climate Change: Making Out a Claim, Causation, and Related Issues

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Within the current state of international jurisprudence, there is a growing recognition of the importance of ocean environmental protection. One of the most significant recent examples is the decision in the South China Sea Arbitration, which recognized the obligation of States to protect and preserve the marine environment in disputed territorial or maritime areas. Despite this overall trend, however, serious gaps in State practice remain. In particular, current research on State practice of national and regional marine pollution contingency planning in the Asia-Pacific reveals that there has been little regard displayed in the region for accommodating a proactive approach to marine environmental protection.

The international community, particularly the States that are suffering the consequences of climate change and sea-level rise, is attempting to tackle the problem of climate change and to find ways to mitigate its damages. One suggestion has been to bring a legal claim before an international tribunal to commence climate change litigation. From the perspective of the current regime of international law, including the Law of the Sea and State responsibility, the feasibility and effectiveness of climate change litigation is highly questionable. This is largely due to the challenges of establishing causation and other related issues.

An alternative suggestion is to use the legal mechanism of the United Nations Convention on the Law of the Sea, not to adjudicate the issue, but to seek

DOI: <https://doi.org/10.15779/Z38M32N965>

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the issuance of an advisory opinion on the legal question presented by climate change in light of international agreements related to the purposes of this Convention. The problem with such an advisory opinion, however, would be its potential for ineffectiveness due to its non-binding character.

In conclusion, there is no single solution to resolve the issue of climate change. However, a better understanding of the linkages between Parties' obligations under relevant treaties such as the United Nations Framework Convention on Climate Change, the Paris Agreement, and the United Nations Convention on the Law of the Sea, among others, may provide an additional impetus for States to take climate change seriously and increase efforts to negotiate additional agreements and implement them effectively.

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INTRODUCTION

Climate change is a problem that transcends State boundaries and one that raises intergenerational concerns as well as contentious issues of equity between developed and developing nations.¹ The unique nature of climate change requires that international efforts to address its impacts and challenges recognize the principle of common but differentiated responsibilities,² and that they be mindful of the social and economic goals of developing countries.³

Most contemporary international environmental treaties and the broader international climate change legal framework have successfully managed to incorporate progressive ideals that underscore interstate social and distributive justice provisions.⁴ However, effective enforcement and compliance with

1. Daniel Bodansky, *The United Nations Framework Convention on Climate Change: A Commentary*, 18 YALE J. INT'L L. 451, 498 (1993); see also EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY 10–11 (1989); Upendra Baxi, *Towards a Climate Change Justice Theory?*, 7 J. HUM. RTS. & ENV'T 7, 26 (2016) (arguing that the notion of intergenerational justice is crucial to the discourse on climate justice theory); Elizabeth Burleson, *Climate Change Consensus: Emerging International Law*, 34 WM. & MARY ENVTL. L. & POL'Y REV. 543, 549–553 (2010) (recounting the disagreement between African developing nations and developed nations during the Copenhagen negotiations).

2. United Nations Framework Convention on Climate Change pmbl., art. 3, ¶ 1, art. 4, adopted May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC] (entered into force Mar. 21, 1994). The concept of Common but Differentiated Responsibilities (CBDR) was enshrined as Principle 7 of the Rio Declaration at the first Rio Earth Summit in 1992. U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, princ. 7, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I), annex I (Aug. 12 1992) (“In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities.”); see also Paris Agreement art. 2, opened for signature Apr. 22, 2016, T.I.A.S. 16-1104 (entered into force Nov. 4, 2016) (stating that the Agreement “will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances”).

3. Brooke Ackerly & Michael P. Vandenbergh, *Climate Change Justice: The Challenge for Global Governance*, 20 GEO. INT'L ENVTL. L. REV. 553, 555 (2008); Marie-Claire Cordonier Segger, *Advancing the Paris Agreement on Climate Change for Sustainable Development*, 5 CAMBRIDGE J. INT'L & COMP. L. 202, 210, 222 (2016); Tuiloma Neroni Slade, *Climate Change: The Human Rights Implications for Small Island Developing States*, 37 ENVTL. POL'Y & L. 215, 216 (2007).

4. Mark Stallworthy, *Environmental Justice Imperatives for an Era of Climate Change*, 36 J.L. & SOC'Y 55, 62 (2009); Lavanya Rajamani, *The Increasing Currency and Relevance of Rights-Based Perspectives in the International Negotiations on Climate Change*, 22 J. ENVTL. L. 391, 395–97 (2010); see also Jessie Hohmann, *Igloo as Icon: A Human Rights Approach to Climate Change for the Inuit?*, 18 TRANSNAT'L L. & CONTEMP. PROBS. 295, 297–98 (2009) (describing the use of human rights to address climate change impacts); Sarah Krakoff, *American Indians, Climate Change, and Ethics for a Warming World*, 85 DENV. U. L. REV. 865, 891–95 (2008) (noting the shift in addressing climate change to include addressing poverty and inequality); Karen E. MacDonald, *A Right to a Healthful Environment – Humans and Habitats: Re-Thinking Rights in an Age of Climate Change*, 17 EUR. ENERGY & ENVTL. L. REV. 213, 214–15, 223 (2008).

international environmental instruments remain difficult and politically complex issues.⁵

The existing literature on climate change, justice, and all related treaties, recognizes both the unequal contributions by States in causing climate change and the disparate abilities of States to address it.⁶ Developing nations, especially the least-developed countries and developing small-island nations, that minimally contribute to the problem of climate change, are the most vulnerable with the least capacity to adapt to climate change.⁷ The disparity between developed and developing nations is a very divisive issue that further complicates the already-complex international negotiations on climate change.

The international legal framework regarding States' differing legal responsibilities for climate change damage is still in its nascent stages of development.⁸ In particular, the intersection of international environmental instruments relating to climate change and the protection of the international marine environment has not yet been fully explored.⁹ Despite the inadequacies of existing international law, it is not hard to envision a future scenario where interstate litigation involving transboundary damage caused by climate change will be possible.¹⁰

This Article will examine Part XII of the United Nations Convention on the Law of the Sea (UNCLOS), which relates to the protection and preservation of

5. See Ailsa Ceri Warnock, *The Climate Change Regime: Efficacy, Compliance and Enforcement*, 8 N.Z. J. ENVTL. L. 99, 104–16, 131–35 (2004) (discussing the efficacy of compliance mechanisms contained within the UNFCCC and the Kyoto Protocol).

6. See, e.g., Sumudu Atapattu, *Climate Change, International Environmental Law Principles, and the North-South Divide*, 26 TRANSNAT'L L. & CONTEMP. PROBS. 247, 252 (2017).

7. Paris Agreement, *supra* note 2, at art. 11; Ved P. Nanda, *Climate Change and Developing Countries: The International Law Perspective*, 16 ILSA J. INT'L & COMP. L. 539, 543 (2010).

8. See Benoit Mayer, *State Responsibility and Climate Change Governance: A Light Through the Storm*, 13 CHINESE J. INT'L L. 539, 546 (2014) (noting that the concept of “common but differentiated responsibilities” in protecting the climate system to this day remains ambiguous and has created “fundamentally divergent conceptions of international co-operation on climate change”); Christina Voigt, *State Responsibility for Climate Change Damages*, 77 NORDIC J. INT'L L. 1, 2 (2008) (citing “[v]ague primary rules” as one obstacle to determining State responsibility); see also Phillip Barton, *State Responsibility and Climate Change: Could Canada Be Liable to Small Island States?*, 11 DALHOUSIE J. LEGAL STUD. 65, 87 (2002) (arguing that the likelihood of success of a state liability claim based on harms from climate change impacts would require a “tremendous leap” in international law).

9. Karen N. Scott, *International Environmental Governance: Managing Fragmentation Through Institutional Connection*, 12 MELB. J. INT'L L. 177, 185 (2011); see also Secretariats of the Convention on Biological Diversity, the United Nations Convention to Combat Desertification, and the United Nations Framework Convention on Climate Change, *Options for Enhanced Cooperation Among the Three Rio Conventions*, U.N. Doc. FCCC/SBSTA/2004/INF.19, annex (Nov. 2, 2004) (calling on each of the Conferences of the Parties to the Rio Conventions to enhance collaboration among the conventions).

10. See, e.g., RODA VERHEYEN, CLIMATE CHANGE DAMAGE AND INTERNATIONAL LAW: PREVENTION DUTIES AND STATE RESPONSIBILITY 43, 152–53 (2005); Rebecca Elizabeth Jacobs, *Treading Deep Waters: Substantive Law Issues in Tuvalu's Threat to Sue the United States in the International Court of Justice*, 14 PAC. RIM L. & POL'Y J. 103, 105 (2005); Jacqueline Peel, *Issues in Climate Change Litigation*, 5 CARBON & CLIMATE L. REV. 15, 15 (2011).

the marine environment and the duty to mitigate against climate change under international law. It will also consider recent jurisprudence, specifically the South China Sea Arbitration, which discussed the protection of the marine environment in disputed maritime space. The Article concludes that there is no single solution to resolve the issue of climate change, but a better understanding of the interconnected nature of the obligations of State parties under relevant treaties may provide further impetus for States to take climate change seriously and increase their efforts to negotiate and effectively implement additional agreements. The purpose of this Article is to contribute to the discussion of challenges associated with international litigation involving liability for climate change damages. It will proceed in four parts.

Part I will discuss the South China Sea Arbitration and the protection of the marine environment while examining the implications of the award, which obligates States to protect the marine environment in disputed territorial and maritime space. Part II will be an analysis of marine contingency planning in the Asia-Pacific region in the context of the obligation of States to deal with the harmful effects of marine pollution within the UNCLOS framework. Part III will explore the challenges associated with litigation involving climate change damages. Part IV will outline the implications of the request for an advisory opinion before the International Tribunal for the Law of Sea.

I. SOUTH CHINA SEA ARBITRATION AND THE PROTECTION OF THE MARINE ENVIRONMENT: EVOLUTION OF UNCLOS PART XII THROUGH INTERPRETATION AND THE DUTY TO COOPERATE

A. *UNCLOS Part XII and the Protection of the Marine Environment*

The protection and preservation of the marine environment constitute a prominent component of the United Nations Convention on the Law of the Sea (UNCLOS).¹¹ Part XII of UNCLOS is the cornerstone of international environmental law of the sea and embodies a balance of competing social, economic, and environmental interests in the marine environment.¹² On the surface, UNCLOS provisions in Part XII appear to be sufficiently broad to permit States to pursue a claim against another State for failure to mitigate

11. See United Nations Convention on the Law of the Sea arts. 192–237, *opened for signature* Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS] (entered into force Nov. 16, 1994); see also David M. Dzidzomu, *Four Principles in Marine Environment Protection: A Comparative Analysis*, 29 OCEAN DEV. & INT'L L. 91, 91 (1998); Eric Franckx, *Regional Marine Environment Protection Regimes in the Context of UNCLOS*, 13 INT'L J. MARINE & COASTAL L. 307, 310–11 (1998); Moira L. McConnell & Edgar Gold, *The Modern Law of the Sea: Framework for the Protection and Preservation of the Marine Environment?*, 23 CASE WESTERN RES. J. INT'L L. 83, 85 (1991) (acknowledging that the marine environmental provisions of UNCLOS contain the highest-level global directives for the protection and preservation of the marine environment presently available).

12. Jonathan I. Charney, *The Protection of the Marine Environment by the 1982 United Nations Convention on the Law of the Sea*, 7 GEO. INT'L ENVTL. L. REV. 731, 732 (1995).

environmental problems caused by climate change, as failing to do so would seem to fall short of States' obligations to preserve and protect the marine environment.¹³ Under Article 194, States are obligated to preserve and protect the marine environment through preventing, controlling, and reducing pollution.¹⁴ States are also obligated to use the best practical means in accordance with a State's capabilities to prevent pollution from spreading outside a State's jurisdiction.¹⁵ These provisions of UNCLOS are relevant in establishing a potential claim against a State for failing to mitigate climate change with regard to the handling of its marine environment.¹⁶

Regarding Part XII provisions of UNCLOS, it is conceivable that international tribunals will be able to make some connection to other international agreements. UNCLOS provides that an international court or tribunal with UNCLOS jurisdiction shall apply UNCLOS along with other rules of international law that are not incompatible with UNCLOS.¹⁷ This approach is consistent with the rules of treaty interpretation.¹⁸

In particular, for member States of UNCLOS that are also State parties to the Convention on Biological Diversity (CBD), the CBD may provide a new context for understanding the international legal implications for marine pollution and the efforts required to meet the obligations under UNCLOS to protect and preserve the marine environment.¹⁹ Because of the widespread acceptance of both conventions, the influence of the CBD on the interpretation of the marine environment provisions of UNCLOS may turn out to be substantial. It may be that to properly understand the State parties' obligations under UNCLOS in Part XII, they should be examined in light of the general recognition that climate change is a significant threat to biological diversity.²⁰ Moreover,

13. Keely Boom, *Exposure to Legal Risk for Climate Change Damage Under the UNFCCC, Kyoto Protocol and LOSC: A Case Study of Tuvalu and Australia 182–92* (2012) (unpublished Ph.D. thesis, University of Wollongong), <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=4926&context=theses>.

14. UNCLOS, *supra* note 11, at art. 194, ¶ 1.

15. *Id.* at art. 194, ¶ 2.

16. The substantive provisions of Part XII of UNCLOS which are possible sources of legal exposure are Articles 192, 194, and 195.

17. UNCLOS, *supra* note 11, at art. 293.

18. See, e.g., Vienna Convention on the Law of Treaties arts. 31, 32, *opened for signature* May 23, 1969, 1155 U.N.T.S. 331 (entered into force Jan. 27, 1980) (providing that any relevant rules of international law and supplementary means of interpretation may be consulted when interpreting a treaty).

19. Convention on Biological Diversity art. 22, ¶ 2, *opened for signature* June 5, 1992, 1760 U.N.T.S. 79 (entered into force Dec. 29, 1993) (“Contracting Parties shall implement this Convention with respect to the marine environment consistently with the rights and obligations of States under the law of the sea.”).

20. See, e.g., Elisa Morgera, *Far Away, So Close: A Legal Analysis of the Increasing Interactions Between the Convention on Biological Diversity and Climate Change Law*, 2 CLIMATE L. 85, 113–15 (2011) (discussing the increasing understanding of the links between global biodiversity loss and climate change, as well as the possible legal bases to support synergies between biodiversity law and climate change law); see also Michael Bowman, *Conserving Biological Diversity in an Era of Climate Change: Local Implementation of International Wildlife Treaties*, 53 GERMAN Y.B. INT'L L. 289, 291–92 (2010)

some legal recognition that biological diversity is crucial to good ecosystem health may be required.

Given the link between climate change and the obligation to protect and preserve the marine environment under UNCLOS, the CBD is likely to play a significant role in interpreting the obligations of State parties to lessen the impact of climate change. Article 293 of UNCLOS invites the use of the CBD as an interpretative tool to the extent that it is not incompatible with UNCLOS.²¹ The application of the CBD as an interpretive tool would be limited to disputes involving Parties bound by both treaties.²²

The relative impacts of such an important connection between UNCLOS and the CBD are all the more relevant due to the result of the South China Sea Arbitration, as discussed in Section B. The implications of the South China Sea Arbitration on the protection of the marine environment and efforts to mitigate the impact of climate change are potentially twofold. First, the Award provides a precedent in which Part XII of UNCLOS can be linked to other environmental treaty regimes through interpretation. Second, the Award partially illustrates how the duty to cooperate emerges and operates in relation to other duties that fall under Part XII of UNCLOS. In other words, the Award establishes how the obligations found in Part XII can evolve through the duty to cooperate.

B. The South China Sea Arbitration and the Protection of the Marine Environment

On July 12, 2016, the Arbitral Tribunal constituted under Annex VII of UNCLOS issued its final award in a dispute between the Philippines and China over maritime claims in the South China Sea.²³ The ruling is groundbreaking for several reasons, principally the innovative interpretation and application of Articles 192 and 194 of UNCLOS imposing obligations on States to protect and preserve the marine environment in disputed territorial or maritime areas.²⁴

(noting the growing body of scholarship on issues arising out of the relationship between biodiversity and climate change).

21. UNCLOS, *supra* note 11, at art. 293 (stating that the applicable law that a court or tribunal with jurisdiction shall apply will be the UNCLOS “and other rules of international law not incompatible with this Convention”).

22. See Rüdiger Wolfrum & Nele Matz, *Interplay of the United Nations Convention on the Law of the Sea and the Convention on Biological Diversity*, 4 MAX PLANCK Y.B. UNITED NATIONS L. 445, 473–74 (2000); see also *In re South China Sea Arbitration (Phil. v. China)*, PCA Case Repository No. 2013-19, Award of July 12, 2016, ¶¶ 159, 908 (Perm. Ct. Arb. 2016) [hereinafter *The South China Sea Arbitration Award of July 12, 2016*].

23. *The South China Sea Arbitration Award of July 12, 2016*, *supra* note 22; see also Bernard H. Oxman, *The South China Sea Arbitration Award*, 24 U. MIAMI INT’L & COMP. L. REV. 235, 237 (2017) (recounting the details of the arbitral award).

24. The Tribunal in its Award on Jurisdiction ruled that it has jurisdiction over the Philippines and the claim that “China has violated its obligations under the Convention to protect and preserve the marine environment at Scarborough Shoal, Second Thomas Shoal, Cuarteron Reef, Fiery Cross Reef, Gaven Reef, Johnson Reef, Hughes Reef and Subi Reef.” *The South China Sea Arbitration Award of July 12, 2016*,

The Philippines asserted that China's tolerance of harmful fishing practices and harmful construction activities caused serious harm to the marine environment of the South China Sea.²⁵ The Tribunal, on the basis of expert reports,²⁶ ruled that "China's artificial island-building activities on the seven reefs in the Spratly Islands have caused devastating and long-lasting damage to the marine environment."²⁷ The Tribunal held that China's activities breached its obligation under Article 192 and Article 194(1), and that China "violated its duty under Article 194(5) to take measures necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life."²⁸ The Tribunal also concluded that "China has, through its toleration and protection of, and failure to prevent Chinese fishing vessels engaging in harmful harvesting activities of endangered species . . . breached Articles 192 and 194(5) of the Convention."²⁹

The Tribunal placed primacy on the obligation of States to protect the marine environment even over disputed territorial and maritime areas by setting aside the question of sovereignty over the contested features.³⁰ In the words of the Tribunal:

[T]he obligations in Part XII apply to all States with respect to the marine environment in all maritime areas, both inside the national jurisdiction of States and beyond it. Accordingly, questions of sovereignty are irrelevant to the application of Part XII of the Convention. The Tribunal's findings in this

supra note 22, ¶¶ 112, 906–11, 925–38 (specifically, in connection with the marine environment, the Philippines asserted that China breached Articles 123, 192, 194, 197, 205, and 206 of UNCLOS); *see also In re South China Sea Arbitration (Phil. v. China)*, PCA Case Repository No. 2013-19, Award on Jurisdiction & Admissibility, ¶¶ 101, 281, 408, 409, 413(G) (Perm. Ct. Arb. 2015) [hereinafter *The South China Sea Arbitration Award of Oct. 29, 2015*].

25. *The South China Sea Arbitration Award of July 12, 2016*, *supra* note 22, ¶¶ 817, 894–905, 966, 983.

26. *See id.* ¶ 821. The Tribunal appointed Dr. Sebastian C.A. Ferse of the Leibniz Center for Tropical Marine Ecology in Bremen, Germany to seek his independent opinion on the environmental impact of China's construction activities. *Id.* The Tribunal also appointed Dr. Peter J. Mumby, a professor of coral reef ecology, and Dr. Selina Ward, both from the School of Biological Sciences at the University of Queensland, Australia, who provided their "Assessment of the Potential Environmental Consequences of Construction Activities on Seven Reefs in the Spratly Islands in the South China Sea." *Id.*

27. *Id.* ¶ 983.

28. *Id.* Further, in the words of the Tribunal: "The Tribunal further finds that China has, through its island-building activities at Cuarteron Reef, Fiery Cross Reef, Gaven Reef (North), Johnson Reef, Hughes Reef, Subi Reef and Mischief Reef, breached Articles 192, 194(1), 194(5), 197, 123, and 206 of the Convention." *Id.* ¶ 993.

29. *Id.* ¶ 992 (specifically referring to activities at "Scarborough Shoal, Second Thomas Shoal and other features in the Spratly Islands.").

30. In its Award on Jurisdiction, the Tribunal held that the Philippines' submission (Submission No. 11) "reflects a dispute concerning the protection and preservation of the marine environment at relevant features within the South China Sea and the application of Articles 192 and 194 of the Convention" and "not a dispute concerning sovereignty or maritime boundary delimitation, nor is it barred from the Tribunal's consideration by any requirement of Section 1 of Part XV." *Id.* ¶ 926; *The South China Sea Arbitration Award of Oct. 29, 2015*, *supra* note 24, ¶ 408.

Chapter have no bearing upon, and are not in any way dependent upon, which State is sovereign over features in the South China Sea.³¹

The Tribunal ruled that China's activities in the disputed areas and the effects of those activities on the marine environment did not concern sovereignty or maritime boundary delimitation.³² The Award noted that the environmental obligations in Part XII of UNCLOS "apply to States irrespective of where the alleged harmful activities took place."³³ It also noted that these obligations are independent from questions of sovereignty over any particular feature, from a prior determination of the status of any maritime feature, and from the prior delimitation of any overlapping entitlements.³⁴

C. An Expansive Interpretation of Part XII

The Tribunal sustained an expansive interpretive approach to Part XII of UNCLOS. In the Award, the Tribunal noted that while Article 192 of UNCLOS, which imposes upon State parties the obligation to protect and preserve the marine environment, is phrased in general terms, the content of this duty "is informed by the other provisions of Part XII and other applicable rules of international law"³⁵ as well as by "specific obligations set out in other international agreements, as envisaged in Article 237 of the Convention."³⁶ In so doing, the Tribunal, by referring to the interface of the provisions of Part XII of UNCLOS and other relevant provisions contained in the "corpus of international law relating to the environment,"³⁷ submits a very high standard of due diligence amongst State parties in relation to the scope of the obligations contained in Part XII of UNCLOS.³⁸

Generally, State parties have the obligation to protect the marine environment from future damage and to preserve the same by maintaining or improving its present condition.³⁹ More specifically, the Tribunal interpreted Articles 192 and 194 of UNCLOS as setting forth obligations that apply not only

31. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶ 940.

32. *Id.* ¶ 932; The South China Sea Arbitration Award of Oct. 29, 2015, *supra* note 24, ¶ 409.

33. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶ 927.

34. *Id.*; The South China Sea Arbitration Award of Oct. 29, 2015, *supra* note 24, ¶ 408.

35. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶ 941.

36. *Id.* ¶ 942.

37. *Id.* ¶ 941.

38. The Tribunal in its Award on Jurisdiction and Admissibility acknowledged that "some overlap in the subject matter of Part XII of the Convention and the subject matter of the CBD" exists. The South China Sea Arbitration Award of Oct. 29, 2015, *supra* note 24, ¶ 284. Further, "[t]he two treaties establish parallel environmental regimes that overlap" where "[o]ne creates a distinct jurisdiction to address the protection of the marine environment whilst the other aims to protect biodiversity in general." *Id.* ¶ 285. However, the Tribunal clarified that whilst the "same facts may give rise to violations of both treaties," it still agreed with the argument of the Philippines that a "dispute under UNCLOS does not become a dispute under the CBD merely because there is some overlap between the two. Parallel regimes remain parallel regimes." *Id.*

39. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶ 941.

to activities directly undertaken by States, but also to ensure activities “within their jurisdiction and control do not harm the marine environment.”⁴⁰ The Tribunal clarified that Article 192 carries the dual obligation “to take active measures to protect and preserve the marine environment, and by logical implication, entails the negative obligation not to degrade the marine environment.”⁴¹ Furthermore, the general obligations in Article 192 require States to “ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control.”⁴² In the context of the South China Sea and in relation to the complained of activities by China, this includes the positive duty of States “to prevent, or at least mitigate significant harm to the environment when pursuing large-scale construction activities.”⁴³

The first implication of this expansive interpretation is that it provides a precedent linking Part XII of UNCLOS to other environmental treaty regimes. The unique character of UNCLOS as a “Constitution of the Oceans” allows it to be flexible and responsive enough to deal with emerging problems as a living instrument.⁴⁴ There are potentially a number of conventions that could be taken into account to clarify the numerous generic terms that are found in UNCLOS that are not specifically defined.⁴⁵ Further, even when UNCLOS does provide a

40. *Id.* ¶¶ 944, 945. The Tribunal draws this interpretation from the *Fisheries Advisory Opinion* of the International Tribunal for the Law of the Sea, the decision of International Court of Justice in *Pulp Mills on the River Uruguay*, the Seabed Disputes Chamber advisory opinion, and the *Chagos Marine Protected Area* arbitration. *See id.*; *see also* Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC), Case No. 21, Advisory Opinion of Apr. 2, 2015, 15 ITLOS Rep. 4, 36–42 ¶¶ 118–36; Southern Bluefin Tuna Cases (N.Z. v. Japan; Austl. v. Japan), Case Nos. 3 & 4, Requests for Provisional Measures, Order of Aug. 27, 1999, 3 ITLOS Rep. 280, 295, ¶ 70, [hereinafter Southern Bluefin Tuna Cases]; *Pulp Mills on the River Uruguay* (Arg. v. Uru.), Judgment, 2010 I.C.J. Rep. 14, 79–80, ¶ 197 (Apr. 20) [hereinafter *Pulp Mills Case*]; *Responsibilities and Obligations of States Sponsoring Persons and Entities With Respect to Activities in the Area* (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), Case. No. 17, Advisory Opinion of Feb. 1, 2011, 11 ITLOS Rep. 10, 41–42, ¶¶ 112, 113; *In re Chagos Marine Protected Area Arbitration* (Mauritius v. U.K.), PCA Case Repository No. 2011-03, Award of Mar. 18, 2015, ¶¶ 320–538 (Per. Ct. Arb. 2015).

41. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶ 941.

42. *Id.*

43. *Id.* (internal quotation marks omitted).

44. However, the effect on Statehood of climate change and sea level rise is an example of a problem that UNCLOS does not directly address. *See, e.g.*, Michael Gagain, *Climate Change, Sea Level Rise, and Artificial Islands: Saving the Maldives' Statehood and Maritime Claims Through the 'Constitution of the Oceans,'* 23 COLO. J. INT'L ENVTL. L. & POL'Y 77, 82 (2012).

45. For instance, in addition to UNCLOS, there are other international treaties of global application that also cover the protection of the marine environment from pollution caused by the dumping of waste and other matter into the ocean. *See, e.g.*, 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, *opened for signature* Nov. 7, 1996, 36 I.L.M. 1 (1997) [hereinafter 1996 Protocol to the London Convention of 1972] (entered into force Mar. 24, 2006); Convention for the Prevention of Marine Pollution from Land-Based Sources art. 1, *opened for signature* June 4, 1974, 1546 U.N.T.S. 119 [hereinafter Paris Convention] (entered into force May 6, 1978); Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter art. 1, *opened for signature* Dec. 29, 1972, 26 U.S.T. 2403 [hereinafter London Convention] (entered into force Aug. 30, 1975).

definition, as it does in the case of the term “pollution of the marine environment,” a term’s meaning will need to be updated as time passes to address new challenges.⁴⁶ For instance, the argument has been made that the protection of the marine environment from global climate change cannot be resolved without interpreting the UNCLOS provisions in light of the Montreal Protocol on Substances that Deplete the Ozone Layer,⁴⁷ and the United Nations Framework Convention on Climate Change (UNFCCC)⁴⁸ and its associated international agreements.⁴⁹

The question then arises as to whether the South China Sea Arbitration demonstrates a way for Article 192 of UNCLOS to become a tool to deal with significant threats to the marine environment. The Tribunal’s decision clearly provides that the provisions of Part XII and other applicable rules of international law inform the content of Article 192.⁵⁰ The Tribunal found that the duty to prevent the harvest of endangered species based on Article 192—which applies in the context of fragile ecosystems by virtue of Article 194(5)—and must be “read against the background of other applicable international law.”⁵¹ In the Award, a due diligence obligation to prevent the harvesting of endangered species, including giant clams and sea turtles, was deduced from Articles 192 and 194(5) in the light of the CBD⁵² and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).⁵³

46. UNCLOS, *supra* note 11, at art. 1, ¶ 1, § 4; *see, e.g.*, Erik Franckx, *Coastal State Jurisdiction with Respect to Marine Pollution—Some Recent Developments and Future Challenges*, 10 INT’L J. MARINE & COASTAL L. 253, 256–57 (1995) (arguing that the status quo on the protection and preservation of the marine environment as written down in the 1982 Convention is currently under pressure); Kristina M. Gjerde, *Challenges to Protecting the Marine Environment Beyond National Jurisdiction*, 27 INT’L J. MARINE & COASTAL L. 839, 846–47 (2012) (arguing for the possibility of building and modernizing the relevant framework and noting that the Convention paved the way for the continuous upgrade of international rules and standards); Antonio J. Rodriguez et al., *Evolution of Marine Pollution Law, 1966–2016*, 91 TUL. L. REV. 1009, 1024, 1043 (2017) (discussing how major oil spills and releases of hazardous substances have pushed marine pollution law since 1966 to increase dramatically the scope of regulation, liability of polluters, and mechanisms to ensure funding for cleaning up spills and compensation for damages).

47. Alan Boyle, *Law of the Sea Perspectives on Climate Change*, 27 INT’L J. MARINE & COASTAL L. 831, 834–836 (2012). *See also* Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 14–16, 1987, 1522 U.N.T.S. 3 (entered into force Jan. 1, 1989).

48. UNFCCC, *supra* note 2.

49. There are other international instruments on the protection of the atmosphere. *See, e.g.*, Kyoto Protocol to the United Nations Framework Convention on Climate Change, *adopted* Dec. 11, 1997, 2303 U.N.T.S. 162, (entered into force Feb. 16, 2005); Vienna Convention for the Protection of the Ozone Layer, *opened for signature* Mar. 22, 1985, T.I.A.S. No. 11,097 (entered into force Sept. 22, 1988).

50. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶¶ 941–49.

51. *Id.* ¶ 959.

52. *Id.* ¶ 945; Convention on Biological Diversity, *supra* note 19.

53. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶ 956; Convention on International Trade in Endangered Species of Wild Fauna and Flora, *opened for signature* Mar. 3, 1973, 27 U.S.T. 1087 (entered into force July 1, 1975).

However, in addition to this, the Tribunal expounded that the due diligence obligation imposed under Article 192 encompasses not just the obligation “to take those measures ‘necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life,’” but also “extends to the prevention of harms that would affect depleted, threatened, or endangered species indirectly through the destruction of their habitat.”⁵⁴ Undoubtedly, Article 192 is now a framework provision that requires a living interpretation in the light of the developments in international law.

The second implication of the expansive interpretation concerns the evolving nature of UNCLOS Part XII with respect to the legal principle of the duty to cooperate.⁵⁵ The importance of the duty to cooperate has been recognized especially in the field of international environmental law, where rules and principles continue to develop and where compliance with these rules and principles are brought about by cooperation rather than the imposition of legal liability and fault.⁵⁶ International tribunals, including, most notably, the International Court of Justice (ICJ) and the International Tribunal for the Law of

54. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶ 959 (quoting UNCLOS Article 192). In this regard, the Tribunal considers the harvesting of sea turtles, species threatened with extinction, and the harvesting of corals and giant clams from the waters surrounding Scarborough Shoal and features in the Spratly Islands to constitute a harm to the marine environment. *Id.* ¶ 960. Therefore, in the view of the Tribunal, “a failure to take measures to prevent these practices would constitute a breach of Articles 192 and 194(5) of the Convention.” *Id.*

55. UNCLOS contains various provisions that impose the duty to cooperate on States parties. These include, Articles 41, 43, 61(2), 64(1), 65, 66, 69(4), 70(4), 94(7), 98 (2), 100, 108 (1), 109(1), 117, 118, 123, 129, 130, 144(2), 151(1)(a), 197, 199, 200, 201, 226(2), 235(3), 243, 266(1), 273, 276(2), and 303. The duty to cooperate is specifically mentioned in several provisions of Part XII of UNCLOS. These include Article 197, which provides that:

States shall co-operate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.

The duty to cooperate is also found in Article 199, on contingency plans against pollution; in Article 200 on studies, research programmes and exchange of information and data acquired about pollution of the marine environment; in Article 201, in establishing appropriate scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures for the prevention, reduction, and control of pollution of the marine environment; in Article 226(2), which enjoins State to cooperate to develop procedures for the avoidance of unnecessary physical inspection of vessels at sea; and in Article 235(3), which imposes on States the duty to cooperate on international law relating to “responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes” and the “development of criteria and procedures for payment of adequate compensation.”

56. See, e.g., Margaret A. Young & Sebastián Rioseco Sullivan, *Evolution Through the Duty to Cooperate: Implications of the Whaling Case at the International Court of Justice*, 16 MELB. J. INT’L L. 311, 328–38 (2015) (discussing the duty to cooperate in the context of the whaling regime).

the Sea (ITLOS), have on occasion expounded on the duty to cooperate.⁵⁷ The Arbitral Tribunal's emphasis on the importance of cooperation, coordination, and communication appears to endorse the existence of the duty to cooperate as a fundamental principle of Part XII as well as a principle under general international law.⁵⁸ Given this, the scope of application appears to be wider than the explicit formulation of the duty to cooperate under Articles 123 and 197 of UNCLOS.

II. CAN STATES MOVE FROM DISASTER RELIEF TO DISASTER RISK REDUCTION?: IMPROVING NATIONAL AND REGIONAL MARINE POLLUTION CONTINGENCY PLANNING IN THE ASIA-PACIFIC

A. *The Obligation to Engage in Marine Contingency Planning*

In considering whether a case could be made for using Part XII of UNCLOS to establish liability for the impact of climate change on the marine environment, it should be noted that States already have a perceived obligation to take proactive measures to deal with the harmful effects of marine pollution in contrast to a reactive approach.⁵⁹

Within the UNCLOS framework, States agreed in Article 198 and Article 199 to “immediately notify other States” and “competent international organizations” likely to be affected by a pollution incident and to “jointly develop and promote contingency plans” so that States can best coordinate their efforts “to the extent possible, in eliminating the effects of pollution and preventing or minimizing the damage.”⁶⁰ When read together, Article 198 and Article 199 appear to establish a positive obligation for State parties to engage in marine contingency planning. Marine pollution contingency plans respond to marine pollution disasters and emergencies in order to protect marine resources.⁶¹ In light of existing State practices of marine contingency planning and *opinio juris*, these UNCLOS provisions also appear to codify an established customary international rule.⁶²

57. The MOX Plant Case (Ir. v. U.K.), Case No. 10, Order of Dec. 3, 2001, 5 ITLOS Rep. 95, 110 ¶ 82 [hereinafter The MOX Plant Case]; Land Reclamation in and Around the Straits of Johor (Malay. v. Sing.), Case No. 12, Order of Oct. 8, 2003, 7 ITLOS Rep. 10, 25 ¶ 92 [hereinafter Straits of Johor Case]; Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC), *supra* note 40, at 43, ¶ 140; Pulp Mills Case, *supra* note 40, at 49, ¶ 77.

58. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶¶ 946, 985.

59. *Id.* ¶ 941.

60. UNCLOS, *supra* note 11, at arts. 198, 199.

61. ANASTASIA TELESITSKY ET AL., MARINE POLLUTION CONTINGENCY PLANNING: STATE PRACTICE IN ASIA-PACIFIC STATES 3 (2017).

62. See, e.g., Constantinos Triantafyllou et al., *Contingency Planning in the European Union: The Importance of Cooperation Between States*, 21 OCEAN Y.B. 427, 431–35 (2007) (outlining the pollution response frameworks at the national, regional, European, and international levels pertaining to major marine pollution incidents within European waters); see also Tony George Puthucherril, *Adapting to*

States are accorded a great deal of latitude in deciding what might trigger the operation of a contingency plan to protect marine resources. While Article 198 clearly establishes the principle of prevention by calling upon States to report not just actual damage but also situations that pose “imminent danger,” the Article does not provide for a specific standard as to the degree of damage incurred that requires notification. Once notification under Article 198 is given, States are expected, however, to proceed under the contingency plans developed under Article 199 with assistance from competent international organizations.⁶³

It is apparent that an implicit “due diligence” requirement on the part of all UNCLOS State parties is embedded in Article 198. The phrase “becomes aware” suggests that a State must take the initiative to patrol within its own borders and maritime zones to identify incidents of potential pollution damage.⁶⁴ Whether a State will ultimately provide notification to other States after an inspection of its waters within its jurisdiction will depend upon how comprehensively the State defines “pollution.”⁶⁵ Under the UNCLOS definition of pollution, a broad range of events might require notification under Article 198.⁶⁶

The emphasis in Article 199 on the establishment of contingency plans originated from the treaty drafters’ view that there should be facilitation of technical assistance for developing States coping with marine pollution damage.⁶⁷ However, it is not obvious from a plain reading of the text of UNCLOS that the idea of extending technical assistance to developing States for

Climate Change and Accelerated Sea-Level Rise Through Integrated Coastal Zone Management Laws: A Study of the South Asian Experience, 26 OCEAN Y.B. 533, 544–82 (2012) (examining the coastal zone management legal regimes in the South Asian littoral countries and how they further the concept of integrated coastal zone management and facilitate adaptation to climate change).

63. UNCLOS, *supra* note 11, at arts. 198, 199; *see, e.g.*, International Convention on Oil Pollution, Preparedness, Response and Cooperation art. 5, ¶¶ 2, 3, *adopted* Nov. 30, 1990, 1891 U.N.T.S. 78 (entered into force May 13, 1995) (encouraging States to inform the International Maritime Organization (IMO) of severe oil pollution incidents).

64. UNCLOS, *supra* note 11, at art. 198.

65. For example, member States of the IMO negotiated the 2000 Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, which was adopted on March 15, 2000, and entered into force on June 14, 2007. This provides a global framework for international co-operation in combating major incidents or threats of marine pollution. Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, *adopted* Mar. 15, 2000, [2007] A.T.S. 47 (Austl.). Article 2, paragraph 2 defines “[h]azardous and noxious substances” as “any substance other than oil which, if introduced into the marine environment is likely to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.” *Id.* at art. 2, ¶ 2.

66. UNCLOS, *supra* note 11, at art. 1, ¶ 1 (defining “pollution of the marine environment” as “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”).

67. MYRON NORDQUIST, UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, VOLUME IV 88 (1990).

marine contingency planning is present in the Convention.⁶⁸ The only textual reference to the differing capacity of developing States is the first sentence of Article 199, which provides that “States in the area affected, in accordance with their capabilities, and the competent international organizations shall co-operate, to the extent possible” in handling a pollution incident.⁶⁹ In contrast, the remaining obligation in Article 199, to “jointly develop and promote contingency plans for responding to pollution incidents in the marine environment,” is applicable to all States.⁷⁰

B. State Practice in Marine Contingency Planning in the Asia-Pacific Region

Analysis of State practices in marine contingency planning in the Asia-Pacific region leads to two principal observations. First, States in the region generally devised or substantially amended their national marine contingency plans in response to catastrophic oil spills within their own waters.⁷¹ This suggests that the evolution of national marine contingency planning tended to be more individually reactive. Even when catastrophic events occur, such as the Deepwater Horizon oil spill, States that are not the locus of the accident tend not to view such external disasters as an opportunity to reflect critically on their own operational preparedness.⁷²

Second, Asia-Pacific States vary in terms of the availability of public and private resources available to respond to marine pollution incidents.⁷³ It is apparent creating an emergency response communication network that can

68. However, UNCLOS in its text refers to the preferential treatment given to, as well as the obligation to provide scientific and technical assistance to developing States. See UNCLOS, *supra* note 11, at arts. 202, 203, 266, 269, 274.

69. *Id.* at art. 199.

70. *Id.*; NORDQUIST, *supra* note 67, at 87.

71. For example, in the case of the Philippines, Oil Pollution Compensation Act of 2007, Republic Act No. 9483, 2 June 2007, was enacted in the aftermath of the *M/T Solar 1* incident. In the case of Australia, the catalyst for the inception of the National Contingency Plan was the 1970 *Oceanic Grandeur* incident. In 1997, Japan after the *Nakhodka* oil spill revealed that its oil spill preparedness and response regime were insufficient to address large-scale marine pollution incidents.

72. There are ample academic literature on lessons learned from the *Deepwater Horizon* incident, see for example, Martin Davies, *Liability Issues Raised by the Deepwater Horizon Blowout*, 25 AUSTL. & N.Z. MAR. L.J. 35 (2011), and Vincent J. Foley, *Deepwater Horizon: The Legal Fallout—The Framework for Liability, Fines, and Penalties for Oil Pollution*, 22 ENVTL. CLAIMS J. 280 (2010), and Vincent J. Foley, *Post-Deepwater Horizon: The Changing Landscape of Liability for Oil Pollution in the United States*, 74 ALB. L. REV. 515 (2010), and Thomas C. Galligan, Jr., *A Sad Tale of the Deepwater Horizon Disaster, Normal Accidents, and Our Appetite for Risk*, 17 ROGER WILLIAMS U. L. REV. 264 (2012), and Hari M. Osofsky, *Multidimensional Governance and the BP Deepwater Horizon Oil Spill*, 63 FLA. L. REV. 1077 (2011).

73. See Ma. Gregoria Joanne P. Tiquio et al., *Management Frameworks for Coastal and Marine Pollution in the European and South East Asian Regions*, 135 OCEAN & COASTAL MGMT. 65, 72–73 (2017).

effectively link local, regional, and national entities capable of providing practical responses to marine pollution incidents is a recurring challenge.⁷⁴

Given the shift away from a reactive approach to marine pollution, the need has emerged for a systemic change in which States regard contingency planning as part of a proactive and adaptive management process. This requires that States actively seek, as part of an iterative learning process, to design responses to new types of marine oil pollution scenarios. For example, States should consider the unique emergency scenarios that may arise with the operation of new classes of transport vessels, such as ultra-large crude carriers. States should also examine the impact climate change might have on oil pollution responses. For example, States should examine if changes in ocean currents will impact existing oil spill dispersion models or if there should be changes to the location, access to, and deployment of response equipment storage. Ultimately, despite limited resources and capacity, States in the Asia-Pacific should maintain comprehensive, integrated, and robust national contingency planning responses based on sound domestic legal and policy structures in order to protect and preserve ocean and coastal resources.

III. PART XII AND THE DUTY TO MITIGATE AGAINST CLIMATE CHANGE: MAKING OUT A CLAIM, CAUSATION, AND RELATED ISSUES

UNCLOS is the key international legal instrument, outside of the climate change regime, which could be a potential source of international litigation on climate change. However, there are a number of issues that may arise in such litigation, including choice of the most effective international forum, the difficulty of establishing jurisdiction, attribution, causation, and apportionment of liability and responsibility.⁷⁵

The UNFCCC in its preamble recognizes that

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.⁷⁶

74. See, e.g., Suk Kyoong Kim, *Marine Pollution Response in Northeast Asia and the NOWPAP Regime*, 46 OCEAN DEV. & INT'L L. 17, 30 (2015) (arguing for closer cooperation within the region with respect to marine pollution preparedness and response); Jae-Hyup Lee, *Transboundary Pollution in Northeast Asia: An International Environmental Law Perspective*, 35 U. HAW. L. REV. 769, 775–77 (2013); Craig Forrest, *State Cooperation in Combating Transboundary Marine Pollution in South East Asia*, 30 AUSTL. & N.Z. MAR. L.J. 78 (2016) (considering the degree to which a collaborative international legal framework exists in Southeast Asia for pollution arising from shipping and offshore oil and gas activities).

75. Boom, *supra* note 13, at 229.

76. UNFCCC, *supra* note 2, at pmbl.

However, the text of the UNFCCC does not contain provisions that define damages caused by climate change or provisions that address the issue of compensation for damages from climate change.⁷⁷ In view of this, there are some State parties to the UNFCCC which have expressed reservations that their ratification of the Convention does not constitute a renunciation of their rights under international law concerning State responsibility for the adverse effects of climate change and that no provisions in the Convention can be interpreted as derogating from the principles of general international law.⁷⁸

The dispute settlement mechanism provided under the legal framework of UNCLOS establishes a compulsory and binding framework for the peaceful settlement of all ocean-related disputes.⁷⁹ In Part XV of UNCLOS, State parties have the duty to settle any dispute concerning the interpretation or application of the Convention by peaceful means in accordance with Article 2(3) of the Charter of the United Nations⁸⁰ and to seek a solution using any of the means indicated in Article 33(1) of the Charter.⁸¹ The unique nature of compulsory jurisdiction under UNCLOS creates an attractive feature for claimant States for climate change damage.⁸²

A. Climate Change and UNCLOS

Climate change is an issue that was not yet in the global environmental agenda during the time UNCLOS was negotiated.⁸³ It is thus not a surprise that the text and *travaux préparatoire* of UNCLOS do not contain any direct references to climate change.⁸⁴ However, whilst UNCLOS was not negotiated and drafted to address issues related to climate change, there are provisions in Part XII on the marine environment that could theoretically apply to climate

77. Voigt, *supra* note 8, at 4.

78. The Governments of Nauru, Tuvalu, Fiji, Kiribati, and Papua New Guinea submitted declarations that the provisions of the UNFCCC “shall in no way constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change” or a derogation of “principles of general international law.” UNFCCC, *supra* note 2 (Declarations by Parties).

79. Rosemary Rayfuse, *The Future of Compulsory Dispute Settlement Under the Law of the Sea Convention*, 30 VICT. U. WELLINGTON L. REV. 683, 684–85 (2005); see also Anne Sheehan, *Dispute Settlement Under UNCLOS: The Exclusion of Maritime Delimitation Disputes*, 24 U. QUEENSL. L.J. 165, 165 (2005).

80. U.N. Charter art. 2, ¶ 3 (“All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.”).

81. The UN Charter lists the following means of peaceful settlement, which should be used by member states in settling their disputes: “[N]egotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.” *Id.* at art. 33.

82. Boom, *supra* note 13, at 198.

83. Alan Boyle, *Law of the Sea Perspectives on Climate Change*, 27 INT’L J. MARINE & COASTAL L. 831, 834–36 (2012).

84. See Meinhard Doelle, *Climate Change and the Use of the Dispute Settlement Regime of the Law of the Sea Convention*, 37 OCEAN DEV. & INT’L L. 319, 321 (2006).

change, greenhouse emissions, ocean acidification, and even the responsibility of States to not cause transboundary climate change.⁸⁵ Such provisions could also bring accompanying liability for such damages under international law.⁸⁶

UNCLOS provides for a general obligation on all State parties to “take all measures necessary 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, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights.”⁸⁷ UNCLOS Article 195 provides that States, in undertaking measures to prevent, reduce, and control pollution of the marine environment, have the obligation “not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another.”⁸⁸ This is a reflection of the “no harm rule,” which prohibits transboundary environmental damage.⁸⁹ This could be applied in the context of transboundary harm caused by climate change: for instance, when greenhouse gas emissions from one State cause damage to the marine environment of another State.⁹⁰

Article 207 of UNCLOS requires States to “adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources . . . taking into account internationally agreed rules, standards and recommended practices and procedures.”⁹¹ Article 212 of UNCLOS covers marine pollution from and through the atmosphere, which requires States to “adopt laws and regulations to prevent, reduce and control” such pollution, “taking into account internationally agreed rules, standards and recommended practices and procedures and the safety of air navigation.”⁹² It could be argued that a State party could rely on Article 212 to apply UNCLOS to the damage caused by climate change through the breach of another State party that has failed

85. Boyle, *supra* note 83, at 834–36.

86. See, e.g., *id.* at 834–35 (discussing potential liability under UNCLOS and the Kyoto Protocol).

87. UNCLOS, *supra* note 11, at art. 194, ¶ 2.

88. *Id.* at art. 195.

89. For further discussion of the no harm rule, see Benoît Mayer, *The Relevance of the No-Harm Principle to Climate Change Law and Politics*, 19 ASIA PAC. J. ENV'T'L L. 79, 79 (2016), and Kerry Brent et al., *Does the 'No-Harm' Rule Have a Role in Preventing Transboundary Harm and Harm to the Global Atmospheric Commons from Geoengineering?*, 5 CLIMATE L. 35, 37 (2015).

90. Boom, *supra* note 13, at 191. Boom also argues that “a claimant State could rely upon Article 195 in relation to the process of ocean acidification,” since “it could be argued that the uptake of additional CO₂ as a mitigation action in order to reduce atmospheric concentrations would equate to the transformation of one type of pollution into another.” *Id.*

91. UNCLOS, *supra* note 11, at art. 207, ¶ 1.

92. *Id.* at art. 212, ¶ 1.

to adopt laws and regulations to prevent, reduce, and control pollution from atmospheric sources.⁹³

Article 235 of UNCLOS provides that “States are responsible for the fulfillment of their international obligations concerning the protection and preservation of the marine environment.”⁹⁴ The same Article does not specifically mention State responsibility but provides that States “shall be liable in accordance with international law.”⁹⁵ Furthermore, Article 235, paragraph 3 of UNCLOS provides a possible connection between UNCLOS and the UNFCCC, the Kyoto Protocol, the Paris Agreement, and other climate-related international instruments.⁹⁶ UNCLOS should be read, interpreted, and applied alongside marine pollution agreements.⁹⁷

B. Challenges of Jurisdiction, Causation, and Related Issues

Assuming that the legal obligation for States to protect and preserve the marine environment derived from UNCLOS is extended to also require State parties to mitigate the effects of climate change, it will bring up the thorny issue of causation.⁹⁸ The main challenge for any claim made against a State would be the ability of the claimant to establish a causal link between the failure of a particular State to fulfill its obligation on the one hand and the harmful effect of climate change on the marine environment on the other.⁹⁹

The argument certainly could be made that a failure to mitigate the effects of climate change would result in marine environment pollution as defined by UNCLOS.¹⁰⁰ Thus, a failure to prevent pollution could be considered a violation of the parties’ UNCLOS obligations “to protect and preserve the marine

93. See William C. G. Burns, *Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention*, 2 MCGILL INT’L J. SUSTAINABLE DEV. L. & POL’Y 27, 46–47 (2006).

94. UNCLOS, *supra* note 11, at art. 235, ¶ 1.

95. *Id.*; see also Boyle, *supra* note 83, at 834–36 (discussing State liability under the Kyoto Protocol and UNCLOS).

96. UNCLOS, *supra* note 11, at art. 235, ¶ 3 (“States shall co-operate in the implementation of existing international law and the further development of international law . . .”).

97. See, e.g., 1996 Protocol to the London Convention of 1972, *supra* note 45; Paris Convention, *supra* note 45; London Convention, *supra* note 45; Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, *adopted* Feb. 15, 1972, 932 U.N.T.S. 3 (entered into force Apr. 7, 1974).

98. Doelle, *supra* note 84, at 324–25.

99. See Eric Biber, *Climate Change, Causation, and Delayed Harm*, 37 HOFSTRA L. REV. 975, 976 (2008) (noting that causation is difficult in this context because the effects of climate change are delayed); Malgosia Fitzmaurice, *Responsibility and Climate Change*, 53 GERMAN Y.B. INT’L L. 89, 122 (2010); David A. Grossman, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1, 22–27 (2003); cf. Robert F. Blomquist, *Comparative Climate Change Torts*, 46 VAL. U. L. REV. 1053, 1060–73 (2012) (noting that the causation requirement creates a significant hurdle in establishing liability for climate change under Australian law, Chinese law, Israeli law, and South African law).

100. See UNCLOS, *supra* note 11, at art. 1, ¶ 1, § 4; Boom, *supra* note 13, at 182–84.

environment.”¹⁰¹ However, the extent to which the contribution to climate change by a particular State party or a number of State parties can be isolated as to establish sufficient legal cause for liability would be very difficult to determine. Problems would arise, such as how to determine the relative level of contribution of a particular State in comparison to other countries, the capacity of the State to reduce pollution, and the effect of the historical contribution to overall pollution levels. This would create significant challenges in determining whether a party failed to take sufficient action to mitigate its climate change impact on the marine environment.

It is unlikely that whether the State is a party to one or more Conventions such as UNCLOS, CBD, UNFCCC, or the Paris Agreement would be determinative for establishing liability.¹⁰² It is likely that a claimant State would be a developing country that would be highly vulnerable to climate change and have a heavy economic and social reliance on the marine environment,¹⁰³ while the defending Party would most likely be a developed State.¹⁰⁴ The higher the historic and present contribution to climate change by the defending Party, arguably the better the chance of a successful outcome. The United States, for example, has not ratified UNCLOS and is, therefore, as a large State which would otherwise likely be defending against a claimant State, not at risk of being brought before an UNCLOS tribunal.¹⁰⁵ Even if the relevant provisions of protection of the marine environment are declared as customary international law, since the United States does not accept the compulsory jurisdiction of the ICJ, the Court would be without authority.¹⁰⁶

101. See UNCLOS, *supra* note 11, at art. 192.

102. The Paris Agreement was adopted on December 12, 2015 at the twenty-first session of the Conference of the Parties to the UNFCCC held in Paris from November 30 to December 13, 2015. The Paris Agreement entered into force on November 4, 2016, in accordance with Article 21(1).

103. See, e.g., Mariya Gromilova, *Rescuing the People of Tuvalu: Towards an I.C.J. Advisory Opinion on the International Legal Obligations to Protect the Environment and Human Rights of Populations Affected by Climate Change*, 10 INTERCULTURAL HUM. RTS. L. REV. 233, 233–35 (2015) (highlighting the particular situation of the island of Tuvalu); Hannah Stallard, *Turning Up the Heat on Tuvalu: An Assessment of Potential Compensation for Climate Change Damage in Accordance with State Responsibility Under International Law*, 15 CANTERBURY L. REV. 163, 167–70 (2009) (discussing the climate change damage Tuvalu will face).

104. A good example would be Australia. See Doelle, *supra* note 84, at 325. Another good example would be China and the United States. See Cass R. Sunstein, *The World vs. the United States and China? The Complex Climate Change Incentives of the Leading Greenhouse Gas Emitters*, 55 UCLA L. REV. 1675, 1677 (2008).

105. See Randall S. Abate, *Climate Change, the United States, and the Impacts of Arctic Melting: A Case Study in the Need for Enforceable International Environmental Human Rights*, 26 STAN. ENVTL. L.J. 3, 62 (2007) (noting that the United States has only signed UNCLOS).

106. Andrew L. Strauss, *The Legal Option: Suing the United States in International Forums for Global Warming Emissions*, 33 ENVTL. L. REP. (Envtl. Law Inst.) 10,185, 10,185–86 (Jan. 1, 2003). In 1985, the United States withdrew its acceptance of compulsory jurisdiction of the Court before the second hearing of the Nicaragua case before the ICJ. *Id.* There would be little motivation for the United States to submit itself voluntarily to the jurisdiction of the ICJ if such submission will only open the possibility of an adverse judgment against the United States.

The ability of States to opt out of the binding dispute resolution process under UNFCCC also poses a challenge. Assuming that all relevant parties have ratified both UNCLOS and the UNFCCC, for example, one response to a claim under UNCLOS might be that the parties should agree to settle their disputes under the dispute settlement process in the UNFCCC.¹⁰⁷ This is, however, a difficult position to defend because there are no binding obligations in the UNFCCC on individual States to take action to prevent harmful effects on the marine environment.¹⁰⁸ Similarly, the Paris Agreement, which relies on the same dispute settlement process as the UNFCCC, does not impose obligations on parties to prevent harm to the marine environment.¹⁰⁹ Thus, a claim that pollution originating from a given State causes harm to the marine environment is unlikely to be considered a dispute under the UNFCCC or the Paris Agreement. Even assuming an UNCLOS tribunal, such as ITLOS, ICJ, or an arbitral tribunal, found that a dispute could be established under the UNFCCC or the Paris Agreement, under Article 14 of the UNFCCC the parties have a non-mandatory option to agree on a binding dispute resolution process.¹¹⁰

Moreover, a potential finding that there may be a breach of UNCLOS obligations through binding dispute settlement over a failure to mitigate the effects of climate change would raise a number of additional questions. Who can bring such a claim, and against what countries could such a claim be brought? What is the likelihood of such a claim? What would be the implications of such a claim for the climate change regime and international relations more generally? To what standard would a Party be held?

Finally, there would be problems associated with possible remedies. Would remedies be limited to a finding that a Party was in violation of its obligations, or would they extend to an order to reduce pollution, either generally or by a specific amount? Furthermore, could remedies include an award of damages or perhaps even an order to assist other parties in adapting to climate change?

107. Boom, *supra* note 13, at 224 (arguing that “there is clearly a conflict between the procedures provided in the climate regime and the LOSC. . . . Article 14 of the UNFCCC requires Parties to reach agreement as to what peaceful means of dispute resolution are to be utilised [sic]. In contrast, the LOSC provides compulsory binding dispute processes that can be utilised [sic] at the initiation of one Party only.”).

108. See A. E. Boyle, *Some Reflections on the Relationship of Treaties and Soft Law*, 48 INT’L & COMP. L.Q. 901, 907 (1999) (arguing that the core articles of the UNFCCC are so “cautiously and obscurely” worded and “so weak” that it is uncertain whether any real obligation is created).

109. Paris Agreement, *supra* note 2, at art. 24; UNFCCC, *supra* note 2, at art. 14 (“Settlement of Disputes”).

110. UNFCCC, *supra* note 2, at art. 14 (“Settlement of Disputes”); Doelle, *supra* note 84, at 331.

IV. IMPLICATIONS OF A REQUEST FOR AN ADVISORY OPINION AT THE
INTERNATIONAL TRIBUNAL FOR THE LAW OF SEA

A. Climate Change Litigation

The idea of filing an action based on climate change damage is not entirely novel.¹¹¹ In 2002, Tuvalu, a small island developing State in the South Pacific, announced that it intended to sue Australia and the United States before the ICJ over climate change.¹¹² In 2011, the island State of Palau announced plans to seek an advisory opinion from the ICJ on the question of States' legal responsibility to ensure activities within their territories that emit greenhouse gases do not harm other States.¹¹³

Climate change litigation may take a variety of forms. At the domestic level, plaintiffs who could prove harm or injury suffered from climate change could bring actions in local courts against the government, file a claim against corporations whose conduct has a disproportionate impact on climate change, or bring a claim before an international tribunal.¹¹⁴ Despite the recognized link between the actions and failures of industrialized nations to regulate greenhouse gases and climate change, domestic suits are unlikely to succeed because of sovereign immunity.¹¹⁵ Furthermore, it could be argued that these emissions do not necessarily violate international law and that the reference to a right to a healthy environment in many international instruments does not create a legally cognizable right to be free from climate change.¹¹⁶

B. Request for Advisory Opinion

The dispute settlement regime in UNCLOS is one of the most complex systems and one of only a few ever included in any global convention. It is considered a central pillar of the Convention and part of the delicate compromises included in the "package-deal" of negotiations that led to the

111. See VERHEYEN, *supra* note 10, at 225–332 (analyzing the legal duties that require states to prevent climate change damage and the extent to which a breach of these duties will give rise to state liability); see also Peel, *supra* note 10 (examining challenges for potential litigants across the broad spectrum of climate change litigation).

112. Jacobs, *supra* note 10.

113. Xing-Yin Ni, *A Nation Going Under: Legal Protection for "Climate Change Refugees"*, 38 B.C. INT'L & COMP. L. REV. 329, 353 (2015).

114. See, e.g., Esmeralda Colombo, *Enforcing International Climate Change Law in Domestic Courts: A New Trend of Cases for Boosting Principle 10 of the Rio Declaration?*, 35 UCLA J. ENVTL. L. & POL'Y 98, 108–09 (2017) (discussing the value of enforcement of international climate change law in domestic courts).

115. See JANE MCADAM, *CLIMATE CHANGE, FORCED MIGRATION, AND INTERNATIONAL LAW* 92 (2012); Eric A. Posner, *Climate Change and International Human Rights Litigation: A Critical Appraisal*, 155 U. PA. L. REV. 1925, 1927 (2007).

116. Posner, *supra* note 115, at 1930–31; see also Susan Glazebrook, *Human Rights and the Environment*, 40 VICT. U. WELLINGTON L. REV. 293, 294–95 (2009).

adoption of UNCLOS in 1982.¹¹⁷ Under the package deal, States agreed to accept the Convention in its entirety, with no right to make reservations,¹¹⁸ and that, as a general principle, all disputes concerning the interpretation or application of any provision in the Convention would be subject to compulsory binding dispute settlement.¹¹⁹ When States become parties to UNCLOS, they consent in advance to the system of compulsory binding dispute settlement in the Convention.¹²⁰

The dispute settlement system under UNCLOS is contained in Part XV of the Convention. The provisions of Part XV are only applicable when there is a “dispute” that relates to either the “interpretation” or “application” of the Convention.¹²¹ In addition to the dispute requirement, that dispute must also be “legal” or “justiciable” in that it must be capable of being settled by the application of principles and rules of international law.¹²²

If a settlement is not reached, UNCLOS stipulates that the dispute can be submitted, at the request of any party, to the dispute to a court or tribunal having jurisdiction.¹²³ UNCLOS defines those courts or tribunals with jurisdiction as: (a) the International Tribunal for the Law of the Sea, established in accordance with Annex VI of the Convention, including the Seabed Disputes Chamber; (b) the ICJ; (c) an arbitral tribunal constituted in accordance with Annex VII of the Convention; and (d) a special arbitral tribunal constituted in accordance with Annex VIII for one or more of the categories of disputes specified therein.¹²⁴

117. A.O. ADEDE, *THE SYSTEM FOR SETTLEMENT OF DISPUTES UNDER THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: A DRAFTING HISTORY AND A COMMENTARY* 241 (1987).

118. States may not make reservations unless expressly permitted by other articles of the Convention. UNCLOS, *supra* note 11, at art. 309.

119. UNCLOS, *supra* note 11, at arts. 286–296.

120. NATALIE KLEIN, *DISPUTE SETTLEMENT IN THE UN CONVENTION ON THE LAW OF THE SEA* 53 (2005) (“No additional form of consent is required once a State is party to the Convention – consent to be bound by UNCLOS includes consent to compulsory procedures entailing binding decisions (subject to Sections 1 and 3 of Part XV). Under Section 2, the States in dispute do not need (both or all) to consent to the referral of the dispute to a court or tribunal, but the dispute can be submitted at the behest of just one of the disputant States.”).

121. UNCLOS, *supra* note 11, at art. 286.

122. *Id.* at art. 293 (stating that the court or tribunal with jurisdiction shall apply the Convention and “other rules of international law not incompatible with this Convention.”). Article 286 of UNCLOS provides the general rule that any dispute concerning the interpretation or application of any provision in the Convention, not settled by the parties, is subject to the system of compulsory binding dispute settlement in Section 2 of Part XV of UNCLOS. *Id.* at art. 286. This is, of course, subject to the limitations and exceptions to the applicability of Section 2 of Part XV as specified in Section 3 of Part XV. *Id.* at arts. 297–99 (Section 3 of Part XV). The parties to a dispute have the obligation to exchange views, under Article 283, and to exhaust local remedies where this is required by international law, under Article 295. *Id.* at arts. 283, 295.

123. *Id.* at art. 286.

124. *Id.* at art. 287. The availability of a variety of forums was a compromise to secure consensus during the negotiations for the compulsory dispute settlement provisions of UNCLOS. See Jonathan I. Charney, *The Implications of Expanding International Dispute Settlement Systems: The 1982 Convention on the Law of the Sea*, 90 AM. J. INT’L L. 69, 71 (1996).

Article 191 of UNCLOS provides the advisory jurisdiction of the Seabed Disputes Chamber, stating that the Chamber “shall give advisory opinions at the request of the Assembly or the Council on legal questions arising within the scope of their activities. Such opinions shall be given as a matter of urgency.”¹²⁵ The Rules of the International Tribunal for the Law of the Sea also authorize the Tribunal to give an advisory opinion on a legal question if the submission to the Tribunal is specifically provided for by “an international agreement related to the purposes of the Convention.”¹²⁶ Nonetheless, the non-binding nature of the ruling of a Tribunal on other States under UNCLOS and its lack of precedential value on other States who are not parties to the dispute, minimizes the value of these mechanisms.¹²⁷

A claimant State may also have the option to seek an advisory opinion at the ICJ.¹²⁸ The founding document provides that the ICJ “may give an advisory opinion on any legal question at the request of whatever body may be authorized by or in accordance with the Charter of the United Nations to make such a request.”¹²⁹ A State could also request an ICJ advisory opinion through certain bodies of the United Nations.¹³⁰ Furthermore, other United Nations organs and specialized agencies, when authorized by the General Assembly, may also request advisory opinions of the ICJ on legal questions arising within the scope of their activities.¹³¹

C. Challenges Posed by Climate Change Litigation

At the international level, inter-state disputes and judicial adjudication involving States suing for climate change damage are not prevalent. There has been more progress pushing the limits of the law at the national level,¹³² including a dramatic increase in the number of court cases at the national level involving climate change-related causes of action in the context of tort law, trade practices legislation, and action in administrative or constitutional law.¹³³ In

125. UNCLOS, *supra* note 11, at art. 191; *see also* International Tribunal for the Law of the Sea, *Rules of the Tribunal* arts. 130–37, ITLOS/8 (Mar. 17, 2009) [hereinafter *Rules of the Tribunal*].

126. Rules of the Tribunal, *supra* note 125, at art. 138, ¶ 1. Article 138(3) provides that Articles 130 to 137 shall apply *mutatis mutandis*. *Id.* at art. 138, ¶ 3.

127. UNCLOS, *supra* note 11, at art. 296.

128. Daniel Bodansky, *The Role of the International Court of Justice in Addressing Climate Change: Some Preliminary Reflections*, 49 ARIZ. ST. L.J. 689, 711–12 (2017).

129. Statute of the Court of the International Court of Justice art. 65, ¶ 1.

130. Strauss, *supra* note 106, at 10,187.

131. Jacobs, *supra* note 10, at 117.

132. *See* Cameron Jefferies, *Filling the Gaps in Canada’s Climate Change Strategy: All Litigation, All the Time*, 38 FORDHAM INT’L L.J. 1371, 1395–1404 (2015) (documenting recent litigation using human rights strategies to push Canadian environmental policy); Brian J. Preston, *The Influence of Climate Change Litigation on Governments and the Private Sector*, 2 CLIMATE L. 485, 485–86, 509 (2011).

133. Brian J. Preston, *Climate Change Litigation (Part 2)*, 5 CARBON & CLIMATE L. REV. 244, 244, 256 (2011); *see also* Nicola Durrant, *Tortious Liability for Greenhouse Gas Emissions? Climate Change*,

some countries, such as Australia and the United States, climate change cases have been filed in state courts and administrative tribunals, relying on existing legislation to compel government decision makers to consider the risks associated with climate change in their planning processes.¹³⁴

There is a convincing case that failure to mitigate climate change falls under the definition of pollution of the marine environment under UNCLOS, which can be considered a violation of the obligations of States parties under UNCLOS to protect and preserve the marine environment. However, no such claim or case has been submitted for adjudication in any international forum.¹³⁵ There are a number of critical hurdles that need to be surmounted first. These hurdles include the question of establishing standing to sue, the attribution of acts of private corporations and individuals to a State, the questions of legal and factual causation for climate change damage, the question of allocation of responsibility for multiple wrongdoers, the possibility of raising valid defenses which may preclude liability, and the suite of available remedies to redress and compensate the damages sustained by a claimant State for climate change damages.¹³⁶

The dispute settlement mechanism within the framework of UNCLOS clearly creates an obligation among States to settle their claims peacefully by any means of their own choice.¹³⁷ However, the principle of peaceful settlement of international disputes operates on the basis of the sovereign equality of States.¹³⁸ The compulsory settlement mechanism within the framework of UNCLOS is triggered only as an option where the parties are not able to settle their differences by peaceful means of their choice.¹³⁹ But, even then, the submission of a dispute to such a forum depends on the willingness of the parties.¹⁴⁰ As such,

Causation and Public Policy Considerations, 7 QUEENSL. U. TECH. L. & JUST. J. 403, 405 (2007) (assessing the legal principles associated with potential negligence claims against industrial emitters in Australia for harms from climate change).

134. Jacqueline Peel & Hari M. Osofsky, *Climate Change Litigation's Regulatory Pathways: A Comparative Analysis of the United States and Australia*, 35 LAW & POL'Y 150, 156 (2013).

135. See Doelle, *supra* note 84, at 324 ("The substance of Part XII [of UNCLOS] has not been interpreted by any international tribunal.").

136. Boom, *supra* note 13, at 229.

137. UNCLOS, *supra* note 11 at art. 280; A.O. Adede, *Prolegomena to the Disputes Settlement Part of the Law of the Sea Convention*, 10 N.Y.U. J. INT'L L. & POL. 253, 257 (1977); Lowell Bautista, *Dispute Settlement in the Law of the Sea Convention and Territorial and Maritime Disputes in Southeast Asia: Issues, Opportunities, and Challenges*, 6 ASIAN POL. & POL'Y 375, 378–82 (2014); Howard S. Schiffman, *The Dispute Settlement Mechanism of UNCLOS: A Potentially Important Framework for Marine Wildlife Management*, 1 J. INT'L WILDLIFE L. & POL'Y 293, 296–97 (1998); Louis B. Sohn, *Settlement of Disputes Arising Out of the Law of the Sea Convention*, 12 SAN DIEGO L. REV. 495, 497–500 (1975).

138. See Ted L. McDorman, *Global Ocean Governance and International Adjudicative Dispute Resolution*, 43 OCEAN & COASTAL MGMT. 255, 258–59 (2000) (asserting that the dispute settlement procedure of UNCLOS is not part of customary law and, thus, are only binding upon those states which are parties to UNCLOS).

139. UNCLOS, *supra* note 11, at art. 286.

140. In this regard, the dispute resolution mechanism may appear to offer no progress over previous regimes. This is actually not the case. In international law there is really no judicial forum with compulsory

the settlement process is only as good as the claimant States are willing to formally invoke it.

CONCLUSION

There is a growing recognition of the importance of ocean environmental protection in international jurisprudence.¹⁴¹ One of the most significant recent examples is the South China Sea arbitration decision.¹⁴² Despite this, however, State practice still shows serious gaps in adopting this trend. In particular, current research on State practice of national and regional marine pollution contingency planning in Asia-Pacific reveals that there has been little regard displayed in the region for accommodating a proactive approach to marine environmental protection.

The international community is attempting to tackle the problem of climate change and to find ways to mitigate the damages associated with it, and this is particularly true in States suffering the consequences of climate change and sea-level rise.¹⁴³ One suggestion has been to bring a legal claim before an international tribunal to commence climate change litigation. From the perspective of the current regime of international law, including the Law of the Sea and State responsibility, the feasibility and effectiveness of such climate change litigation is highly questionable. This is largely based on the problem of establishing causation and other related issues. An alternative suggestion is to use the legal mechanism of UNCLOS, not to have an adjudication of the issue, but to seek the issuance of an advisory opinion on the legal question presented by climate change in light of international agreements related to the purposes of UNCLOS. The problem with such an advisory opinion, however, would be its effectiveness due to its non-binding character.

jurisdiction. Any form of third-party dispute resolution is founded upon the assent of the parties involved. The lack of compulsion to submit to judicial forums under UNCLOS is neither a serious drawback nor does it fall short of legitimate expectations. The UNCLOS dispute settlement regime improves upon the Optional Protocol system in the sense that, in the case of the former, States become automatically bound by the compulsory procedures upon ratification of the UNCLOS, whereas under the latter, States become bound only when they become parties to the Protocol.

141. See, e.g., Yoshifumi Tanaka, *Provisional Measures Prescribed by ITLOS and Marine Environmental Protection*, 108 PROC. ANN. MEETING (AM. SOC'Y INT'L L.) 365 (2014) (discussing the use of provisional measures by ITLOS in marine environmental protection); David L. VanderZwaag, *The ICJ, ITLOS and the Precautionary Approach: Paltry Progressions, Jurisprudential Jousting*, 35 U. HAW. L. REV. 617, 623–25 (2013) (discussing the importance of marine pollution cases in developing the precautionary principle). At the ITLOS, cases which had aspects of marine environmental protection include: The MOX Plant Case, *supra* note 57; Straits of Johor Case, *supra* note 57; Southern Bluefin Tuna Cases, *supra* note 40.

142. The South China Sea Arbitration Award of July 12, 2016, *supra* note 22, ¶¶ 906–11, 925–38.

143. See, e.g., Lowell Bautista, *Legal and Policy Responses to Climate Change in the Philippines*, in CLIMATE CHANGE IMPACTS ON OCEAN AND COASTAL LAW: U.S. AND INTERNATIONAL PERSPECTIVES 647, 648–63 (Randall S. Abate ed., 2015) (examining the impacts of climate change in the Philippines and how to effectively implement national policies to mitigate these impacts).

An effective and equitable response to climate change involves a commitment from the international community to put in place adequate and sustainable funding arrangements towards climate change mitigation and adaptation, technology transfer, and capacity building.¹⁴⁴ The global goal of climate change adaptation should be to enhance adaptive capacity, strengthen resilience, and reduce vulnerability of States to climate change.¹⁴⁵

In conclusion, there is no single solution to resolve the issue of climate change, but a better understanding of the linkages between Parties' obligations under relevant treaties such as the UNFCCC, the Paris Agreement, and UNCLOS, among others, may provide further impetus for States to take climate change seriously and increase their efforts to negotiate additional agreements and implement them effectively.

144. Burlison, *supra* note 1, at 549–50. For instance, the Copenhagen Accord provides that the Green Climate Fund will facilitate developed countries in providing “adequate, predictable and sustainable financial resources, technology and capacity-building to support the implementation of adaptation action in developing countries.” United Nations Framework Convention on Climate Change, *Report of the Conference of the Parties on Its Fifteenth Session, Held in Copenhagen from 7 to 19 December 2009*, at 6, ¶ 3, U.N. Doc. FCCC/CP/2009/11/Add.1 (Mar. 30, 2010).

145. Paris Agreement, *supra* note 2, at arts. 7, 11.

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