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## The Impacts of Sea Level Rise and the Law of the Sea Convention: Facilitating Legal Certainty and Stability of Maritime Zones and Boundaries

*Davor Vidas and David Freestone*

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# The Impacts of Sea Level Rise and the Law of the Sea Convention: Facilitating Legal Certainty and Stability of Maritime Zones and Boundaries

*Davor Vidas\* and David Freestone\*\**

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This article draws on and is an abridged but also updated version of a more comprehensive article by the authors, to which readers interested in further discussion are referred: Davor Vidas & David Freestone, *Legal Certainty and Stability in the Face of Sea Level Rise: Trends in the Development of State Practice and International Law Scholarship on Maritime Limits and Boundaries*, 37 *INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW* 673 (2022). We are grateful to Brill the publishers for permission to draw on it. Important developments in public positions of some States announced after that article was submitted for publication in the *INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW* required the inclusion of several updates here.

The thoughts and opinions expressed are those of the authors and not necessarily those of the U.S. government, the U.S. Department of the Navy, or the U.S. Naval War College.

## I. INTRODUCTION

December 2022 marks forty years since the United Nations Convention on the Law of the Sea (LOS) was opened for signature.<sup>1</sup> However, even before the Convention entered into force in 1994, international law scholars had started to examine the potential legal implications of an issue that the negotiators at the Third UN Conference on the Law of the Sea (UNCLOS III) had not envisaged.<sup>2</sup> That is the issue of sea level rise driven in large part by human-induced climate change; the focus of the scientific and scholarly community had been particularly drawn to that by the publication of the First Assessment Report of the Intergovernmental Panel on Climate Change in 1990.<sup>3</sup>

A key issue early legal commentators raised was the implication under the LOS of so-called “ambulatory” baselines.<sup>4</sup> From its baseline, a coastal State may measure the outer limits of its territorial sea, contiguous zone, exclusive economic zone (EEZ), and continental shelf.<sup>5</sup> The view that a coastal

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1. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994) [hereinafter LOS].

2. For the pioneering publications, see Eric Bird & Victor Prescott, *Rising Global Sea Levels and National Maritime Claims*, 1 MARINE POLICY REPORTS 177 (1989); David Freestone & John Pethick, *International Legal Implications of Coastal Adjustments under Sea Level Rise*, in 1 CHANGING CLIMATE AND THE COAST: REPORT TO THE IPCC FROM THE MIAMI CONFERENCE ON ADAPTIVE RESPONSES TO SEA LEVEL RISE AND OTHER IMPACTS OF GLOBAL CLIMATE CHANGE 237 (1990); A.H.A. Soons, *The Effects of a Rising Sea Level on Maritime Limits and Boundaries*, 37 NETHERLANDS INTERNATIONAL LAW REVIEW 207 (1990); David Caron, *When Law Makes Climate Change Worse: Rethinking the Law of Baselines in Light of Rising Sea Level*, 17 ECOLOGY LAW QUARTERLY 621 (1990); David Freestone, *International Law and Sea Level Rise*, in INTERNATIONAL LAW AND GLOBAL CLIMATE CHANGE 109 (Robin Churchill & David Freestone eds., 1991); Samuel Pyeatt Menefee, *“Half Seas Over”: The Impact of Sea Level Rise on International Law and Policy*, 9 JOURNAL OF ENVIRONMENTAL LAW 175 (1991).

3. Intergovernmental Panel on Climate Change, *Climate Change: The IPCC 1990 and 1992 Assessments* (June 1992) [https://www.ipcc.ch/site/assets/uploads/2018/05/ipcc\\_90\\_92\\_assessments\\_far\\_full\\_report.pdf](https://www.ipcc.ch/site/assets/uploads/2018/05/ipcc_90_92_assessments_far_full_report.pdf).

4. See Caron, *supra* note 2, at 635, 641, 646; see also Freestone & Pethick, *supra* note 2; Soons, *supra* note 2, at 216 (although the term “ambulatory” is not used there).

5. See LOS, *supra* note 1, arts. 3, 33(2), 57, 76(1). Defining the outer limit of the continental shelf is more complex as the continental shelf extends beyond a coastal State’s territorial sea “throughout the natural prolongation of its land territory to the outer edge of the continental margin,” and therefore for many coastal States it extends beyond two hundred nautical miles from the baselines. See also *id.* art. 76(8)–(9).

State's baselines (and, consequently, the outer limits and boundaries of its maritime zones) *ambulate* implies that the *legal* baselines move apace with *geographical* changes of the coast itself—irrespective of what may have caused the change of coastal geography. The exceptions, it has been argued,<sup>6</sup> are limited to situations already envisaged and thus set out in the text of the LOS Convention.<sup>7</sup>

This interpretation developed in the context of the historically small rates of coastal and sea level changes during the conditions of relative stability of the late Holocene,<sup>8</sup> which in turn were reflected in the approach generally taken by State practice. Legal proposals and texts developed from the time of the 1930 Hague Codification Conference through to the drafting and negotiation of the Geneva Convention on the Territorial Sea and the Contiguous Zone in the 1950s and, eventually, the LOS Convention negotiated at UNCLOS III were all developed under this perception of the relative stability of coastal geography, which had been the hallmark of the late Holocene.<sup>9</sup> Even by the time the LOSC came into force, the practice and legislation of coastal States regarding their baselines and the determination of the limits and extent of their maritime zones were generally not informed by the issue of sea level rise.

In more recent years, however, as scientific predictions of sea level rise have become more precise and increasingly alarming, even in the short to medium-term perspective (i.e., on the scale of the coming decades),<sup>10</sup> a growing number of States have begun to express concern about maintaining their

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6. See Caron, *supra* note 2, at 634–35; *but see* Soons, *supra* note 2, at 220.

7. For an explicit legal exception from the effects of geographical change, *see* LOSC, *supra* note 1, art. 7(2). Regarding possible implicit exception, *see also id.* art. 76(8)–(9).

8. The Holocene is the latest, and formally still current, geological epoch, which comprises the past 11,700 years. The last four millennia, which were marked by an exceptionally long period of relative environmental stability, including generally stable sea levels, belong to the late Holocene. On the subdivision of the Holocene, *see* Mike Walker et al., *Formal Subdivision of the Holocene Series/Epoch: A Summary*, 27 JOURNAL OF QUATERNARY SCIENCE 649 (2012).

9. On this aspect, *see* Davor Vidas, *Sea Level Rise and International Law: At the Convergence of Two Epochs*, 4 CLIMATE LAW 70 (2014); Davor Vidas et al., *Climate Change and the Anthropocene: Implications for the Development of the Law of the Sea*, in THE LAW OF THE SEA AND CLIMATE CHANGE: SOLUTIONS AND CONSTRAINTS 22 (Elise Johansen et al. eds., 2020).

10. *See* Intergovernmental Panel on Climate Change, *Climate Change 2022: Impacts, Adaptation, and Vulnerability* 8 (Hans-Otto Pörtner et al. eds., 2022), [https://report.ipcc.ch/ar6/wg2/IPCC\\_AR6\\_WGII\\_FullReport.pdf](https://report.ipcc.ch/ar6/wg2/IPCC_AR6_WGII_FullReport.pdf) (defining the future reference periods for projections of climate change impacts and risks until 2040 as the “near term” and those between 2041 and 2060 as the “mid-term”).

entitlements to existing maritime zones, as well as the stability of already agreed or adjudicated maritime boundaries. Indeed, recent scientific assessments highlight the unprecedented nature of the challenges and the urgency of adequate responses by coastal States, particularly by those most vulnerable to these changes.<sup>11</sup>

This article considers the development of recent State practice and the public positions taken by States on these issues over the past decade or so and identifies the development of a trend in the evolution of State practice.<sup>12</sup> It also examines the role played since 2012 by the International Law Association (ILA) Committee on International Law and Sea Level Rise and, more recently, by the International Law Commission (ILC) that in 2019 included the topic of “sea-level rise in relation to international law” in its active program of work.

## II. THE WORK OF THE ILA AND THE ILC

In 2012 the ILA established the Committee on International Law and Sea Level Rise. The initial focus of the committee regarding the law of the sea was to analyze the effects of sea level rise on the limits of maritime zones and on maritime boundaries.<sup>13</sup> This included studying State practice concerning determination of baselines, outer limits of maritime zones, and maritime boundary delimitation; studying State responses to the impacts of sea level rise; and evaluating the potential role of these practices in treaty interpretation and the creation of customary international law.

The ILA Committee at the outset took the view that proposals for legal responses should at this stage seek to avoid, or minimize, changes to the law of the sea as reflected in the LOSC. A key premise for the proposals put

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11. See *id.*; Intergovernmental Panel on Climate Change, *The Ocean and Cryosphere in a Changing Climate* (Hans-Otto Pörtner et al. eds., 2022), [https://www.ipcc.ch/site/assets/uploads/sites/3/2022/03/SROCC\\_FullReport\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/sites/3/2022/03/SROCC_FullReport_FINAL.pdf); Intergovernmental Panel on Climate Change, *Climate Change 2021: The Physical Science Basis* (Valérie Masson-Delmotte et al. eds., 2021), [https://report.ipcc.ch/ar6/wg1/IPCC\\_AR6\\_WGI\\_FullReport.pdf](https://report.ipcc.ch/ar6/wg1/IPCC_AR6_WGI_FullReport.pdf).

12. See also Davor Vidas & David Freestone, *Legal Certainty and Stability in the Face of Sea Level Rise: Trends in the Development of State Practice and International Law Scholarship on Maritime Limits and Boundaries*, 37 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 673 (2022).

13. The Committee also considered separately issues of statehood, human mobility, and human rights.

forth by the ILA Committee in its 2018 Report<sup>14</sup> was that these should contribute to reducing legal uncertainties regarding maritime boundaries and the limits of maritime zones at a time when many coastal States would be facing various challenges resulting from the impacts of sea level rise.<sup>15</sup>

The ILA Committee identified a strong emerging pattern of national legislative practice in the South Pacific region, dating from about 2012, whereby States were unilaterally declaring and publicizing anew all their baselines and maritime limits. One example of this new legislative trend was from the Republic of the Marshall Islands, which in 2016 adopted comprehensive legislation repealing its 1984 Maritime Zones Declaration Act and declaring anew all of its maritime zones with long lists of geographical co-ordinates of geodetic data points.<sup>16</sup> Similar legislation, designating new baselines of the territorial sea and designating anew the outer limits of the EEZ, had already been passed in 2012 by Tuvalu,<sup>17</sup> and by Kiribati in 2014, which included its archipelagic baselines.<sup>18</sup> The ILA Committee noted “strong evidence of emerging State practice in the Pacific region regarding the intent of many

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14. The final version of the 2018 ILA Committee Report, which includes all the amendments made in the follow-up of the 2018 ILA Conference, is published in ILA, *Report of the Seventy-Eighth Conference, held in Sydney, 19–24 August 2018*, at 866 (2019) [hereinafter *Sea Level Rise Committee 2018 Report*]. The 2018 ILA Committee Report is also reprinted in an edited version in *International Law and Sea Level Rise: Report of the International Law Association Committee on International Law and Sea Level Rise* (Davor Vidas et al. eds., 2019). In further references to this report below, page numbers indicated relate to the ILA printed published version; pages referred to in brackets relate to the edited version.

15. *Sea Level Rise Committee 2018 Report*, *supra* note 14, at 884 [26].

16. Republic of the Marshall Islands Maritime Zones Declaration Act 2016, Act No. 13, [https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/DEPOSIT/mhl\\_mzn120\\_2016\\_1.pdf](https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/DEPOSIT/mhl_mzn120_2016_1.pdf). The Act is reproduced and discussed in detail in David Freestone & Clive Schofield, *Republic of the Marshall Islands: 2016 Maritime Zones Declaration Act: Drawing Lines in the Sea*, 31 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 732, 745 (2016). A “point” as used in this context has been defined to mean “a location that can be fixed by geographic coordinates and geodetic datums meeting [LOSC] standards.” See DEFINITIONS FOR THE LAW OF THE SEA: TERMS NOT DEFINED BY THE 1982 CONVENTION 113 (George Walker ed., 2012).

17. See Maritime Zones Act of 2012 (Tuvalu), [https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/tuv\\_maritime\\_zones\\_act\\_2012\\_1.pdf](https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/tuv_maritime_zones_act_2012_1.pdf); see also Tuvalu’s various declaration of baselines and the outer limits of its maritime zones, available at <https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/TUV.htm> (scroll to “Legislation”).

18. See the 2014 regulations by Kiribati on territorial sea baselines, baselines around the archipelagos of Kiribati, territorial sea outer limits, exclusive economic zone outer limits, available at <https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/KIR.htm>.

island States to maintain their maritime entitlements in the face of sea level rise.<sup>19</sup> This came in tandem with a series of mutually related political declarations and statements by regional bodies in the South Pacific region.<sup>20</sup> The ILA Committee took the view that:

the wider implication of this practice is that it appears to be a deliberate attempt to pre-empt arguments that physical changes to [those States'] coastline, particularly those resulting from climate change induced sea level rise, would have resulting impacts on [their] baselines and/or on the outer limits of [their] zones.<sup>21</sup>

Bearing this in mind, the ILA Committee “considered the mechanics of the evolution of a new rule of customary international law and also considered whether any proposals it might make on this issue could be influential in the contemporary interpretation of the text of the LOSC.”<sup>22</sup> It referred to the role of subsequent practice in the interpretation of treaties under the 1969 Vienna Convention on the Law of Treaties (VCLT),<sup>23</sup> particularly in the light of the recent work of the ILC on this topic.<sup>24</sup> In its 2018 Report the ILA Committee recommended that a proposal be presented through an ILA resolution, so that:

States should accept that, once the baselines and the outer limits of the maritime zones of a coastal or an archipelagic State have been properly determined in accordance with the detailed requirements of the 1982 Law of the Sea Convention, that also reflect customary international law, these baselines and limits should not be required to be readjusted should sea level change affect the geographical reality of the coastline.<sup>25</sup>

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19. *Sea Level Rise Committee 2018 Report*, *supra* note 14, at 888 [32].

20. *Id.* (examining the regional practice occurring between 2010 and mid-2018). *See also* David Freestone & Clive Schofield, *Securing Ocean Spaces for the Future? The Initiative of the Pacific SIDS to Develop Regional Practice Concerning Baselines and Maritime Zone Limits* 58, 33 OCEAN YEARBOOK 58 (2019).

21. *Sea Level Rise Committee 2018 Report*, *supra* note 14, at 886 [29].

22. *Id.* at 887–88 [31] (emphasis added).

23. Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331.

24. *Sea Level Rise Committee 2018 Report*, *supra* note 14, at 887–88 [31]. For the outcome of the ILC work on this topic, *see* Int'l Law Comm'n, *Draft Conclusions on Subsequent Agreements and Subsequent Practice in Relation to the Interpretation of Treaties, with Commentaries*, U.N. Doc. A/73/10 (2018).

25. *Sea Level Rise Committee 2018 Report*, *supra* note 14, at 888 [32]. The committee considered that this proposal should remain unchanged as long as there is no different solution agreed upon in a universal, globally applicable treaty. *Id.* at 889 [32].

The committee recognized that there were various procedural options open to States wishing to take advantage of its proposals and, although deciding not to propose any specific option as yet, it expressed the hope that a resolution adopted by the ILA Assembly might be the most effective first step in bringing its recommendations to a wider audience.<sup>26</sup> On the grounds of legal certainty and stability,<sup>27</sup> the ILA Committee took the view that the impacts of sea level rise on maritime boundaries should be seen in the context of the importance of certainty and stability of treaties, particularly those related to international borders and boundaries.<sup>28</sup> The committee thought that the same principles should apply to the maintenance of boundaries of maritime areas delimited by international agreements or by judicial decisions as those it had recommended regarding the maintenance of existing entitlements to maritime zones. The committee recommendations were adopted by the 78th ILA Conference held in Sydney, Australia, in August 2018 as ILA Resolution 5/2018.<sup>29</sup>

The ILA Committee's proposal, as reflected in ILA Resolution 5/2018, was conceived as the interpretation of existing law and was not a proposal for new law. Although the ILA Committee's proposals have occasionally been interpreted as being *de lege ferenda* oriented, the Committee had not proposed a change of the LOSC nor had it ever intended to do so—certainly not while the issues discussed are related to a relatively shorter-term perspective.<sup>30</sup> The underlying reasons have to do with facilitating orderly relations between States, indeed facilitating the avoidance of conflict and upholding legal certainty and stability. This approach should not be seen as being *de lege*

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26. *Id.* at 888 [32].

27. *See id.* at 890–91 [35]. The committee also drew on jurisprudence of international courts and tribunals, such as Bay of Bengal Maritime Boundary Arbitration (Bangl. v. India), 32 R.I.A.A. 1 (Perm. Ct. Arb. 2014).

28. *Sea Level Rise Committee 2018 Report*, *supra* note 14, at 895 [41] (so that the impacts of sea level rise on maritime boundaries, whether contemplated or not by the parties at the time of the negotiation of the maritime boundary agreement, should not be regarded as a fundamental change of circumstances).

29. ILA Res. 5/2018, in English language original and French translation, is published in ILA, *Report of the Seventy-Eighth Conference, held in Sydney, 19–24 August 2018*, *supra* note 14, at 29–32.

30. For Intergovernmental Panel on Climate Change definitions of reference periods for its future-oriented projections, such as near-term and mid-term, *see Climate Change 2022: Impacts, Adaptation, and Vulnerability*, *supra* note 10.



*ferenda* when viewed from the perspective of the ultimate objectives of the LOSC, starting with its preamble.

In December 2018, the UN General Assembly noted the inclusion of the theme of “sea-level rise in relation to international law” in the ILC long-term program of work,<sup>31</sup> and in 2019 the ILC included the topic of “sea-level rise in relation to international law” in its active program of work and formed an “open-ended Study Group on sea-level rise in relation to international law.”

The co-chairs of the ILC Study Group prepared the *First Issues Paper*, which was released in 2020.<sup>32</sup> It examined the question of whether provisions of the LOS Convention could be interpreted and applied so to address the effects of sea level rise on baselines, outer limits of maritime zones, and maritime entitlements.<sup>33</sup> It took the view that:

the Convention does not indicate *expressis verbis* that new baselines must be drawn, recognized (in accordance with article 5) or notified (in accordance with article 16) by the coastal State when coastal conditions change; the same observation is valid also with regard to the new outer limits of maritime zones (which move when baselines move).<sup>34</sup>

The *First Issues Paper* also points out that:

The interpretation of the [LOS] Convention to the effect that baselines (and, consequently, the outer limits of maritime zones) have, generally, an ambulatory character does not respond to the concerns of the [UN] Member States prompted by the effects of sea-level rise and the consequent need to preserve the legal stability, security, certainty and predictability.<sup>35</sup>

The *First Issues Paper* concludes with a set of preliminary observations regarding the baselines and outer limits of maritime zones,<sup>36</sup> including the view that “an approach responding adequately to [the above] concerns is one based on the preservation of baselines and outer limits of the maritime zones

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31. G.A. Res. 73/265 (Dec. 22, 2018).

32. Bogdan Aurescu & Nilüfer Oral, *Sea-level Rise in Relation to International Law*, U.N. Doc. A/CN.4/740 (Feb. 28, 2020).

33. *Id.* ¶ 78.

34. *Id.* (footnote omitted).

35. *Id.* ¶ 79.

36. *See id.* ¶ 104(a)–(i) (containing a comprehensive discussion regarding these).

measured therefrom, as well as of the entitlements of the coastal State” and that the LOSC “does not prohibit *expressis verbis* such preservation,”<sup>37</sup> so that:

Consequently, nothing prevents Member States from depositing notifications, in accordance with the Convention, regarding baselines and outer limits of maritime zones measured from the baselines and, after the negative effects of sea-level rise occur, to stop updating these notifications in order to preserve their entitlements.<sup>38</sup>

The *First Issues Paper* takes a similar position regarding possible legal effects of sea level rise on agreed and adjudicated maritime delimitations, namely that “a key approach should be to favour the preservation of legal stability, security, certainty and predictability.”<sup>39</sup> It notes that the positions expressed by the States in their submissions and in statements before the UNGA Sixth [Legal] Committee converge to a large extent regarding such an approach,<sup>40</sup> and that “there is a large body of State practice favouring legal stability, security, certainty and predictability of the maritime delimitations effected by agreement or by adjudication.”<sup>41</sup>

The preliminary observations of the *First Issues Paper* are that “State practice generally supports the preservation of existing maritime delimitations, either effected by agreement or by adjudication, notwithstanding the coastal changes produced subsequently by sea-level rise.”<sup>42</sup> Moreover, it takes the view that sea level rise cannot be invoked, in accordance with Article 62(2) of the VCLT, as a fundamental change of circumstances for terminating or withdrawing from a treaty that established a maritime boundary, “since maritime boundaries enjoy the same regime of stability as any other boundaries.”<sup>43</sup>

### III. EVOLUTION OF STATE PRACTICE

The emergence of a trend manifested in State practice on this issue can be dated from about 2010. It has been facilitated largely by the Pacific Island

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37. *Id.* ¶ 104(e).

38. *Id.* ¶ 104(f).

39. *Id.* ¶ 111.

40. *Id.* ¶ 121.

41. *Id.* ¶ 138.

42. *See id.* ¶ 141(a)–(g) (containing a comprehensive discussion regarding these preliminary observations).

43. *Id.* ¶ 141(c) (adding that the “international jurisprudence is clear in this respect”).

Forum (PIF), the premier political and economic policy organization in the region.<sup>44</sup> The evidence for this consisted of policy documents adopted at the regional level as well as the national legislation of certain South Pacific Island States. The Pacific Maritime Boundaries Project, supported by Australia in partnership with the South Pacific Community, Forum Fisheries Agency, the Commonwealth Secretariat, and GRID-Arendal, assisted the South Pacific Island States in clarifying the extent of their maritime zones, including the location of baselines and outer limits, and offered a forum for negotiations for the delimitation of their maritime boundaries.<sup>45</sup>

In 2010, the PIF adopted the *Framework for a Pacific Oceanscape*,<sup>46</sup> a strategy document that urged that the Pacific Island countries formalize maritime boundaries and secure rights over their resources so to, “in their national interest,” deposit with the United Nations base-point coordinates as well as charts and information delineating their maritime zones. The document also stated:

Once the maritime boundaries are legally established, the implications of climate change, sea-level rise and environmental change on the highly vulnerable baselines that delimit the maritime zones of PICTs [Pacific Island Countries and Territories] should be addressed. This could be a united

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44. As of June 8, 2022, the eighteen members of the PIF (sixteen of which are parties to the LOSC, including fourteen UN member States) are: Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. The founders of the PIF in 1971 were Australia, Fiji, New Zealand, Cook Islands, Nauru, Samoa, and Tonga. Today, the combined size of EEZs of the PIF members is close to forty million square kilometers, which is comparable to the combined land territory of Russia, China, the United States, and the European Union.

45. See generally Freestone & Schofield, *supra* note 20, at 77; Freestone & Schofield, *supra* note 16, at 740–41. For a detailed background and summary of the Pacific Maritime Boundaries Project, see Robyn Frost et al., *Redrawing the Map of the Pacific*, 95 MARINE POLICY 302 (2018).

46. See Pacific Oceanscape Vision: A Secure Future for Pacific Island Countries and Territories Based on Sustainable Development, Management and Conservation of our Ocean, SECRETARIAT OF THE PACIFIC REGIONAL ENVIRONMENT PROGRAMME, [https://www.sprep.org/att/publication/000937\\_684a.pdf](https://www.sprep.org/att/publication/000937_684a.pdf) (last visited Nov. 23, 2022) (see especially Action 1A and Action 1B). The adoption of the *Framework for a Pacific Oceanscape* was preceded by an initiative regarding the “Pacific Oceanspace concept” by Kiribati in 2009, which the PIF leaders welcomed and endorsed as a priority area. See PIF Secretariat, Forum Communiqué of the Fortieth Pacific Islands Forum, ¶ 69 (Aug. 6, 2009), [https://www.forumsec.org/wp-content/uploads/2017/11/2009-Forum-Communique\\_-Cairns\\_-Australia-5-6-Aug.pdf](https://www.forumsec.org/wp-content/uploads/2017/11/2009-Forum-Communique_-Cairns_-Australia-5-6-Aug.pdf).

regional effort that establishes baselines and maritime zones so that areas could not be challenged and reduced due to climate change and sea-level rise.

In 2015, seven leaders of Polynesian States and territories (French Polynesia, Niue, Cook Islands, Samoa, Tokelau, Tonga and Tuvalu) signed the *Taputapuātea Declaration on Climate Change*, calling, in advance of the COP21 in Paris, upon the States parties to the UN Framework Convention on Climate Change to:

With regard to the loss of territorial integrity:

—Accept that climate change and its adverse impacts are a threat to territorial integrity, security and sovereignty and in some cases to the very existence of some of our islands because of the submersion of existing land and the regression of our maritime heritage.

—Acknowledge, under the United Nations Convention on the Law of the Sea (UNCLOS), the importance of the Exclusive Economic Zones for Polynesian Island States and Territories whose area is calculated according to emerged lands and permanently establish the baselines in accordance with the UNCLOS, without taking into account sea level rise.<sup>47</sup>

In March 2018, the leaders of eight Pacific Island States (Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands, and Tuvalu) signed the *Delap Commitment on Securing Our Common Wealth of Oceans*.<sup>48</sup> The preamble to this declaration acknowledged the “challenges presented by their unique vulnerability and the threat to the integrity of maritime boundaries and the existential impacts due to sea level rise,”<sup>49</sup> to which end the leaders agreed: “To pursue legal recognition of the defined baselines established under the *United Nations Convention on the Law of the Sea* to remain in perpetuity irrespective of the impacts of sea level rise.”<sup>50</sup>

In September 2018, at its forty-ninth meeting held in Nauru, the PIF Leaders adopted the *Boe Declaration on Regional Security*.<sup>51</sup> The accompanying

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47. Polynesian Leaders Group, Polynesia Against Climate Threats (July 16, 2015), <https://www.samoagovt.ws/wp-content/uploads/2015/07/The-Polynesian-P.A.C.T.pdf>.

48. Delap Commitment, pmbl. (Mar. 2, 2018), [www.pnatuna.com/sites/default/files/Delap%20Commitment\\_2nd%20PNA%20Leaders%20Summit.pdf](http://www.pnatuna.com/sites/default/files/Delap%20Commitment_2nd%20PNA%20Leaders%20Summit.pdf).

49. *Id.* pmbl.

50. *Id.* ¶ 8.

51. See Boe Declaration on Regional Security, PACIFIC ISLANDS FORUM, <https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/> (last visited Nov. 23, 2022).

PIF Communiqué recognized the “urgency and importance of securing the region’s maritime boundaries,” including an assertion that Pacific leaders are “committed to progressing the resolution of outstanding maritime boundary claims.”<sup>52</sup> The accompanying *Boe Declaration Action Plan*<sup>53</sup> itemized a number of future activities, with baselines and targets, in six strategic focal areas—the first being “Climate Security.” The actions in the implementation schedule for this strategic focal area include “securing our sovereignty and territorial integrity in the face of the impacts of climate change.”<sup>54</sup> Measures of success were stated as follows:

- (i) Number of maritime boundaries resolved over the next 12 months  
Baseline (35), Target (42);
- (ii) Development of a regional strategy to safeguard Members’ maritime zones and related interests in the face of sea level rise
- (iii) Encourage Members participation at relevant international forums to highlight the regions interests and concerns as detailed in the strategy.<sup>55</sup>

In August 2019, the fiftieth meeting of the PIF, held in Funafuti, Tuvalu, adopted a communique that included highly relevant paragraphs on “Oceans and Maritime Boundaries,” in which the PIF leaders stated that they had:

discussed progress made by Members to conclude negotiations on maritime boundary claims since the Leaders meeting in Nauru 2018, and *encouraged* Members to conclude all outstanding maritime boundaries claims and zones. . . . [and] *reaffirmed* the importance of preserving Members’ existing rights stemming from maritime zones, in the face of sea level rise, noting the existing and ongoing regional mechanisms to support maritime boundaries delimitation.

. . . *committed* to a collective effort, including to develop international law, with the aim of ensuring that once a Forum Member’s maritime zones are delineated in accordance with the 1982 *UN Convention on the Law of the*

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52. PIF Secretariat, Forum Communiqué of the Forty-Ninth Pacific Islands Forum, ¶¶ 26–27 (Sept. 6, 2018), <https://www.forumsec.org/2018/09/06/forty-ninth-pacific-islands-forum-nauru-3rd-6th-september-2018/>.

53. Boe Declaration Action Plan, PACIFIC ISLANDS FORUM, <https://www.forumsec.org/wp-content/uploads/2019/10/BOE-document-Action-Plan.pdf> (last visited Nov. 23, 2022).

54. *Id.* at 10.

55. *Id.*

Sea, that the Members maritime zones could not be challenged or reduced as a result of sea-level rise and climate change.<sup>56</sup>

However, in 2021 there was major change of emphasis when the Pacific Island Forum countries adopted a far more definitive approach to their position and stated future practice. On August 6, 2021, at its fifty-first session, the PIF leaders adopted the *Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise*.<sup>57</sup> The declaration affirms that the LOSC sets out “the legal framework within which all activities in the oceans and seas must be carried out”<sup>58</sup> and that it was “adopted as an integral package containing a delicate balance of right and obligations,” thus establishing “an enduring legal order for the seas and oceans.”<sup>59</sup> The declaration is premised on three key components of the PIF members’ understanding concerning climate change-related sea level rise under the LOS Convention.

First, the declaration states that “the relationship between climate change-related sea level rise and maritime zones was not contemplated by the drafters of the Convention at the time of its negotiation, and that the Convention was premised on the basis that, in the determination of maritime zones, coastlines and maritime features were generally considered to be stable.”<sup>60</sup>

Second, the declaration underlines that coastal States, and in particular small island and low-lying developing ones, “have planned their

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56. PIF Secretariat, Forum Communiqué of the Fiftieth Pacific Islands Forum, ¶¶ 25–26 (Aug. 16, 2019), <https://www.forumsec.org/wp-content/uploads/2019/08/50th-Pacific-Islands-Forum-Communique.pdf>. This wording is accordingly stated also in ¶ 14 of the PIF’s Kainaiki II Declaration for Urgent Climate Action Now, <https://www.forumsec.org/2020/11/11/kainaki/> (last visited Nov. 23, 2022).

57. Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise, PACIFIC ISLANDS FORUM (Aug. 6, 2021), <https://www.forumsec.org/2021/08/11/declaration-on-preserving-maritime-zones-in-the-face-of-climate-change-related-sea-level-rise/>. For initial analyses, see David Freestone & Clive Schofield, *Pacific Island Countries Declare Permanent Baselines, Limits and Maritime Boundaries*, 36 INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 685 (2021); Frances Anggadi, *Establishment, Notification, and Maintenance: The Package of State Practice at the Heart of the Pacific Islands Forum Declaration on Preserving Maritime Zones*, 53 OCEAN DEVELOPMENT & INTERNATIONAL LAW 19 (2022).

58. Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise, *supra* note 57, pmbl. para. 1.

59. *Id.* pmbl. para. 2.

60. *Id.* pmbl. para. 6.

development in reliance on the rights to their maritime zones guaranteed in the Convention.”<sup>61</sup>

Third, the declaration recognizes “the principles of legal stability, security, certainty and predictability that underpin the [LOS] Convention and the relevance of these principles to the interpretation and application of the Convention in the context of sea-level rise and climate change.”<sup>62</sup>

Based on these three underlying premises, the operative part of the declaration contains two key proclamations specifying how PIF members interpret the LOS Convention. The first is the affirmation by PIF members that: “the Convention imposes no affirmative obligation to keep baselines and outer limits of maritime zones under review nor to update charts or lists of geographical coordinates once deposited with the Secretary-General of the United Nations.”<sup>63</sup> The second key proclamation by PIF members in the declaration is the consequence of the first, so that:

maritime zones, as established and notified to the Secretary-General of the United Nations in accordance with the Convention, and the rights and entitlements that flow from them, shall continue to apply, without reduction, notwithstanding any physical changes connected to climate change-related sea-level rise.<sup>64</sup>

The PIF members’ position, as stated in the declaration, is that “maintaining maritime zones established in accordance with the Convention, and rights and entitlements that flow from them, notwithstanding climate change-related sea-level rise, is supported by both the Convention and the legal principles underpinning it.”<sup>65</sup>

The ground-breaking PIF declaration was followed, on September 22, 2021, by a similar declaration from the heads of State and government of the

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61. *Id.* pmb. para. 7.

62. *Id.* pmb. para. 3 (para. 4 of the preamble further recognizes “the principles of equity, fairness and justice as key legal principles *also* underpinning the Convention” (emphasis added)). The UNGA Sixth Committee debate in 2021 demonstrated that aspects of equity, fairness, and justice figured somewhat less prominently, while the main emphasis was put on the “principles of stability, security, certainty and predictability.” *See* Vidas & Freestone, *supra* note 12, at 717–23.

63. Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise, *supra* note 57, para. 1.

64. *Id.* para. 5.

65. *Id.* para. 2.

Alliance of Small Island States (AOSIS).<sup>66</sup> The relevant paragraphs of the AOSIS declaration mirrors, almost verbatim, the key proclamations in the operative clauses of the PIF declaration, stating that the heads of State and government of AOSIS:

*Affirm* that there is no obligation under the United Nations Convention on the Law of the Sea to keep baselines and outer limits of maritime zones under review nor to update charts or lists of geographical coordinates once deposited with the Secretary-General of the United Nations, and that such maritime zones and the rights and entitlements that flow from them shall continue to apply without reduction, notwithstanding any physical changes connected to climate change-related sea-level rise.<sup>67</sup>

The adoption of these two declarations, by PIF in August and by AOSIS in September, 2021, means that there are now at least forty-one parties to the LOS Convention<sup>68</sup> expressly supporting the same interpretation of the Convention regarding the limits of maritime zones and the rights and entitlements that shall continue to adhere to these zones without any change, notwithstanding geographical change of coastline due to climate change-related sea level rise. These two declarations therefore represent a significant consolidation of the common approach taken by those States.

In late October and early November 2021, many States took part in the UNGA Sixth Committee debate on the topic of sea level rise and

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66. Declaration of the Alliance of Small Island States (Sept. 22, 2021), <https://www.aosis.org/launch-of-the-alliance-of-small-island-states-leaders-declaration/>. AOSIS, which was established in 1990, has a membership of thirty-nine—mostly small island developing States but also some low-lying coastal States—which are spread across the Atlantic, Indian, and Pacific Oceans, as well as the Caribbean region and the South China Sea. From the Pacific Ocean, AOSIS includes fourteen of the eighteen PIF members (all except Australia, New Zealand, French Polynesia, and New Caledonia). Other member States of AOSIS are: in the Atlantic Ocean, three African States: Cape Verde, Guinea-Bissau, and San Tomé and Príncipe; in the Indian Ocean: Comoros, Maldives, Mauritius, and Seychelles; in the Caribbean region: Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago; and in the South China Sea: Singapore.

67. *Id.* ¶ 41. The AOSIS Declaration is divided into three operative parts: “Climate Change” (¶¶ 1–15), “Sustainable Development” (¶¶ 16–38), and “Oceans” (¶¶ 39–44).

68. This includes thirty-nine UN member States, since two among PIF and AOSIS members—Cook Islands and Niue—are not UN members. Regarding participation in the LOS Convention, AOSIS and PIF members make around 25 percent of the LOSC parties.



international law.<sup>69</sup> That debate illustrated several issues. First, there is an increasing level of general support for the views of the small island and low-lying States. This support has been provided by States across different regions, also beyond Australia and Oceania, and includes several European States, South American States, African States, and Asian States.<sup>70</sup> This support is in part due to the recognition of the unprecedented nature of challenges posed by sea level rise to the particular vulnerability of small island and low-lying States, and in part due to the general agreement regarding the need for integrity of the LOSC. Second, there have not been, to date, any direct protests or specific objections to the practice as described and recently implemented. Some States indeed do have quite different legislation or practice concerning “ambulatory” baselines.<sup>71</sup> Among others, the United States stated at the 2021 Sixth Committee debate its view that:

under existing international law, as reflected in the Convention, coastal baselines are generally ambulatory, meaning that if the low-water line along the coast shifts (either landward or seaward), such shifts may impact the outer limits of the coastal State’s maritime zones.<sup>72</sup>

However, several other States made it clear that their practice or legislation concerning “ambulatory” baselines was not designed for the specific context of sea level rise.<sup>73</sup>

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69. Over the course of five meetings (18th to 23rd) of the Sixth Committee, held during the 76th Session of the UN General Assembly, from 28 October to 2 November 2021, multiple statements were made on behalf of international organizations and individual States. These included: AOSIS (by Antigua and Barbuda), PIF (by Fiji), and Pacific Small Island Developing States (by Samoa)—together comprising thirty-nine UN member States; the European Union (for its twenty-seven member States and eight candidate countries and/or potential candidates); the five Nordic countries (by Iceland); and sixty-two individual UN member States and one observer (Holy See). The statements are available at <https://www.un.org/en/ga/sixth/76/ilc.shtml>.

70. For a detailed overview, see Vidas & Freestone, *supra* note 12, at 717–23.

71. *Id.* at 708–10, 721–23.

72. Statement of the United States of America, 76th Sess. of the General Assembly Sixth Committee, Agenda Item 82: Rep. of the Int’l Law Comm’n on the Work of its Seventy-Second Session Cluster Two, at 1 (Oct. 29, 2021), [https://www.un.org/en/ga/sixth/76/pdfs/statements/ilc/20mtg\\_us\\_2.pdf](https://www.un.org/en/ga/sixth/76/pdfs/statements/ilc/20mtg_us_2.pdf).

73. *See, e.g.*, Alina Orosan, Director General for Legal Affairs, Romanian Ministry of Foreign Affairs, Speech at the 76th Sess. of the General Assembly of the U.N. Sixth Committee, Agenda Item 82: Rep. of the Int’l Law Comm’n, at 5 (Oct. 2021), [https://www.un.org/en/ga/sixth/76/pdfs/statements/ilc/21mtg\\_romania\\_2.pdf](https://www.un.org/en/ga/sixth/76/pdfs/statements/ilc/21mtg_romania_2.pdf) (regarding its own

At the same time, the views of a number of States in the UNGA Sixth Committee debate in 2021 seem to be echoed in the statement of Germany, stating its readiness to “support the process and work together with others to preserve their maritime zones and the rights and entitlements that flow from them in a manner consistent with the Convention, including through a *contemporary reading and interpretation of its intents and purposes*, rather than through the development of new customary rules.”<sup>74</sup> Moreover, in a subsequent submission to the UN, Germany added that “through such contemporary reading and interpretation” it finds that the LOSC “allows for freezing of once duly established, published and deposited baselines and outer limits of maritime zones in accordance with the Convention.”<sup>75</sup>

A major recent development along these lines is the announcement by the United States of its new policy on sea level rise and maritime zones, adopted in September 2022. As stated by the United States at the latest Sixth Committee debate in October 2022:

Under this policy, which recognizes that new trends are developing in the practices and views of States on the need for stable maritime zones in the face of sea-level rise, the United States will work with other countries toward the goal of lawfully establishing and maintaining baselines and maritime zone limits and will not challenge such baselines and maritime zone limits that are not subsequently updated despite sea-level rise caused by climate change.<sup>76</sup>

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legislation concerning ambulatory baselines as not being related to sea level rise). More recently, Ireland also specifically confirmed that its “practice [regarding ambulatory baselines] has not been formulated expressly in contemplation of sea-level rise.” Statement by Ireland on Agenda Item 77: Rep. of the Int’l Law Comm’n on the Work of its Seventy-Third Sess., at 5, (Oct. 29, 2022), [https://www.un.org/en/ga/sixth/77/pdfs/statements/ilc/27mtg\\_ireland\\_2.pdf](https://www.un.org/en/ga/sixth/77/pdfs/statements/ilc/27mtg_ireland_2.pdf).

74. Statement by the Federal Republic of Germany on Cluster 2 (Chps: VI (Immunity of State Officials from Foreign Criminal Jurisdiction) and IX (Sea-level Rise in Relation to Int’l Law)) in the Debate of the Sixth Comm. of the Rep. of the Int’l Law Comm’n, at 6, [https://www.un.org/en/ga/sixth/76/pdfs/statements/ilc/21mtg\\_germany\\_2.pdf](https://www.un.org/en/ga/sixth/76/pdfs/statements/ilc/21mtg_germany_2.pdf) (last visited Nov. 29, 2022) (emphasis added).

75. Federal Republic of Germany, Sea-level Rise in Relation to International Law 2, (June 30, 2022), [https://legal.un.org/ilc/sessions/74/pdfs/english/slr\\_germany.pdf](https://legal.un.org/ilc/sessions/74/pdfs/english/slr_germany.pdf).

76. U.S. Remarks at a Meeting of the Sixth Committee on Agenda Item 77: Rep. of the Int’l Law Comm’n on the Work of its Seventy-Third Sess. Cluster Two, at 2, (Oct. 27, 2022), [https://www.un.org/en/ga/sixth/77/pdfs/statements/ilc/27mtg\\_us\\_2.pdf](https://www.un.org/en/ga/sixth/77/pdfs/statements/ilc/27mtg_us_2.pdf). For the origin of this new policy adopted by the United States, *see* White House, Declaration on U.S.-Pacific Partnership (Sept. 29, 2022), <https://www.whitehouse.gov/briefing-room/>

#### IV. CONCLUSIONS

Although there has been a gradual evolution of State practice on this issue for about a decade, rapid developments in State practice concerning sea level rise and the law of the sea have occurred since the latter half of 2018—during 2021 in particular, with further important developments following in 2022. Forty years after the signing of the LOS Convention in December 1982, the focus of that State practice is now clearly oriented to the interpretation of the Convention itself in the face of sea level rise. Importantly, this State practice has so far been concerned primarily with the issues of maritime limits and boundaries *specifically* related to sea level rise, and in that respect it differs from earlier periods of more general practice and the legislation of some coastal States oriented on the interpretation of the baselines as being “ambulatory.” It seems clear that this evolution has taken place as scientists have been able to predict with increasing certainty the radical impacts that can be expected in consequence of climate change-related sea level rise.

When these developments in State practice are juxtaposed with the development of legal scholarship, particularly through the ILA and the ILC in a similar period, an unusual and fruitful interplay between international law scholarship and State practice becomes clearly visible. These synergies appear to have assisted the facilitation of legal certainty and stability in the development of adequate legal responses, from a law of the sea perspective, to the impact of sea level rise, itself an unprecedented challenge for international law.

Forty years ago, when the LOS Convention was signed, the issue of sea level rise was not appreciated as a challenge for the law of the sea. Even thirty years ago, when the first Intergovernmental Panel on Climate Change assessment report clearly warned of the prospects of sea level rise and scholars began to analyze its potential legal implications, this still seemed a rather distant risk and beyond the practical focus of most coastal States.<sup>77</sup> Over the

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statements-releases/2022/09/29/declaration-on-u-s-pacific-partnership/; White House, Fact Sheet: Roadmap for a 21st-Century U.S.-Pacific Island Partnership (Sept. 29, 2022), <https://www.whitehouse.gov/briefing-room/statements-releases/2022/09/29/fact-sheet-roadmap-for-a-21st-century-u-s-pacific-island-partnership/>.

77. As the Small States Conference on Sea Level Rise noted in 1989: “of the issues emerging in the international debate over the state of the environment and its link with the development as a whole, the question of global warming, climate change and sea level rise

past decade, however, it has become fully understood as an existential threat to the survival of many island States, with the Intergovernmental Panel on Climate Change predicting that some low-lying atolls and islands may become uninhabitable as early as the middle of the century.<sup>78</sup> This change in public understanding has been accompanied by a general recognition that the countries which are likely to suffer the most from these impacts are among those that have contributed the least to the human-induced process of climate change. There seems little doubt that recognition of this fact is shaping the way that scholars and States alike are now approaching the way that international law should respond to these threats.

It is indeed the context and purpose of a treaty that ultimately must provide the guidance for its interpretation. If understood in the light of its ultimate objectives of facilitating legal certainty and stability for the order of the oceans, the 1982 LOS Convention can be able to continue to uphold these objectives as it did in the past forty years, so to successfully respond also to the upcoming challenges of sea level rise.

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was largely ignored until 1987. *Report of the Small States Conference on Sea Level Rise 1* (Nov. 18, 1989), <https://www.islandvulnerability.org/slr1989/report.pdf>. The 1989 Malé Declaration on Global Warming and Sea Level Rise is reprinted in Churchill & Freestone, *supra* note 2, at 341–43.

78. For recent Intergovernmental Panel on Climate Change reports, see *Climate Change 2022: Impacts, Adaptation, and Vulnerability*, *supra* note 10; *The Ocean and Cryosphere in a Changing Climate*, *supra* note 11.