BRILL
NIJHOFF

THE INTERNATIONAL JOURNAL OF
MARINE AND COASTAL LAW 37 (2022) 1–53

THE INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW

brill.com/estu

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

Davor Vidas | ORCID: 0000-0001-8134-7425
Research Professor, Fridtjof Nansen Institute, Lysaker, Norway;
Chair, ILA Committee on International Law and Sea Level Rise
dvidas@fni.no

David Freestone | ORCID: 0000-0002-0550-3411
Editor-in-Chief, *IJMCL*; Co-Rapporteur, ILA Committee on International Law and Sea Level Rise
dfreestone@law.gwu.edu

Abstract

This article identifies and documents a trend in State practice over the past decade or so, regarding the impact of sea level rise on the lawfully determined limits of maritime zones and the existing maritime boundaries. It juxtaposes this development with the findings and recommendations of two committees of the International Law Association in 2012 and 2018 – the Committees on Baselines and Sea Level Rise – and examines the role played since 2019 by the International Law Commission. It explores the implications of emerging State practice for the interpretation of the rules and principles of the 1982 UN Law of the Sea Convention. It documents the complex interactions between the findings of international law scholarship and the evolution of State practice, and concludes that this interaction has played an important role in facilitating legal certainty and stability in the development of a response to this increasingly pressing international law issue.

 | DOI:10.1163/15718085-BJA10106

Keywords

sea level rise – baselines and outer limits of maritime zones – maritime boundaries – State practice – treaty interpretation – subsequent practice – International Law Association (ILA) – International Law Commission (ILC)

Introduction

For more than thirty years, international law scholars have examined the potential legal implications of the predicted impacts of sea level rise on the limits of maritime zones and maritime boundaries of coastal States.[1] Among the issues that were raised at an early stage were the legal implications of so-called 'ambulatory' baselines.[2] The view that a coastal State's baselines (and, consequently, the outer limits and boundaries of its maritime zones) *ambulate* implies that the *legal* coastal baselines move apace with *geographical* changes of the coast itself[3] – irrespective of what may have caused the change of coastal geography. The exceptions, it has been argued,[4] are limited to situations already envisaged and thus set out in the text of the 1982 United Nations Convention on the Law of the Sea (LOSC or the LOS Convention).[5]

1 For the pioneering publications, see E Bird and J Prescott, 'Rising global sea levels and national maritime claims' (1989) 1 *Marine Policy Reports* 177–196; D Freestone and J Pethick, 'International legal implications of coastal adjustments under sea level rise' in UNEP/WMO/USACE/EPA/ NOAA, *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*, Vol. 1, May 1990, 237–256; AHA Soons, 'The effects of a rising sea level on maritime limits and boundaries' (1990) 37 *Netherlands International Law Review* 207–232; DD Caron, 'When law makes climate change worse: Rethinking the law of baselines in light of rising sea level' (1990) 17 *Ecology Law Quarterly* 621–653; D Freestone, 'International law and sea level rise' in RR Churchill and D Freestone (eds), *International Law and Global Climate Change* (Martinus Nijhoff, Dordrecht, 1991) 109–122; S Pyeatt Menefee, '"Half seas over": The impact of sea level rise on international law and policy' (1991) 9 *Journal of Environmental Law* 175–218.

2 See especially Caron (n 1), at pp. 635, 641, 646, but also Freestone and Pethick (n 1) and Soons (n 1), at p. 216, although the term 'ambulatory' is not used there.

3 Under the legislation and the practice of some coastal States, this does not apply to cases of shifts understood or defined as *de minimis* only (on which see the practice and regulations of some States in section on 'Watershed Phase: Trends in State Practice 2019–2020', below).

4 See Caron (n 1), at pp. 634–635. See also, however, Soons (n 1), at p. 220.

5 For an explicit legal exception from the effects of geographical change, see Article 7(2) of the United Nations Convention on the Law of the Sea (LOSC or the LOS Convention – as opposed to acronym UNCLOS III for the Third United Nations Conference on the Law of the Sea, 1973–1982), signed at Montego Bay on 10 December 1982, entry into force on 16 November

This interpretation developed in the context of the historically small rates of coastal and sea level changes during the relative stability of the late Holocene[6] conditions, 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 all emerged under this perception of relative stability of coastal geography characterising the late Holocene.[7] Even by the time the LOSC came into force in 1994, 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. Despite the early findings in the First Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) published in 1990,[8] the issue of sea level rise driven by human induced climate change still seemed remote and beyond the practical focus of most coastal States. As the Small States Conference on Sea Level Rise noted in 1989: '[O]f the issues emerging in the international debate over the state

1994, UN Doc A/CONF.62/122; published in 1833 *UNTS* 3. Regarding possible implicit exception, see also Articles 76(8) and (9) of the Convention.

6 The Holocene is the latest, and formally still current, geological epoch which comprises the past 11,700 years. The last ca. 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 MJC Walker *et al.*, 'Formal subdivision of the Holocene series/epoch' (2012) 27 *Journal of Quaternary Science* 649–659.

7 On this aspect see D Vidas, 'Sea level rise and international law: At the convergence of two epochs' (2014) 4(1–2) *Climate Law* 70–84; D Vidas, J Zalasiewicz, M Williams and C Summerhayes, 'Climate change and the Anthropocene: Implications for the development of the law of the sea' in E Johansen, S Busch and I Jacobsen (eds), *The Law of the Sea and Climate Change: Solutions and Constraints* (Cambridge University Press, Cambridge, 2020) 22–48.

8 When comparing the projections of sea level rise for 2100 contained in the earlier Intergovernmental Panel on Climate Change (IPCC) assessment reports, starting with the First Assessment Report (FAR) issued in 1990, it is notable that there has been a progressive reduction in the upper end of their predictions. Thus, FAR (1990) predicted sea level rise by 2100 of between 31 cm and 110 cm; the Second Assessment Report (SAR, 1996): from 13 to 94 cm; the Third Assessment Report (TAR, 2001): from 9 to 88 cm; and the Fourth Assessment Report (AR4, 2007): from 18 to 59 cm, not including dynamic ice-sheet response additions. The Fifth Assessment Report (AR5) of 2013/14, with an upper end prediction of 98 cm by 2100, was the first to reverse this trend of successive reductions in the upper end of projections of sea level rise by the end of the twenty-first century. This brief overview of the earlier IPCC assessment reports, as related to sea level change, is based on JA Church *et al.*, 'Sea level change' in *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, Cambridge, 2013) at p. 1142.

of the environment and its link with the development as a whole, the question of global warming, climate change and sea level rise was largely ignored until 1987'.[9]

Although international law scholars had at that point started to examine the potential future implications of sea level rise for the limits of maritime zones and their boundaries, State practice continued to be based on the shared experience of conditions of overall sea level stability that had existed for centuries (and even millennia).[10] Consequently, the early analyses by legal scholars were not informed by evolving State practice but drew principally on the initial scientific forecasts.

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),[11] a growing number of States have begun to express concern about maintaining their entitlements to existing maritime zones, as well as the stability of already agreed or adjudicated maritime boundaries. Indeed, recent scientific assessments have predicted with increasing accuracy the anticipated climate change-related sea level rise for the coming decades.[12] They highlight the *unprecedented* nature of the challenges and the urgency of adequate responses by coastal States, particularly by those most vulnerable to these changes.

This article documents the development of recent State practice and the public positions taken by States on these issues over the past decade or so,

9 *Report from the Small States Conference on Sea Level Rise*, Malé, Maldives, 14–18 November 1989, at p. 1. The Malé Declaration is reproduced in Churchill and Freestone (n 1), at pp. 341–343. Also available at https://www.saarc-sec.org/index.php/resources/summit-declarations/10-fifth-saarc-summit-male-1990/file. All websites referred to in this article last accessed on 22 May 2022, unless otherwise noted.

10 Vidas (n 7), at pp. 73, 81–83; Vidas *et al.* (n 7), at pp. 36–37, 41.

11 The recent IPCC assessment report, released on 28 February 2022 – IPCC, *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, H-O Pörtner *et al.* (eds), available at https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/; accessed 30 May 2022 – defines the future reference periods for projections of climate change impacts and risks until 2040 as the 'near term', while those between 2041 and 2060 as the 'mid-term' (at ch 1, p. 21).

12 In addition to IPCC, *Climate Change 2022* (n 11), recent predictions by the IPCC, which provide part of the scientific basis for it, are contained in IPCC, *Special Report on the Ocean and Cryosphere in a Changing Climate*, H-O Pörtner *et al.* (eds), available at https://www.ipcc.ch/srocc/; and IPCC, *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, V Masson-Delmotte *et al.* (eds), available at https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/.

and identifies the development of a trend in the evolution of State practice. This trend is manifested in national legislation and policy documents adopted by several regional forums, from about 2010 up to, and including, 2021; this trend seems likely to continue in the future. We explore the implications of this emerging ('subsequent') practice for the understanding and interpretation of the rules and principles of the LOSC, and seek to place this State practice in the context of the overarching objectives of the Convention. Further, we juxtapose these developments with the findings and recommendations that have stemmed from the work conducted within forums that organise the collective efforts of international law scholars. In particular, this relates to the findings and recommendations of two committees of the International Law Association (ILA) in 2012 and 2018, respectively: the Committee on Baselines under the International Law of the Sea, and the Committee on International Law and Sea Level Rise. We also examine the role played more recently by the International Law Commission (ILC) which in 2019 included the topic of 'sea-level rise in relation to international law' in its active programme of work.

We conclude with some observations on the interaction between the findings and recommendations regarding sea level rise and the law of the sea reached by international law scholarship, and the development of recent State practice as well as the possible role this interaction has played in facilitating legal certainty and stability in the development of adequate responses to this increasingly pressing international law issue.

International Law Scholarship: Collective Efforts

As noted above, in this article we examine the development of international law scholarship concerning sea level rise and the law of the sea, and its complex interactions with the evolution of State practice regarding the interpretation and possible future development of international law. However, we do not analyse *all* forms of international law scholarship. This scholarship[13] is not a homogeneous category: in addition to the engagement of individual legal scholars, it is generated also – indeed, often most significantly – by its collective organising fora, which may be either *ad hoc* or standing.[14] Rather

13 Or, in the language of Article 38(1)(d) of the Statute of the International Court of Justice, all of 'the teachings of the most highly qualified publicists of the various nations'.

14 On distinct organising forms of this scholarship see S Sivakumaran, 'The influence of teachings of publicists on the development of international law' (2017) 66(1) *International and Comparative Law Quarterly* 1–37.

than examining the 'teachings' of individual scholars (beyond those discussed above), we focus on the collective efforts of international law scholars over the past decade or so, facilitated by two main types of organising fora: entities that have been empowered by States, and independent legal expert groups.[15] The ILC belongs to the former, the ILA to the latter category.

The ILA, founded in 1873, has over the past century and a half played an important role in facilitating the systematic study of international law towards its interpretation and progressive development.[16] Its principal constitutional objectives include 'the study, clarification and development of international law'.[17] These objectives of informing and influencing the development of international law are pursued primarily through ILA-adopted resolutions and the reports of ILA committees. The ILA has so far established two international committees mandated to study the consequences of sea level rise for aspects of international law: in 2008, the Committee on Baselines under the International Law of the Sea; and, in 2012, the Committee on International Law and Sea Level Rise.[18] The first two sub-sections below discuss the work, findings and proposals of those two ILA committees.

The ILC was established by the UN General Assembly in 1947, as one of its subsidiary organs, pursuant to Article 13(1) of the UN Charter.[19] The Statute of the ILC states its objective as 'the promotion of the progressive development of international law and its codification'[20] and views the 'progressive development' as a conscious effort towards the creation of new rules of international law, and 'codification' as 'the more precise formulation and systematization of rules of international law in fields where there already has been extensive State

15 As also observed by Sivakumaran: 'Only by breaking down the category of teachings of publicists into its various types can their influence on the development of international law be properly gauged'; *ibid*., at p. 3.

16 The International Law Association (ILA) is one of the oldest continuing organisations in the field of international law; on its history and archives, see https://www.ila-hq.org/index.php/about-us/ila-archive-material.

17 ILA, Constitution of the Association (as adopted at the 77th Conference, 2016), Article 3(1), available at https://www.ila-hq.org/images/ILA/docs/constitution_english_adopted_johannesburg_2016.pdf.

18 The issue of sea level rise was also mentioned by the ILA Committee on the Legal Principles Relating to Climate Change, in its Second Report (Sofia, 2012), at pp. 29–30, 39–40, available at https://www.ila-hq.org/index.php/committees. However, that Committee has not pursued any further comprehensive study of international law implications of sea level rise, this issue being beyond its mandate.

19 Article 13(1) of the UN Charter mandate it to 'initiate studies and make recommendations for the purpose of … encouraging the progressive development of international law and its codification'.

20 Article 1(1) of the Statute of the International Law Commission.

practice, precedent and doctrine'.[21] In 2018, the UN General Assembly took note of the inclusion of the theme of 'sea-level rise in relation to international law' in ILC's long-term programme of work,[22] and in 2019, an ILC 'open-ended Study Group on sea-level rise in relation to international law' was formed. The third sub-section below discusses the work of this ILC Study Group, and the specific pathways for direct interaction with UN Member States that are at its disposal.

The ILA and ILC have different roles owing to their different purposes and formal settings. However, both can enable a systematic and comprehensive study through facilitating the collective efforts of legal scholars, and interaction, albeit in different ways, with the views of States.

ILA Committee on Baselines under the International Law of the Sea

The ILA Committee on Baselines under the International Law of the Sea (hereinafter the Baselines Committee) was formed in 2008.[23] The findings of this Committee concerning sea level rise and the normal baselines are contained in its first report, adopted at the 75th ILA Conference, in Sofia, Bulgaria, in August 2012.[24] Although the Baselines Committee continued its study of the legal issues concerning other types of baselines through to 2018, its extended mandate after 2012 no longer included the implications of sea level rise.

Findings of the Baselines Committee Concerning the Normal Baseline and Sea Level Rise

The Baselines Committee was established with a two-part mandate: first, to 'identify the existing law on the normal baseline' and, second, to 'assess if there is a need for further clarification or development of that law'.[25] Its mandate

21 *Ibid*., Article 15.

22 United Nations General Assembly (UNGA) Res 73/265 (22 December 2018), Report of the International Law Commission on the Work of its Seventieth Session, UN Doc A/RES/73/265.

23 The establishment of the Baselines Committee was approved by the ILA Executive Council in November 2008; see ILA, *Minutes of the Meeting of the Executive Council* (London, 15 November 2008), at p. 4.

24 'Baselines under the International Law of the Sea: Committee Report' in ILA, *Report of the Seventy-Fifth Conference held in Sofia, August 2012* (ILA, London, 2012) 385–428 [*Baselines Committee Sofia Report*], also available at https://www.ila-hq.org/index.php/committees?committeeID=46. In further references to that report below, page numbers referred to relate to the ILA printed report while pages in square brackets relate to the online report version.

25 *Baselines Committee Sofia Report* (n 24), at pp. 385–386 [1], referring to the *Proposal for the Establishment of a New Committee on Baselines* of 2008 (n 42).

for the study of legal issues of sea level rise was therefore limited to the law of *normal* baselines. That is an important limitation to bear in mind when assessing its findings.[26] Article 5 of the LOSC defines the 'normal baseline' as follows: 'Except where otherwise provided in this Convention, the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State'.

The Baselines Committee concluded that 'the legal normal baseline is the actual low-water line along the coast at the vertical datum, also known as the chart datum, indicated on charts officially recognized by the coastal State' and that 'the phrase "as marked on large-scale charts officially recognized by the coastal State" provides for coastal State discretion to choose the vertical datum at which that State measures and depicts its low-water line'.[27] Moreover, it concluded that the charted low-water line 'illustrates the legal normal baseline, and in most instances and for most purposes the charted low-water line provides a sufficiently accurate representation of the normal baseline'.[28] However, the Committee further concluded that, although the charted line appears to enjoy a *strong presumption* of accuracy, 'where significant physical changes have occurred so that the chart does not provide an accurate representation of the actual low-water line at the chosen vertical datum, extrinsic evidence has been considered by international courts and tribunals in order to determine the location of the legal normal baseline'.[29]

It should be emphasised that these 2012 conclusions of the Baselines Committee were stated *prior* to its discussion of the specific issues raised by sea level rise – as conclusions of Part III on 'The Normal Baseline: Existing Law',[30] thus before the analysis in Part IV on the 'Existing Law Applied in a Changing World', within which the issues of sea level rise and coastal erosion were introduced. These conclusions were repeated verbatim in Part V that contains the overall conclusions of the report.[31] It is here that the Baselines Committee also concluded that, under the existing law, 'the normal baseline is ambulatory'.[32]

---

26 Regarding some other limitations, see the next subsection.

27 *Baselines Committee Sofia Report* (n 24), at p. 417 [25].

28 *Ibid.*

29 *Ibid.*

30 Section III.F of the *Baselines Committee Sofia Report*, entitled 'General Conclusion', in *ibid.*

31 Compare the conclusions of the *Baselines Committee Sofia Report*, *ibid.*, at p. 417 [25] and at p. 425 [31]. Two statements of dissent – from Professor Oude Elferink (Netherlands) and Professor Yee (HQ) – were recorded, with reasons as further explained in footnotes 217 and 218 at p. 425 [31].

32 *Ibid.*, at p. 426 [31].

However, the Committee also concluded that the 'existing law of normal baseline does not offer an adequate solution to [the] potentially serious problem' caused by sea level rise – such as, under extreme circumstances, total territorial loss and the consequent total loss of baselines.[33] Instead of pursuing this matter further, it recommended that 'the issue of the impacts of substantial territorial loss resulting from sea level rise be considered further by a Committee established for the specific purpose of addressing the wide range of concerns it raises'.[34]

In approaching the issues of sea level rise and coastal erosion,[35] the Committee had at the outset stated the apparently logical hypothesis, namely that 'it follows that if the legal baseline changes with human-induced expansions of the actual low-water line to seaward, then it must also change with contractions of the actual low-water line to landward'.[36]

Concerning the impacts of sea level rise, the Baselines Committee analysed the views of a number of scholars who had published studies on this matter in the literature available at the time.[37] While noting that scholarly debate contained various proposals for solutions *de lege ferenda*, the Committee nonetheless concluded that

> the existing law of normal baseline applies in situations of significant coastal change caused by both territorial gain and territorial loss. Coastal States may protect and preserve territory through physical reinforcement, but not through the legal fiction of a charted line that is unrepresentative of the actual low-water line.[38]

33 *Ibid.*

34 *Ibid.*

35 Section IV.B of the *Baselines Committee Sofia Report*, *ibid.*, entitled 'Sea level rise and coastal erosion', at pp. 422–425 [28–31].

36 *Ibid.*, at p. 422 [28]. This conclusion, which was arrived at as a matter of legal logic rather than on the basis of a study of widespread State practice specific for impacts of sea level rise (which emerged and developed at a later stage; see further below), followed upon and was linked to the conclusions reached by the Committee in section IV.A of the report, on 'Territorial gain: harbour works, coastal protection, land reclamation' in *ibid.*, at pp. 418–421 [25–28].

37 See *ibid.*, at pp. 422–424 [29–30], discussing the views of Caron, Soons, Rayfuse, Jesus, Schofield and Arsana, and Hayashi. With the exception of one manuscript (by Rayfuse, dated 2012), this literature was published between 1990 and 2011; the developments commented in it did not extend beyond 2010.

38 *Ibid.*, at p. 424 [30].

Consequently, the Baselines Committee adopted this general conclusion:

> [T]he normal baseline is ambulatory, moving seaward to reflect changes to the coast caused by accretion, land rise, and the construction of human-made structures associated with harbour systems, coastal protection and land reclamation projects, and also landward to reflect changes caused by erosion and sea level rise.[39]

In reading this conclusion, however, it is worth recalling the limited scope of study that the Baselines Committee had been given by its mandate.

Context for and Limitations of the Findings of the Baselines Committee

The introductory section of the 2012 Sofia Report might lead to the impression that sea level rise was the main or primary reason for the initiation of the Baselines Committee. In the relevant part, following immediately after the presentation of the mandate, it reads:

> The need to identify, and possibly clarify or develop, the existing law concerning the normal baseline arises in response to possible sea level rise that has been predicted to accompany the phenomenon of climate change, and the effects this may have in particular upon low-lying, small island developing states.[40]

The introductory section of the 2012 report goes on to explain that the need arises *also* due to some *additional* developments and concerns.[41] That formulation might lead to the false conclusion that sea level rise was the main issue, or development, that prompted and justified the establishment of the Baselines Committee. However, sea level rise, although relevant in that respect, should not be perceived as either the main factor or more important than any other among several reasons behind the proposal to establish that ILA committee in 2008.[42]

---

39 *Ibid.*, at p. 426 [31].

40 *Ibid.*, at pp. 385–386 [1].

41 *Ibid.*

42 *Proposal for the Establishment of a New Committee on Baselines* was reproduced in Annex II of the draft *Baselines Committee Sofia Report*, which was presented at the open (working) session of the Baselines Committee, on 28 August 2012 at the 75th ILA Conference in Sofia (on file with the authors). However, following the discussion at that session, Annex II was omitted from the published version of the Committee's report. For the reasons

In addition, there are several important limitations that should be borne in mind regarding the Baselines Committee findings concerning the implications of sea level rise for maritime limits and boundaries under the law of the sea. One limitation stems from the fact that, while that Committee did examine State practice, including national legislation concerning normal baselines,[43] it did not examine any of the State practice that was emerging specifically in response to sea level rise. Such specific practice was only beginning to emerge, at the national legislative and regional policy levels, and it was still difficult to identify as a legal trend when the Baselines Committee was finalising its report.[44]

Moreover, the Baselines Committee was clear regarding the distinction to be made between the function of the law of normal baselines concerning the [unilateral] delineation, on the one hand, and the delimitation of maritime zones [with other State(s)], on the other;[45] it did not, however, pursue this distinction further in relation to the impacts of sea level rise.

The Committee's original mandate had not included a study of straight baselines and archipelagic baselines. Unlike normal baselines, straight baselines and archipelagic baselines, pursuant to Article 16 and Article 47(8) and (9) of the LOSC, respectively, shall be shown on large-scale charts referenced to a geodetic datum – or, alternatively, a list of geographical coordinates likewise referenced to a geodetic datum – and be given due publicity by the coastal/archipelagic State, and a copy deposited with the UN Secretary-General. These types of baselines were only included within the scope of the Baselines Committee study when the proposal for a new mandate with an extended term was made following the 2012 Report. That new mandate was approved by the ILA in November 2012;[46] it excluded further consideration of the issues related to sea level rise from its study for the obvious reason that, also from November

see Minutes of the Working Session of the Baselines Committee, in ILA, *Report of the Seventy-Fifth Conference* (n 24), 429–431, at p. 431.

43 *Baselines Committee Sofia Report* (n 24), at pp. 404–409 [16–18].

44 See further discussion in section on the 'Initial Evidence of an Emerging Trend in State Practice, 2010–2018', below. At the time when the Baselines Committee was completing its 2012 Report, only some early examples of this newly emerging legislative State practice were available; however, it seems that the Baselines Committee did not include any in its analysis of State practice; compare in *ibid*., at pp. 404–409 [16–18].

45 See *ibid*., at pp. 390–391 [4–5]. See further discussion in section on the 'ILA Committee on International Law and Sea Level Rise' below.

46 ILA, *Minutes of the Meeting of the Executive Council* (London, 10 November 2012) 12, acting upon the *Proposal for Extension of the Mandate of the ILA Committee on Baselines under the International Law of the Sea*, 2 November 2012, prepared by Professor Donald Rothwell and Capt. Ashley Roach (on file with the authors).

2012, these matters fell under the mandate of a newly formed ILA committee focusing on sea level rise.

This context also helps in explaining why the Baselines Committee recommended that the ILA should establish a new committee for the specific purpose of addressing the wide range of concerns prompted by sea level rise.[47] The Baselines Committee did note that 'all coastal States face the threat of territorial loss as a result of predicted sea level rise', that 'low-lying, small-island developing states are likely to be the most severely affected by this phenomenon' and further, that '[s]hould the issue of deterritorialization fall to be considered by the international community at least in part as a baseline issue, the existing law of the normal baseline does not offer an adequate solution'.[48] It therefore recommended that a new ILA committee be established for the specific purpose of addressing sea level rise and that this new committee 'should take into account the *spirit of modern law of the sea* in which the interests of differently situated states are balanced',[49] and that it

> should also recall the *aims of the* [LOS] *Convention*: to strengthen peace, security, cooperation, and friendly relations among nations in conformity with the principles of justice and equal rights; to take account of the interests and needs of humankind as a whole; and to promote the economic and social advancement of all peoples of the world considering the special interests and needs of developing countries.[50]

Thereafter, the 75th ILA Conference in August 2012 adopted Resolution 1/2012, which acknowledged the predicted consequences of sea level rise, such as substantial territorial loss, as an issue that 'encompasses consideration at a junction of several parts of international law' and acknowledged that this issue 'requires consideration by a committee established for the specific purpose of addressing this broad range of concerns'.[51] That was what spurred the initiation of a new ILA committee on sea level rise, later the same year.

47 *Baselines Committee Sofia Report* (n 24), at pp. 425, 426 [31].
48 *Ibid.*, at p. 424 [30].
49 *Ibid.*, at p. 425 [31] (emphasis added).
50 *Ibid.* (emphasis added).
51 ILA Resolution No. 1/2012, 'Baselines under the International Law of the Sea' in ILA, *Report of the Seventy-Fifth Conference* (n 24), at p. 17. Also available at https://www.ila-hq.org/index.php/committees?committeeID=46.

ILA Committee on International Law and Sea Level Rise

The Committee on International Law and Sea Level Rise (hereinafter Sea Level Rise Committee, or the Committee) was established by the ILA Executive Council in November 2012.[52] This new Committee was tasked with a two-part mandate:

(1) to study the possible impacts of sea level rise and the implications under international law of the partial and complete inundation of state territory, or depopulation thereof, in particular of small island and low-lying states; *and*
(2) to develop proposals for the progressive development of international law in relation to the possible loss of all or of parts of state territory and maritime zones due to sea level rise, including the impacts on statehood, nationality, and human rights.

The Committee at the outset defined three main issue areas of international law it intended to focus on in relation to sea level rise: (1) the law of the sea; (2) forced migration and human rights; and (3) issues of statehood under international law.[53] Further, it divided its work thematically into two main phases. In the first phase, implemented from 2014 to 2018, the Committee focussed on priority issues in a relatively *short-term* perspective.[54] This involved two parallel streams of study, one of which was concerned with the law of the sea issues of maritime limits and boundaries.[55] The results of that study and the

52 ILA, *Minutes of the Meeting of the Executive Council* (London, 10 November 2012) 5.

53 This thematic organisation of the work was adopted at the first meeting of the Committee, held at the 76th ILA Conference in Washington, DC, in April 2014. See ILA, *Report of the Seventy-Sixth Conference, held in Washington D.C., April 2014* (ILA, London, 2014) 877–881, and especially the *Minutes of the First Closed Session of the Committee*, held in Washington, DC, on 9 April 2014 (at pp. 2 and 4), available at https://www.ila-hq.org/index.php/committees. See also D Vidas, 'International law and sea level rise: The role of the International Law Association' (2014) 4 *MEPIELAN eBulletin*, available at http://www.mepielan-ebulletin.com/default.aspx?pid=18&CategoryId=4&ArticleId=174&Article=International-Law-and-Sea-Level-Rise-The-Role-of-the-International-Law-Association; D Vidas, D Freestone and J McAdam, 'International law and sea level rise: The new ILA committee' (2015) 21(2) *ILSA Journal of International and Comparative Law* 397–408.

54 In the second phase of its work, which commenced from 2019, the Committee has focussed on priority areas in a mid- to longer-term perspective. Regarding the IPCC definitions of reference periods for its future-oriented projections as used in AR6 (2022), see (n 11).

55 The other field of study by the Committee from 2014 to 2018 was on (forced) migration and human rights issues.

proposals adopted by the Committee on those issues are contained in its 2018 Report, which was presented at the 78th ILA Conference in Sydney, Australia, in August 2018,[56] and in two formal resolutions adopted by the ILA Assembly at that conference.[57]

Prior to analysing the content of the ILA Resolution 5/2018, we first discuss the findings of the Sea Level Rise Committee concerning the law of the sea issues it examined.

Findings of the Committee Concerning Maritime Limits and Boundaries

The Sea Level Rise Committee decided to begin by addressing two potential impacts of sea level rise which the Baselines Committee had identified in 2012: 'negative impacts on maritime boundaries negotiated in reliance on normal baselines in existence at the time of a delimitation, and the outer limits of a State's maritime zones proclaimed in reliance upon a normal baseline'.[58]

Regarding those issues, the Baselines Committee considered that 'under these circumstances [of the prospect of significant sea level rise], a question arises as to whether the existing law of normal baselines *would or should apply*'.[59] While the mandate of the Baselines Committee had been limited to the study of the law of normal baselines, the Sea Level Rise Committee included *all* types of baselines in its study. However, the main focus of the Sea Level Rise

56 The final version of the 2018 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* (ILA, London, 2019) 866–915. Published also separately in an edited version as D Vidas, D Freestone and J McAdam (eds), *International Law and Sea Level Rise: Report of the International Law Association Committee on International Law and Sea Level Rise* (Brill, Leiden, 2019) [*Sea Level Rise Committee 2018 Report*]; in further references to this report below, page numbers indicated relate to the ILA printed published version, and pages referred to in square brackets relate to the edited version published by Brill.

57 The ILA Assembly adopted two resolutions on international law and sea level rise at its Sydney conference in August 2018: Resolution 5/2018, on maritime limits and boundaries, and Resolution 6/2018, which also contains the 'Sydney Declaration of Principles on the Protection of Persons Displaced in the Context of Sea Level Rise'. ILA Resolutions 5/2018 and 6/2018 are published in ILA, *Report of the Seventy-Eighth Conference* (n 56), at pp. 29–40; also available at https://www.ila-hq.org/index.php/committees.

58 *Baselines Committee Sofia Report* (n 24), at p. 423 [29].

59 *Ibid.* (emphasis added). The Baselines Committee observed that 'unlike most of the scenarios [it] considered … in which possible differences between the charted and actual low-water lines are small and the effects local – sliding mud banks, deltaic accretion, other forms of accretion or erosion, land reclamation projects, or the construction of harbour works – the prospect of significant sea level rise carries with it problems of global scale and effect and serious existential implications for some states'. *Ibid.*, at p. 422 [29].

Committee, beyond the law of baselines, was in analysing the effects of sea level rise on the *limits* of maritime zones and on maritime *boundaries* under the law of the sea. This included studying State practice *specific* to sea level rise, and evaluating the role of this practice not only regarding the potential creation of customary international law, but also of its potential role in treaty interpretation, that is, as being the 'subsequent practice' of States Parties.

The Committee at the outset took the view that, in light of the consequences of sea level rise expected in the near future, the proposals for legal responses should at this stage seek to avoid, or minimise, changes to the settled law of the sea, as reflected in the LOSC. A key premise for the Committee was that its proposals 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. At the first meeting of the Committee, held in spring 2014 at the 76th ILA Conference in Washington, DC, discussions began on the overall objectives of facilitating *legal certainty*, *stability* and *predictability* in the context of impacts of sea level rise on maritime limits and boundaries.[60] The Committee was mindful of the principal motivations that led to the LOSC, such as to contribute to the maintenance of peace and strengthening of security and cooperation.[61] The approach of the Sea Level Rise Committee was therefore that 'the ultimate objective of any proposed solution … is to facilitate legal certainty as well as to facilitate orderly relations between States and contribute to the avoidance of conflicts'.[62]

The Limits of Maritime Zones

Regarding the limits of maritime zones, the Sea Level Rise Committee identified a strong pattern of national legislative practice in the South Pacific region, emerging mainly in the period 2012–2018, whereby States were unilaterally declaring and publicising anew all their baselines and maritime limits. One example of this new legislative trend concerned the Republic of the Marshall Islands, which in 2016 had adopted comprehensive legislation,[63] repealing its 1984 Maritime Zones Declaration Act and declaring anew all of its maritime

60 See ILA, *Report of the Seventy-Sixth Conference* (n 53), at pp. 880–881: interventions by the Committee Member, Professor David Caron and the Committee Chair, Professor Davor Vidas.

61 See Preamble to the LOSC (n 5), especially the first and seventh paragraphs.

62 *Sea Level Rise Committee 2018 Report* (n 56), at p. 884 [26].

63 Act No. 13 of 2016, reproduced and discussed in detail by D Freestone and CH Schofield, 'Republic of the Marshall Islands: 2016 Maritime Zones Declaration Act: Drawing lines in the sea' (2016) 31 *International Journal of Marine and Coastal Law* (*IJMCL*) 720–746.

zones with long lists of geographical co-ordinates of geodetic data points.[64] Similar legislation, designating new baselines of the territorial sea and designating anew the outer limits of the exclusive economic zone (EEZ), had already been passed in 2012 by Tuvalu,[65] and then, also including the archipelagic baselines, in 2014 by Kiribati.[66] Having analysed these and some other examples of national legislation, the Committee noted that there was 'strong evidence of emerging State practice in the Pacific region regarding the intent of many island States to maintain their maritime entitlements in the face of sea level rise'.[67]

This came in tandem with an emerging body of regional policy practice that had been developing in the South Pacific since around 2010, consisting of a series of mutually related political declarations and statements by regional bodies.[68] In the view of the Committee,

> 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.[69]

On this background, the 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*

64 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 GK Walker (ed.), *Definitions for the Law of the Sea. Terms Not Defined by the 1982 Convention* (Martinus Nijhoff, Leiden, 2012) 113.

65 See the 2012 Maritime Zones Act and declarations of baselines as well as outer limits of maritime zones by Tuvalu, all available at https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/TUV.htm.

66 See the 2014 Regulations by Kiribati on, respectively, territorial sea baselines, baselines around the archipelagos of Kiribati, territorial sea outer limits, and exclusive economic zone outer limits, all available at https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/KIR.htm.

67 *Sea Level Rise Committee 2018 Report* (n 56), at p. 888 [32].

68 *Sea Level Rise Committee 2018 Report, ibid.*, examined the regional practice occurring between 2010 and mid-2018. See also D Freestone and CH Schofield, 'Securing ocean spaces for the future? The initiative of the Pacific SIDS to develop regional practice concerning baselines and maritime zone limits' (2019) 33 *Ocean Yearbook* 58–89. For a review of the development of this regional practice from 2018 through 2021, see further below in section entitled 'The Trend in the Development of State Practice'.

69 *Sea Level Rise Committee 2018 Report* (n 56), at p. 886 [29].

interpretation of the text of the LOSC'.[70] In this respect, it referred to the role of subsequent practice in the interpretation of treaties under the 1969 Vienna Convention on the Law of Treaties (VCLT),[71] particularly in the light of the recent work of the ILC on this topic.[72]

The Sea Level Rise 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.[73]

The Committee recognised 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, 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.[74]

Maritime Boundaries

Regarding maritime boundaries, elaborating on the views initially discussed already at its first session held in Washington D.C. in April 2014,[75] the Sea Level Rise Committee had in its 2016 Interim Report arrived at a preliminary conclusion in favour of a presumption of certainty and stability of all boundary treaties in the context of sea level rise.[76] In its 2018 Report, the Committee was able

70 *Ibid.*, at pp. 887–888 [31] (emphasis added).

71 Vienna Convention on the Law of Treaties, 23 May 1969, 1155 *UNTS* 331 [VCLT].

72 *Sea Level Rise Committee 2018 Report* (n 56), at pp. 887–888 [31]. For the outcome of the International Law Commission (ILC) work on this topic, see ILC, 'Draft conclusions on subsequent agreements and subsequent practice in relation to the interpretation of treaties, with commentaries' in UNGA, *Report of the International Law Commission, Seventieth Session (30 April–1June and 2 July–10 August 2018)*, UN Doc A/73/10 (2018) 11–116 [ILC Seventieth Session Report 2018].

73 *Sea Level Rise Committee 2018 Report* (n 56), at p. 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. *Ibid.*, at p. 889 [32].

74 *Ibid.*, at p. 888 [32].

75 See (n 60) and accompanying text.

76 See *Interim Report of the Committee on International Law and Sea Level Rise*, presented at the 77th ILA Conference, Johannesburg, South Africa, August 2016, at p. 17; available at http://www.ila-hq.org/index.php/committees.

to take a more considered view that it did not need to come to a determination or interpretation on the question as to whether Article 62(2) of the VCLT (relating to fundamental change of circumstances) should be seen as applying to agreed boundaries of *all maritime* zones, including those beyond the territorial sea.[77] The Committee took the view that the presumption of certainty and stability of all boundary treaties, including *all* types of maritime boundaries, would argue against the use of the *rebus sic stantibus* doctrine to upset maritime boundary treaties on the grounds of physical changes arising from sea level rise.[78] Although well aware of the potential for major physical impacts on coastal geography resulting from sea level rise, the Committee deemed that the interests of the international community would not be well served by supporting a view that such treaties could be challenged and considered that such a view might well undermine existing agreed maritime boundaries.[79]

Reinforcing its recommendations for interpretation of the LOSC so as to preserve existing entitlements to maritime zones on the grounds of legal certainty and stability,[80] the Sea Level Rise Committee held that the question of 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.[81] The Committee thus considered that, if its recommendations regarding the maintenance of existing entitlements to maritime zones were accepted, then the same principle should apply – indeed, even more so – to boundaries of maritime areas delimited by international agreements.[82] The Committee also cautioned that many maritime boundaries still remained to be agreed: it recommended that States negotiating the pending maritime boundaries pay specific attention to the possible impacts of sea level rise in the clauses of these agreements.[83]

The Committee therefore took the view that, on the grounds of legal certainty and stability, the impacts of sea level rise on maritime boundaries,

77 VCLT (n 71), Article 62(2) provides that '[a] fundamental change of circumstances may not be invoked as a ground for terminating or withdrawing from a treaty: (a) if the treaty establishes a boundary'.

78 *Sea Level Rise Committee 2018 Report* (n 56), at pp. 890–891 [35], 895 [41].

79 *Ibid.*

80 Also drawing on jurisprudence of international courts and tribunals, e.g., *The Bay of Bengal Maritime Boundary Arbitration* (*Bangladesh* v. *India*), PCA Case 2010–16, Award of 7 July 2014, para 216. See the *Sea Level Rise Committee 2018 Report* (n 56), at pp. 890–891 [35].

81 *Sea Level Rise Committee 2018 Report* (n 56), at p. 895 [41].

82 *Ibid.* The Committee considered that the same approach should also be taken in cases of maritime boundaries established by judgments of international courts or by arbitral awards; *ibid.*

83 *Ibid.*, at p. 892 [36].

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.[84] Further, it recommended that the interpretation of the LOSC which it proposed regarding the maintenance of the existing lawful maritime entitlements of coastal States should apply equally to maritime areas delimited by international agreements or by decisions of international courts or arbitral tribunals.[85]

ILA Resolution 5/2018 on Sea Level Rise and Maritime Limits and Boundaries

The recommendations of the Sea Level Rise Committee for the maintenance of the limits of maritime zones and the stability of maritime boundaries in the face of sea level rise were expressed in an ILA resolution. Having considered the 2018 Report of the Sea Level Rise Committee, the 78th ILA Conference, held in Sydney, Australia, 19–24 August 2018, adopted ILA Resolution 5/2018.[86] In it, the ILA recognised that

> sea level rise is likely to have a major impact on the coastal features from which maritime zones are measured, causing uncertainties as to the determination of the breadth and extent of maritime zones in accordance with the law of the sea, as well as possible uncertainties regarding agreed or adjudicated maritime boundaries.

Moreover, in this resolution, the ILA endorsed the views of the Committee that:

- any proposals in this area should aim to facilitate orderly relations between States and, ultimately, the avoidance of conflicts, bearing in mind that one of the principal motivations of the [LOSC] is to contribute to the maintenance of international peace and security; and
- in the formulation of proposals for the progressive development of international law, the dominant considerations should be the need to avoid uncertainty about the extent and limits of maritime zones and location of boundaries and to avoid incentives artificially to preserve

84 *Ibid*., at p. 895 [41].

85 *Ibid*.

86 ILA Resolution 5/2018, in English language original and French translation, is published in ILA, *Report of the Seventy-Eighth Conference* (n 56), at pp. 29–32.

> baselines physically in order to keep the outer limits of maritime zones.

In the operative paragraphs of Resolution 5/2018, the ILA Assembly:

> Endorses the proposal of the Committee that, on the grounds of legal certainty and stability, provided that the baselines and the outer limits of maritime zones of a coastal or an archipelagic State have been properly determined in accordance with the [LOSC], these baselines and limits should not be required to be recalculated should sea level change affect the geographical reality of the coastline;
>
> Endorses also the Committee's proposal that the interpretation of the [LOSC] in relation to the ability of coastal and archipelagic States to maintain their existing lawful maritime entitlements should apply equally to maritime boundaries delimited by international agreement or by decisions of international courts or arbitral tribunals;
>
> Confirms that the Committee's recommendations regarding the maintenance of existing maritime entitlements are conditional upon the coastal State's existing maritime claims having been made in compliance with the requirements of the [LOSC] and duly published or notified to the Secretary-General of the United Nations as required by the relevant provisions of the Convention, prior to physical coastline changes brought about by sea level rise.

Therefore, in addition to containing recommendations concerning the *interpretation* of the LOSC as proposed by the Sea Level Rise Committee, the ILA Resolution 5/2018 referred to 'formulation of proposals for the progressive development of international law'. It is important to make a distinction between the two. However, some authors and some bodies seem to have perceived all the above recommendations by the ILA Committee as '*de lege ferenda* proposals'.[87] The Committee had indeed considered the question of

87 See ILC Seventieth Session Report 2018 (n 72), Annex B ('Sea-level rise in relation to international law'), para 11, footnote 13; and, accordingly, in *Sea-level Rise in Relation to International Law: First Issues Paper by Bogdan Aurescu and Nilüfer Oral, Co-Chairs of the Study Group on Sea-level Rise in Relation to International Law*, UN Doc A/CN.4/740 (28 February 2020), para 36 [*First Issues Paper*]. Also UNGA, *Report of the International Law Commission, Seventieth-Second Session (26 April–4 June and 5 July–6 August 2021)*, UN Doc A/76/10 (2021), para 269 [ILC Seventieth-Second Session Report 2021].

how it might present any proposal *de lege ferenda*, however the scope of its proposals should be understood in the light of distinction which the Committee introduced, between a short-term perspective on the one hand, and a medium to longer-term, on the other. The Committee did not at this stage propose any modification of the LOSC text, but rather of its interpretation. The Sea Level Rise Committee, after reviewing the previous work of the Baselines Committee and other writings,[88] took the view that the 'ambulatory' nature of baselines and of the outer limits of the zones measured for them was more accurately seen as an interpretation of the relevant rule of the LOSC, rather than as a description of the rule itself. In other words, baselines (and the limits of the zones measured from them) were not, in the Sea Level Rise Committee's view, 'ambulatory' as a matter of law but as a matter of interpretation of the law. That original 'ambulatory' interpretation might have been in line with the overarching objectives of the LOS Convention as long as it was in harmony with, and supported by, the prevailing context of the overall natural conditions (including coastal geography) characterised by the general stability of the late Holocene. Those natural conditions are now in the process of radical change and it was in the light of those changes that the Sea Level Rise Committee in its 2018 Report offered its own recommendations for interpretation, that were reflected in the ILA Resolution 5/2018. As will be seen in the next section,[89] this important distinction seems to have been grasped by States and reflected in their views and practice emerging since.

ILC Study Group on Sea-level Rise in Relation to International Law

In 2018, the ILC decided to recommend the inclusion of the topic 'Sea-level rise in relation to international law' in its *long-term* programme of work.[90] This was supported by many UN Member States during the debate in the United Nations General Assembly (UNGA) Sixth [Legal] Committee,[91] and was noted

88 See especially Caron (n 1); see also D Caron, 'Climate change, sea level rise and the coming uncertainty in oceanic boundaries: A proposal to avoid conflict' in S-Y Hong and JM Van Dyke (eds), *Maritime Boundary Disputes, Settlement Processes, and the Law of the Sea* (Brill/Martinus Nijhoff, Boston, 2009) 1–17.

89 See further below in section entitled 'The Trend in the Development of State Practice'.

90 ILC Seventieth Session Report 2018 (n 72), para 369. A proposal for the inclusion of this topic in the long-term programme of ILC work was submitted by the Federated States of Micronesia on 31 January 2018, under the title 'Legal Implications of Sea-level Rise' (*ibid.*, Annex B, para 7).

91 On the level of support for the topic by the UN Member States in the General Assembly, Sixth Committee, see *First Issues Paper* (n 87), Chapter II, paras 8–27. See also P Galvão Teles, 'Sea-level rise in relation to international law: A new topic for the United Nations

in a 2018 UNGA Resolution.[92] In 2019 the ILC decided to include this topic in its *active* work programme, initially addressing this through an 'open-ended Study Group'.[93]

The ILC Study Group has structured the organisation of its work through three main issue-areas ('subtopics') of international law: 'A) law of the sea, B) statehood, and C) protection of persons affected by sea-level rise' – in line with its syllabus prepared in 2018.[94] This closely resembled the thematic organisation of work as adopted in 2014 by the ILA Sea Level Rise Committee.[95]

The mandate of the ILC Study Group, however, differs from that of the ILA Committee. The ILC Study Group was mandated to perform 'a mapping exercise of the legal questions raised by sea-level rise and its interrelated issues'.[96] Moreover, as stated at the outset, it 'will not propose modifications to existing international law, such as the 1982 [UN] Convention on the Law of the Sea'.[97] The objective was rather to 'contribute to the endeavours of the international community to respond to these issues and to assist States in developing practicable solutions in order to respond effectively to the issues prompted by sea-level rise'.[98] In 2020, the ILC Study Group began to implement its work plan by addressing the issues included in its first subtopic: the law of the sea.[99]

International Law Commission' in MC Ribeiro *et al.* (eds), *Global Challenges and the Law of the Sea* (Springer Nature Switzerland, Cham, 2020) 145–157.

92 UNGA Resolution 73/265 (n 22).

93 UNGA, *Report of the International Law Commission, Seventieth-First Session (29 April–7 June and 8 July–9 August 2019)*, UN Doc A/74/10 (2019), paras 9, 21, 265 [ILC Seventieth-First Session Report 2019]. See also UNGA Resolution 74/186 (UN Doc. A/RES/74/186) of 18 December 2019.

94 ILC Seventieth-First Session Report 2019 (n 93), para 269; ILC Seventieth Session Report 2018 (n 72), Annex B, especially paras 12, 19. Annex B (of 2018) has been termed as being a 'syllabus' of the Study Group.

95 See (n 53) and the accompanying text, above.

96 See, e.g., ILC Seventieth-Second Session Report 2021 (n 87), para 285, drawing on the 'syllabus', that is, ILC Seventieth Session Report 2018 (n 72), Annex B, para 18. This approach is confirmed also in *First Issues Paper* (n 87), para 51.

97 ILC Seventieth Session Report 2018 (n 72), Annex B, para 14.

98 *Ibid.*, para 18 (but compare with para 5); *First Issues Paper* (n 87), para 51.

99 Issues related to statehood and the protection of persons affected by sea level rise (subtopics B and C) were to be addressed thereafter, in 2021; see ILC Seventieth-First Session Report 20219 (n 93), paras 32–33, 267, 269. However, due to the COVID-19 pandemic and the related restrictions impacting the work of the ILC, the discussion of topics B and C had to be postponed to 2022, after the discussion of topic A. See also (n 136) and the accompanying text below.

Findings Regarding the Law of the Sea Aspects of Sea Level Rise

When completing the *First Issues Paper*, the Co-Chairs of the Study Group had a range of materials at their disposal, in addition to the sources of international law, international jurisprudence and abundant scholarship – including the reports by the ILA Baselines Committee of 2012 and the Sea Level Rise Committee of 2018, and the related ILA resolutions. They also had the views of States presented in the Sixth Committee debates through 2019 and the submissions made by the UN Member States up to early 2020.[100] All this clearly informed the 'preliminary observations' contained in the *First Issues Paper*.[101]

The paramount importance of preserving legal certainty and stability under international law, as had already been identified,[102] has been affirmed in the *First Issues Paper* as being 'at the very heart of the topic' and an 'essential issue' in relation to it.[103] Many States have indeed highlighted this aspect as being 'an overarching concern'.[104] The *First Issues Paper* uses the formulation of 'preserving legal stability, security, certainty and predictability' in its vocabulary. Similarly to the ILA Sea Level Rise Committee, it related these concerns to the 'general purpose[s]' of the LOSC, 'as reflected *inter alia* in its preamble', not least regarding contributing to the 'peace, security, co-operation and friendly relations among all nations'.[105]

Baselines, Outer Limits of Maritime Zones and Maritime Entitlements

Regarding the possible legal effects of sea level rise on the baselines, outer limits of maritime zones and maritime entitlements, the *First Issues Paper* states that 'the question is whether the provisions of the [LOS] Convention could be *interpreted and applied* so to address those effects'.[106] In this respect, the Paper underlines 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

100 On the positions of States and their practice until 2020, see below section entitled 'Watershed Phase: Trends in State Practice Emerging in 2019–2020'.

101 For the 'preliminary observations', see *First Issues Paper* (n 87), paras 104, 144, 190, 218.

102 See (n 60) and the accompanying text, as well as section entitled 'ILA Resolution 5/2018 on Sea Level Rise and Maritime Limits and Boundaries' above.

103 *First Issues Paper* (n 87), paras 18, 23.

104 *Ibid.*, para 220.

105 *Ibid.*, paras 27, 220.

106 *Ibid.*, para 78 (emphasis added).

> change; the same observation is valid also with regard to the new outer limits of maritime zones (which move when baselines move).[107]

In this connection, the *First Issues Paper* observes 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'.[108]

Regarding the baselines and outer limits of maritime zones, the *First Issues Paper* concludes with a set of preliminary observations,[109] 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 measured therefrom, as well as of the entitlements of the coastal State' and that the LOSC 'does not prohibit *expressis verbis* such preservation',[110] 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.[111]

Maritime Boundaries

Regarding the possible legal effects of sea level rise on maritime delimitations, the *First Issues Paper* reiterates that, as with baselines and outer limits of maritime zones, 'a key approach should be to favour the preservation of legal stability, security, certainty and predictability',[112] and notes that the positions expressed by the States in their submissions and in statements before the Sixth Committee converge to a large extent regarding such an approach.[113] With regard specifically to the issue of agreed or adjudicated maritime boundary delimitations, the *First Issues Paper* notes that 'all statements [of UN Member

107 *Ibid.*

108 *Ibid.*, para 79.

109 See *ibid.*, para 104(a)–(i), which contains a comprehensive discussion regarding these preliminary observations.

110 *Ibid.*, para 104(e).

111 *Ibid.*, para 104(f).

112 *Ibid.*, para 111.

113 *Ibid.*, para 121. See below section entitled 'Evidence from the 2019 Sixth Committee debate'.

States in the Sixth Committee] tackling the issue of maritime delimitations have advocated for maintaining them as such, while no statement was made in favour of their modification because of sea-level rise'.[114] Based also on the study of conventional practice, in addition to the submissions made by States to the ILC and their statements in the Sixth Committee, the *First Issues Paper* draws a general conclusion 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'.[115]

Drawing on these considerations, the *First Issues Paper* arrived at a set of preliminary observations regarding the possible legal effects of sea level rise on maritime delimitations,[116] finding that 'the 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'.[117] Moreover, 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 which established a maritime boundary, 'since maritime boundaries enjoy the same regime of stability as any other boundaries'.[118]

As with the effects on baselines and outer limits of maritime zones, the *First Issues Paper* noted a clear emergence of State practice regarding the stability of delimited maritime boundaries. It, however, considered that, regarding the emergence of a customary rule of international law, 'the existence of *opinio juris* is not yet that evident', and that for a 'definitive conclusion to be possible, more submissions by Member States to the Commission' would be needed.[119]

The *First Issues Paper* by the two Co-Chairs served as the basis for discussion by the Study Group as a whole at the latest (at the time of writing), 2021 session of the ILC.[120] An oral report presented thereafter to the ILC on 27 July 2021 confirmed that the 'Study Group had not been able to adopt its more detailed, substantive interim report in the meeting time available' and that the debate had 'revealed that the members of the Study Group held a range of views on the

114 *Ibid.*, para 127.

115 *Ibid.*, para 138.

116 See *ibid.*, para 141(a)–(g), which contains a comprehensive discussion regarding these preliminary observations.

117 *Ibid.*, para 141(f).

118 *Ibid.*, para 141(c), adding that the 'international jurisprudence is clear in this respect'.

119 *Ibid.*, para 141(g), compare also with para 104(i). See, however, regarding the development of State practice since 2020 and during 2021 in section below entitled 'The Consolidation of State Practice in 2021: Achieving Clarity and Specificity'.

120 See ILC Seventieth-Second Session Report 2021 (n 87), paras 240–296.

issues at stake'.[121] The differences in views were apparently related to, *inter alia*: the interpretation of the meaning of 'stability, certainty and predictability' and implications of this under international law and in the views of States;[122] the preliminary observations in the *First Issues Paper* in favour of 'fixed baselines' in view of the 'lack of State practice, especially from certain regions'[123] – and generally, on whether the normal baseline in Article 5 LOSC is 'inherently ambulatory', as some members of the Study Group held, or whether the Convention is in fact silent on this aspect, as some other members considered.[124] Other differences in views within the Study Group concerned the permanency of the limits of the continental shelf under LOSC,[125] the distinction between the land and maritime boundaries as related to Article 62(2) VCLT,[126] and even the title of the topic dealt with by the Study Group, for which it was proposed to be amended so to read: 'Sea-level rise and international law'.[127]

Those and other differences in the views of the Study Group members notwithstanding, the *First Issues Paper* has made an important impact on the debates between the States, not least in the Sixth Committee, as illustrated in the next section.

The Role of the ILC in Facilitating a Global Forum for Inter-State Debate

By including an international law topic in its work programme, the ILC is able to prompt a debate on that topic between the UN Member States in the Sixth Committee. Further, the ILC may invite information and other submissions from the Member States about their legislative or other practice in the field under study. As demonstrated below, this unique role of the ILC has proved to be extremely important for facilitating interaction between the findings of legal scholarship and the views of States in relation to sea level rise.

---

121 UNGA, *Oral Report of the Study Group on Sea-Level Rise in Relation to International Law* (by Ms. Oral, Co-Chair), UN Doc A/CN.4/SR.3550, 14 September 2021.

122 ILC Seventieth-Second Session Report 2021 (n 87), para 266.

123 *Ibid*., para 268.

124 See *ibid*., paras 270–276, for this and related aspects of Article 5, but also of Article 16 of the LOSC (n 5).

125 *Ibid*., paras 279–280.

126 *Ibid*., para 281.

127 *Ibid*., para 284. In the follow-up of the debate held in the Study Group, the two co-chairs prepared a draft interim report which was circulated to the Study Group members on 2 July 2021. This contained a list of 15 guiding questions for further exchange of views. On this basis, the Study Group identified four issues for in-depth analysis to focus on a priority basis in the near future: a) sources of law; b) principles and rules of international law; c) practice and *opinio juris*; and d) navigational charts; *ibid*., paras 289–294.

By including the topic of sea level rise in its active programme of work in 2019 and then presenting the findings of the two Co-Chairs of the ILC Study Group in their *First Issues Paper* in 2020, the ILC has played a central role in facilitating a global forum for the exchange of the views of States: the UNGA Sixth Committee.[128] Since 2019, the ILC has also prompted submissions by several States to it concerning their recent practice related to the law of the sea and sea level rise, on matters such as the limits of maritime zones and maritime boundaries.[129] The availability of findings and recommendations offered by the ILA Sea Level Rise Committee in its 2018 Report and in ILA Resolution 5/2018 has also contributed to the substance of that debate and to the content of submissions of some States.[130] The details of this interaction and the outcomes so far are analysed further below, in the section on 'The Trend in the Development of State Practice'.

The initial debates in the Sixth Committee clearly demonstrated the increasing attention many States are paying to these issues. It also confirmed the timeliness of the inclusion of the theme of 'Sea-level rise in relation to international law' as a new topic in the ILC programme of work. At the outset, many UN Member States commended the ILC for its proposed three-fold thematic structure of work.[131] A number of States indicated their support for

128 As observed by the co-chairs of the ILC Study Group, Bogdan Aurescu and Nilüfer Oral, in their *First Issues Paper* (n 87), para 89: 'The statements of Member States in the Sixth Committee on the present topic are also indicative of State practice'.

129 See especially ILC Seventieth-First Session Report 2019 (n 93), para 32; *First Issues Paper* (n 87), para 55. See also subsection below entitled 'Examples of State Practice in Submissions by UN Member States (2019–2020)'.

130 See, e.g., statements in the Sixth Committee in 2019 by Papua New Guinea, Poland and Romania, citing the 2018 ILA Report, while the content of statements by several other States reflected the recommendations by the ILA Committee as contained in its 2018 Report (n 56) and ILA Resolution 5/2018. Regarding submissions of examples of State practice to the ILC in late 2019/early 2020, those by Tuvalu, on behalf of the PIF Members, and by the Maldives, both referred to the findings and recommendations of the ILA Committee. In the UNGA Sixth Committee debate in 2021, explicit reference to the work and conclusions of the ILA Committee as contained in its 2018 Report and/or ILA Resolution 5/2018 was made by Argentina, Chile, Cyprus, Israel, Sierra Leone and South Africa. See also (nn 217 and 218) below, and the accompanying text.

131 See, e.g., statements in the UN Sixth Committee debate (October–November 2019) by Peru (UN Doc A/C.6/74/SR.27, 29 November 2019, para 64); Fiji, on behalf of the Pacific small island developing States, including also Kiribati, Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu (*ibid*., para 79); Romania (UN Doc A/C.6/74/SR.28, 29 November 2019, paras 14–15); Italy (*ibid*., para 30); the Netherlands (*ibid*., para 79); Argentina (UN Doc A/C.6/74/SR.29, 26 November 2019, para 35); Ireland (*ibid*., para 43); Thailand (*ibid*., para 99): Portugal (*ibid*., para 108); Mexico (*ibid*., para 114); Japan (UN Doc A/C.6/74/SR.30, 9 December 2019, para 34); Estonia (*ibid*.,

an approach to this work that could ensure legal certainty and stability under the LOSC.[132]

There is also an important difference between the formal nature of the *First Issues Paper* and its impact. That 2020 document did not express the views of the ILC or even of the Study Group as a whole,[133] but was a discussion paper by its authors, the two Co-Chairs. It was nonetheless an official document and – as appeared also from the debates in the Sixth Committee in 2020 and especially 2021 – was perceived as such by many States,[134] thus prompting important debates and reactions.

Coincidentally the paper was issued in early 2020,[135] at the outbreak of the COVID-19 pandemic with its consequent restrictions on meetings. The 72nd session of the ILC, originally scheduled for the spring and summer of 2020, had to be postponed[136] and was not held until June and July 2021. Therefore, before the ILC and its Study Group as a whole had the opportunity to consider and discuss the *First Issues Paper*, it had already been widely discussed outside the ILC. It seems clear that this time lag of nearly a year and half resulted in an enhanced impact. The UN Member States first had an opportunity to refer to the *First Issues Paper* in their statements at the (online, virtual) session of the Sixth Committee in the autumn of 2020, and then again – far more extensively – at the full debate held at the Sixth Committee in the autumn of 2021. The next section elaborates this further in the context of the second (2019–2020) and third (2021) phases of the development of State practice.

---

para 61); Malaysia (*ibid*., para 83); Philippines (UN Doc A/C.6/74/SR.31, 5 December 2019, para 9); Indonesia (*ibid*., para 29); and Bangladesh (*ibid*., para 48). As noted above (n 53), a similar three-fold structure of work was adopted earlier by the ILA Committee on Sea Level Rise, at its first session in Washington, DC, in April 2014.

132 UN Doc A/CN.4/734, 12 February 2020, para 44. See in further detail in section below entitled 'The Trend in the Development of State Practice'.

133 As discussed above, there is still an obvious divergence of views on several key issues. Some members of the ILC Study Group expressed their concern that the *First Issues Paper* (n 87) by the co-chairs 'may have been interpreted as being of the Study Group as a whole' and that it 'had been read as already reflecting the Commission's views … before the Commission itself had the opportunity to consider it'. See ILC Seventieth-Second Session Report 2021 (n 87), paras 265, 290.

134 On the issue papers prepared by the co-chairs of the ILC Study Group as being 'official documents', see, e.g., ILC Seventieth-Second Session Report 2021 (n 87), para 245. See also *First Issues Paper* (n 87), para 6; ILC Seventieth-First Session Report 2019 (n 93), para 270.

135 The *First Issues Paper* (n 87) is dated February 2020 but was made publicly accessible on the ILC webpage in May 2020.

136 The UN General Assembly decided on 12 August 2020 that the 72nd session of the ILC be postponed to 2021.

The Trend in the Development of State Practice

The development of State practice in relation to the issue of maintenance of the limits of maritime zones and maritime boundaries in the context of climate change-induced sea level rise can be seen to date in *three main phases*:[137]

First, an *initial* phase from about 2010 to 2018 during which early evidence of State practice regarding the intent of some island States to maintain their maritime entitlements in the face of sea level rise began to emerge, especially in the South Pacific region, through both national legislation and regionally adopted policy documents.[138]

Second, a *watershed* phase in the course of 2019 and 2020, during which a change in some main trends can be identified. State practice at that time began to include an increasing number of examples, including some from regions other than the South Pacific – a trend which became more evident from 2019. However, the approaches to possible legal responses were characterised by some diversity.

Third, from 2021: a phase of *consolidation*, or even *crystallisation*,[139] during which the State practice of South Pacific countries – but also the Indian Ocean, the Caribbean, and elsewhere – has achieved the current level of clarity and specificity. Indeed, as of 2021 several other States from different regions have also expressed support for the efforts of those coastal States particularly affected by sea level rise, to maintain their maritime entitlements in the context of climate change-induced sea level rise.

---

137 This section draws on the contributions by the authors to the reports of the ILA Committee on International Law and Sea Level Rise, in particular the subsection on 'Initial Evidence of an Emerging Trend in State Practice: 2010–2018' on the contribution by DF in the 2018 Report (n 56), and subsections on the 'Watershed Phase: Trends in State Practice Emerging in 2019–2020' and 'The Consolidation of State Practice in 2021: Achieving Clarity and Specificity' on the contribution by DV in the 2022 Report (n 231). Comments provided by the Members of the ILA Committee on International Law and Sea Level Rise are gratefully acknowledged by the authors.

138 Although the 1989 Malé Declaration (n 9) was extremely prescient, it seems to have been ahead of its time and did not set a trend at the time of its adoption, as was the case with the legislation passed by Nauru in 1997. Sea Boundaries Act 1997 and Proclamation of 12 August 1997 Providing the Geographical Coordinates of Points for the drawing of the Straight Baselines and Outer Limits of the Territorial Sea, Contiguous Zone and Exclusive Economic Zone (1999) 41 *Law of the Sea Bulletin* 21–44, available at https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/NRU_1997_Proclamation.pdf.

139 In the *North Sea Continental Shelf* cases (*Federal Republic of Germany/Denmark*; *Federal Republic of Germany/The Netherlands*) [1969] ICJ Rep 3, the Court referred to 'crystallization' in several paragraphs, including – as may be of interest in the present context – in relation to '*emergent* rules of customary international law' (in para 63; emphasis added).

Initial Evidence of an Emerging Trend in State Practice: 2010–2018

The emergence of a trend in State practice on this issue can be dated to about 2010. Initially this consisted of policy documents adopted at the regional level as well as the national legislation of certain South Pacific Island States. It has been facilitated largely by the Pacific Island Forum (PIF) – the premier political and economic policy organisation in the region founded in 1971; it includes the Pacific small island developing States (SIDS) and territories as well as Australia and New Zealand.[140] Regional efforts, dating from the 1990s, pioneered by the South Pacific Forum Fisheries Agency (FFA) were designed to assist with defining the baselines and EEZ boundaries for the South Pacific Island States and Territories. Subsequently, the Pacific Maritime Boundaries Project, supported by Australia in partnership with the South Pacific Community, FFA, 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.[141]

In 2010, the PIF adopted the Framework for a Pacific Oceanscape,[142] a strategy document that urged, in Action 1A, that the Pacific Island Countries (PICs) formalise maritime boundaries and secure rights over their resources so to, 'in their national interest', deposit with the United Nations basepoint coordinates as well as charts and information delineating their maritime zones. Action 1B, entitled 'Regional effort to fix baselines and maritime boundaries to ensure the

140 As of 8 June 2022, the 18 Members of the PIF (16 of which are parties to the LOSC, including 14 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, a combined size of EEZs of the PIF Members is close to 40 million km^2, which is comparable to the combined size of land territory of Russia, China, the United States, and the EU countries.

141 See, generally, Freestone and Schofield 2019 (n 68), at p. 77; Freestone and Schofield 2016 (n 63), at pp. 740–741. For a detailed background and summary of the *Pacific Maritime Boundaries Project*, see R Frost *et al*., 'Redrawing the map of the Pacific' (2018) 95 *Marine Policy* 302–310.

142 Text available at the SPREP (Secretariat of the Pacific Regional Environment Programme) webpage at https://www.sprep.org/att/publication/000937_684a.pdf. The adoption of the Framework for a Pacific Oceanscape was preceded by an initiative regarding the 'Pacific Oceanspace concept' by Kiribati in 2009. The PIF Leaders welcomed this initiative and endorsed the development of a Framework as a priority area. See PIF Secretariat, 'Communiqué of the Fortieth Pacific Islands Forum', Cairns, Australia, 5–6 August 2009, para 69, available at https://www.forumsec.org/category/communiques/.

impact of climate change and sea-level rise does not result in reduced jurisdiction of PICTs [Pacific Island Countries and Territories]', 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 should be addressed. This could be a united 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 [*sic*].[143]

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.[144] 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', to which end the Leaders agreed (in para 8): '[T]o pursue legal recognition of the defined

143 The Declaration was signed at Papeete, Tahiti, on 16 July 2015, available at https://www.samoagovt.ws/wp-content/uploads/2015/07/The-Polynesian-P.A.C.T.pdf.

144 The Delap Commitment was signed at Majuro, Marshall Islands, on 2 March 2018, available at https://www.pnatuna.com/sites/default/files/Delap%20Commitment_2nd%20PNA%20Leaders%20Summit.pdf. Reproduced in Freestone and Schofield 2019 (n 68), at pp. 86–89.

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' (italics in original).

In September 2018, at its 49th meeting held in Nauru, the PIF Leaders adopted the Boe Declaration on Regional Security.[145] The accompanying PIF communiqué recognised 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'.[146] The accompanying Action Plan to Implement the Boe Declaration[147] itemised 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 sovereignty and territorial integrity in the face of the impacts of climate change'. Measures of success were stated as follows:

(*i*) The number of maritime boundaries resolved over the next 12 months: baseline (35), target (42);
(*ii*) The development of a regional strategy to safeguard Members' maritime zones and related interests in the face of sea level rise;
(*iii*) Members participation at relevant international forums to highlight the region's interests and concerns as detailed in the strategy.

As commented above,[148] this development, pursued through policy documents adopted at the regional level, has been coupled with national legislation by several Pacific Island countries.[149] These and some other, more recently adopted, national legislation provide clear examples in support of a trend in an

145 See PIF Secretariat, 'Boe Declaration on Regional Security', 5 September 2018, available at https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/.

146 PIF Secretariat, 'Communiqué of the Forty-Ninth Pacific Islands Forum', Yaren, Nauru, 3–6 September 2018, paras 26–27, available at https://www.forumsec.org/category/communiques/.

147 The Action Plan is available at https://www.forumsec.org/wp-content/uploads/2019/10/BOE-document-Action-Plan.pdf.

148 See section above entitled 'ILA Committee on International Law and Sea Level Rise'.

149 By the mid-2010s, the Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau and Tuvalu had all declared the outer limits of their EEZs. See Freestone and Schofield 2019 (n 68), at p. 740. See (nn 63, 65–68) and at https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/asia.htm for these and more recent legislation, as well as in the next section of this article. The list of States that have deposited information on their baselines and maritime limits with the UN is available at http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/depositpublicity.htm.

emerging pattern of practice in the Pacific region whereby States are unilaterally declaring and publicising all their maritime jurisdictional baselines and outer limits as well as agreeing on the pending maritime boundaries.

Watershed Phase: Trends in State Practice Emerging in 2019–2020

In August 2019, the communiqué adopted at the 50th meeting of the PIF, held in Funafuti, Tuvalu,[150] included highly relevant paragraphs on 'oceans and maritime boundaries', in which the PIF Leaders stated that they had

> [25] 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.
>
> [26] 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 Sea, that the Members maritime zones could not be challenged or reduced as a result of sea-level rise and climate change.[151]

Examples of State Practice in Submissions by UN Member States (2019–2020)

In late 2019 and in the course of 2020, a number of States responded to the invitation by the ILC[152] to UN Member States to submit examples of State practice that may be relevant to sea level rise in relation to the law of the sea. Antigua and Barbuda, Croatia, the Maldives, Micronesia (Federated States of, hereinafter FSM), the Netherlands, Romania, the Russian Federation, Singapore, the United Kingdom, and the United States submitted such information through the UN Secretariat. Moreover, Tuvalu also submitted information on behalf of the members of the PIF (16 of which are parties to the LOSC, including

150 The Communique of the 50th PIF Leaders meeting is published at the PIF Secretariat webpage at https://www.forumsec.org/category/communiques/.

151 This wording is accordingly stated also in paragraph 14 of the PIF's Kainaiki II Declaration for Urgent Climate Action, available at https://www.forumsec.org/2020/11/11/kainaki/.

152 ILC Seventieth-First Session Report 2019 (n 93), Chapter III.C.

14 UN Member States).[153] For the purposes of analysis, these submissions can be divided into three groups; the views and comments by two of these are summarised here.[154]

a) The submission by Tuvalu (on behalf of the PIF Member States),[155] the Maldives (Indian Ocean) and Antigua and Barbuda (Caribbean region) all have important shared elements and are presented here first. These submissions specially reference their fundamental desire to promote the *stability* and *certainty* of maritime zones and entitlements, notwithstanding the effects of sea level rise.[156] They highlight the fact that uncertainty about maritime zones and entitlements would defeat those important purposes of the LOSC.

PIF members 'consider that there are good grounds to work towards ensuring that, once maritime zones are delineated in accordance with [the LOSC], those maritime zones should not be challenged or reduced as a result of sea-level rise and climate change'.[157] To this end, PIF members referred to their 'consistent State practice' for coping with sea level rise by establishing their maritime zones in advance of any future impacts from sea level rise. This practice is comprised of: (i) settling outstanding maritime limits and boundaries as soon as possible; and (ii) fixing geographical coordinates of baselines and outer limits of maritime zones. An aspect of that approach is illustrated by the PIF submission, which states:

> [R]ecently, State practice from among PIF Members has shifted from using nautical charts as the sole or primary method to show the location of the normal, strait [*sic*], or archipelagic baseline and the outer limits of

153 All these submissions are available at the ILC website at https://legal.un.org/ilc/guide/8_9.shtml.

154 A third 'group' – consisting only of two States: Croatia and Romania – includes those who have sent excerpts from their legislation but without adding comments regarding their State practice. Moreover, three States (Iraq, Qatar, and Syria) submitted their information through Asian-African Legal Consultative Organization.

155 With additional information separately submitted by the Federated States of Micronesia, which is a PIF Member (see n 153).

156 Compare the text of ILA Resolution 5/2018, stating that, 'on the grounds of legal certainty and stability', once the baselines and the outer limits of maritime zones of a coastal State or an archipelagic State are determined in accordance with the LOSC and notified to the UN Secretary-General, these should not be required to be recalculated should sea level rise affect the geographical reality of the coastline. See further in section above entitled 'ILA Committee on International Law and Sea Level Rise'.

157 Submission by Tuvalu (on behalf of the PIF Member States), 30 December 2019 (n 153), at p. 5.

> maritime zones to the use of geographic coordinates specifying points on the baseline and outer limits.[158]

FSM supplemented the PIF submission with a copy of the set of observations that it included with its deposit with the UN Secretary-General of its charts and lists of geographical coordinates (of 24 December 2019). In it, FSM pointed to the fact that, as a country made up of 607 islands, many of which are low-lying atolls, it is specially affected by sea level rise and climate change. It made clear its

> understanding that it is not obliged to keep under review the maritime zones reflected in the present official deposit of charts and lists of geographical coordinates of points, delineated in accordance with [the LOSC], and that the Federated States of Micronesia intends to maintain these maritime zones in line with that understanding, notwithstanding climate change-induced sea-level rise.[159]

From a different region (Indian Ocean), the Maldives in its submission pointed out that it shares a key feature with other small island developing States, as being 'on the front line of climate change and particularly vulnerable to the impacts of sea-level rise'.[160] Despite being engaged in coastal fortification efforts (including construction of an artificial island 2.1 metres above sea level), the Maldives consider that such physical efforts will not be feasible on the scale needed, and that international law is a much more viable tool for protecting maritime entitlements. The Maldives stated its position as follows:

> First, once a State has determined the extent of its maritime entitlements in accordance with [the LOSC] and deposited the appropriate charts and/or geographic coordinates with the UN Secretary-General …, these entitlements are fixed and will not be altered by any subsequent physical changes to a State's geography as a result of sea-level rise. …

158 *Ibid*., at p. 4.

159 Submission by the Federated States of Micronesia, FSMUN-058-2019, 27 December 2019 (n 153).

160 Submission by the Maldives, Doc 2019/UN/N/50, 31 December 2019 (n 153), Part A, stating also that it is composed of a chain of 21 natural coral atolls consisting of about 1,200 low-lying islands (approximately 80 percent of which are less than a metre above sea level), with a population of around 400,000 distributed widely and unevenly across the 186 permanently inhabited islands.

> Second, the Maldives considers that sea-level rise does not have any effect on maritime boundaries between two States when they have been fixed by a treaty.[161]

Antigua and Barbuda, a Caribbean State, explained in its submission that it shares the views of the PIF members and the Maldives on a number of issues. It is Antigua and Barbuda's 'legal opinion, which is backed by its state practice' that 'baselines established in accordance with [the LOSC] may remain fixed despite sea-level rise and, additionally, States have no obligation to revise maritime baselines because of sea-level rise'.[162]

Antigua and Barbuda took the view that this position 'abides with the principles of certainty and stability', while 'ambulatory baselines are inequitable and unfair, and violate State sovereignty and the permanent sovereignty of peoples and States over their natural wealth and resources'.[163] Moreover, Antigua and Barbuda considered that sea level rise has no effect on maritime boundaries set forth by treaty *or* by adjudication – and noted that 'no State seems to have so far voiced a contrary opinion'.[164]

b) The submissions by the Netherlands, Russian Federation, United Kingdom (UK) and United States (US) might, for analytical purposes, be regarded as a second group. In addition, Singapore, although it is a small island State, has invested large sums in expanding its land territory and its submission has certain similarities with those of this second group, as explained below; it is for this reason added here. This group is partially characterised by diversity of views presented, and also in part by shared views by some of the States concerned regarding some distinct aspects.

Three of those States make explicit reference to *ambulatory* baselines. The UK, while observing that it is not able to point to elements of its own State practice that directly respond to the issues [of climate change-induced sea level rise] under consideration, drew attention to two aspects of its legislation, one of which is the 'legislation establishing UK's Territorial Sea that provides

161 *Ibid.*, Part B: *The Maldives Views on Sea-level Rise and the Law of the Sea.*

162 Submission by Antigua and Barbuda (n 153), at p. 3.

163 *Ibid.*, at pp. 3–4. The reason for Antigua and Barbuda to consider ambulatory baselines as 'inequitable and unfair' is because of the disproportionate economic and geographic consequences of sea level rise for SIDS: despite their bearing next to no responsibility for sea level rise (in Antigua and Barbuda's case, e.g., 0.0015 percent of global carbon dioxide emissions in 2019), in addition to the loss of *land* due to sea level rise, ambulatory baselines would add further adverse consequences for them by entailing also a loss of parts of their current *maritime* areas (*ibid.*, at pp. 4–6).

164 *Ibid.*, at p. 8.

for ambulatory baselines in accordance with [the LOSC]'.[165] The United States, which stated that '[u]nder existing international law, 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'.[166] If, under the US practice, shifts in the low-water line along the coast other that *de minimis* ones (i.e., shifts that are greater than 500 metres) take place then the United States makes changes to its own baselines and outer limits.[167] The Netherlands provided comments and observations concerning its practice 'with regard to ambulatory baselines', a practice which 'occurs only in the European part of the Kingdom'.[168] Additionally, the Netherlands pointed to its practice regarding low-tide elevations that are within its territorial sea: when a change to these occurs (be it appearance or disappearance) at a distance exceeding 0.1 nautical miles, the normal baselines are adjusted accordingly, and published, together with the associated territorial sea limits, in a new chart edition.[169]

Moreover, the Netherlands, Singapore, Russian Federation, and United States all referred to the importance of *physical measures* for coastal defence and reinforcement. For Russia, 'the construction of dams is a promising adaptive measure in view of rising sea levels due to global warming'.[170] The Netherlands and Singapore moreover singled out their own examples of major national projects, such as *Maasvlakte 2* and *Sand Motor* (*'Zandmotor'* in Dutch) in the Netherlands, and various measures undertaken since 2011 by Singapore to raise platform levels for new critical infrastructure projects to at least 4 metres above the mean sea level, and planned investments of over S$100 billion over the next 50–100 years.

Finally, the UK, Russian Federation and United States all referred to their practice and views regarding *maritime boundaries*. The United States

> generally considers maritime boundaries established by treaty to be final … [and …] would not be affected by any subsequent changes to the baseline points that may have contributed to the construction of a maritime boundary, unless the treaty establishing the boundary provides otherwise.[171]

165 Submission by the United Kingdom, 10 January 2020 (n 153).
166 Submission by the United States, 14 February 2020 (n 153), at p. 1.
167 *Ibid*., at p. 2.
168 Submission by the Netherlands, 27 December 2019 (n 153), at p. 2.
169 *Ibid*., at p. 3.
170 Submission by Russia, 17 December 2020 (n 153), at p. 7.
171 Submission by the United States, 14 February 2020 (n 153), at p. 2.

The Russian Federation stated its view that

> [i]nternational treaties on maritime delimitation should be distinguished from State boundary treaties, which usually deal with boundaries on land and inland non-maritime waters … [where] natural changes in the terrain … are more expected and are usually covered by a remark in the text of the treaty. In this connection, it does not appear to be necessary to infer the applicability of any of the practices that exist in relation to State boundary treaties to the situation of sea-level rise and its impact on the outcome of maritime delimitation.[172]

The UK referred to the legislation establishing its EEZ, which is defined by fixed coordinates as agreed in bilateral maritime boundary delimitation treaties with neighbouring countries.[173]

It is evident from the above examples of State practice and positions voiced in the course of the 2019–2020 period that there has been an emerging convergence of State practice and positioning not only among the PIF members but also among a number of other island States in other regions that face the impacts of sea level rise (such as the Maldives, and Antigua and Barbuda). Other States, particularly more developed States, however, presented somewhat different positions. Nonetheless, all the States that have expressed their views to date seem to share a common understanding regarding the finality of maritime boundaries established by treaty notwithstanding subsequent geographical change due to climate change-induced sea level rise. The 2019 Sixth Committee debate appeared to evidence some congruence of views also on a number of other key issues.

Evidence from the 2019 Sixth Committee Debate

A number of key issues were highlighted during the 2019 Sixth Committee debate; four of these seem to be prominent, as follows:[174]

172 Submission by Russia, 17 December 2020 (n 153), at p. 5.

173 Submission by the United Kingdom, 10 January 2020 (n 153).

174 For the debate at the 74th session of the UNGA Sixth Committee, held from 28 October to 1 November 2019, see agenda item 79 (report by the ILC), available at https://www.un.org/en/ga/sixth/74/ilc.shtml. Regarding the 75th session of the UNGA and debate in the Sixth Committee in 2020, see (n 189) and the accompanying text below.

The Paramount Objectives of Legal Stability and Certainty under International Law and the LOSC

Many States referred to this fundamental consideration in connection with the effects of climate change and sea level rise, interpreting the need for 'stability' and 'certainty' in the context of climate change-induced sea level rise as calling for fixed baselines and stable maritime zones. This desire for stability and certainty seems to be among the most frequently emphasised points made by the States taking part in the debates.[175] In the analysis of the 2019 Sixth Committee debate, contained in the *First Issues Paper*, this issue was noted as being of utmost importance.[176] The ILA Sea Level Rise Committee has consistently put considerable emphasis on this issue. It is reflected in the 2018 Report of the Committee and the resulting ILA Resolution 2018/5,[177] to which some States and the ILC itself also referred.

The Unprecedented Nature of Challenges Posed by Climate Change and Sea Level Rise

Some States, such as China, referred to sea level rise as a new phenomenon that goes beyond the current scope of the law of the sea and requires examination in the light of emerging State practice. Other States (e.g., Colombia, Estonia) pointed out that this development is unprecedented and that some commonly accepted concepts in international law would need to be re-evaluated, while yet other States (e.g., Egypt, Republic of Korea) pointed to the need of progressive development of international law and approaches *de lege ferenda*.

The Particular Vulnerability to Sea Level Rise of Low-lying and Small Island Developing States

This important circumstance was referred to by a number of States, including developed States and the least developed and the most vulnerable States.[178] The explicit description of some States as being *specially affected* by the effects

175 See the statements in the 2019 Sixth Committee debate by Australia, Canada, Cuba, Israel, Jamaica, Norway (on behalf of Nordic countries), Micronesia, Papua New Guinea, Poland and Thailand (summaries in UN Doc A/C.6/74/SR.24–34; statements, as delivered, available at https://www.un.org/en/ga/sixth/74/ilc.shtml).

176 See *First Issues Paper* (n 87), especially paras 18, 23, 79, 82, 104(b), 121, 128, 138, 141(b), 220.

177 See further in section above entitled 'ILA Committee on International Law and Sea Level Rise'.

178 See the statements in the 2019 Sixth Committee debate by Argentine, Australia, Belize, Canada, Fiji, Honduras, Indonesia, Ireland, Italy, Jamaica, Liechtenstein, Micronesia, The Netherlands, New Zealand, Norway, Peru, Portugal, Sierra Leone, Singapore, Thailand and Tuvalu (UN Doc A/C.6/74/SR.24–34); and statements, as delivered (n 174).

of sea level rise has been raised in the United Nations discussions. New Zealand referred to the PIF members as being *some of* the States 'that are, and will be specially affected by sea-level rise'.[179] Tuvalu, on behalf of the PIF UN Members States, referred to the 'interests of those *particularly affected*, including small island developing States'. FSM also referred to States which are 'particularly affected' by sea level rise (in line with its submission to the UN, referring to its own position as being 'specially affected' by sea level rise). Papua New Guinea referred to these States as the 'affected' ones, 'relying heavily' on their maritime zones. In addition to PIF members, a number of States from other regions – the Indian Ocean (Maldives) and the Caribbean (e.g., Belize) – expressed similar views, or referred to their similar State practice.

Lack of Objection so Far to the State Practice Emerging among Low-lying, Small Island Developing States

It is worth noting that no specific objection by any State has been raised to these examples of State practice. In the 2019 Sixth Committee debate at the UNGA, there were no objections made to the practice of small island developing States, even though this practice was repeatedly referred to in their statements. Several States pointed out that an important consideration was the fact that small island developing States were among the least responsible for climate change, but were likely to suffer the most from its adverse effects.[180] Thus, considerations of equity and justice could explain why protests to this recent practice are not being made, as they might lack legitimacy. Some States, however, did refer to the lack of sufficiently widespread State practice in this field (as of 2019), or to the fact that it was not yet clearly established.[181]

179 Summary record of the 26th meeting of the Sixth Committee, 74th UNGA session (UN Doc A/C.6/74/SR.26, 18 November 2019) failed to capture one entire paragraph in the statement by New Zealand, including the above-cited text, which however is included in its official statement of 31 October 2019, at p. 4 (available at https://www.un.org/en/ga/sixth/74/pdfs/statements/ilc/new_zealand.pdf), and was delivered as such – as is confirmed by the UN audio-video recording of the session, available at https://media.un.org/en/asset/k1r/k1rq4vkdwo.

180 See the statements in the 2019 UNGA Sixth Committee debate by, for example, Belize, Cuba, Fiji, Nicaragua, Norway, Papua New Guinea, as well as the Holy See as observer (UN Doc A/C.6/74/SR.24–34; and statements, as delivered (n 174).

181 See the statements in the 2019 UNGA Sixth Committee debate by Cyprus, Greece, France and Poland (n 174).

The Consolidation of State Practice in 2021: Achieving Clarity and Specificity

Declarations Adopted in 2021 by PIF and the Alliance of Small Island States

PIF Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise

On 6 August 2021, at the virtual session of the 51st Pacific Island Forum, the PIF Leaders adopted the Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise.[182] This declaration has introduced further clarity and specificity concerning the views of those States on the interpretation of relevant international law and can in that respect be regarded as their most comprehensive and important collective statement so far. It therefore merits special attention and analysis.[183]

The Declaration affirms that the LOSC sets out 'the legal framework within which all activities in the oceans and seas must be carried out' 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' (Preamble, paras 1 and 2). Along with acknowledging these fundamental aspects of the LOSC at the outset, the Declaration is premised on three key components of the PIF members' understanding concerning climate change-related sea level rise context under the LOS Convention. Those three key components are:

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' (Preamble, para 6).

Second, the Declaration underlines that coastal States, and in particular small island and low-lying developing ones, 'have planned their development in reliance on the rights to their maritime zones guaranteed in the Convention' (Preamble, para 7).

182 The Declaration is published at the PIF webpage at https://www.forumsec.org/2021/08/11/declaration-on-preserving-maritime-zones-in-the-face-of-climate-change-related-sea-level-rise/; last accessed 9 May 2022.

183 For initial analyses see D Freestone and CH Schofield, 'Pacific Island countries declare permanent baselines, limits and maritime boundaries' (2021) 36(4) *IJMCL* 685–695; F Anggadi, 'Establishment, notification, and maintenance: The package of State practice at the heart of the Pacific Islands Forum Declaration on Preserving Maritime Zones' (2022) 53 *Ocean Development & International Law* 19–36.

Third, the Declaration recognises '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' (Preamble, para 3).[184]

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'.

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.

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'.

Declaration by the Alliance of Small Island States

On 22 September 2021, the Heads of State and Government of the Alliance of Small Island States (AOSIS)[185] adopted, for the first time since 2014, a Leaders'

184 In paragraph 4 of the Preamble, the Declaration *further recognises* 'the principles of equity, fairness and justice as key legal principles *also* underpinning the Convention'. Emphasis on 'also' is added here; 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'.

185 The Alliance of Small Island States (AOSIS), which was established in 1990 and has a membership of 39 – mostly small island developing States but also some low-lying coastal States – which are spread across several different maritime regions in the Atlantic, Indian and Pacific Oceans, as well as in the Caribbean region and the South China Sea. From the *Pacific Ocean*, AOSIS includes 14 of in total 18 PIF Members (i.e., all except Australia, New Zealand, French Polynesia and New Caledonia). Other Member States of AOSIS are in the *Atlantic Ocean*: three African States, namely, Cape Verde, Guinea-Bissau, and San

Declaration.[186] The relevant paragraph of that 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

> [*a*]*ffirm* 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'.[187]

Consolidation of the Approach concerning Treaty Interpretation by AOSIS and PIF Members

The adoption of these two declarations, by PIF in August and by AOSIS in September 2021, means that there are now at least 41 parties to the LOS Convention[188] 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.

The evolution in this common thinking can be clearly seen if the approach reflected in the 2021 declarations is compared with the statements made by those States in the 2020 debate in the Sixth Committee,[189] when the PIF and

---

Tomé and Principe; 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.

186 The Declaration is published on the AOSIS webpage at https://www.aosis.org/launch-of-the-alliance-of-small-island-states-leaders-declaration/; last accessed 9 May 2022.

187 *Ibid*., para 41. The AOSIS Declaration is divided into three operative parts: 'Climate Change' (paras 1–15), 'Sustainable Development' (paras 16–38), and 'Oceans' (paras 39–44).

188 This includes 39 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 comprise around 25 percent of the LOSC States Parties.

189 In the 2020 discussion on sea level rise and international law in the Sixth Committee (UNGA, 75th session), due to COVID-19 measures and the resultant postponement of the ILC's 2020 session to 2021, only 11 statements (of a total 25 given) elaborated on this

AOSIS members had still not entirely synchronised their positions. Now they all seem to have adopted an approach that was initially articulated by the Maldives and Belize, respectively, back in 2020. The Maldives then stated:

> [O]ur interpretation of [the LOSC] is that once a state deposits the appropriate charts and/or geographic coordinates with the Secretary-General, these entitlements are fixed and will not be altered by any subsequent physical change to a state's geography as a result of sea-level rise.[190]

This position was further elaborated by Belize on behalf of AOSIS. That 2020 statement on behalf of AOSIS made a distinction between the two ways in which this State practice can be relevant:

> First, the VCLT … states that subsequent practice applying the treaty, which evinces parties' agreement on treaty interpretation, shall be taken into account. This is particularly useful where the treaty is silent on an issue, as the Convention is with the requirement to update coordinates or charts.
>
> Second, recognizing that not all States are party to the Convention, State practice joined with the *opinio juris* is evidence of customary international law. While we recognize that there may not be sufficient State practice and *opinio juris* to make a conclusion that there is a general customary rule, we think that the trend is in that direction.
>
> Nevertheless, the absence of a general customary rule does not have an effect on the interpretation of the Convention, based on the subsequent practice of its States Parties.[191]

---

theme: by Tuvalu on behalf of the PIF 14 UN Member States; Fiji on behalf of 12 Pacific SIDS; Belize on behalf of the AOSIS 37 UN Member States; and by Maldives, Micronesia, New Zealand, Papua New Guinea, Tonga, Turkey, Solomon Islands and the United States. All those statements were given in the 13th plenary meeting of the Sixth Committee, on 5 November 2020 – and all further citations in this section from the statements, as delivered, refer to that meeting. For the UN summary record of the 13th meeting of the Sixth Committee in 2020, see UN Doc A/C.6/75/SR.13, 25 November 2020. Statements by the States, as delivered, are available at https://www.un.org/en/ga/sixth/75/ilc.shtml.

190 UNGA Sixth Committee: Statement by Maldives, 5 November 2020 (n 189).

191 UNGA Sixth Committee: Statement on behalf of the AOSIS, by Belize, 5 November 2020 (n 189).

This statement on behalf of AOSIS Member States in the Sixth Committee in 2020 may assist in explaining the wording of the obviously synchronised declarations adopted in August and September 2021 by PIF and AOSIS leaders. Prior to the adoption of these two declarations in 2021, the approach of those States was still difficult to characterise as being consolidated. For instance, Tuvalu's statement (on behalf of PIF UN Member States) in the Sixth Committee in 2020 still leaned largely in a different direction when attributing legal effects to PIF members State practice, so that 'over time, this practice may contribute to the emergence of a rule of customary international law regarding the preservation of baselines and of outer limits of maritime zones measured from the baselines'.[192]

While there may have been some differing positions articulated in the past, the positions of the AOSIS and PIF members have as of 2021 been fully coordinated by the two declarations. The debate held in the Sixth Committee in 2021 provided unambiguous evidence of that.

Evidence from the Debate in the Sixth Committee in 2021: Views of Other States

In late October and early November 2021, many States took part in the Sixth Committee debate on the topic of sea level rise and international law.[193] It is of interest to examine the degree of support the 2021 formal declarations by the PIF members and by AOSIS attracted, and whether there was any opposition from States not associated with those organisations or even regions. Given that the formal statements by the PIF and AOSIS members concerned primarily the interpretation of the LOSC, the views expressed by the parties to the LOSC are analysed first.

Several *Asian* UN Member States supported views similar to those contained in the declarations by the PIF and AOSIS. Notably, Malaysia stated that, in the

192 UNGA Sixth Committee: Statement on behalf of the PIF UN Member States, by Tuvalu, 5 November 2020 (n 189).

193 In addition to statements on behalf of AOSIS (by Antigua and Barbuda), PIF (by Fiji), and Pacific SIDS (by Samoa) Members – together comprising 39 UN Member States – and by the European Union (for its 27 Members States and 8 candidate countries and/or potential candidates) and on behalf of the five Nordic countries (by Iceland), a further 62 UN Member States and one observer (Holy See) delivered their individual statements in 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. Citations included in this section are from the statements as delivered in the Sixth Committee. The statements are available at https://www.un.org/en/ga/sixth/76/ilc.shtml, and video recording of the Sixth Committee sessions (18th to 23rd) where the statements were delivered is available at https://media.un.org/.

context of sea level rise, it 'shares the view with the majority of States that maritime baselines, limits and boundaries should be fixed in perpetuity'.[194] In this connection, Malaysia, however, cautioned that 'sea-level rise and reclamation activities pose possibly similar effects on a State's maritime space [and] should be carefully distinguished so to avoid that any State is taking advantage by enlarging its maritime space under the pretext of sea-level rise'.[195]

Indonesia stated that 'while maintaining existing maritime baselines and limits corresponds to the principles of certainty, security and predictability, it also reflects the interests of many States in connection with the effects of sea level rise'. Further, 'charts or lists of geographical coordinates of baselines that have been deposited with the Secretary General pursuant to Article 16(2) and 47(9) of [the LOSC] shall continue to be relevant'.[196]

Thailand's view was that 'in order to maintain peace, stability and friendly relations among States, their rights in relation to maritime zones and boundaries as guaranteed by [the LOSC] must be protected'. Moreover, Thailand considered that 'each region faces a unique set of sea-level rise consequences' and, since the geography of coastlines varies, 'the rationale for the use of ambulatory baselines or otherwise depends to a large extent on the general configuration of the coast'.[197]

The Philippines cautioned 'against inference in favour of ambulatory baselines, absent showing of state practice and *opinio juris* on the matter', and also cautioned 'against any interpretation that would undermine the delicate balance of the rights and obligations of all States Parties' under the LOSC.[198] Taking the same position as a number of African States, the Philippines considered that 'an analogous principle [to the principle of *uti possidetis juris*] could be considered in favour of permanent baselines'.[199]

Several other Asian States, although sometimes in less specific terms, generally supported the overall approach to the interpretation of the LOSC in the context of climate change-induced sea level rise. India stated that 'the drafters of [the LOSC] did not foresee the challenges posed by this phenomenon for the legal order created under [the LOSC] and emphasised the need for the integrity of the Convention, as well as for reducing the vulnerability of SIDS, as being

194 UNGA Sixth Committee: Statement by Malaysia, 21st meeting, 29 October 2021 (n 193).
195 *Ibid.*
196 UNGA Sixth Committee: Statement by Indonesia, 22nd meeting, 1 November 2021 (n 193).
197 UNGA Sixth Committee: Statement by Thailand, 22nd meeting, 1 November 2021 (n 193).
198 UNGA Sixth Committee: Statement by the Philippines, 23rd meeting, 2 November 2021 (n 193).
199 *Ibid.* For the views of some African States on this matter, see below.

a collective responsibility of the international community.[200] Japan stated its appreciation of the PIF Declaration as being in line with the understanding of the 'primacy of the [Convention] even in tackling climate change-related sea-level rise'.[201] Vietnam, similarly, emphasised that the 'approach to address the implications of sea-level rise should ensure stability and security in international relations, including the legal stability, security, certainty and predictability without involving the question of amending and/or supplementing the United Nations Convention on the Law of the Sea'.[202]

Among the *African* States, the most explicit on this matter was Egypt, which argued that 'baselines should be static rather than mobile' and emphasised the relevance of 'the principle of continuity of boundaries – *uti possidetis juris*'.[203] Algeria stated that 'international law supports static baselines' and that it remains in favour of practical legal solutions for the States affected by sea level rise.[204] Sierra Leone pointed to the PIF Declaration of August 2021 in the 'context of instruments evidencing the emergence of State practice'.[205]

Several *European* States, in addition to aligning themselves to a general statement on behalf of the European Union (EU), provided more specific individual statements. In particular, Italy stressed 'the importance of stability, security and legal certainty with regard to baselines and maritime delimitation' and underlined that '*any principle of permanency* of baselines, which have been established and deposited in accordance with international law, must refer solely to sea-level rise induced by climate change and not to other circumstances, including land accretion'.[206]

Estonia considered that it is possible to interpret the LOSC 'in the way that corresponds to the need for stability in inter-state relations'. In this connection, it supported 'the idea to stop updating notifications, in accordance with the [LOSC], regarding the baselines and outer limits of maritime zones measured

200 UNGA Sixth Committee: Statement by India, 22nd meeting, 1 November 2021 (n 193).

201 UNGA Sixth Committee: Statement of Japan, 21st meeting, 29 October 2021 (n 193).

202 UNGA Sixth Committee: Statement by Viet Nam, 21st meeting, 29 October 2021 (n 193).

203 UNGA Sixth Committee: Statement by Egypt, 21st meeting, 29 October 2021 (translation from Arabic original) (n 193).

204 UNGA Sixth Committee: Statement by Algeria, 22nd meeting, 1 November 2021(translation from Arabic original) (n 193).

205 UNGA Sixth Committee: Statement by Sierra Leone, 20th meeting, 29 October 2021 (n 193). Several other African States, including Cameroon, Cote d'Ivoire, Senegal and South Africa, took part in the debate yet were less specific on these issues.

206 UNGA Sixth Committee: Statement by Italy, 20th meeting, 29 October 2021 (emphasis as in the original) (n 193).

from the baselines after the negative effects of sea-level rise occur, in order to preserve the States' entitlements'.[207]

Cyprus stated that, in line with the LOSC and international jurisprudence, 'baselines must be permanent and not ambulatory' and that, in the light of ongoing climate change-related sea level rise, 'affected coastal States should be entitled to designate permanent baselines pursuant to Article 16 of [the LOSC], which would withstand any subsequent regression of the low-water line'.[208] In Cyprus' view, the obligation under LOSC Article 16 is 'meant to establish legal security' and 'no indication is provided for that these charts are to be periodically revised'.[209]

Greece likewise stated that the LOS Convention imposes no obligation to review or recalculate baselines or the outer limits of maritime zones and warned that generalised interpretations that could lead to unpredictable and uncertain situations should be avoided.[210]

More general statements, which nonetheless indicate an overall approach to the matter, were given by some other EU States. France stated that 'the principles of stability, security, certainty and of predictability, which are the key principles [of the LOSC] are also relevant for the issue of sea-level rise'.[211] Spain considered that, while guaranteeing the integrity of the LOS Convention, it may be possible to 'identify special formulas that take into consideration the extraordinary circumstances that several States, especially the Small Island Developing States, are suffering as a result of the process of sea level rise caused by climate change'.[212] Germany stated its readiness to 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.[213]

207 UNGA Sixth Committee: Statement by Estonia, 21st meeting, 29 October 2021 (n 193).
208 UNGA Sixth Committee: Statement by Cyprus, 22nd meeting, 1 November 2021 (n 193).
209 *Ibid.*
210 UNGA Sixth Committee: Statement by Greece, 22nd meeting, 1 November 2021 (n 193).
211 UNGA Sixth Committee: Statement by France, 20th meeting, 29 October 2021 (translation from French original) (n 193).
212 UNGA Sixth Committee: Statement by Spain, 22nd meeting, 1 November 2021 (translation from Spanish original) (n 193).
213 UNGA Sixth Committee: Statement by Germany, 21st meeting, 29 October 2021 (emphasis added) (n 193).

This statement by Germany in fact summarised the general point of view expressed by many other States.

Two among the 27 EU States referred to the baseline systems under their respective national legislations as being 'ambulatory': Ireland and Romania.[214] Romania clarified that

> our legislation could be interpreted *as favouring an ambulatory system of baselines*, though a connection with the specific case of sea level rise is difficult to make, given the particular character of the Black Sea as a semi-enclosed sea and less exposed to this phenomenon.[215]

In the light of Ireland's legislation, 'the normal baseline is ambulatory in that it may ambulate landward or seaward depending on a variety of factors, including coastal erosion and land reclamation'.[216]

Among *Latin American* States, Argentina and Chile in particular devoted special attention to the issue of interpretation of the LOS Convention in the context of climate change-related sea level rise. In Chile's view, in 'the application of the principles of stability, security, certainty and predictability … "legal stability" refers to the need to maintain baselines and outer boundaries of maritime zones', while, contrary to this, 'special concern would be generated by the establishment of the concept of moving baselines'.[217] Argentina stated that

> in terms of legal certainty it seems appropriate to consider that once the baselines and the outer limits of a coastal State or an archipelagic State have been properly determined in accordance with the requirements of [the LOSC], which also reflects customary international law, these

214 For the practice of the Netherlands in that respect, see section above entitled 'Examples of State Practice in Submissions by UN Member States (2019–2020)'.

215 UNGA Sixth Committee: Statement by Romania, 21st meeting, 29 October 2021 (emphasis in the original) (n 193).

216 UNGA Sixth Committee: Statement by Ireland, 21st meeting, 29 October 2021 (n 193).

217 UNGA Sixth Committee: Statement by Chile, 21st meeting, 29 October 2021(translation from Spanish original) (n 193). Chile explicitly supported and agreed with the proposal made by the ILA Committee on International Law and Sea Level Rise, as contained in ILA Resolution 5/2018, according to which 'on the grounds of legal certainty and stability, provided that the baselines and the outer limits of maritime zones of a coastal or an archipelagic State have been properly determined in accordance with the 1982 Law of the Sea Convention, these baselines and limits should not be required to be recalculated should sea level change affect the geographical reality of the coastline'.

> baselines and limits should not be required to be readjusted should sea level change affect the geographical reality of the coastline.[218]

For Brazil, 'legal certainty over this topic [of climate change-related sea level rise] can be key in preventing disputes between Member States' and the solutions 'should be in accordance with [the LOSC]'.[219] Similarly, Costa Rica considered that the general legal framework established by the LOSC must be maintained, along with the principles of stability, security, certainty and predictability.[220]

As for the views of some other major States, Russia stated that, in the context of climate change-related sea level rise, 'the key issue is the question of baselines, on which at present there is a lack of general customary law … [and that] … it is important to find a practical solution that would, on the one hand, comply with the Convention while, on the other hand, respond to the concerns of the States affected by sea level rise'.[221]

China took the view that the issue of sea level rise had not been considered during the negotiation of the LOS Convention, but also considered that 'no uniform State practice has formed as yet on the issue of sea level rise' and has thus cautioned 'against over-emphasising regional practices'.[222]

Several other UN Member States, not parties to the LOS Convention, took part in the debate in the Sixth Committee.[223] Iran stated that, although

---

218 UNGA Sixth Committee: Statement by Argentina, 22nd meeting, 1 November 2021(translation from Spanish original) (n 193). In its statement, Argentina added that 'along the same lines, in its study on this matter the International Law Association (ILA) has recommended an interpretation of [the LOSC] that favours the preservation of rights over maritime spaces'.

219 UNGA Sixth Committee: Statement by Brazil, 21st meeting, 29 October 2021 (n 193).

220 UNGA Sixth Committee: Statement by Costa Rica, 22nd meeting, 1 November 2021 (n 193).

221 UNGA Sixth Committee: Statement by Russia, 22nd meeting, 1 November 2021 (translation from Russian original) (n 193).

222 UNGA Sixth Committee: Statement by China, 20th meeting, 29 October 2021 (recorded on the basis of simultaneous translation from Chinese, as delivered) (n 193). In the initial debate on international law and sea level rise, which was held in the Sixth Committee in 2018, China was the first State to argue for the need to 'reconcile those [sea level rise] changing circumstances with the provisions and spirit of the existing law of the sea regime, including [the LOSC] … in order to *maintain its stability and predictability*' (emphasis added); see UN Doc A/C.6/73/SR.20, 18 November 2018 (summary record of the debate held on 22 October 2018). Later on, Canada also argued that 'legal certainty and stability regarding maritime zones and entitlements [are] essential for international peace and security and orderly relations among States'. See UN Doc A/C.6/73/SR.22, 3 December 2018 (summary record of the debate held on 24 October 2018).

223 Colombia, El Salvador, Iran, Israel, Liechtenstein, Turkey and the United States.

'sea-level rise might lead to changes in baselines and, consequently, outer limits of maritime zones', in its view 'any change in [these] lines shall be based on principles of equity and fairness'.[224]

Israel cautioned against too hastily arriving at conclusions about the potential emergence of rules of customary international law, since it 'believes that given the limited state practice in this field … it is doubtful whether any conclusion regarding evidence of existing binding rules of international law on the subject of sea level rise could be drawn at this juncture'.[225]

The United States noted its support for 'efforts by states to delineate and publish their baselines and the limits of their maritime zones in accordance with international law as reflected in the Law of the Sea Convention' since 'such a practice provides a useful context and clarifies the maritime claims of states, including in relation to future sea-level rise'. However, in its view,

> 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.[226]

No State questioned the finality of agreed and/or adjudicated maritime boundaries notwithstanding the possible changes resulting from climate change-related sea level rise. Indeed, statements by many States were explicit on the need to consider the finality of land *and* all maritime boundaries alike, including without distinguishing between these under Article 62(2) of the VCLT.

Conclusion and the Way Forward

This article has charted the quite remarkable evolution in the thinking of international law scholars over the past three decades, and, more recently, of States themselves, in relation to the legal consequences of the impacts of sea level rise on the limits of coastal States' maritime zones and on maritime boundaries. 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. Thirty years ago, the

224 UNGA Sixth Committee: Statement by Iran, 20th meeting, 29 October 2021 (n 193).
225 UNGA Sixth Committee: Statement by Israel, 20th meeting, 29 October 2021 (n 193).
226 UNGA Sixth Committee: Statement of the United States, 20th meeting, 29 October 2021 (n 193).

risk of sea level rise, although seen as a real one, seemed a rather distant risk. Over the past decade, however, it has become fully understood as an existential threat to the survival of many island States, with the IPCC predicting that some low-lying atolls and islands may become uninhabitable as early as the middle of the century.[227] This change in public understanding has been accompanied by a general recognition that the countries which are likely to suffer the most from the impacts of human GHG emissions 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.

We have identified three distinct phases of development of State practice in relation to the issue of maintenance of the limits of maritime zones and maritime boundaries in the context of climate change-induced sea level rise.[228] First, an initial phase from about 2010 to 2018, during which the initial evidence of emerging State practice was manifested; second, a watershed phase in the course of 2019 and 2020, during which some main trends became obvious; and third, a phase of consolidation, or even crystallisation, which had started during 2021. During this third phase, the declared practice of an increasing number of States has achieved its current levels of clarity and specificity, and has also been supported by the public positions of many other States. While this third phase began in 2021, it is certainly not yet complete. We expect that the next few years will provide more conclusive evidence as to the legal nature of this State practice: whether it may be seen as having created 'subsequent practice' for the purposes of treaty interpretation or may lead to the creation of a new rule of customary law, or perhaps both.

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,[229] 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 (at least from a law of the sea perspective) to the impact of sea level rise, itself an unprecedented challenge for international law.

For these reasons, the role of international law scholarship seems likely to remain of considerable importance in the coming years and to continue to

227 For recent IPCC reports, see nn 11 and 12.

228 See the section above entitled 'The Trend in the Development of State Practice'.

229 As detailed in section above entitled 'International Law Scholarship: Collective Efforts'.

have an influence on the further evolution of State practice and of interacting fruitfully with it. A second issues paper by ILC Study Group Co-Chairs, addressing legal issues of statehood and the protection of persons affected by sea level rise, was made public at the end of April 2022.[230] Almost simultaneously, the ILA Sea Level Rise Committee completed its latest interim report addressing both the law of the sea issues, and the questions of statehood and the rights of the affected populations.[231] The final report of the ILA Committee on these issues will be available in 2024.[232] With almost the same time horizon, the ILC Study Group will be completing its work. The Study Group is not expected to return to the law of the sea component of its work until the ILC 74th session in 2023,[233] as it plans to focus on the issues of statehood and the protection of persons affected by sea level rise during 2022. The Study Group plans to finalise a substantive report on the topic of sea level rise in relation to international law by 2025.[234]

The work to date of both the ILA and the ILC has clearly contributed to the ventilation of these issues by States, both within regional fora and in the UN. It seems likely that this process will continue in the coming years – consolidating still further State's views on the law of the sea issues, but also expanding to a wider spread of legal questions raised by the threats facing many coastal States, and the low-lying developing island States in particular. The forthcoming reports from the ILA Sea Level Rise Committee in 2024 and then the ILC Study Group in 2025 can be expected to be of continuing relevance to the crystallisation of international law rules based on State practice.

---

230 *Sea-level Rise in Relation to International Law: Second Issues Paper by Patrícia Galvão Teles and Juan José Ruda Santolaria, Co-Chairs of the Study Group on Sea-level Rise in Relation to International Law*, UN Doc A/CN.4/752, 19 April 2022; available at https://legal.un.org/ilc/guide/8_9.shtml; available online since 28 April 2022.

231 ILA, *Interim Report of the Committee on International Law and Sea Level Rise* (Draft, April 2022), available at https://www.ila-hq.org/index.php/committees. The report was presented at the 80th ILA Biennial Conference, in Lisbon, Portugal, 19–24 June 2022.

232 See *ibid*., at p. 2; see also ILA, *Minutes of the Meeting of the Executive Council* (London, 7 May 2022).

233 See *Oral report of the Study Group*, UN Doc A/CN.4/SR. 3550 (2021), n 121.

234 ILC Seventieth-Second 2021 Session Report (n 87), para 296: 'in the first two years of the following [ILC] quinquennium'.