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Ambulatory Versus Fixed Baselines Under the Law of the Sea In the Context of Rising Sea Levels

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AMBULATORY VERSUS FIXED BASELINES UNDER THE LAW OF THE SEA IN THE CONTEXT OF RISING SEA LEVELS

SEAN MURPHY*

I. INTRODUCTION	721
II. THE CONVENTIONAL UNDERSTANDING THAT BASELINES ARE AMBULATORY	722
III. THE PROBLEM WITH AMBULATORY BASELINES IN AN AGE OF SEA-LEVEL RISE	725
IV. POSSIBLE SOLUTIONS.....	726
V. CONCLUSION	731

JULY 27, 2022, 12:50 PM ET

It is a great pleasure to be here, especially with such an esteemed group of participants. My thanks to all the co-sponsors for the invitation to participate in this event; I am very happy to contribute to the conversation.

I. INTRODUCTION

When “diving” into consideration of sea-level rise issues, one finds various “pools” of international law that are perfectly suited for answering some of the issues we are addressing. For example, Professor Galvão Teles spoke about the protection of persons in the event of sea-level rise.¹ There are, of course, various aspects of human rights law and international law relating to disasters that can be employed to resolve some of the concerns in that regard. It is just a question of applying that law to a new, factual phenomenon.

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1. See Patrícia Galvão Teles, *The “Human Face” of Sea-Level Rise: Protection of Persons Affected*, 38 AM. U. INT’L L. REV. 693 (2023).

Having said that, there are some areas where existing international law is not adequate, or is not obviously adequate, to resolve the issues that we are confronting. Certainly, the issue that Professor Juan José Ruda Santolaria was addressing,² specifically the potential loss of statehood,³ presents a unique scenario where existing international law is unclear. Yet it is also difficult to know how best to propose new international law on that issue, given that there are so many different factual scenarios that might play out in the years to come.

So, in addressing whether contemporary international law is adequate or not for addressing sea-level rise, much depends on the issue at hand. With that broad point in mind, I will address the issue of baselines (and consequential maritime entitlements) in relation to sea-level rise, as was foreshadowed by Judge Maria Teresa Infante.⁴ She set me up as though I was going to solve this problem, which of course I will not be able to do! That said, I will echo some of her very thoughtful comments and try to move the conversation along a bit. This discussion, of course, relates as well to that of yesterday's session.⁵

II. THE CONVENTIONAL UNDERSTANDING THAT BASELINES ARE AMBULATORY

Until recently, the conventional understanding has been that the

2. See Juan José Ruda Santolaria, *Algunas reflexiones sobre la condición de estado en relación con la elevación del nivel del mar*, 38 AM. U. INT'L L. REV. 701 (2023).

3. See generally Seokwoo Lee & Lowell Bautista, *Climate Change and Sea Level Rise: Nature of the State and of State Extinction*, in FRONTIERS IN INTERNATIONAL ENVIRONMENTAL LAW: OCEANS AND CLIMATE CHALLENGES 194–214 (Richard Barnes & Ronán Long eds., 2021).

4. See María Teresa Infante, *Legal Cooperation Issues on Sea-Level Rise*, 38 AM. U. INT'L L. REV. 711 (2023).

5. See Bogdan Aurescu & Nilüfer Oral, *Introduction to the International Law Commission's Work on Sea-Level Rise in Relation to International Law*, 38 AM. U. INT'L L. REV. 655 (2023); Carlos Fuller, *Climate Change and Sea-Level Rise: Assessing Their Impacts on Belize*, 38 AM. U. INT'L L. REV. 663 (2023); Rosemarie Cadogan, *Sea Level Rise and Maritime Delimitation in the Eastern Caribbean: A Comparative Approach*, 38 AM. U. INT'L L. REV. 671 (2023); Wagner Menezes, *Latin America's Contribution to the Normative Discussion Around Rising Sea Levels: Incorporating the Principles of Uti Possidetis and Solidarity*, 38 AM. U. INT'L L. REV. 685 (2023).

baselines used for determining maritime zones are ambulatory—meaning that the baselines will move depending on the location and physical features along a coast.⁶ Indeed, having analyzed carefully the text, context, and negotiating history of the 1982 U.N. Convention on the Law of the Sea and associated State practice and scholarship, the International Law Association (ILA)’s Committee on Baselines was quite clear in 2012 that the normal baseline moves with the low water line (and therefore is not fixed), concluding “that the 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*.”⁷ Further, the Committee’s 2016 analysis of straight baselines assumed fidelity by States to rules that require using appropriate points along a coast, whether they be found at coastal indentations, fringing islands, low-tide elevations, mouths of rivers, or mouths of bays.⁸

Why has the conventional understanding been that baselines are ambulatory? At a general level, that understanding is connected to the idea of “the land dominates the sea,” meaning that rights over maritime spaces are, in some sense, dependent upon rights to the adjacent land, as Judge Infante also pointed out.⁹ Thus, baselines must be associated with land territory of a particular coastal State and, from that land territory, the State can build outward the various maritime zones that provide it with important rights.

At a more granular level, Article 5 of the U.N. Convention on the Law of the Sea expressly refers to the “normal” baseline being “the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.”¹⁰ Thus, Article 5 is

6. See generally KATE PURCELL, *GEOGRAPHICAL CHANGE AND THE LAW OF THE SEA* 44–48 (2019) (introducing and analyzing the theory of ambulatory baselines).

7. Int’l Law Ass’n Comm. on Baselines under the Int’l Law of the Sea, SOPHIA CONFERENCE, REPORT 31 (2012), <https://ilareporter.org.au/wp-content/uploads/2015/07/Source-1-Baselines-Final-Report-Sofia-2012.pdf> (emphasis added).

8. Int’l Law Ass’n Comm. on Baselines under the Int’l Law of the Sea, JOHANNESBURG CONFERENCE, FINAL REPORT (2016).

9. See Infante, *supra* note 4.

10. United Nations Convention on the Law of the Sea art. 5, Dec. 10, 1982, 1833

signaling that, as a general proposition, the baseline is found where the water meets the land and not at some other location. Article 7 allows for the drawing of straight baselines using appropriate points along the coast, provided that baselines do not depart “to any appreciable extent from the general direction of the coast” and that the sea areas lying within those lines are “sufficiently closely linked to the land domain to be subject to the regime of internal waters.”¹¹ The same relationship of baselines to land is expressed in Article 6 on reefs,¹² Article 9 on the mouths of rivers,¹³ Article 10 on the mouths of bays,¹⁴ Article 13 on low tide elevations,¹⁵ and Article 47 on archipelagic baselines.¹⁶ All of these provisions support an understanding that the baselines are to be established, and are to exist, in close connection with the physical coast.

That understanding is reinforced by a couple of provisions in the Convention that *do* allow for the fixing of a baseline or of a maritime zone notwithstanding the passage of time and associated changes in the coastline. For example, Article 7, paragraph 2 says that where a coastline is highly unstable because of the presence of a delta and other natural conditions, a straight baseline may be established and remain effective “notwithstanding subsequent regression of the low water

U.N.T.S. 397 [hereinafter UNCLOS] (“[T]he 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.”).

11. *Id.* art. 7(3).

12. *Id.* art. 6 (“In the case of islands situated on atolls or of islands having fringing reefs, the baseline for measuring the breadth of the territorial sea is the seaward low-water line of the reef, as shown by the appropriate symbol on charts officially recognized by the coastal State.”).

13. *Id.* art. 9 (“If a river flows directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-water line of its banks.”).

14. *Id.* art. 10 (explaining, for example, that the measurement of a bay partially depends upon “the low-water mark around the shore of the indentation and a line joining the low-water mark of its natural entrance points”).

15. *Id.* art. 13 (explaining, for example, that “[a] low-tide elevation is a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide”).

16. *Id.* art. 47 (explaining, for example, that “[a]n archipelagic State may draw straight archipelagic baselines joining the outermost points of the outermost islands and drying reefs of the archipelago”).

line.”¹⁷ Article 76, paragraph 8 of the Convention provides that, if a State establishes the limits of its continental shelf beyond 200 nautical miles based on a recommendation by the Commission on the Outer Limits of the Continental Shelf, then those limits “shall be final and binding.”¹⁸ The concept of “final and binding” is suggestive of permanency, even if there is a regression of the coastline at a later time that otherwise might have affected the Commission’s recommendation. Yet such allowances for permanency in the face of coastal regression do not exist for other provisions relating to the location of baselines.

III. THE PROBLEM WITH AMBULATORY BASELINES IN AN AGE OF SEA-LEVEL RISE

Even so, most observers today accept that a legal framework by which baselines and maritime zones are automatically ambulatory is problematic. Global climate change is causing a rise in sea levels, and that rise will affect the coastlines of many States, especially those of low-lying and small island States. Indeed, the ILA itself felt that, even if ambulatory baselines were the *lex lata*, that law was inequitable, prompting it to establish a Committee on International Law and Sea-Level Rise which, since 2012, has been looking afresh at the issue of baselines in the context of sea-level rise.¹⁹

Of course, if a State does not disappear entirely, one might argue that the State will still have the same size of maritime zones (e.g., a 200 nautical mile exclusive economic zone drawn from either the old or new baselines); they will just be in a different location. However, that is not always true; sometimes, by the land contracting inward, the associated maritime zones will reduce in size. Further, even if the

17. *Id.* art. 7(2) (“Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal State in accordance with this Convention.”).

18. *Id.* art. 76(8).

19. See *International Law and Sea Level Rise*, INT’L LAW ASS’N, https://www.ila-hq.org/en_GB/committees/international-law-and-sea-level-rise (last visited Oct. 26, 2022) (providing information on the work of the International Law and Sea Level Rise committee).

maritime zone stays the same size, the coastal State is losing land territory, which it believes should be compensated for by securing larger maritime spaces. And all of this is in the context of States being exposed to sea-level rise due to greenhouse gas emissions for which they are, dominantly, not responsible. So, the inequity of the conventional understanding has caught the attention of States, international organizations, and others, leading to calls for new solutions of one kind or another.

IV. POSSIBLE SOLUTIONS

So, a key question now is what solutions might be available. In this regard, there are two matters that warrant consideration: first, as a substantive matter, what outcome is optimal; and second, as a matter of process, how might the law codify that outcome?

As a substantive matter, we might consider three possibilities: (1) fixing existing baselines and maritime zones at their current locations; (2) keeping baselines ambulatory but fixing the outer limits of existing maritime zones at their current locations; or (3) keeping baselines and maritime zones ambulatory but according preferential rights of exploitation to the coastal State in areas where it previously enjoyed sovereignty or sovereign rights.

The first possibility is gaining the greatest attention at present. Several small island States have proceeded to declare their intention to fix their baselines and maritime zones, in some instances expressed collectively through declarations issued by the Pacific Islands Forum²⁰ and the Alliance of Small Island States.²¹ Other States are beginning to react in ways that seem supportive of that approach. For example,

20. See Pac. Island F., *Declaration on Preserving Maritime Zones in the Face of Climate Change-related Sea-Level Rise* (Aug. 6, 2021), <https://www.forumsec.org/2021/08/11/declaration-on-preserving-maritime-zones-in-the-face-of-climate-change-related-sea-level-rise> (last visited Oct. 26, 2022). The Forum consists of 18 Member States. See generally PAC. ISLANDS F., <https://www.forumsec.org> (last visited Oct. 26, 2022).

21. See All. of Small Island States, *Leaders' Declaration* (Sept. 22, 2021), <https://www.aosis.org/launch-of-the-alliance-of-small-island-states-leaders-declaration> (last visited Oct. 26, 2022). The AOSIS consists of 39 Member States. See generally ALL. OF SMALL ISLAND STATES, <https://www.aosis.org> (last visited Oct. 26, 2022).

Germany has stated that “through such contemporary reading and interpretation” it finds that the Convention “allows for freezing of once duly established, published and deposited baselines and outer limits of maritime zones in accordance with the Convention.”²² The United States has announced that it “will work with other countries toward the goal of lawfully establishing and maintaining baselines and maritime zone limits and will not challenge such baselines and maritime zone limits that are not subsequently updated despite sea-level rise caused by climate change.”²³

One downside to this possibility concerns the consequences that it would entail near the coast, where there would potentially be large areas of internal waters, no right of innocent passage, and a fictitious “baseline” that provides little guidance to mariners as to the actual location of the physical coast. Thus, if a coast recedes by, say, 10 nautical miles or even 20 nautical miles, that means you would have a baseline potentially 20 nautical miles from the coast, and everything between that baseline and the coast would be internal waters,²⁴ through which there would be no right of innocent passage, as would exist in the territorial sea.²⁵ In other words, by this possibility, we would rather significantly be changing the rules of the game, allowing for a potentially very wide swath of internal waters, outside of which would be found the coastal State’s territorial sea, the exclusive economic zone (EEZ), and so on.

The second possibility is for the baseline to be ambulatory, but to fix in place the maritime zones. That way, the baseline would remain along the physical coast, but the territorial sea would extend out to its prior outer limit (and thus would expand), and after that, the EEZ would continue out to its prior outer limit, as would other maritime zones. This possibility makes some sense in that it essentially converts

22. Written Statement by the Federal Republic of Germany on the 71st and 72nd ILC Report, 30 June 2022, https://legal.un.org/ilc/sessions/74/pdfs/english/slr_germany.pdf (last visited Oct. 26, 2022).

23. Statement by the United States, Sixth Committee, 27th meeting (Oct. 28, 2022), https://www.un.org/en/ga/sixth/77/pdfs/statements/ilc/27mtg_us_2.pdf (last visited Oct. 26, 2022).

24. See UNCLOS, *supra* note 10, art. 8.

25. See *id.* arts. 17–32 (explaining the rules relating to the right of innocent passage through the territorial sea).

the coastal State's territory (which is now underwater) into additional territorial waters, over which the State continues to exercise sovereignty. At the end of the day, the baseline would stay where it conventionally has been located, innocent passage rights would still exist adjacent to the coast, and yet the coastal State would keep its pre-existing maritime zones.

The third possibility is to keep the baseline and the maritime zones ambulatory, but to accord preferential rights of exploitation to coastal states wherever they previously enjoyed sovereignty or sovereign rights. This is a more complicated possibility, but the concept of preferential rights or treatment (such as with respect to fishing) is embedded in the Convention in various ways,²⁶ such that an approach of this type is not unknown.

Which of these possibilities is optimal and by what process do we find our way to it? My own view is that the second possibility is the most optimal, as it seems the least disruptive to existing rights and obligations under the Convention. But, in this instance, process may be dictating the preferred outcome. Because it is so difficult to *amend* the Convention, the current approach by States seems to be to address the problem of rising sea levels by *interpreting* the Convention through State practice. And, of the three possibilities indicated above, the easiest way of "interpreting" the Convention arises with respect to the first possibility. As attractive as the second or third possibility may be, it is hard to see how one might gently interpret the Convention to bring them about.

By contrast, the first possibility is viewed (by a growing number of States and others) as available under the Convention, based on the idea that a coastal State may issue charts or lists of geographical coordinates with respect to its baselines (and maritime zones), and then simply not update them when the coastline regresses. This interpretation stresses that Article 4 on the normal baseline refers to "the low water line along the coast *as marked on large-scale charts officially recognized by the coastal State,*" while Article 16 says that straight baselines "shall be *shown on charts* of a scale" or may be submitted on "*a list of geographical coordinates of points.*" By issuing

26. See, e.g., *id.* arts. 69(5), 70(5), 149, 203.

charts or lists as called for by the Convention and then simply not updating them, the baseline and maritime zones are effectively fixed in time. The ILA has adopted this approach as *lex ferenda*²⁷ and the International Law Commission Study Group on Sea-Level Rise in Relation to International Law appears headed in this direction as well.²⁸

There are, however, some difficulties with this interpretation. As a general matter, baselines are not set by coastal States; they are set by the rules of the Convention. And Article 16 says that what is to be shown on the charts or lists of coordinates are not just straight baselines of the coastal State's choosing, but straight baselines "determined in accordance with articles 7, 9, and 10," all of which require using appropriate points along the physical coast. Thus, once the charts or lists no longer reflect the rules set forth in those articles, the charts or lists would appear not to be compliant with Article 16. Indeed, as a general proposition, the location of baselines and maritime zones has never been seen as the exclusive prerogative of the coastal State. As the International Court of Justice said in the *Fisheries Case*: "The delimitation of the sea areas has always an international aspect; it cannot be dependent merely upon the will of the coastal State as expressed in its municipal law."²⁹

Moreover, it is not clear why this interpretation would be limited to regression of a coastline *due to sea level rise*; it would seem available

27. Int'l Law Ass'n, Sydney Conference, Resolution 5/2018 (2018), https://www.ila-hq.org/en_GB/documents/conference-resolution-sydney-2018-english-2 (endorsing "the proposal of the Committee [on International Law and Sea Level Rise] 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 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").

28. Bogdan Aurescu & Nilüfer Oral (Co-Chairs of the Int'l Study Group on Sea-Level Rise in Relation to International Law), Int'l Law Comm'n, *Sea-Level Rise in Relation to International Law: First Issues Paper*, UN Doc. A/CN.4/740, at 41, para. 104(f) (Feb. 28, 2020) ("[N]othing prevents Member States from depositing notifications, in accordance with the [UN Convention on the Law of the Sea], regarding the 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.").

29. *Fisheries Case* (U.K. v. Nor.), 1951 I.C.J. 116, 132.

with respect to any regression of a coast, such as due to erosion or storm events. And if it were to be limited to regression due to sea-level rise, this interpretation may lead to disputes among States as to whether regression in a particular instance is attributable to that cause. Finally, having opened the door to an interpretation that does not fit squarely within the text or past practice under the Convention, one wonders what other doors might be unlocked for States to being “interpreting” the Convention in whatever way suits their interests.

Having said that, if States ultimately decide to interpret the Convention in this way (as they appear to be doing), then— notwithstanding any substantive difficulties it presents—it may be possible to view the Convention as allowing for the fixing of baselines and maritime zones. As a formal matter, the Vienna Convention on the Law of Treaties (VCLT), in Article 31, paragraph 3(b) accepts as an authentic means of interpretation “any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation.”³⁰ Technically, this requires an assessment of the practice of *all* the Parties to the Convention, but that practice could take the form of both action and inaction if the latter can be deemed as acceptance.³¹ Further, if such a consensus emerges as to the meaning of the Convention, it may over time have the effect of crystalizing customary international law along the same lines.³²

There may be additional ways of solidifying such an interpretation

30. See Vienna Convention on the Law of Treaties art. 31(3)(b), 1155 U.N.T.S. 331 (1969) [hereinafter VCLT] (providing that the interpretation of a treaty shall take into account “any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation”).

31. *Draft Conclusions on Subsequent Agreements and Subsequent Practice in Relation to the Interpretation of Treaties*, in Report of the International Law Commission on the Work of Its Seventieth Session, U.N. GAOR, 73rd Sess., Supp. No. 10, at 15, Draft Conclusion 10, UN Doc. A/73/10 (Sept. 3, 2018) (such an agreement “requires a common understanding regarding the interpretation of a treaty which the parties are aware of and accept” but “[s]ilence on the part of one or more parties may constitute acceptance of the subsequent practice when the circumstances call for some reaction”).

32. *Draft Conclusions on Identification of Customary International Law*, in *id.* at 121, Draft Conclusion 11(1)(c) (“A rule set forth in a treaty may reflect a rule of customary international law if it is established that the treaty rule . . . has given rise to a general practice that is accepted as law (*opinio juris*), thus generating a new rule of customary international law.”).

of the Convention, such as through a declaration adopted at the Meeting of the States Parties to the Convention which, under VCLT Article 31, paragraph 3(a), could also constitute an authentic means of interpretation.³³ Further, a competent international organization might seek an advisory opinion from the International Tribunal for the Law of the Sea or from the International Court of Justice; doing so from the latter could have the benefit of interpreting both the Convention and the status of customary international law on this issue. Whether such paths are politically feasible is a different question; it may well be that States prefer to simply let their practice percolate for a bit rather than pursue a more visible (and dramatic) means of codification.

V. CONCLUSION

I hope that I have at least teased out a few thoughts that are worth contemplating as States and others work their way through these challenging issues.

33. See VCLT, *supra* note 30, art. 31(3)(a) (providing that the interpretation of a treaty shall take into account “any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions”).

* * *