

Protecting the Maritime Rights of States Threatened by Rising Sea Levels: Preserve Legacy Exclusive Economic Zones

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Now in this island of Atlantis there was a great and wonderful empire which had rule over the whole island. [T]here occurred violent earthquakes and floods; and in a single day and night of misfortune all your warlike men in a body sank into the earth, and the island of Atlantis in like manner disappeared in the depths of the sea.¹

INTRODUCTION

Within the next century, rising sea levels due to climate change will render uninhabitable the Maldives, Kiribati, Tuvalu, and the Marshall Islands.² Unlike the mythical Atlantis, these countries may not be great and wonderful empires,³ and their misfortune has taken place over three centuries⁴ rather than a single day and night. Nevertheless, eventually these States will become unfit for human habitation due to exposure to the sea, and they may even suffer complete immersion.⁵ Whether these countries are lost like Atlantis is a matter for urgent consideration. Today, the international community has the opportunity to mitigate the catastrophe facing these States and their populations numbering some 580,000 people.⁶ The dangers they face begin with loss of access to fresh drinking water due to saltwater contamination of their islands’ water tables.⁷ Flooding, erosion, and severe weather caused by rising sea levels will expose their buildings and

1. PLATO, *TIMAEUS* (Benjamin Jowett trans., 365 B.C.).

2. Latif Nasser, *When Island Nations Drown, Who Owns Their Seas?* BOSTON GLOBE (Oct. 19, 2014), <https://www.bostonglobe.com/ideas/2014/10/18/when-island-nations-drown-who-owns-their-seas/hyH9W5b1mCAyTVgwIFh7qO/story.html>.

3. See *World Factbook*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook> (last visited Mar. 5, 2018). These States share a combined land area approximately half that of Rhode Island and a population smaller than Vermont. *Id.*

4. Anthropogenic climate change is largely due to the industrial processes developed in Europe in the late Eighteenth Century. For discussion of the timing and causes of climate change, see *infra* pp. 6–9.

5. Nasser, *supra* note 2.

6. See discussion *infra* p. 171.

7. See discussion *infra* pp. 169–171 of the effects of sea level rise on island States.

homes to progressively greater risk of damage and destruction.⁸ Ultimately, their lands will be submerged entirely beneath the rising oceans.⁹

The Maldives, Kiribati, Tuvalu, and the Marshall Islands are attempting to provide for their futures in a number of ways. For example, the Maldives is building a series of coastal defenses to battle erosion and a large artificial island to eventually shelter its population.¹⁰ In Kiribati, the cataclysm has already begun; uninhabited islands in the country were first submerged by rising sea levels in 1998.¹¹ To lessen the impact of future sea level rise on its population, Kiribati recently purchased a large piece of land in Fiji for future resettlement.¹²

Even with physical methods of mitigation like the ones described above, the international community faces many challenges in addressing the legal identity, rights, and privileges that will persist for the entities that succeed the governments of these States.¹³ This Note describes these countries as “sinking States.” This term specifically excludes those States which, though in possession of territories endangered by rising sea levels, also possess substantial territory that is not threatened.¹⁴

This Note assumes that the sinking States will endure in some form after the loss of their territory, either as States, quasi-States, sovereign trusts, or in some novel form. “Successor entity” is the generic term this Note uses to describe the organizations that assume the mantle of governance from the sinking States’ governments once rising sea levels force the residents from their territory. This Note makes no recommendation regarding the nature or constitution of these successor entities. It addresses only what rights the successor entities will retain over the sinking States’ current territorial seas and exclusive economic zones (“EEZs”).¹⁵

8. *See id.*

9. *See id.*

10. Michael Gagain, *Climate Change, Sea Level Rise, and Artificial Islands: Saving the Maldives’ Statehood and Maritime Claims Through the “Constitution of the Oceans,”* 23 COLO. J. INT’L ENVTL. L. & POL’Y 77, 86 (2012).

11. Geoffrey Lean, *Disappearing World: Global Warming Claims Tropical Island*, THE INDEPENDENT (Dec. 24 2006), <http://www.independent.co.uk/environment/climate-change/disappearing-world-global-warming-claims-tropical-island-5331748.html>.

12. Laurence Caramel, *Besieged by the Rising Tides of Climate Change, Kiribati Buys Land in Fiji*, THE GUARDIAN (June 30, 2014), <http://www.theguardian.com/environment/2014/jul/01/kiribati-climate-change-fiji-vanua-levu>.

13. *See, e.g.,* Abhimanyu George Jain, *The 21st Century Atlantis: The International Law of Statehood and Climate Change-Induced Loss of Territory*, 50 STAN. J. INT’L L. 1 (2014) (explaining that sinking States’ governments will continue in the short term but, without territory of their own, will cease to exist de facto); Gagain, *supra* note 10 at 82–83 (advocating permitting States to “defend” their territory using artificial islands); Jacquelynn Kittel, *The Global “Disappearing Act”: How Island States Can Maintain Statehood in the Face of Disappearing Territory*, 2014 MICH. ST. L. REV. 1207 (2014) (advocating for the creation of a new category of States without territory).

14. The United States’ outlying island territories, Johnston Atoll, Palmyra Atoll, Baker Island, etc., are examples of territories not considered in this Note because the United States will still have significant territory after their loss to rising sea levels.

15. *See generally* U.N. Convention on the Law of the Sea, Dec. 10, 1982, 21 I.L.M. 1245, 1833

No clear mechanism exists in international law for how to treat a State that has lost all of its territory.¹⁶ When considering the future status of sinking States' maritime possessions, the principles of justice and freedom of the seas must govern the analysis.¹⁷ Although denying the successor entities any rights at all to previously-controlled oceans may seem unjust,¹⁸ maritime law traditionally prefers openness and freedom of access over exclusivity and denial of access.¹⁹ Broadened interpretations of international maritime law to determine boundaries have been the subject of intense controversy.²⁰

The development of EEZs in the twentieth century, areas over which States do not enjoy complete sovereignty but may assert exclusive rights to exploit and license gathering of ocean resources,²¹ suggests a solution for these sinking States. Providing sinking States enduring access to EEZs would permit the successor entities to retain the exclusive right to license and control resource exploitation in these areas even after their territory is submerged, but would deny them complete sovereignty over these areas. All nations would have access to the seas for navigation and other common uses, and the successor entities to the sinking States' governments could still capitalize on the exploitation of their ocean resources to support their populations after resettlement.

The current foundation for international maritime law is the United Nations Convention on the Law of the Sea ("the Convention").²² While the Convention may offer some limited means for implementing an enduring EEZ solution, its provisions do not clearly enough guarantee such a solution's legitimacy.²³ The present regime governing the formation of territorial seas and EEZs requires that

U.N.T.S. 397 [hereinafter The Convention]. In general, a coastal State may exert complete sovereign rights over the seas out to twelve nautical miles from its coastline (the territorial sea) and exclusive rights to exploit or license the exploitation of resources in an area out to two hundred nautical miles from its coastline (the exclusive economic zone). For a more detailed discussion of the current international law regime for determining maritime possessions, see *infra* pp. 178–81.

16. See generally Maxine A. Burkett, *The Nation Ex-Situ*, in THREATENED ISLAND NATIONS 89 (Michael B. Gerard & Gregory E. Wannier eds., 2013) (advocating broader recognition of a form of post-territorial sovereign entity, "the Nation Ex-Situ"). The Order of Malta presents one instance from the 1700s in which a sovereign entity, dispossessed of its territory, was permitted to retain ownership—though not sovereignty—over real estate assets. See discussion *infra* p.187.

17. See discussion *infra* p. 181–93.

18. The sinking States make some of the smallest contributions to climate change. Allowing them to lose entirely their sovereign status without some accommodation or compensation is contrary to principles of justice and equity. See discussion *infra* p. 189.

19. See discussion *infra* pp. 171–72.

20. See discussion *infra* pp. 177–80.

21. The Convention, *supra* note 15, at Part V. See also discussion *infra* p. 172 regarding the history of exclusive economic zones in customary international law before their inclusion in the Convention.

22. Candace L. Bates, *U.S. Ratification of the U.N. Convention on the Law of the Sea: Passive Acceptance Is Not Enough to Protect U.S. Property Interests*, 31 N.C. J. INT'L L. & COM. REG. 745, 745–46 (2006).

23. See generally Rosemary Rayfuse, *Sea Level Rise and Maritime Zones*, in THREATENED ISLAND NATIONS 167, 180–91 (Michael B. Gerard & Gregory E. Wannier eds., 2013); see also discussion *infra* pp. 183–85.

a country base its claim on some land or island in its possession.²⁴ However, diaspora populations require financial support, and the rights to license and exploit ocean resources would provide the successor entities with needed revenue sources.²⁵ Therefore, an amendment to the Convention that would provide explicit protection to these rights by preserving current EEZs would appear most effective and prudent as sinking States weather the difficulty of losing their physical territory.²⁶

This Note argues that the international community must create an exception to the normal rules governing maritime boundaries to allow these endangered States to maintain economic rights over their legacy maritime possessions. This would allow these States to continue to benefit from remaining resources after the loss of their territory and to use those benefits to provide for their diaspora populations. As a basis for this proposition, Part I of this Note discusses the nature of the sinking States crisis, the relevant history and background of international maritime law, the relevant history and background of international environmental law, and previous instances of maritime possessions in controversy.²⁷ Part II argues that the best solution to the sinking States situation is an amendment to the Convention permitting sinking States to retain exclusive economic rights following territorial loss, rather than complete sovereign rights over their legacy territorial seas and EEZs.²⁸ The Note then concludes.²⁹

I. BACKGROUND

This Section provides background information relevant to the analysis of the problem of what rights, if any, sinking States should retain over their maritime possessions after the loss of their territory to rising sea levels. Part A reviews the causes, timing, and likely impacts of climate change generally and rising sea levels specifically. Part B addresses the current state of international maritime and environmental law. Part C presents several illustrative examples that inform solutions to the problem.

24. The Convention, *supra* note 15, at art. 121.

25. See discussion *infra* pp. 186–88.

26. *Id.*

27. See discussion *infra* pp. 168–81.

28. See discussion *infra* pp. 181–86.

29. See discussion *infra* p. 186–87.

A. *Causes, Timing, and Consequences of Climate Change on Sinking States*

1. *Causes of Sea Level Rise*

The reality of climate change and its anthropogenic nature has caused great political controversy.³⁰ Nevertheless, the scientific community is resolved: humans are causing the global climate to warm.³¹ Causation and attribution are relevant to the subject of sinking States' maritime rights due to the principles of fairness and justice: the countries that have contributed the least to climate change stand to lose their entire existence because of it and, therefore, deserve some special protection or compensation.³² When considering what maritime rights sinking States should retain, the analysis cannot be limited to descriptions of the physical phenomena. It must also address what and who caused those phenomena.

The main causes of rising sea levels are an increase in global ocean temperatures and, to a lesser extent, meltwater from glaciers, icecaps, and ice sheets.³³ Increased amounts of greenhouse gasses in the atmosphere at levels unprecedented in 800,000 years are causing and exacerbating these processes.³⁴ Fossil fuel combustion and industrial processes have substantially contributed to the increase in greenhouse gas emissions over the past few decades.³⁵ Although natural causes do have some effect on trends in global climate change, these have been greatly outpaced by anthropogenic causes since the beginning of the Industrial Age.³⁶

30. See Nick Gass, *Jerry Brown slams climate skeptics as 'troglodytes' at Vatican conference*, POLITICO (July 21, 2015, 7:10 AM), <http://www.politico.com/story/2015/07/jerry-brown-slams-climate-change-skeptics-troglodytes-120399>.

31. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: SYNTHESIS REPORT 40 (2015), http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf.

32. See discussion *infra* pp. 182–183 regarding the emerging development in international law of processes to allow States harmed by climate change to seek recovery from the largest contributors to climate change.

33. P.P. Wong et al., 2014: *Coastal Systems and Low-Lying Areas*, in CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY, PART A: GLOBAL AND SECTORAL ASPECTS 361, 367 (C.B. Field et al. eds., 2014).

34. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 31, at 40 (“Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen.”); see also *id.* at 48 (“It is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forces together.”).

35. *Id.* at 46.

36. *Id.* at 44 (“The radiative forcing from stratospheric volcanic aerosols can have a large cooling effect on the climate system for some years after major volcanic eruptions. Changes in total solar irradiance are calculated to have contributed only around 2% of the total radiative forcing in 2011, relative to 1750.”).

Major industrial producers are the largest contributors to the greenhouse gas emissions that cause rising sea levels.³⁷ The sinking States are among the smallest contributors.³⁸ Indeed, for 2011, the three sinking States for which data are available contributed approximately 346,000 tons of carbon dioxide.³⁹ The top three producers in 2011, the People's Republic of China, the United States, and the Republic of India, contributed 4,472,166 thousand tons of carbon dioxide.⁴⁰ It seems unjust that the States bearing the least responsibility for rising sea levels should face an existential threat because of them—and yet, that situation endures.

2. *Timing and Consequences of Sea Level Rise*

By the year 2100, the most conservative models of sea level rise project an increase in global mean sea levels of 0.24 meters; the direst predictions warn of increases of up to 0.98 meters.⁴¹ Sinking States' territory will either be rendered uninhabitable or submerged completely by these rises in sea levels.⁴² Initially, saltwater intrusion into island water tables will render the territory of sinking States uninhabitable.⁴³ Eventually, States will experience loss of territory to erosion and submergence, increased flood damage during extreme sea level events, and saltwater intrusion into freshwater bodies.⁴⁴ Saltwater intrusion will raise water tables, thereby impeding drainage and worsening the effects of flood events.⁴⁵ Taken together, these environmental impacts endanger vital ecosystems⁴⁶ even before the total submergence of the sinking States' territories makes them completely uninhabitable. The States whose territory is most critically threatened by rising sea levels are the Maldives, Kiribati, Tuvalu, and the Marshall Islands.⁴⁷

37. Tom Boden & Bob Andres, *Ranking of the World's Countries by 2011 Total CO₂ Emissions From Fossil-Fuel Burning, Cement Production, and Gas Flaring*, CARBON DIOXIDE INFORMATION ANALYSIS CENTER, <http://cdiac.ess-dive.lbl.gov/trends/emis/top2011.tot> (last visited Mar. 5, 2018) (citing China, the United States, and India as top carbon dioxide emitters in 2011); see also Duncan Clark, *Which nations are most responsible for climate change?*, THE GUARDIAN (Apr. 21, 2011), <http://www.theguardian.com/environment/2011/apr/21/countries-responsible-climate-change> (citing the United States, China, and Russia top carbon dioxide emitters overall between 1850 and 2007).

38. In the 2011 ranking of countries by carbon dioxide output, of 216 countries listed, the Maldives is 163rd, the Marshall Islands 204th, and Kiribati 210th. Tuvalu is unlisted. Boden & Andres, *supra* note 37.

39. *Id.*

40. *Id.*

41. Wong et al., *supra* note 33, at 369.

42. Nasser, *supra* note 2 (finding the following average elevations: Maldives (1.6 meters), Tuvalu (1.83 meters), Kiribati (1.98 meters), and the Marshall Islands (2.13 meters)).

43. *Id.*

44. Wong et al., *supra* note 33, at 375.

45. *Id.*

46. WORLD METEOROLOGICAL ORG., *SAVING PARADISE: ENSURING SUSTAINABLE DEVELOPMENT* (2005), http://library.wmo.int/pmb_ged/wmo_973_en.pdf.

47. Nasser, *supra* note 2.

These environmental impacts will have dramatic consequences for the populations of the sinking States, a current total of approximately 580,000 people.⁴⁸ These people will lose access to potable fresh water due to saltwater intrusion into the islands' water tables.⁴⁹ Their buildings and homes will be increasingly exposed to erosion⁵⁰ and damage from flooding during severe weather.⁵¹ In time, these populations will either have to take shelter on artificial structures,⁵² or evacuate their lands entirely as sea levels continue to rise.⁵³ This Note concerns itself primarily with the economic rights available to States, but the purpose of these economic rights is to protect resources that will benefit the people who will lose their livelihoods and homes due to human-caused sea level rise.

B. *The Current State of Relevant International Law*

The Convention⁵⁴ is the main source of international law on the subject of States' rights over their territorial seas and EEZs.⁵⁵ In Part 1, this Section explores the development in international law and politics that led to the Convention's creation. Part 2 discusses key language of the Convention itself. Part 3 examines various treaties related to international environmental law, with particular emphasis on those related to global climate change.

1. *History of International Maritime Law*

Since at least the second century A.D., legal scholars have understood the seas to be the common heritage of mankind, free to all for access and use.⁵⁶ The exceptions to this general rule grew in number over the centuries, however, and

48. *World Factbook: Kiribati*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/geos/kr.html> (last visited Mar. 5, 2018) [hereinafter *World Factbook: Kiribati*]; *World Factbook: Tuvalu*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/geos/tv.html> (last visited Mar. 5, 2018) [hereinafter *World Factbook: Tuvalu*]; *World Factbook: Maldives*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/geos/mv.html> (last visited Mar. 5, 2018) [hereinafter *World Factbook: Maldives*]; *World Factbook: Marshall Islands*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/geos/rm.html> (last visited Mar. 5, 2018) [hereinafter *World Factbook: Marshall Islands*].

49. Nasser, *supra* note 2.

50. *Id.* (explaining that erosion is due in part to rising sea levels but also to the loss of protective reefs that will die off in the warmer oceans).

51. Wong et al., *supra* note 33, at 375.

52. See discussion *supra* p. 168 regarding the Maldives' plan to build artificial islands.

53. See discussion *supra* p. 168 regarding Tuvalu's plan to resettle large portions of its population in territory purchased for the purpose in Fiji.

54. The Convention, *supra* note 15.

55. Bates, *supra* note 22, at 745–46.

56. Scott J. Shackelford, *Was Selden Right?: The Expansion Of Closed Seas and Its Consequences*, 47 STANFORD J. OF INT'L L. 1, 9–10 n. 47 (2011) (citing SUSAN J. BUCK, *THE GLOBAL COMMONS: AN INTRODUCTION* 76 (1998)) (“The first recorded statement on the LOS was a second-century work of the Roman jurist Marcianus, which declared that the seas were *communes omnium naturali jure* [sic], or common to all humankind.”).

States (or their pre-modern equivalents) came to assert sovereign rights over waters adjacent to their coasts.⁵⁷ There were many reasons for this development, including the desire to stamp out piracy and to enjoy rights of access for navigation.⁵⁸ State claims varied in their distance from shore but generally coincided with the coastal States' ability to exert control over adjacent waters.⁵⁹ Over time—and led by the world's dominant sea power, the United Kingdom—customary international law settled on the “cannon shot rule,” which permitted States to claim a territorial sea of three nautical miles.⁶⁰ This rule derived its name from the effective range of shore-based artillery.⁶¹

Prior to the 1940s, maritime territorial claims were total: a State claiming its three nautical mile-wide portion of ocean along its coast exercised complete sovereignty over that space.⁶² In the mid-twentieth century, however, States became aware of extensive mineral resources both on and beneath the seabed.⁶³ In 1945, the United States led a rush to stake claims to exclusive rights to exploit these resources.⁶⁴ However, its claim of exclusive ownership extended beyond the traditional three nautical mile limit, reaching even beneath the seabed on the continental shelves adjacent to its coastline.⁶⁵ This extended sovereignty was a novel concept in international maritime law, but States around the globe adopted it quickly.⁶⁶

57. *Id.* at 10.

58. *See id.* at 10–11 (citing THOMAS W. FULTON, *THE SOVEREIGNTY OF THE SEA* 6 (1911) and J.E.S. Fawcett, *How Free Are the Seas?*, 49 *INT'L AFF.* 14, 14 (1973)). Shackelford notes that Grotius' treatise advocating freedom of navigation for all on the high seas, *mare liberum* (open seas), precipitated a response from an English scholar, John Selden, called *mare clausum* (closed seas) in which Selden proposed that the sea could be made subject to traditional State practice of territorial possession just as the land could. Selden's immediate objective was to secure exclusive use of the North Sea for English shipping. Selden's position ultimately lost out over the course of the 17th century. Shackelford's thesis in the article cited is that the current regime of extended claims of economic rights beyond the typical two hundred-nautical mile exclusive economic zone based on continental shelves is essentially a return to Selden's *mare clausum* doctrine. *Id.*

59. *Id.* at 12.

60. *Id.* at 12 (citing SUSAN J. BUCK, *THE GLOBAL COMMONS: AN INTRODUCTION* 81–82 (1998)).

61. *Id.* at 12.

62. *See id.* at 14.

63. *Id.*

64. *Id.*

65. *Id.* (citing MICHAEL BYERS, *CUSTOM, POWER AND THE POWER OF RULES: INTERNATIONAL RELATIONS AND CUSTOMARY INTERNATIONAL LAW* 91–92 (1999)).

66. *Id.* at 14–16. Norway had in fact won an exclusive right to fish in the waters up to four nautical miles from its coast line in a 1935 International Court of Justice decision, but the American continental shelf claim was the first significant grab for privileges or rights beyond the traditional three nautical mile line. Chile, Ecuador, and Peru followed the United States' lead in 1952 by also claiming that, because their continental shelves fall off very close to shore, they had a right to an (arbitrary) two hundred nautical mile zone of exclusive economic enjoyment. This was the first time the two hundred nautical mile standard arose in international law, and it subsequently would be adopted globally in the Convention. *Id.* at 15.

2. *The UN Convention on the Law of the Sea*

The Convention was intended to articulate and standardize territorial sea determinations and which rights of control States could assert beyond their immediate territorial seas.⁶⁷ Anthropogenic sea level rise, however, only became widely known after the Convention was written.⁶⁸ Although the Convention was not originally intended to address the rights of States that lose all of their territory to rising sea levels, certain provisions described in this Section may bear on the sinking States' rights in this crisis.

The Convention recognizes the rights of States with a coastline to exert sovereignty over a territorial sea, which extends beyond the States' coastline or archipelagic waters.⁶⁹ A State may claim as its territorial sea the waters that fall within lines connecting the outermost points of a State's land possessions⁷⁰ to a limit no more than twelve nautical miles from the coast or baseline as the State defines the coast or baseline in its official charts or published geographic coordinates.⁷¹

An important exception to the normal rule exists for baselines drawn near areas where the coastline is unstable.⁷² When shorelines are known to change frequently either due to erosion, accretion, or some other natural process, baselines can be fixed, even if the coastline subsequently moves.⁷³ The Convention does require, however, that any baselines must conform to the extent and direction of the country's coastline.⁷⁴ Development of navigational markers—lighthouses, radio aids to navigation, etc.—may be used as reference points to reinforce these enduring baseline claims.⁷⁵

The Convention's mechanisms for establishing and marking maritime boundaries, giving States the option of using charts or geographic coordinates,⁷⁶

67. Shackelford, *supra* note 56, at 14–16.

68. Ann Powers & Christopher Stucko, *Introducing the Law of the Sea and the Legal Implications of Rising Sea Levels*, in THREATENED ISLAND NATIONS 123, 123 (Michael B. Gerard & Gregory E. Wannier, eds., 2013).

69. The Convention, *supra* note 15, art. 2.

70. *Id.* art. 47.

71. *Id.* arts. 3, 5. The coastal State defines its own coastlines and baselines and the resulting territorial sea by publishing “charts or lists of geographical coordinates and . . . deposit[ing] a copy of each such chart or list with the Secretary General of the United Nations.” *Id.* art. 16, ¶ 2.

72. *Id.* art. 7, ¶ 2.

73. *Id.* This section of the Convention uses a delta as a geographical feature that could be sufficiently unstable as to justify one of these immutable baselines, but it does not provide an exhaustive list of these features. *Id.* See also Rayfuse, *supra* note 23, at 181–82 (“Although originally considered to apply only to deltas, it is open to States to (re-)interpret the criteria of instability to apply in the context of sea level rise.”).

74. The Convention, *supra* note 15, at art. 7, ¶ 3.

75. *Id.* art. 7, ¶ 4.

76. *Id.* art. 16, ¶ 2. See also *id.* art. 47, ¶ 8 (“The baselines drawn in accordance with this article shall be shown on charts of a scale or scales adequate for ascertaining their position. Alternatively, lists of geographical coordinates of points, specifying the geodetic datum, may be substituted.”); *id.* at art. 75, ¶ 1 (“[T]he outer limit lines of the exclusive economic zone and the lines of delimitation . . .

may lead to discrepancies between navigational charts and geographic coordinates.⁷⁷ This means that sinking States could use domestic legislation and regulatory action to fix their current claimed baselines. These baselines could then endure as a basis for determining maritime possessions even after the territory on which they were originally based is rendered uninhabitable or inundated entirely.⁷⁸ This Note will address the advisability of fixing baselines in this manner.

i. The Regime of Islands

Sinking States fall within the Convention's provisions on islands, which the Convention defines as "naturally formed area[s] of land, surrounded by water, which [are] above water at high tide."⁷⁹ States cannot use artificial islands or other man-made structures to assert the same claims as they could for continental land or islands.⁸⁰ Likewise, formations incapable of supporting "human habitation or economic life of [its] own" are *rocks* and cannot be the basis for EEZs or continental shelves.⁸¹ If territory becomes uninhabitable, the Convention denies a State an EEZ based on that uninhabitable territory.⁸² The following Section articulates the specific privileges that accompany possession of an EEZ.

ii. The Limited Bundle of Rights That Accompany Exclusive Economic Zones

Beyond States' territorial seas, over which they may exercise full sovereignty, States maintain an EEZ.⁸³ Out to 200 nautical miles,⁸⁴ coastal States enjoy exclusive privileges in: constructing artificial islands and installations;⁸⁵ harvesting and exploiting living resources and licensing other States to exploit living resources;⁸⁶ based on the State's scientific research, establishing the allowable catch for living resources;⁸⁷ and, enforcing State rules in these areas.⁸⁸

shall be shown on charts of a scale or scales adequate for ascertaining their position. Where appropriate, lists of geographical coordinates of points, specifying the geodetic datum, may be substituted for such outer limit lines or lines of delimitation.").

77. Rayfuse, *supra* note 23, at 183.

78. *Id.*

79. *See* The Convention, *supra* note 15, at art. 121, ¶ 1.

80. *Id.* art. 60, ¶ 8.

81. *Id.* art. 121, ¶ 3 ("Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf."). The Convention seems to permit by the implication in its silence that States may claim territorial seas based on rocks.

82. *Id.*

83. *Id.* art. 55.

84. *Id.* art. 57.

85. *Id.* art. 60.

86. *Id.* art. 62.

87. *Id.* art. 61.

88. *Id.* art. 73 (including by means of "boarding, inspection, arrest and judicial proceedings").

Foreign States still enjoy the rights to “navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines . . .”⁸⁹

As discussed, EEZs are established by noting their extent on charts or by listing the geographical points that make them up.⁹⁰ States then publicize the charts or lists of geographical coordinates and deposit them with the UN Secretary General.⁹¹

These EEZs are of particular importance for island nations, including the sinking States. The sinking States, including Kiribati,⁹² Tuvalu,⁹³ the Maldives,⁹⁴ and the Marshall Islands,⁹⁵ all enjoy substantial economic benefits from fishing or fish processing. In Tuvalu in 2002, 67% of households engaged in fishing activities, and fishing licenses sold to foreign fishing vessels made up almost a quarter of the country’s gross domestic product.⁹⁶ Sinking States’ EEZs contain substantial resources. The benefits from collecting or licensing the exploitation of these resources would be extremely helpful to the sinking States’ successor entities as they seek to support their diaspora populations or maintain the habitability of their territory by artificial improvements.

iii. *Amending the Law of the Sea Convention*

The Convention contains mechanisms for amendment.⁹⁷ A State party to the Convention may propose amendments to the UN Secretary General.⁹⁸ Along with that proposal, party States may request that the Secretary General seek approval from one half of party States to convene a conference.⁹⁹ If the conference is convened, party States vote to approve or reject the proposed amendment.¹⁰⁰ Alternatively, party States can request that the Secretary General disseminate the

89. *Id.* art. 58, ¶ 1.

90. *Id.* art. 75, ¶ 1.

91. *Id.* art. 75, ¶ 2. The Convention is silent on what the Secretary General must do with charts or geographical coordinates deposited with her.

92. *World Factbook: Kiribati*, *supra* note 48.

93. *World Factbook: Tuvalu*, *supra* note 48.

94. *World Factbook: Maldives*, *supra* note 48.

95. *World Factbook: Marshall Islands*, *supra* note 48.

96. See Ann Powers, *Sea-Level Rise and Its Impact on Vulnerable States: Four Examples*, 73 LA. L. REV. 151, 156 (2012); Tuvalu - GDP - per capita, INDEX MUNDI, <http://www.indexmundi.com/g/g.aspx?c=tv&v=67> (last visited Mar. 5, 2018).

97. The Convention, *supra* note 15, at arts. 312, 313.

98. *Id.* arts. 312, 313.

99. *Id.* art. 312.

100. *Id.*

proposed amendment.¹⁰¹ If, within twelve months, no party State objects to the amendment, the proposed amendment enters into force.¹⁰²

Because any amendment passed under these procedures would bind all Convention parties, either procedure could supply a mechanism for creating explicit international law to protect the legacy maritime rights of the sinking States.

iv. International Law Governing Compensation and Liability for Climate Change Damages

Two competing doctrines dominate the development of international environmental law on climate change liability.¹⁰³ The first is the preference for allowing sovereign States the right to exploit and manage their resources in accordance with their own domestic legislation and policies.¹⁰⁴ The second is the desire to curb State violations of public international law—namely, the failure to adhere to limits on environmental pollution—and to compensate those States negatively impacted by those violations.¹⁰⁵ These doctrines conflict because one State’s internal law or policy regarding resource use can have a deleterious effect on other States.¹⁰⁶ In managing these conflicting doctrines, the international community has taken a number of paths, all of which favor some rights of redress for climate change damages.¹⁰⁷

To date, 196 countries are parties to the UN Framework Convention on Climate Change.¹⁰⁸ This widely accepted instrument adopts as its purpose the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”¹⁰⁹ This objective accords with subsequent international conventions on climate change.¹¹⁰ These conventions stand generally for the principle that States have a

101. *Id.* art. 313.

102. *Id.*

103. See Jennifer Kilinski, *International Climate Change Liability: A Myth or A Reality?*, 18 J. TRANSNAT’L L. & POL’Y 377, 387–88 (2009).

104. U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I), annex I, principle 2, (Aug. 12, 1992).

105. Kilinski, *supra* note 103, at 388 (citing Richard S.J. Tol & Roda Verheyen, *Liability and Compensation for Climate Change Damages - A Legal and Economic Assessment*, 32 ENERGY POL’Y 1109, 1111 (2004)).

106. Anthropogenic climate change is an example.

107. Kilinski, *supra* note 103, at 388–96.

108. UN Framework Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107, 31 I.L.M. 849 [hereinafter UNFCCC]; *Status of Ratification of the Convention*, UNFCCC, http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php (last visited Mar. 5, 2018).

109. *Id.* art. 2.

110. See, e.g., Paris Climate Change Conference, *Report of the Conference of the Parties on its 21st Session*, Preamble to the Paris Agreement, FCCC/CP/2015/10/Add.1 (recognizing the need to account for the special circumstances of developing countries particularly vulnerable to climate change); United Nations Framework Convention on Climate Change, *Kyoto Protocol to the United*

responsibility to control their emissions and can be held accountable for their failure to do so.¹¹¹ Additionally, the Climate Change Convention includes several mechanisms for dispute settlement.¹¹²

The Climate Change Convention is an example of the commitment in the corpus of international law not only to recognize States' rights to be free from injury from environmental pollution but also to receive some compensation for those injuries. Sinking States' loss of territory is due to climate change caused by environmental pollution and thus is likely an injury of the kind that international environmental law would seek to redress. Providing enduring maritime rights to sinking States is one possible form of such redress.

C. Illustrative Examples

Several previous scenarios provide useful insights in analyzing how international maritime law would address sinking States' maritime rights and privileges. Generally, they support the proposition that maritime boundary claims based on a conservative reading of the Convention's terms and provisions regarding boundary determination receive the broadest international recognition.

1. Rockall

Rockall is a small, rocky outcrop in the North Sea, approximately 230 miles northwest of Scotland.¹¹³ The United Kingdom has uncontested possession of the islet and, between 1977 and 1997, used it to claim a 200 nautical mile fishery zone.¹¹⁴ The island is uninhabitable and incapable of sustaining economic activity.¹¹⁵ Rockall's inability to sustain human habitation makes it a rock within the meaning of the Convention.¹¹⁶ Indeed, the islet was even cited as an example

Nations Framework Convention on Climate Change, Annex B, Dec. 10, 1997, U.N. Doc. FCCC/CP/1997/CRP.6 (requiring signatories to the Protocol to meet their greenhouse gas reduction commitments). *But cf.* Ian McGregor, *Disenfranchisement of Countries and Civil Society at COP-15 in Copenhagen*, 11 GLOBAL ENV'T'L. POL. 1, 3-4 (2011) (explaining that the Copenhagen climate conference left substantive post-Kyoto issues regarding emissions control unresolved).

111. Kilinski, *supra* note 103, at 388-92.

112. UNFCCC, *supra* note 108, at art. 14.

113. Clive Schofield, *The Trouble with Islands*, in MARITIME BOUNDARY DISPUTES, SETTLEMENT PROCESSES, AND THE LAW OF THE SEA 19, 28 (Seoung-Yong Hong, Jon M. Van Dyke, & Martinus Nijhoff eds., 2009).

114. *Id.* at 28.

115. With the exception of occasional daredevil attempts to stay in pre-fabricated structures that have to be bolted onto the side of the 15-meter tall formation in order to survive the punishing wind and waves. *See, e.g.*, Harry Hount, *Loneliest man on the planet*, DAILY MAIL (Jul. 5 2014, 6:51 PM), <http://www.dailymail.co.uk/news/article-2681246/Loneliest-man-planet-Meet-dad-living-storm-tossed-rock-hundreds-miles-Britain-birds-whales-company.html>; Lester Haines, *Brit adventurer all set to assault ex-Reg haunt Rockall*, THE REGISTER (May 9, 2013, 11:19 AM), https://www.theregister.co.uk/2013/05/09/rockall_attempt/.

116. *See* The Convention, *supra* note 15, at art. 121; Schofield, *supra* note 113, at 29.

of a rock during the Convention's drafting conference.¹¹⁷ Because of its status as a rock, the United Kingdom relinquished its claim to a 60,000 square mile EEZ based on the islet when it ratified the Convention in 1997.¹¹⁸ The United Kingdom's ownership of Rockall is an instance of a State relinquishing its maritime rights in deference to the definitions in the Convention. Today, the United Kingdom possesses the islet and retains rights to a twelve nautical mile territorial sea around it, but it has no claim to an EEZ based on the islet.¹¹⁹

This example suggests that, as sinking States' land becomes uninhabitable, the land will no longer be able to serve as the basis for an EEZ under the Convention. This instance is an example of the international community favoring a conservative interpretation of the Convention.

2. *Okinotorishima*

Although its name means "remote bird islands," there is no evidence Okinotorishima has ever played host to sea birds, and there is only marginal evidence of human habitation.¹²⁰ This island is Japan's southernmost possession, a table reef some 450 miles from Iwo Jima, 680 miles from Okinawa, and approximately halfway between Guam and Taiwan.¹²¹ At high tide, only two rocky areas protrude above the sea, each by only a matter of centimeters, to make up a surface area approximately equivalent to two king size beds.¹²²

Japan has spent some \$600 million to prevent these two small islets from slipping beneath the waves.¹²³ The islets, if recognized internationally as islands under the Convention, would grant Japan a massive EEZ in otherwise vacant ocean.¹²⁴ Opponents to the claim, the People's Republic of China in particular, argue that the islets are simply uninhabitable rocks, which, under the Convention, do not support claims to an EEZ.¹²⁵ The Japanese government has made every

117. Schofield, *supra* note 113, at 29.

118. *Id.*

119. See discussion *supra* note 81 (discussing the Convention's implication in art. 121, ¶ 3, that rocks, while not usable to establish an exclusive economic zone, may be used to establish a territorial sea).

120. Yann-huei Song, *Okinotorishima: A "Rock" or an "Island"? Recent Maritime Boundary Dispute between Japan and Taiwan/China*, in *MARITIME BOUNDARY DISPUTES, SETTLEMENT PROCESSES, AND THE LAW OF THE SEA* 145, 148 (Seoung-Yong Hong, Jon M. Van Dyke & Martinus Nijhoff eds., 2009); see also Norimitsu Onishi, *Japan and China Dispute a Pacific Islet*, N.Y. TIMES (July 10, 2005), <http://www.nytimes.com/2005/07/10/world/asia/japan-and-china-dispute-a-pacific-islet.html>.

121. Song, *supra* note 120, at 148.

122. *Id.*; see also Alicia Q. Wittmeyer, *The even smaller rocks Japan and China are fighting over*, FOREIGN POLICY (Sept. 24, 2012, 6:15 PM), <http://foreignpolicy.com/2012/09/24/the-even-smaller-rocks-japan-and-china-are-fighting-over/>.

123. Onishi, *supra* note 120.

124. Wittmeyer, *supra* note 122.

125. *Id.*

effort to buttress its claim that the reef qualifies as an island, labeling it as such on charts and passing legislation recognizing it as an island.¹²⁶

While it may be legal for a State to claim an EEZ around any formation it chooses, enforcement of that claim is illegal if the claim contravenes the Convention.¹²⁷ Put another way, a claim is illegitimate unless it is grounded on a valid basis in international law. As with the Rockall example, the controversy surrounding Japan's claims to Okinotorishima shows that maritime claims based on anything but a conservative interpretation of the terms of the Convention draw severe criticism and, consequently, engender little respect from other States. If the sinking States were to assert claims based on creative interpretations of the Convention—like Japan's claims around Okinotorishima—other States would likely challenge or simply ignore the sinking States' claims altogether.

3. *The Spratly Islands*

In July of 2016, an international arbitration panel constituted under the Convention rejected the People's Republic of China's claim to maritime rights based on formations among the Spratly Islands in the South China Sea, endorsing the Republic of the Philippines' competing claim in the matter.¹²⁸ China has, like Japan with Okinotorishima,¹²⁹ artificially fortified various rocks and reefs among the Spratlys. China makes various claims based on these formations.¹³⁰ The Philippines challenged the validity of these claims because the formations were not naturally inhabitable.¹³¹ Vietnam, Taiwan, Malaysia, and Brunei all have their own different, overlapping claims in the South China Sea as well.¹³²

China's claims include the assertion of a right to a territorial sea based on Subi Reef, a formation that, before artificial improvement, did not remain above water at high tide.¹³³ This claim is inconsistent with the Convention's requirement that formations remain "above water at high tide" in order to be legitimate.¹³⁴

126. Song, *supra* note 120, at 156–61. Okinotorishima has a Tokyo address, an effort to convey its close ties to the Japanese mainland. *Id.*

127. *Id.* at 176.

128. Jane Perlez, *Tribunal Rejects Beijing's Claims in the South China Sea*, N.Y. TIMES (July 12, 2016), <https://www.nytimes.com/2016/07/13/world/asia/south-china-sea-hague-ruling-philippines.html>; see also The Convention, *supra* note 15, at Annex VII (procedures for arbitration); Lan Ngyuen, *South China Sea: Philippines v. China*, THE DIPLOMAT (July 27, 2015), <http://thediplomat.com/2015/07/south-china-sea-philippines-v-china> (analyzing the jurisdiction of the Annex VII arbitration tribunal).

129. See discussion *supra* pp. 177–78.

130. *Making a Splash*, THE ECONOMIST (Jan. 30, 2016), <http://www.economist.com/news/asia/21689633-taiwans-outgoing-president-further-roils-troubled-waters-making-splash>.

131. Perlez, *supra* note 128.

132. *Making a Splash*, *supra* note 130; see also Michael Bennett, *The People's Republic of China and the Use of International Law in the Spratly Islands Dispute*, 28 STAN. J. INT'L L. 425, 433–34 (1992).

133. *Making a Splash*, *supra* note 130.

134. See the Convention, *supra* note 15, at art. 121.

China also claims an EEZ based on Itu Aba,¹³⁵ a formation the Philippines argues cannot support human habitation without artificial improvements.¹³⁶ If the Philippines is correct, the formation is a rock and cannot be used as the basis for an EEZ claim.¹³⁷

The arbitration discussed above between the Philippines and the People's Republic of China is only one chapter in the dispute over land and maritime territorial possessions in the South China Sea.¹³⁸ Interpreting the Convention to resolve the dispute over the Spratlys has led to a complex international political dispute. Any attempt to read the terms of the Convention expansively to benefit the sinking States could be used to support questionable maritime claims from States not existentially threatened by rising sea levels. Sinking States would benefit from a measure that disconnects the territorial conflicts of these larger States from the protections the sinking States require.

4. *The Order of Malta*

The Knights Hospitaller of St. John of Jerusalem, of Rhodes, and of Malta (the Order of Malta) was a sovereign State governing the Mediterranean island of Malta until the late Eighteenth Century.¹³⁹ Although Napoleon drove it from Malta in 1798, more than sixty States continue to recognize the Order as a sovereign entity, albeit one with no sovereign control over territory.¹⁴⁰ The Order engages in charity work and only retains ownership (not sovereignty) over a collection of buildings in Rome.¹⁴¹ The Order of Malta is an example in international law of an instance of a State losing its territory, retaining its sovereign status, and maintaining control over some non-territorial assets. The differences between the Order and the sinking States are many, but the precedent helps to inform the analysis below.

II.

ANALYSIS

The threshold question in this matter is whether sinking States ought to retain rights in their legacy waters at all. If they should, which rights should endure?

135. Taiwan is actually in possession of Itu Aba, but the People's Republic of China, in accordance with its "One China" policy, considers Taiwan's territorial claims as its own. *Making a Splash*, *supra* note 130.

136. *Id.*

137. *See* The Convention, *supra* note 15, art. 121.

138. *See, e.g.,* Bennett, *supra* note 132, at 427. In 1988, People's Republic of China ships came upon Vietnamese freight vessels in the Spratlys. The Vietnamese freighters were carrying supplies to Vietnamese army posts in the Islands. The two sides exchanged fire, but the conflict did not subsequently escalate. *Id.*

139. John Alan Cohan, *Sovereignty in a Postsovereign World*, 18 FLA. J. INT'L L. 907, 928–29 (2006).

140. *Id.* at 929.

141. *Id.*

Part A of this Section discusses these questions. This Note asserts that sinking States should retain rights similar to those which they currently enjoy in their EEZs, even after their territory is lost as a result of global climate change. Two possible courses of action present themselves to guarantee these States' successor entities some economic rights over their present maritime possessions.¹⁴² The first is to use the existing provisions in the Convention to secure these enduring rights. Part B of this section considers this option. The second possibility is to amend the Convention to explicitly guarantee sinking States' rights to the economic resources of their current maritime possessions. Part C addresses this option. Only the latter option effectively balances the interests of international justice and the freedom of the seas. It is also the most politically feasible. For these reasons, the best way to guarantee these protections for sinking States is an amendment to the Convention.

A. The Desirability of Enduring Maritime Rights for Sinking States in General

As discussed above, the preference in international law is for free use of the seas.¹⁴³ The current international law regime of maritime possessions and boundaries is a compromise to this preference, based largely on coastal States' ability to control the waters adjacent to their land possessions.¹⁴⁴ Permitting the sinking States' successor entities to retain complete sovereign rights to their former maritime possessions¹⁴⁵—waters they would conceivably have very little, if any, ability to control due to their lack of adjacent land bases—would upset this existing balance.

In the second half of the twentieth century, several trends developed in international law suggesting that allowing sinking States to retain some control short of complete sovereignty over their legacy maritime possessions would be permissible. The first of these is the 200 nautical mile EEZ.¹⁴⁶ This showed a tolerance in the law for zones over which States enjoy some rights in the pursuit of economic interests, but not full sovereignty. The second of these is the manner in which the international community has addressed environmental pollution and climate change.¹⁴⁷ This demonstrated recognition in international law that States injured by environmental damage—including climate change—should have some

142. Professor Rayfuse identifies the three possible methods of protecting sinking States' maritime rights. However, she does not make a comparative assessment of these methods based on their consistency with the international law principles of justice and freedom of the seas. See Rayfuse, *supra* note 23.

143. See discussion *supra* pp. 171–177 on the history of international maritime law.

144. See *id.*

145. Gagain, *supra* note 10, at 82–83 (recommending sinking States be allowed to retain full sovereign rights to maritime possessions based on artificial islands or land formations that the Convention would otherwise consider rocks).

146. See discussion *supra* pp. 171–78.

147. See discussion *supra* pp. 176–177 on the development of standards for liability for environmental damage in the Convention and international environmental compacts.

recourse to compensation. The example of the Order of Malta also supports the proposition that a sovereign entity, after losing its territory, could still retain ownership, though not complete sovereignty, over real property.¹⁴⁸ The arrangement between the Order of Malta and its real estate possessions is similar to that which this Note proposes between the successor entities to the sinking States and their enduring EEZs.

Balancing international law's interest in the freedom of the seas against the desire to compensate sinking States' injuries due to rising sea levels¹⁴⁹ suggests a compromise between denying sinking States their legacy maritime rights and guaranteeing them enduring, complete sovereignty. Although historically the assertion of EEZs may have extended out from territorial sea claims,¹⁵⁰ in the case of the sinking States, it will be desirable to invert the normal regime for State control over the seas. In these situations, the international community should permit the imperiled States to retain EEZ rights to their legacy territorial seas, though not complete sovereignty. This scheme would permit sinking States to retain some benefits from their former territorial seas, namely the right to exploit and license resource collection in their legacy EEZs,¹⁵¹ with the end in mind that those resources would be used to benefit the resettled populations of the sinking States. It also avoids setting the dangerous precedent in international law that States may assert complete sovereignty over empty expanses of ocean. This compromise upholds the doctrine of freedom of the seas and also makes provisions for States injured due to manmade climate change.

Other States with low-lying territories will also lose significant areas of territorial sea and EEZs as their coastlines recede beneath rising sea levels. A mechanism for guaranteeing sinking States' enduring EEZs must state clearly that these legacy rights are an exception to the rule, created to partially compensate for these countries' complete loss of territory. To do otherwise might open the door to aggressive maneuvering from States who, although not facing existential threats, would still have an interest in protecting territorial sea and EEZ rights based on threatened territorial possessions. As discussed above,¹⁵² the mechanism used to provide for the sinking States must be applicable only to the sinking States in order to minimize the controversy that would result from considering larger States' maritime rights in the same negotiation.

148. See discussion *supra* p. 180.

149. See discussion *supra* pp. 170–171 on the harms to low-lying islands due to sea level rise.

150. See discussion *supra* p. 172 on the history of the exclusive economic zone.

151. See discussion *supra* p. 175 on the economic benefits sinking States derive from their maritime possessions.

152. See discussion *supra* pp. 179–80 regarding the Spratly Islands dispute.

B. Use of Existing International Law to Guarantee Sinking States' Rights to Their Legacy Exclusive Economic Zones

There are several provisions in the Convention that allow States to stabilize, in perpetuity, their territorial and EEZ claims against lost territory.¹⁵³ These provisions could be interpreted broadly to allow an enduring EEZ, however none of these provisions contemplated a total loss of territory when drafted.¹⁵⁴ Indeed, the Rockall, Okinotorishima, and Spratly Islands examples suggest that the sinking States face an uphill battle for international recognition of their enduring maritime rights without some additional, explicit law on the subject.¹⁵⁵ Skepticism from more influential States of the sinking States' post-inundation maritime claims may result in these claims merely being rejected entirely as illegitimate.

The provisions in the Law of the Sea Convention that could be used to cement sinking States' maritime rights include the following.

First, States may "fix" their baselines against coastal regression in accordance with Article 5 of the Convention, which establishes the standard for the baseline from which maritime boundaries are determined.¹⁵⁶

Second, Article 7(2) of the Convention permits a fixed baseline when coastlines are highly unstable because of natural conditions (erosion, silting, etc.).¹⁵⁷ Sinking States could fix their baselines on the basis of the contention that they are losing their territory due to a condition like erosion or silting.

Article 47 allows archipelagic States to create straight baselines under certain limited circumstances.¹⁵⁸ If imperiled States create fixed base points using artificial or protected islands, they could retain a large archipelago-based territorial sea.¹⁵⁹ Many States have created domestic legislation for the determination and publication of maritime claims. Under Articles 16, 47, and 75 of the Convention, legislation may be sufficient to fix baselines and guarantee international recognition.

States can also create limited rights for themselves beyond the normal territorial sea and EEZ by mapping and publishing the outer limits of their continental shelf.¹⁶⁰ Once they have done so by domestic rulemaking or

153. See discussion *supra* pp. 173–74 regarding possible uses of current provisions in the Convention to fix maritime boundaries against coastline regression. See generally Rayfuse, *supra* note 23 (considering in detail the possible uses of existing provisions in the Convention to fix sinking States' maritime boundaries).

154. See discussion *supra* pp. 173–74.

155. See discussion *supra* pp. 177–80 explaining that maritime claims to exclusive economic zones based on non-habitable land are generally met with skepticism or outright condemnation.

156. The Convention, *supra* note 16, at art. 5; Rayfuse, *supra* note 23, at 181.

157. The Convention, *supra* note 16, at art. 7(2); Rayfuse, *supra* note 23, at 182.

158. The Convention, *supra* note 15, at art. 47.

159. Rayfuse, *supra* note 23, at 182–83.

160. *Id.* at 185–86 (citing the Convention, *supra* note 15, at art. 76).

legislation, those boundaries and the resulting privileges are arguably permanent.¹⁶¹

There are several positive aspects of using existing law to assert enduring claims over legacy territorial seas and EEZs. The first is that it does not require the difficult political wrangling—years of delay, costly lobbying and negotiation, etc.—that would go into any new treaties or conventions. It also allows imperiled States to protect their rights through domestic legislation.

On the other hand, the negative consequences of this approach are notable. Using the current Convention to address such a novel problem could result in claims from other States that are outside the intended scope and purpose of the Convention. Take for instance the People's Republic of China's claims of a territorial sea around its artificial islands in the South China Sea,¹⁶² or Japan's EEZ claims based on Okinotorishima.¹⁶³ Giving sinking States more liberal rights to maritime possessions within the provisions of the current Convention could encourage States with questionable claims, and without a justified interest, to use the Convention in a similar way to assert their claims. This conflicts with the tradition in international maritime law to limit claims to possessions.¹⁶⁴ It is also likely that many international actors would refuse to recognize the sinking States' claims developed using these mechanisms because they do not fit the original intentions of the Convention.¹⁶⁵ Thus, using the existing treaty framework alone would not create expansive recognition of imperiled States' rights to govern their former seas, and could embolden other States to assert meritless claims. Instead, a new international convention or a series of bilateral treaties to create broad, explicit recognition of sinking States' enduring sovereignty over their legacy territorial seas would likely have the benefit of achieving broad, clear-cut recognition of these enduring economic rights.

C. *Amendment to the Law of the Sea Convention*

The best method for protecting sinking States' rights to enduring EEZs is an explicit amendment to the Convention.¹⁶⁶ This approach has the advantages of clarity and consensus among the international community, since the amendment process encourages unanimity.¹⁶⁷ If kept separate from the issue of how to manage other non-sinking States' maritime possessions in the face of rising sea levels, it could also avoid a great deal of political wrangling.

161. *Id.*

162. *See* discussion *supra* pp. 179–80.

163. *See* discussion *supra* pp. 178–79.

164. *See* discussion *supra* pp. 171–72.

165. *See* discussion *supra* pp. 171–72 explaining that widespread concerns about the loss of the sinking States only came after the Convention came into force.

166. According to the amendment procedures discussed *supra* pp. 175–77.

167. The Convention, *supra* note 15, at arts. 312, 313.

To accomplish its goals of protecting sinking States' economic rights in their former maritime possessions, such an amendment must mirror the current provisions regarding EEZs. It must apply only to those States existentially threatened by rising sea levels. The amendment must also define the point in time at which the enduring boundaries will be set because, under the current provisions of the Convention, these boundaries will continue to shrink with the loss of territory. The text of the amendment should be as follows:

1. The purpose of this Amendment is to provide States whose territory is existentially threatened by rising sea levels with continued rights of access to economic resources in their legacy territorial sea and EEZ.
2. The States currently eligible to claim the rights defined in this Amendment are the Maldives, Kiribati, Tuvalu, and the Marshall Islands. Other States may be added to this category by amendment to the Convention according to the processes defined in Articles 312 and 313.
3. States in this category shall have rights to a fixed, enduring EEZ. States in this category shall enjoy the privileges States enjoy in EEZs as defined in Part V. States shall also have in their enduring EEZ the responsibilities defined in Part V.
4. The enduring EEZ shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured on the date this Amendment enters into force.
5. The enduring EEZs of States subsequently added to this category shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured on the date the Amendment adding them to the category enters into force.
6. Foreign States shall enjoy the rights of access listed in Article 58 in the enduring EEZ.¹⁶⁸

One critique of this method is that it denies imperiled States some rights they enjoyed while in complete sovereign control over their territorial seas.

A crucial benefit of this method is that it creates an unambiguous framework to protect some of the imperiled States' sovereignty over their former territorial seas. This new amendment is also the most politically practical option. It avoids the ambiguities that could arise from using existing provisions in the Convention to guarantee new rights to States—rights the Convention writers did not originally contemplate. It also separates the question of which rights are available to sinking States from the question of which rights are available to States that, although not existentially threatened by rising sea levels, will lose some territory to rising sea

168. The Articles and Parts cited in the text of the proposed Amendment are those in the Convention. *See supra* note 15.

levels. Any agreement defining sinking States' rights will be much more palatable to larger States if its impact on them will be minimized.

This option also best balances the dueling interests of international law: justice and freedom of the seas. Justice is enhanced because the peoples displaced by rising sea levels would have access to financial support by using the resources of their lost countries. The principle of freedom of the seas is served at the same time by restricting exclusive State control over the areas in question. Therefore, the amendment brings with it the additional benefit of being consistent with the two main principles of the international law regarding the governance of the sea.

CONCLUSION

World mythology is replete with stories of catastrophic inundations.¹⁶⁹ Sadly, the twenty-first century will inevitably see these stories manifest when rising sea levels submerge the sinking States discussed in this Note. The international community now has the opportunity to ameliorate the harms that will befall the sinking States and their populations. Engineers,¹⁷⁰ humanitarians,¹⁷¹ and statesmen¹⁷² debate how to wield the tools of their disciplines to assist in this work. An effective solution to protecting sinking States must balance the law's historical preference for maintaining the freedom of the seas against recent trends in favor of ameliorating the losses States suffer due to environmental pollution and climate change.¹⁷³ This Note has argued that allowing successor entities to retain some type of enduring EEZ over their legacy maritime possessions would strike the balance between these two interests, guaranteeing the freedom of the seas and also ameliorating the injuries sinking States will suffer due to rising sea levels.¹⁷⁴ This compromise would be most effective if done in an amendment to the Convention.¹⁷⁵ Allowing sinking States' successor entities to enjoy continued exclusive economic rights in their former maritime possessions is a relatively small means of assisting them in their time of need, but it will be an effective piece of a larger regimen of assistance.

Climate change will have an enormous impact on world history over the next century. Seemingly no area of human activity—whether political, economic, environmental, or other—will remain unaffected. The plight of the sinking States, their 580,000 inhabitants, and the generations that will follow those inhabitants,

169. See, e.g., *Genesis* 6:9 (King James) (Noah's flood in Christianity); Qur'an 11:38–45 (Noah's flood in Islam); PLATO, *supra* note 1 (the story of Atlantis).

170. See Gagain, *supra* note 10 (explaining how the Maldives are engaging in massive public works to build new artificial islands and shore up eroding, low-lying islands).

171. See Caramel, *supra* note 12 (explaining how the Anglican Church in Fiji sells Kiribati government land to resettle its population).

172. Burkett, *supra* note 16 (evaluating the possibilities for successor entities to sinking States).

173. See discussion *supra* pp. 171–177.

174. See discussion *supra* pp. 181–83.

175. See discussion *supra* pp. 184–86.

may only be one small thread in the world's historical tapestry, but their difficulty will be real. Fortunately, it can also be mitigated.