

WATERPROOFING STATEHOOD: STRENGTHENING
CLAIMS FOR CONTINUED STATEHOOD FOR SINKING
STATES USING “E-GOVERNANCE”

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Climate-change–induced sea-level rise threatens the very existence of Small Island Developing States. Not only will this crisis create extreme climate conditions that can physically devastate these states, it also threatens their place in the international legal system. For a country to gain or maintain access to the international legal system, it needs to be classified as a “state.” The common understanding is that a state needs to have territory, a population, a government, and independence. For low-lying coastal states, sea-level rise threatens the first two criteria directly and the second two indirectly. This Note explores whether these states can transition their governance system to online and digital platforms and thereby retain their status as states. In doing so, this Note draws on Estonia’s development of the “e-state” that has proven that such a digital governance system can exist practically and politically. With the advent of e-identification, e-governance, and e-banking, among other innovations, this Note argues that the “e-statehood” fulfills enough of the holistic goals of territorial statehood to survive in the international legal system.

This Note is the first to explore the legal justifications and ramifications of a digital state, especially when the state no longer fulfills the traditional criteria of statehood. Ultimately this Note hopes to suggest a path forward that respects and maintains the autonomy of these small island states.

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“Every night, families across my country go to sleep praying that the ocean will be forgiving.”

— Lauza Ali, Counsellor of the Permanent Mission of the Republic of Maldives to the United Nations.¹

INTRODUCTION

At the 2021 United Nations Climate Change Conference, Tuvalu’s foreign minister, Simon Kofe, appeared before the world in a full suit and tie, knee-deep in water, and proclaimed, “We are sinking.”² His video speech—recorded on what once was dry land—was meant not only as a political statement but as a warning and a call to action.³ If the world does

1. Lauza Ali, Counsellor, Permanent Mission of the Republic of Maldives to the UN, Statement on the Report of the International Law Commission on the Work of Its Seventy-Third Session (Oct. 27, 2022), https://www.un.org/en/ga/sixth/77/pdfs/statements/ilc/28mtg_maldives_2.pdf [<https://perma.cc/KM84-F6D8>].

2. Guardian News, ‘We Are Sinking’: Tuvalu Minister Gives COP26 Speech Standing in Water to Highlight Sea Level Rise, YouTube, at 00:42 (Nov. 9, 2021), <https://www.youtube.com/watch?v=jBBsv0QyscE> (on file with the *Columbia Law Review*).

3. See Josephine Joly, COP26: Why Has a Speech by Tuvalu’s Foreign Minister Gone Viral?, Euronews (Nov. 9, 2021), <https://www.euronews.com/green/2021/11/09/cop26-tuvalu-s-foreign-minister-urges-world-leaders-to-address-climate->

not combat climate change and rising sea levels, entire countries could be swallowed by the ocean.⁴

Unfortunately, science supports Kofe's assertion. Irreversible damage from climate change has already occurred.⁵ Many scientists agree that if the world does not take action in the next six years to limit the increase of the mean global temperature to 1.5 degrees Celsius, large-scale damage to the environment, including the catastrophic rise of sea levels, will be inevitable.⁶ If the global emissions trend continues as it has, the global average temperature will surpass a 1.5-degree increase within the next five to ten years.⁷ In that scenario, sea-level rise will cause an uptick in natural disasters, a depletion of vital resources, and ultimately the loss of all habitable land in the most vulnerable countries.⁸ Whole populations will

change [<https://perma.cc/K6F5-WPWF>] (“[T]he message we are sending to the leaders is for them to look beyond their immediate interests . . . and recognise that we live in an interconnected world.” (internal quotation marks omitted) (quoting interview with Kofe)).

4. Joe Phelan, *What Countries and Cities Will Disappear Due to Rising Sea Levels?*, *Live Sci.* (Mar. 27, 2022), <https://www.livescience.com/what-places-disappear-rising-sea-levels> [<https://perma.cc/7YX9-BEDM>]; see also Joly, *supra* note 3 (“Where I was standing and filming, . . . there’s that concrete base that was actually built by the Americans during World War Two. . . . [T]his base used to be on land and it’s now in the middle of the sea, about 20 or 30 metres from the land.” (internal quotation marks omitted) (quoting interview with Kofe)).

5. Susan Solomon, Gian-Kasper Plattner, Reto Knutti & Pierre Friedlingstein, *Irreversible Climate Change Due to Carbon Dioxide Emissions*, 106 *Proc. Nat’l Acad. Scis.* 1704, 1709 (2009) (“Irreversible climate changes due to carbon dioxide emissions have already taken place, and future carbon dioxide emissions would imply further irreversible effects on the planet, with attendant long legacies for choices made by contemporary society.”).

6. See Climate Clock, <https://climateclock.world/> [<https://perma.cc/U6AD-GM43>] (last visited Aug. 11, 2023) (reflecting the approximately six years remaining “to limit global warming to 1.5°C”); *What Is the Climate Clock?*, *Root the Future*, <https://rootthefuture.com/climate-clock/> [<https://perma.cc/92JA-3L9A>] (last visited Aug. 11, 2023) (noting that “a global temperature . . . increase [of] 1.5 degrees Celsius” marks “a dangerous ‘point of no return’ according to scientists”); see also Ove Hoegh-Guldberg et al., *Impacts of 1.5°C of Global Warming on Natural and Human Systems*, in *Intergovernmental Panel on Climate Change, Global Warming of 1.5°C*, at 175, 178 (Valérie Masson-Delmotte, Panmao Zhai, Hans-Otto Pörtner, Debra Roberts, Jim Skea & Priyadarshi R. Shukla eds., 2019), https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Full_Report_LR.pdf [<https://perma.cc/M9RH-Z5HA>] (explaining that “[l]imiting global warming to 1.5°C is expected to substantially reduce the probability of extreme drought, precipitation defects, and risks associated with water availability”).

7. Peter Schlosser, *After COP27, All Signs Point to World Blowing Past the 1.5 Degrees Global Warming Limit—Here’s What We Can Still Do About It*, *The Conversation* (Nov. 22, 2022), <https://theconversation.com/after-cop27-all-signs-point-to-world-blowing-past-the-1-5-degrees-global-warming-limit-heres-what-we-can-still-do-about-it-195080> [<https://perma.cc/CSR9-XMS4>].

8. Mary-Elena Carr, Madeleine Rubenstein, Alice Graff & Diego Villarreal, *Sea Level Rise in a Changing Climate: What Do We Know?*, in *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* 15, 54 (Michael B. Gerrard & Gregory E. Wannier eds., 2013).

be forced to migrate,⁹ as the residents of Papua New Guinea and other island nations have already experienced firsthand.¹⁰

Beyond its physical dangers, sea-level rise will challenge the very existence of certain Small Island Developing States (SIDS) in the international legal system. Historically, entities could attain statehood only by having a territory and a permanent population.¹¹ Statehood carries with it several important benefits that can support the well-being of the state's population, including maritime entitlements under the United Nations Convention on the Law of the Sea (UNCLOS), access to international adjudication, and membership in international organizations like the United Nations (UN).¹² While there is a strong presumption against the extinction of states in international law, there is no clear law on whether

9. Michael Oppenheimer et al., *Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities* (Ayako Abe-Ouchi, Kapil Gupta & Joy Pereira eds.), in *Intergovernmental Panel on Climate Change, The Ocean and Cryosphere in a Changing Climate* 321, 321–445 (Hans-Otto Pörtner, Debra C. Roberts, Valérie Masson-Delmotte & Panmao Zhai eds., 2022), https://www.ipcc.ch/site/assets/uploads/sites/3/2022/03/SROCC_FullReport_FINAL.pdf [<https://perma.cc/4Q34-7ZMU>] [hereinafter IPCC, Ocean and Cryosphere]; see also Patrícia Galvão Teles & Juan José Ruda Santolaria (Co-Chairs of the Study Grp. on Sea-Level Rise in Rel. to Int'l L.), *Sea-Level Rise in Relation to International Law*, para. 47(d), Int'l L. Comm'n, U.N. Doc. A/CN.4/752 (Apr. 19, 2022) (citing Nerilie Abram et al., *Summary for Policymakers*, in IPCC, Ocean and Cryosphere, supra, at 3, 3–35) (summarizing the findings of the Intergovernmental Panel on Climate Change).

10. Sharon Brett Kelly, *Sea Level Rises Forcing Community to Relocate From Carteret Islands in Papua New Guinea*, Pasifika Environews (Aug. 29, 2022), <https://pasifika.news/2022/08/sea-level-rises-forcing-community-to-relocate-from-carteret-islands-in-papua-new-guinea/> [<https://perma.cc/X8RM-86PC>]; see also Tristan McConnell, *The Maldives Is Being Swallowed by the Sea. Can It Adapt?*, Nat'l Geographic (Jan. 20, 2022), <https://www.nationalgeographic.com/environment/article/the-maldives-is-being-swallowed-by-the-sea-can-it-adapt> (on file with the *Columbia Law Review*) (“The difference between 1.5 degrees and 2 degrees (Celsius) is a death sentence for the Maldives.”); Joshua McDonald, *Rising Sea Levels Threaten Marshall Islands' Status as a Nation*, World Bank Report Warns, *The Guardian* (Oct. 16, 2021), <https://www.theguardian.com/world/2021/oct/17/rising-sea-levels-threaten-marshall-islands-status-as-a-nation-world-bank-report-warns> [<https://perma.cc/RK8U-BP37>] (reporting that sea-level rise likely poses an existential threat to the Marshall Islands).

11. See Galvão Teles & Ruda Santolaria, supra note 9, para. 75 (“While there is no generally accepted notion of ‘State’, the reference is usually the . . . criteria that a State has to meet to be considered a subject . . . of international law in accordance with . . . the 1933 Convention of the Rights and Duties of States: (a) permanent population; (b) defined territory”); Jane McAdam, *Climate Change, Forced Migration, and International Law* 119–60 (2020) (arguing that statehood might be jeopardized by a loss of population before a loss of territory, and exploring mechanisms of continuing the state).

12. See Rosemary Rayfuse, *International Law and Disappearing States—Maritime Zones and the Criteria for Statehood*, 41 *Env't Pol'y & L.* 281, 284–85 (2011). Beyond these practical challenges, Melissa Stewart argues that “sinking states serve as a metaphor for international law and the whole of humanity” and that a failure to adequately address this crisis threatens the survival of the international legal system as a whole. Melissa Stewart, *Cascading Consequences of Sinking States*, 59 *Stan. J. Int'l L.* (forthcoming 2023) (manuscript at 4), <https://ssrn.com/abstract=4321214> [<https://perma.cc/3SJF-4WPZ>].

the presumption of continuity applies to submerged states.¹³ Several contemporary scholars have therefore argued that international law should begin to recognize states that lose the necessary criterion of territory as “deterritorialized states.”¹⁴ Likewise, they have explored options for how these nonterritorial states might operate in practice.¹⁵ All of these solutions, however, rely heavily on international cooperation, leaving the fate of at-risk SIDS in the hands of other countries. The goal of this Note, therefore, is to explore a modality of continued statehood that enhances the autonomy and flexibility for at-risk island nations.

At the 2022 UN Climate Change Conference, Tuvalu’s foreign minister, Simon Kofe, once more stood before the world to introduce the concept of Tuvalu’s digital twin.¹⁶ In a further effort to save the atoll nation, Tuvalu plans to rebuild itself in the Metaverse, preserving itself online for all time.¹⁷ While Tuvalu would be the first nation to use the Metaverse in this way, it will not be the first country to “digitize” itself into an “e-state.” Dubbing itself “e-Estonia,” the Northern European state provides most public goods and services online, including a digital ID system, digital banking, digital voting, e-residency for businesses, and digital governance.¹⁸ One reason for this reform was to ensure Estonia’s survival: If an expansionist state occupied Estonian territory and displaced its government, Estonia could continue to operate unimpeded through its digital platforms.¹⁹ Where it is all but certain that the peoples of sinking states will be displaced from their territories, adoption of “e-statehood”

13. Sumudu Atapattu, *Climate Change: Disappearing States, Migration, and Challenges for International Law*, 4 Wash. J. Env’t L. & Pol’y 1, 18 (2014) (“International law does not envision a situation where states disappear altogether . . .”).

14. Rayfuse, *supra* note 12, at 284–85.

15. *Id.* at 286–87.

16. Tory Shepherd, *Could a Digital Twin of Tuvalu Preserve the Island Nation Before It’s Lost to the Collapsing Climate?*, *The Guardian* (Sept. 29, 2022), <https://www.theguardian.com/world/2022/sep/29/could-a-digital-twin-of-tuvalu-preserve-the-island-nation-before-its-lost-to-the-collapsing-climate> (on file with the *Columbia Law Review*).

17. Lucy Craymer, *Tuvalu Turns to the Metaverse as Rising Seas Threaten Existence*, *Reuters* (Nov. 15, 2022), <https://www.reuters.com/business/cop/tuvalu-turns-metaverse-rising-seas-threaten-existence-2022-11-15/> (on file with the *Columbia Law Review*).

18. Story, *e-Estonia*, <https://e-estonia.com/story/> (on file with the *Columbia Law Review*) [hereinafter *e-Estonia, Story*] (last visited Aug. 29, 2023). Tuvalu also has announced its Future Now Project, which seeks similar ends as the Estonian e-state. See Future Now Project, Dep’t of Foreign Affs., Gov’t of Tuvalu, <https://dfa.gov.tv/index.php/future-now-project/> [https://perma.cc/TZ97-8JMH] (last visited Aug. 29, 2023) (detailing one of its goals as “[c]onducting digitization activities on appropriate platforms to create a digital Government administrative system” so that if “mass migration becomes necessary, digitized Government services would ensure that Tuvalu could ostensibly shift to another location and continue to fully function as a sovereign nation”).

19. Nikolai F. Rice, *Estonia’s Digital Embassies and the Concept of Sovereignty*, *Geo. Sec. Stud. Rev.* (Oct. 10, 2019), <https://georgetownsecuritystudiesreview.org/2019/10/10/estonias-digital-embassies-and-the-concept-of-sovereignty/> [https://perma.cc/C74X-AF6X].

similar to Estonia's might strengthen states' ability to preserve their international legal personality.

While the impacts of sea-level rise on the continuity of at-risk SIDS have been previously explored at length, this Note is the first to argue that e-statehood should be recognized as a form of deterritorialized statehood that is strong enough to carry forward the presumption of continuity. In doing so, this Note uses the conceptual innovation of an e-state from Estonia as a framework and advocates that SIDS adopt versions of e-statehood that meet their particular needs. Part I of this Note provides a background on the physical threats sea-level rise poses to SIDS as well as a background on the international law of statehood and continuity. It details several modalities that have been proposed as forms of continued statehood. Part II explains the dangers associated with the loss of statehood in international law, specifically as it relates to the preservation of maritime entitlements, diplomatic protection, other treaty-based protections, and participation in international organizations. This Part further explores why the presumption of continuity might not apply to the case of SIDS. Finally, Part III argues that e-states could provide SIDS a viable pathway toward transitioning into deterritorialized statehood, be developed unilaterally, and create greater legitimacy in the international arena than other options for continued statehood.

I. THE SCIENCE, THE LAW, AND THE FUTURE OF SMALL ISLAND STATEHOOD

In the summer of 2022, the International Law Commission (ILC) released its Second Issues Paper on the impacts of sea-level rise on statehood.²⁰ Reviewing the applicable law, the ILC noted that statehood generally is contingent on a country having territory and a permanent population.²¹ Low-lying SIDS are at a great risk of losing both due to rising sea levels.²² The ILC noted that many states and scholars believe that the statehood of submerged island nations will continue despite their territory becoming uninhabitable.²³ But international law has yet to be definitively

20. See Galvão Teles & Ruda Santolaria, *supra* note 9, paras. 72–226. The ILC is a UN entity dedicated to the codification and progressive development of international law. Codification has been defined as “the precise formulation and systematization of rules of international law in fields where there already has been extensive State practice, precedent, and doctrine,” while progressive development refers to “the preparation of draft conventions on subjects which have not yet been regulated by international law or in regard to which the law has not yet been sufficiently developed in the practice of States.” G.A. Res. 174 (II), art. 15, Statute of the International Law Commission (Nov. 12, 1947). In engaging with contemporary issues in international law, the ILC will sometimes produce study papers that might inform the future work of the UN. Such is the case with the Galvão Teles and Ruda Santolaria paper on sea-level rise.

21. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 75.

22. See Rayfuse, *supra* note 12, at 284 (“The traditional international law criteria for statehood include the fundamental requirements of territory and a permanent population.”).

23. Galvão Teles & Ruda Santolaria, *supra* note 9, paras. 183–196.

established in this area, and several scholars are unconvinced that small island statehood will survive.²⁴ The fate of the most vulnerable small island nations is therefore left uncertain.

Before exploring what e-statehood would entail for the international law of statehood in Part III, this Part will begin with a brief review of the physical threats sea-level rise poses to SIDS that are pertinent to their maintenance of statehood. It will then detail the law of statehood and state continuation before exploring possible modalities of continued statehood.

A. *An Unforgiving Ocean*

The impending crisis of sea-level rise has been well studied and documented by scientific bodies,²⁵ including in the recent 2021 report of the Intergovernmental Panel on Climate Change (IPCC).²⁶ Due to industrial activities over the last few decades by developed nations,²⁷

24. See, e.g., Michel Rouleau-Dick, *Competing Continuities: What Role for the Presumption of Continuity in the Claim to Continued Statehood of Small Island States?*, 22 *Melbourne J. Int'l L.* 357 (2021) [hereinafter *Rouleau-Dick, Competing Continuities*] (detailing different theories of continuity that might not support the continuation of statehood for submerged island nations); Ori Sharon, *To Be or Not To Be: State Extinction Through Climate Change*, 51 *Env't L.* 1041 (2021) [hereinafter *Sharon, To Be or Not To Be*] (arguing that the continuation of statehood would lead to a sovereignty clash that will make it more difficult for migrants of a sinking state to find a host state willing to grant them entry).

25. For a short list of organizations that have considered the topic, see Press Release, NASA, *NASA-Led Study Reveals the Causes of Sea Level Rise Since 1900* (Aug. 21, 2020), <https://climate.nasa.gov/news/3012/nasa-led-study-reveals-the-causes-of-sea-level-rise-since-1900/> [<https://perma.cc/6QFB-ZLPJ>] (identifying glacial melting and thermal expansion as the primary drivers of sea-level rise); *Global Sea Level Rise Is Accelerating—Study*, UN Framework Convention on Climate Change (Feb. 13, 2018), <https://unfccc.int/news/global-sea-level-rise-is-accelerating-study> [<https://perma.cc/2EXK-3QGN>] (describing recent data indicating that melting ice sheets are causing sea-level rise to accelerate at a rate that could exceed threefold per year); Rebecca Lindsey, *Climate Change: Global Sea Level*, *Climate.gov* (Apr. 19, 2022), <https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level> [<https://perma.cc/99D4-YMPJ>] (highlighting changes in sea level over more than a century and the phenomenon's future effects).

26. See Baylor Fox-Kemper et al., *Ocean, Cryosphere and Sea Level Change*, in *Intergovernmental Panel on Climate Change, Climate Change 2021: The Physical Science Basis* 1211, 1211–363 (Valérie Masson-Delmotte & Panmao Zhai eds., 2021), https://report.ipcc.ch/ar6/wg1/IPCC_AR6_WGI_FullReport.pdf [<https://perma.cc/4WYR-K75E>] (reporting large-scale changes in the climate system).

27. See Nadja Popovich & Brad Plumer, *Who Has the Most Historical Responsibility for Climate Change?*, *N.Y. Times* (Nov. 12, 2021), <https://www.nytimes.com/interactive/2021/11/12/climate/cop26-emissions-compensation.html> (on file with the *Columbia Law Review*) (“Rich countries, including the United States, Canada, Japan and much of western Europe, account for just 12 percent of the global population today but are responsible for 50 percent of all the planet-warming greenhouse gases released from fossil fuels and industry over the past 170 years.”). Notably, less than one percent of all greenhouse gas emissions have come from SIDS. Leila Mead, *Small Islands,*

carbon dioxide levels and atmospheric temperatures have risen, contributing to the melting of ocean ice.²⁸ This, in turn, will cause sea levels to rise to a degree that will devastate low-lying zones,²⁹ which are home to 680 million people.³⁰ According to the IPCC, it is “*virtually certain*” that the global mean sea level will continue to rise until 2100,³¹ and even if states hit their emission targets, climate changes would “continue in their current direction for decades to millennia.”³²

Sea-level rise has the capacity to render SIDS uninhabitable.³³ At a minimum, it will “increase the likelihood of erosion, saline intrusions into groundwater, and risk of flooding.”³⁴ Atoll islands—ring shaped islands—are at particular risk due to their central lagoons.³⁵ The width of these islands is often in the “tens of feet,” and therefore erosion can impact permanent dwellings, infrastructure, beaches, and agricultural lands.³⁶ With limited capacities to respond to this crisis,³⁷ low-lying coastal states might not be able to sustain a population when their drinking water becomes contaminated, their agriculture spoils, their infrastructure crumbles, and their land floods.³⁸ Although this is a slow-

Large Oceans: Voices on the Frontlines of Climate Change 2 (2021), <https://www.iisd.org/system/files/2021-03/still-one-earth-SIDS.pdf> [<https://perma.cc/2ANE-2ATU>].

28. See Fox-Kemper et al., *supra* note 26, at 1218.

29. See Carr et al., *supra* note 8, at 54 (“The implications for small island States of rising sea level and other changes in the climate system will be particularly acute . . .”).

30. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 47(b).

31. Fox-Kemper et al., *supra* note 26, at 1216.

32. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 50(f).

33. Amélie Bottollier-Depois, *As Oceans Rise, Are Some Nations Doomed to Vanish?*, Phys.org (Oct. 10, 2022), <https://phys.org/news/2022-10-oceans-nations-doomed.html> [<https://perma.cc/GG4Q-7JF4>] (noting that the most threatened nations are the Maldives, Kiribati, the Marshall Islands, Nauru, and Tuvalu); Stewart, *supra* note 12 (manuscript at 3) (“For Tuvalu and three other atoll states—Kiribati, the Maldives, and the Marshall Islands—the threat is nothing short of existential.” (citing Alejandra Torres Camprubi, *Statehood Under Water: Challenges of Sea-Level Rise to the Continuity of Pacific Island States* 103 (2016))).

34. Carr et al., *supra* note 8, at 42.

35. See Atoll, Nat’l Geographic, <https://education.nationalgeographic.org/resource/atoll> [<https://perma.cc/3W6H-MCW6>] (last updated May 20, 2022) (“Atolls, along with sandbars, are among islands with the lowest elevation. They are constantly, naturally at risk from erosion due to wind and waves. Atolls are also at risk from sea-level rise.”); see also What Is a Lagoon?, Nat’l Ocean Serv., <https://oceanservice.noaa.gov/facts/lagoon.html> [<https://perma.cc/HF4V-KDFN>] (last visited Aug. 12, 2023) (“A lagoon is a body of water separated from larger bodies of water by a natural barrier.”).

36. Carr et al., *supra* note 8, at 42.

37. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 47(h).

38. See Carr et al., *supra* note 8, at 42–43 (noting that sea-level rise can contaminate water supplies, increase flooding, and harm ecosystems).

onset crisis, it inevitably will lead to a complete submergence of livable territory and the forced migration of whole populations.³⁹

B. *International Law of Statehood*

States are the primary subjects of the international legal system, in which they can shape law, acquire benefits, and incur obligations.⁴⁰ Specifically, statehood entails the right to maritime entitlements,⁴¹ access to international adjudication,⁴² and full membership in international organizations,⁴³ which can be vital to the well-being of the migrating nationals of at-risk SIDS.⁴⁴ While some international entities that lack state status have an international legal personality that grants them access to some of those rights and benefits, the scope of that access is limited.⁴⁵ Over time, international law has developed criteria to determine which entities qualify as states that have full access to the international legal system.

The law of statehood draws its primary influence from a treaty and customary international law (CIL).⁴⁶ Treaties are “international

39. See McAdam, *supra* note 11, at 123.

40. 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, 9 (2014) (noting that while non-state entities have gained some standing in the international legal system, “states are still the primary actors” within it); Ben Juvelier, *When the Levee Breaks: Climate Change, Rising Seas, and the Loss of Island Nation Statehood*, 46 *Denv. J. Int’l L. & Pol’y* 21, 38–39 (2017) (“[T]raditional international law asserts that such [territorialized] states are the primary subjects of and makers of international law . . .”).

41. Rayfuse, *supra* note 12, at 284 (“Only States are entitled to claim maritime zones.”).

42. Jessica L. Noto, *Comment, Creating a Modern Atlantis: Recognizing Submerging States and Their People*, 62 *Buff. L. Rev.* 747, 750 (2014) (“[T]he Statute of the International Court of Justice requires parties to be states before they can bring a claim before the court.”).

43. Jain, *supra* note 40, at 9 (noting that while observer states in the UN have some “state-like rights,” they lack the right to vote).

44. See *infra* section II.A. The continued protection of the state is particularly important for this group because they do not qualify as refugees under international law and therefore cannot access the assistance normally afforded to refugees. For a detailed discussion on the lack of refugee protection for this population, see Shaun McCullough, *In a Rising Sea of Uncertainty: A Call for a New International Convention to Safeguard the Human Rights of Citizens of Deterritorialized Asia-Pacific Small Island-States*, 26 *Colo. Nat. Res. Energy & Env’t L. Rev.* 109, 120–28 (2015).

45. For example, the Sovereign Order of Malta can issue diplomatic passports, ensure diplomatic immunity for its officials, and enter into international agreements related to its humanitarian relief mission. Its existence, however, relies on the recognition of states, and its ability to act is limited to its mission. Michel Rouleau-Dick, *A Blueprint for Survival: Low-Lying Island States, Climate Change, and the Sovereign Military Order of Malta*, 63 *German Y.B. Int’l L.* 621, 628–30 (2020) [hereinafter Rouleau-Dick, *A Blueprint for Survival*].

46. Treaty law and CIL are two of the four commonly accepted sources of international law. Statute of the International Court of Justice art. 38, June 26, 1945, 59 *Stat.* 1055 [hereinafter ICJ Statute]. The other two are general principles of law recognized by “civilized” nations—including doctrines like estoppel and good faith—and judicial decisions and the writings of the most highly qualified publicists. *Id.*; Public

agreement[s] concluded between States in written form . . . whether embodied in a single instrument or in two or more related instruments.”⁴⁷ In contrast, CIL is determined by general and consistent state practice followed out of a sense of obligation (*opinio juris*).⁴⁸ Whereas treaties are created through diplomacy, CIL is created over time through state practice.⁴⁹ Once identified, CIL is as binding on states as written treaties.⁵⁰ These two sources of international law can also influence each other, as was the case with the law of statehood.⁵¹

1. *The Montevideo Convention and Its Influence.* — The 1933 Convention on the Rights and Duties of States, better known as the Montevideo Convention, has significantly influenced the modern conception of statehood in international law.⁵² Article 1 sets out four criteria for statehood: (1) a permanent population, (2) a defined territory, (3) a government, and (4) the capacity to enter into relations with other states.⁵³ The Convention was a regional agreement with only fifteen

International Law: A Beginner’s Guide—General Principles, Libr. of Cong., <https://guides.loc.gov/public-international-law/general-principles> [<https://perma.cc/TQ86-8KSR>] (last visited Aug. 29, 2023). For a critique of the use of the term “civilized nations” in this provision, see Sué González Hauck, ‘All Nations Must Be Considered to Be Civilized’: General Principles of Law Between Cosmetic Adjustments and Decolonization, *Verfassungsblog* (July 21, 2020), <https://verfassungsblog.de/all-nations-must-be-considered-to-be-civilized/> [<https://perma.cc/3WC7-GACM>] (“The [UN] report acknowledges that the term ‘civilized nations’ was ‘intended to exclude from consideration the legal systems of the countries not considered to be civilized’ However, it considers this exclusionary effect to be irrelevant to present-day international law.”).

47. Vienna Convention on the Law of Treaties art. 2, May 23, 1969, 1155 U.N.T.S. 331 [hereinafter VCLT]. This convention is the instrument that codified the international law of treaties. *Id.* pmbl.

48. Customary International Law, Cornell L. Sch., https://www.law.cornell.edu/wex/customary_international_law [<https://perma.cc/UFN2-YMGJ>] (last updated July 2022).

49. See, e.g., *The Paquete Habana*, 175 U.S. 677, 686 (1900) (explaining that historical analysis was necessary to evaluate whether a specific maritime fishing practice was indeed CIL); see also Int’l L. Comm’n, Rep. on the Work of Its Seventieth Session, U.N. Doc. A/73/10, at 119–22 (2018) (specifying the accepted means of identifying CIL).

50. See ICJ Statute, *supra* note 46, art. 38 (establishing that both CIL and treaty law are sources of law the ICJ must draw on); Customary International Humanitarian Law: Questions & Answers, Int’l Comm. of the Red Cross (Aug. 15, 2005), <https://www.icrc.org/en/doc/resources/documents/misc/customary-law-q-and-a-150805.htm> [<https://perma.cc/YLU7-G77H>] (“In principle, there is no difference in the enforcement of treaty law and customary international law, as both are sources of the same body of law.”).

51. Gary L. Scott & Craig L. Carr, Multilateral Treaties and the Formation of Customary International Law, 25 *Denv. J. Int’l L. & Pol’y* 71, 72 (1996) (noting that under certain circumstances, treaty law can become customary international law over time).

52. Convention on Rights and Duties of States, Dec. 26, 1933, 49 Stat. 3097, 165 L.N.T.S. 19 (entered into force Dec. 26, 1934) [hereinafter Montevideo Convention].

53. *Id.* art. 1.

members⁵⁴ and so is not itself binding on the world.⁵⁵ The Convention-codified criteria, however, “are widely quoted as” codifying “the customary international law requirements of statehood.”⁵⁶ Although there are critiques of this paradigm,⁵⁷ there is overwhelming agreement that these criteria are the operative indicia of statehood in international law.⁵⁸ This is so even though many entities recognized as states do not perfectly satisfy all the indicia.

Under this set of criteria, one of the biggest threats to the statehood of sinking SIDS is the vulnerability of their territory. Territory has long been considered a requirement for statehood,⁵⁹ and to some scholars it is almost inconceivable to have a state without it.⁶⁰ Tracing its roots to the treaties of Westphalia, the concept of state sovereignty was historically understood in reference to authority over territorial boundaries.⁶¹ The

54. The signatories to the convention were Brazil, Chile, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, the United States, and Venezuela. Convention on Rights and Duties of States Adopted by the Seventh International Conference of American States, UN, <https://treaties.un.org/pages/showdetails.aspx?objid=0800000280166aef> [<https://perma.cc/S9PQ-ZMPV>] (last visited Aug. 12, 2023).

55. Indeed, the treaty itself uses the language “*should* possess the following qualifications,” signaling that the Convention’s criteria might not have the mandatory force a provision could have when the word “*shall*” is used. Montevideo Convention, *supra* note 52, art. 1 (emphasis added).

56. Jain, *supra* note 40, at 15 & n.85 (“Most modern publicists discussing the criteria of statehood restrict their discussion to quoting the Montevideo Convention criteria.”). But there is some pushback on the notion that these criteria are the be-all and end-all of statehood in international law. Small island nations argue that these criteria at most signal what is required for the *creation* of a state as opposed to its *continued existence*. See *infra* note 101 and accompanying text; see also Stewart, *supra* note 12 (manuscript at 12) (“[W]hile there is a traditional conception of what constitutes a state under international law, there is no legally binding definition.”).

57. See Jain, *supra* note 40, at 16 (“Louis Henkin, a noted authority on international law . . . criticises these criteria on the grounds that they are ‘not requisite qualifications but descriptions of states as we know them.’” (quoting Louis Henkin, *International Law: Politics and Values* 13 (1995))).

58. *Id.* at 15 (“[T]he Article 1 criteria are widely quoted as representing a codification of the customary international law requirements of statehood.” (citing, e.g., Thomas D. Grant, *Defining Statehood: The Montevideo Convention and Its Discontents*, 37 *Colum. J. Transnat’l L.* 403, 415 n.51 (1999))). Notably, “state” has never been defined in international law. The ILC considered defining the term in its Draft Declaration of the Rights and Duties of States but decided against it. See Jain, *supra* note 40, at 16 & nn.91–92; see also James Crawford, *The Creation of States in International Law* 38–40 (2d ed. 2006) (detailing several failed attempts at defining “state”). Thus, the concept of statehood might allow for some flexibility in certain circumstances. Maxine A. Burkett, *The Nation Ex-Situ, in Threatened Island Nations*, *supra* note 8, at 89, 94–95.

59. Jain, *supra* note 40, at 15 (“The importance of territory as a criterion of statehood, in particular, was recognised in the writings of publicists well before the Montevideo Convention . . .”).

60. See, e.g., Antonio Cassese, *International Law* 81 (2d ed. 2005).

61. Derek Wong, *Sovereignty Sunk? The Position of ‘Sinking States’ at International Law*, 14 *Melbourne J. Int’l L.* 346, 352 (2013) (“Modern international law dates from the

Montevideo Convention and its subsequent evolution into CIL have upheld the requirement of territory.⁶² Not everyone agrees that territory is absolutely necessary; for example, one scholar argued that territory was a consequence of statehood, not a prerequisite.⁶³ Yet there are many who argue that territory serves a fundamental purpose that statehood could not exist without.⁶⁴

In that regard, several core functions have been ascribed to the purpose of territory. One view is that territory is essential to physically demarcate the competence and jurisdiction of the central authority of the state, including both its coercive power and its claim to entitlements within its borders.⁶⁵ It can also facilitate the effective exercise of jurisdiction and serve as a source of security, economic resources,⁶⁶ and historical and cultural resources.⁶⁷ Alternatively, one scholar argued that territory is not “an end in itself, but . . . a means to an end” and is predominantly linked to its ability to serve as a “physical basis that ensures that people can live together as organized communities.”⁶⁸

To fulfill the population requirement for statehood, there is no set minimum population size;⁶⁹ the population merely must exhibit some communal activity.⁷⁰ After World War II, a group of individuals attempted to claim that they had created a new sovereign state—named the Principality of Sealand—on a former World War II sea fort located on

Peace of Westphalia of 1648, where unity was established by nation states exercising sovereignty over certain territories.” (footnote omitted)).

62. Montevideo Convention, *supra* note 52, art. 1.

63. Jain, *supra* note 40, at 16 (“Kelsen defined a state by reference to the establishment of a legal order and referred to territory as the space of operation of that legal order. Thus, territory for Kelsen was a consequence of statehood and not a prerequisite.” (citing Hans Kelsen, *The Pure Theory of Law and Analytical Jurisprudence*, 55 *Harv. L. Rev.* 44, 69–70 (1941))); see also Veronika Bílková, *A State Without Territory?*, in *Netherlands Yearbook of International Law 2016: The Changing Nature of Territoriality in International Law* 19, 20 (Martin Kuijer & Wouter Werner eds., 2017) (“If we accept that territory has merely a functional value, providing simply and solely a space in which members of a political community live together, . . . then once this function is assumed in another way, territory loses its centrality.”).

64. See, e.g., Krystyna Marek, *Identity and Continuity of States in Public International Law* 15–24 (2d ed. 1968) (reviewing different theories of the relationship between territory and states, with the underlying assumption that territory is essential for statehood).

65. *Id.* at 19–20.

66. Some have argued that the territory needs to be capable of supporting economic activity. E.g., Juvelier, *supra* note 40, at 26.

67. Jain, *supra* note 40, at 22–23 (using the writings of political geographers, conflict theorists, sociologists, and philosophers to assemble this list).

68. Jenny Grote Stoutenburg, *When Do States Disappear?*, in *Threatened Island Nations*, *supra* note 8, at 57, 61.

69. The smallest group of people that the UN recognized as having a right to self-determination—and therefore a right to statehood—was the Pitcairn Islands, with a population size of around fifty. It therefore stands to reason that populations at least that small are acceptable. *Id.* at 63.

70. *Id.* at 64.

international waters.⁷¹ The German Administrative Court determined that the Principality was not a valid state in international law because the population lacked a “will to live together as a community that jointly masters all aspects of communal existence.”⁷² The Vatican City, however, might prove to be a counterexample to the German court’s interpretation.⁷³ Currently, Vatican City has a “caretaker population” and “does not possess a human society stably united in its territory.”⁷⁴ Yet despite its non-communal nature, the international community continues to recognize it as a state.⁷⁵ Thus, the presence of a communal nature might not be required but would likely make the case for statehood stronger.

The government criterion can be viewed as closely related to the criteria of territory and population.⁷⁶ First, it is important to distinguish between the government and the state; whereas the government is the body that is capable of “prescribing, implementing, and enforcing its authority on a population,”⁷⁷ the state is the international legal personality that exists in the international community.⁷⁸ Within the international legal system, the government is the “agent of the state that legitimately represents and acts on behalf of the state.”⁷⁹ Second, some have regarded government as the central criterion of statehood, seeing territory as defined “by reference to the extent of governmental power exercised or capable of being exercised; and population cannot[ing] a stable political community that is best evidenced with the existence of government.”⁸⁰

Further, some authors have argued that the government criterion is better understood as an “entitlement belonging to the people,” in which

71. History of a Nation, Sealand, <https://sealandgov.org/en-us/pages/the-story> [<https://perma.cc/SS9X-VQRP>] (last visited Sept. 4, 2023).

72. Stoutenburg, *supra* note 68, at 64.

73. *Id.* at 66.

74. *Id.*; see also The Vatican City & Holy See, Rome.us, <https://rome.us/the-vatican-city/> [<https://perma.cc/BVZ6-AZ36>] (last visited Aug. 12, 2023) (“Citizenship [in Vatican City] is acquired only by special kinds of people [such] as high-ranking hierarchy and staff living here.”).

75. Stoutenburg, *supra* note 68, at 66. It must be noted, however, that recognition granted to Vatican City might be specifically tied to its connection with the Holy See, therefore rendering this an imperfect example. The Holy See is the sovereign entity with an international legal personality that holds the Vatican City enclave in Rome, with its main responsibility being to maintain diplomatic relations with other States. The Vatican & Holy See, *supra* note 74.

76. Yejoon Rim, *State Continuity in the Absence of Government: The Underlying Rationale in International Law*, 32 *Eur. J. Int’l L.* 485, 495 (2021) (describing how the other two criteria rely on the government criterion).

77. Stoutenburg, *supra* note 68, at 66.

78. Rim, *supra* note 76, at 491; see also Jain, *supra* note 40, at 6 (“[The] loss of statehood implies substantial loss of international legal personality . . .”).

79. Rim, *supra* note 76, at 495.

80. *Id.* (footnotes omitted).

what matters most is the ability of the population to organize a government.⁸¹ Thus, while other states might not recognize a new state that does not have a government,⁸² there might be a great degree of flexibility in the structure of a government once the state is established.⁸³

In the original convention, the fourth criterion is the “capacity to enter into relations with the other states.”⁸⁴ This criterion has been criticized because the “*legal* capacity to this effect depends precisely on recognition of an entity as a State, rendering the criterion circular, whereas the *factual* capacity is already covered by the external dimension of governmental effectiveness.”⁸⁵ Therefore, the modern interpretation of this criterion is that a state needs to be independent.⁸⁶ Most authors hold that this criterion refers to legal independence, meaning that “a State is not subject to the legal authority of another State.”⁸⁷ Some, however, also believe a state requires factual independence—that is, self-sufficiency.⁸⁸

Whether an entity that meets all four of the Montevideo criteria automatically becomes a state depends on the role of recognition in determining statehood. Recognition is the “process of formally acknowledging the legal existence of a state or government,”⁸⁹ and there are two dominant theories of how it impacts statehood.⁹⁰ First, the Constitutive Theory holds that a state’s existence in international law is entirely dependent on recognition from other states in the system.⁹¹ Holders of this view argue that since states are the primary subject of international law, the task of identifying new subjects should be exclusively in their purview.⁹² This theory, however, generally has been critiqued and

81. Rim, *supra* note 76, at 497–98.

82. For a discussion of the importance of recognition in the law of statehood, see *infra* notes 89–95 and accompanying text.

83. See G.A. Res. 2625 (XXV), at 123, Declaration on Principles of International Law Concerning Friendly Relations and Co-Operation Among States in Accordance With the Charter of the United Nations (Oct. 24, 1970) (“Every State has an inalienable right to choose its political, economic, social and cultural systems, without interference in any form by another State.”).

84. Montevideo Convention, *supra* note 52, art. 1.

85. Stoutenburg, *supra* note 68, at 70.

86. *Id.* (“[M]ost authors and international jurisprudence rely not on the formulation employed by the Montevideo Convention, but require an entity’s independence as proof of its statehood.”).

87. *Id.* at 71.

88. *Id.*

89. Christopher C. Joyner, *International Law in the 21st Century: Rules for Global Governance* 47 (2005).

90. Rowan Nicholson & Thomas D. Grant, *Theories of State Recognition*, in *Routledge Handbook of State Recognition* 25, 25 (Gëzim Visoka, John Doyle & Edward Newman eds., 2020); see also Crawford, *supra* note 58, at 19–26 (describing the constitutive and declaratory theories of recognition).

91. Crawford, *supra* note 58, at 14–15, 19–20.

92. *Id.* at 20.

has fallen out of favor, supplanted by the Declarative Theory.⁹³ Here, recognition is merely a political act and does not carry its own legal force.⁹⁴ Despite the dominance of this latter theory, there are entities that satisfy the Montevideo Convention and yet still are not recognized by the international community.⁹⁵ This discrepancy signals that in practice, recognition does carry some consequential weight.

As sea-level rise has a high likelihood of submerging all livable territory and forcing the entire population of a state to emigrate, the international legal personalities of at-risk SIDS will be challenged. If the Montevideo Convention is read strictly as a marker of “minimum thresholds” that a state needs to satisfy to retain its statehood,⁹⁶ at-risk SIDS will cease to be states when their territories can no longer support populations and governments⁹⁷ and their dispersed populations are no longer “communal.”⁹⁸ Diasporic states might struggle to sustain an effective government,⁹⁹ and under the factual understanding of independence, submerged states might fail to be self-sufficient.¹⁰⁰ Some states and scholars, however, have differentiated between the *creation* of the state in international law and its *continuity*.¹⁰¹ The next section

93. See Jure Vidmar, Explaining the Legal Effects of Recognition, 61 Int'l & Compar. L.Q. 361, 361 (2012) (“Most contemporary writers have therefore adopted a view that recognition is declaratory.”); see also William Worster, Two Competing Theories of State Recognition, Exploring Geopolitics, https://exploringgeopolitics.org/publication_worster_william_sovereignty_constitutive_declaratory_statehood_recognition_1_egal_view_international_law_court_justice_montevideo_genocide_convention/ [https://perma.cc/W9TQ-FHEW] (last visited Aug. 29, 2023).

94. Crawford, *supra* note 58, at 25.

95. See Lung-Chu Chen, The Evolution of Taiwan Statehood, Oxford Univ. Press: OUPblog (Apr. 27, 2015), <https://blog.oup.com/2015/04/taiwan-statehood-international-law/> [https://perma.cc/H4SF-XCRX] (explaining that while Taiwan satisfies the traditional requirements for statehood, “global power politics have kept Taiwan from being recognized as such”).

96. Susannah Willcox, Climate Change and Atoll Island States: Pursuing a ‘Family Resemblance’ Account of Statehood, 30 Leiden J. Int'l L. 117, 119–23 (2017) (describing a view of the Montevideo Convention as minimum thresholds required to retain statehood).

97. Stoutenburg, *supra* note 68, at 57.

98. *Id.* at 64.

99. Practically, government failure might be the smallest challenge for small island statehood, as history is replete with examples of international law tolerating failed states and governments operating outside of their territories. See *infra* notes 118–121 and accompanying text. Regardless, a dissolution of government—compounded with the other challenges—can only hurt at-risk SIDS.

100. Stoutenburg, *supra* note 68, at 71. Specifically, sunken states might cease to be independent if their people must rely on their host states for subsistence and their governments cannot carry out their essential functions without the international community’s generosity. But see *infra* section II.A.2 for a discussion of marine entitlements providing a source of revenue for at-risk SIDS.

101. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 187 (“[T]he argument is growing [that] the criteria provided by the Montevideo Convention [apply] only for the determination of the birth of a State rather than [for the determination of] a State’s

therefore details the laws of state continuity, which might provide a source of hope for these at-risk SIDS.

2. *The Strong Presumption of Continuity in International Law.* — While international law has defined ways for new states to enter into the legal system, there is no international legal paradigm surrounding state extinction when there is an absence of successors.¹⁰² States are the primary subject of international law;¹⁰³ they define its system through treaties and practice, which in turn increase reliance on each individual state's continued existence.¹⁰⁴ The easy removal of a state from the system would therefore disrupt the system's stability.¹⁰⁵ One scholar noted that since the UN Charter was signed, only eight states have gone extinct,¹⁰⁶ which supports the notion that there is a strong presumption of the continuity of statehood once it has been established, even if there is a change to one of the four Montevideo indicia.¹⁰⁷ Although many subsequent authors

[continued existence].” (alterations in original) (internal quotation marks omitted) (quoting Permanent Mission of Tuvalu to the UN, Statement on the Report of the International Law Commission on the Work of Its Seventy-Second Session (Oct. 28, 2021), https://www.un.org/en/ga/sixth/76/pdfs/statements/ilc/23mtg_tuvalu_2.pdf [<https://perma.cc/9N73-64B4>]); Wong, *supra* note 61, at 348 (“International law has assumed territory will always exist and focused on state creation and succession, rather than continuity or extinction.”).

102. Sharon, *To Be or Not To Be*, *supra* note 24, at 1055 (citing Crawford, *supra* note 58, at 715; Atapattu, *supra* note 13, at 18–19); Elizabeth Thomas, *Protecting Cultural Rights in the South Pacific Islands: Using UNESCO and Marine Protected Areas to Plan for Climate Change*, 29 *Fordham Env't L. Rev.* 413, 426 (2018) (“Currently, there are no international laws governing circumstances when a state's territory simply disappears.”).

103. See VCLT, *supra* note 47, art. 1 (“The present Convention applies to treaties between States.”); Malcolm N. Shaw, *International Law* 197 (6th ed. 2008) (“Despite the increasing range of . . . participants in the international legal system, . . . states retain their attraction as the primary focus . . . for international law.”); see also Jain, *supra* note 40, at 7 (“[T]he primary sources of international law—treaties and customary international law—can only be created by states.” (citing ICJ Statute, *supra* note 46, art. 38(1)(a))).

104. See Wong, *supra* note 61, at 362 (“The rationale of this presumption [of continuity] is one of stability: one of the functions of international law is to maintain order which in turn, rests on the stability of international relations and . . . the preservation of the status quo.”).

105. See Rouleau-Dick, *Competing Continuities*, *supra* note 24, at 363 (“The aim of such a presumption is to increase stability and reduce uncertainty.”); Wong, *supra* note 61, at 362.

106. These eight states are Hyderabad, Somaliland, Tanganyika, Republic of Vietnam, Yemen Arab Republic, German Democratic Republic, Yugoslavia, and Czechoslovakia. Crawford, *supra* note 58, at 716 tbl.7.

107. See *id.* at 701 (“[There is] a strong presumption [that] favours the continuity and disfavors the extinction of an established State. Extinction is not effected by more-or-less prolonged anarchy within the State nor . . . by loss of substantial independence, provided that the original organs . . . retain at least some semblance of control.”).

agree,¹⁰⁸ the full scope of the presumption is not yet settled by treaty or custom.¹⁰⁹

There are at least two theories for how the presumption of continuity works.¹¹⁰ The Ratchet Theory holds that once a state is established in international law, it is exceedingly difficult for it to go extinct.¹¹¹ This approach upholds the stability of the system and, in the case of climate change, might also reflect countries' "reluctance to 'tarnish [their] own reputation[s] by being seen as lacking any compassion for the dire fate of such island states by asking for their exclusion' from the international community."¹¹²

The Sameness Doctrine, on the other hand, allows states to retain statehood unless internal changes in the state—such as shifting borders and alteration of the government structure—are substantial enough to trigger the laws of state succession.¹¹³ This theory therefore focuses on "the identity of the state rather than on its claim to statehood,"¹¹⁴ and its goal is to prevent the creation of a new state where a state already exists.¹¹⁵

108. See, e.g., Galvão Teles & Ruda Santolaria, *supra* note 9, paras. 183–196; Burkett, *supra* note 58, at 94 ("Notably, substantial changes in territory, population, or government, or even a combination of all three, do not necessarily extinguish a state."); Lilian Yamamoto & Miguel Esteban, *Atoll Island States and International Law: Climate Change Displacement and Sovereignty* 176 (2014) ("[I]t is not clear to what extent statehood can be extinguished because of the lack of territory or even government, since once statehood is established there is a presumption of continuity."); Wong, *supra* note 61, at 362; Nathan Jon Ross, *Low-Lying States, Climate Change-Induced Relocation, and the Collective Right to Self-Determination* 153–54 (2019) (Ph.D. dissertation, Victoria University of Wellington) (on file with the *Columbia Law Review*).

109. See Rouleau-Dick, *Competing Continuities*, *supra* note 24, at 379 ("As we do not know if Schrödinger's unfortunate cat is alive or dead until we open the box, it is impossible to accurately assess the nature of continuity in the context of small island nations without an adequate body of state practice.").

110. See *id.* at 360–65 (describing the "ratchet" and "sameness" theories of continuity).

111. See *id.* at 362–63 ("[A]ccording to the ratchet effect understanding of continuity, states do not die easily. [A low-lying island State] could thus maintain its claim to statehood longer than what a strict assessment of statehood according to the minimum threshold contained in the [Montevideo Convention] definition would seem to permit *prima facie*.").

112. Willcox, *supra* note 96, at 122 (Walter Kälin, *Conceptualising Climate-Induced Displacement*, in *Climate Change and Displacement: Multidisciplinary Perspectives* 81, 102 (Jane McAdam ed., 2010)). Susannah Willcox has also noted that there are other motivations that could be at play, including "a reluctance to acknowledge a void in international relations within which it would be difficult for states to carry out transactions or rely on the fulfilment of international legal obligations" or an unwillingness to "interfere in the domestic affairs of state by recognizing its dissolution." *Id.*

113. See Rouleau-Dick, *Competing Continuities*, *supra* note 24, at 363–64 ("The presumption of continuity, according to the sameness assessment doctrine, consists primarily of a presumption against the creation of a new state where a state already exists, notwithstanding cases of self-determination such as the inception of a state through secession.").

114. *Id.* at 364 (citing Crawford, *supra* note 58, at 669).

115. *Id.* (citing Heather Alexander & Jonathan Simon, *Sinking Into Statelessness*, 19 *Tilburg L. Rev.* 20, 20–23 (2014)).

The presumption of continuity has roots in practice as well.¹¹⁶ Historically, both the Holy See and the Sovereign Order of Malta were able to establish an international legal personality in connection with territorial jurisdiction and were successful in maintaining this status even when they were deprived of their territory.¹¹⁷ Another class of examples includes situations in which a state's government is displaced from its territory and forced to seek refuge in a third state due to the occupation of a foreign power.¹¹⁸ These governments in exile generally are viewed as maintaining their statehood despite lacking control over their territory.¹¹⁹ Additionally, statehood has survived even through complete state failure.¹²⁰ An extreme example of this is the case of Somalia, which remained an unchanged state in the international legal system despite lacking a functioning government for more than ten years.¹²¹

Ultimately, these examples do not align perfectly with the case of SIDS, as there has never been a situation in which the entire territory of a state has "disappeared."¹²² Therefore, scholars have offered additional arguments for why the presumption of continuity should appropriately be applied to at-risk SIDS. One argument is that climate change will so

116. See Galvão Teles & Ruda Santolaria, *supra* note 9, paras. 112–154 (detailing several examples of states and international organizations that retained their international legal personality despite losing the effectiveness of one of the Montevideo criteria). The examples given in the Galvão Teles and Ruda Santolaria paper have been cited frequently in the statehood literature. See e.g., Burkett, *supra* note 58, at 96–98; Rouleau-Dick, *Competing Continuities*, *supra* note 24, at 365–72; Shaina Stahl, *Unprotected Ground: The Plight of Vanishing Island Nations*, 23 *N.Y. Int'l L. Rev.* 1, 15–21 (2010). While these precedents are helpful, the existence of territory in all of those cases render them of limited value to the discussion of at-risk SIDS. See *infra* section II.B.

117. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 112.

118. *Id.* Notably for this Note, Estonia was considered a government in exile during Soviet occupation from 1940 to 1991, after which the independent State of Estonia was reconstituted to the same position in international law as it occupied before. For a discussion of the history and workings of Estonia's government in exile, see Vahur Made, *The Estonian Government-in-Exile: A Controversial Project of State Continuation*, *in* *The Baltic Question During the Cold War* 134 (John Hidden, Vahur Made & David J. Smith eds., 2008).

119. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 112.

120. See Rim, *supra* note 76, at 488–91 (detailing that states do not go extinct even though there is a lack of a functioning government).

121. See *id.* at 489 & n.21 (explaining that Somalia lacked an "effective government" from 1991 until at least 2004). Somalia's retention of statehood is particularly important in analyzing the durability of failed states because the absence of government "was not brought about forcefully or involuntarily in violation of international law by acts of other states, being instead derived from internal disintegration." *Id.* at 489. If it were brought about by violation of international law, there would be superseding obligations on states not to recognize the result of the violation, see Stoutenburg, *supra* note 68, at 72–73, which in this case would be the extinction of the state. In the case of SIDS, government failure would be caused by climate change and potentially not caused by a violation of international law.

122. See Lilian Yamamoto & Miguel Esteban, *Vanishing Island States and Sovereignty*, 53 *Ocean & Coastal Mgmt.* 1, 6 (2010) ("If an Island State were to physically lose all the islands that make its territory, it would find itself in a situation that has certainly not occurred in modern history.").

fundamentally alter our world that it will challenge the assumptions undergirding international law, and the exigent circumstances created by sea-level rise should therefore militate in favor of small island statehood being retained.¹²³ Another suggestion proposes that the statehood criteria should be viewed as a set of overlapping similarities between “state-like” entities.¹²⁴ Under this “family resemblance approach,” entities that can be recognized as possessing different defining elements of a state could retain their statehood.¹²⁵ The author proposing this paradigm used the relationship between poker and monopoly as an example of the family resemblance theory; although drastically different, both can accurately be considered “games.”¹²⁶ Likewise, when an entity can strongly indicate the presence of government and independence,¹²⁷ they might still be “state-like” enough to retain their legal personality.

Whether statehood will continue for SIDS is uncertain. Until there is a treaty or some state practice,¹²⁸ the above discussion is a review of the law as it stands today and the theories of how the law should be applied when sea levels do rise. Regardless, assuming the presumption of continuity is applicable, the state would still need to live on in some tangible form. That is the focus of the next section.

C. *The Possible Future Modalities of At-Risk SIDS*

Several solutions have been proposed for how SIDS should continue, each of them with their own benefits and flaws. The prevailing flaw that permeates these solutions is that all rely not only on the acceptance of the international community but also on its full cooperation at all stages of transition. This Note argues that e-statehood is a modality that solves this

123. See Burkett, *supra* note 58, at 93–96 (“Th[e] possibility for flexibility coupled with the strong presumption that favors the continuity and disfavors the extinction of an established State suggests that acceptance of creative interpretations of law to recognize the continued existence of a State—particularly in this ‘unusual situation’—is plausible . . .”).

124. See Willcox, *supra* note 96, at 119 (arguing that “overlapping similarities between states” should be used to create the “legal definition of statehood”).

125. *Id.* at 128–30 (“The category of things that we call ‘states’ is identifiable not by some fixed set of characteristics, but an overlapping series of family resemblances that continue to evolve across time and space, shaped by processes of industrialization, decolonization, urbanization, globalization, migration, fragmentation, secession, and, now, climate change.”).

126. See *id.* at 127 (“[W]e recognize poker or monopoly as games, not because of the presence of some defining characteristic common to all games, but because they share some (though not all) features with other games, which in turn share some (though not all) features with still other games.” (alteration in original) (internal quotation marks omitted) (quoting R.W. Beardsmore, *The Theory of Family Resemblances*, 15 *Phil. Investigations* 131, 132 (1992))).

127. This Note argues that a small island “e-state” will be able to show both. See *infra* Part III.

128. There will be state practice only once when the first SIDS is submerged.

crisis and that can be unilaterally developed to grant these states the strongest chance to legally invoke the presumption of continuity.

The first solution often considered—and likely the quickest solution—is the purchase of habitable territory from another country where some portion of the migrating population could reside.¹²⁹ If the host state cedes jurisdiction of the land to the sinking state and a communal population with a functioning government inhabits that land, the Montevideo criteria would be met, and statehood would likely continue.¹³⁰ Yet this proposal is unlikely to be fruitful, as sinking states may have trouble finding a willing seller of territory, and establishing a working government body on what could be a tiny and remote parcel of land would be difficult.¹³¹

A second solution that is similar to the first is resorting to various forms of state merger.¹³² This can include forming a federation or confederation with another state, entering into a free association, or fully unifying into a single state.¹³³ Statehood would then be retained through the existence of the territorial state.¹³⁴ These options are also untenable, as they require all parties to cede a portion or all of their sovereignty, which states find undesirable.¹³⁵

Third, states can try to preserve themselves through internationally binding agreements.¹³⁶ While this approach allows for some flexibility, it

129. See Rayfuse, *supra* note 12, at 284 (“One possible resolution . . . is for the disappearing State to acquire new territory from a distant State by treaty of cession. Sovereignty over the ceded land would transfer in its entirety to the disappearing State which would then relocate its population to the new territorial location.” (footnote omitted)).

130. See *id.* (“The continued existence of the State would now be secured in accordance with traditional rules of international law.”).

131. See *id.* at 284–85 (“However . . . it is difficult to envisage any State now agreeing, no matter what the price, to cede a portion of its territory to another State unless that territory is uninhabited, uninhabitable, . . . and devoid of all resources and any value whatsoever to the ceding State.”); see also Stewart, *supra* note 12 (manuscript at 18) (“Aside from traditional objections, the purchase of territory is an unlikely solution to the preservation of a state as it does not guarantee the acquisition of sovereignty over the territory.”).

132. See Rayfuse, *supra* note 12, at 285 (discussing state merger as an alternative solution).

133. See Galvão Teles & Ruda Santolaria, *supra* note 9, paras. 198–216.

134. See Rayfuse, *supra* note 12, at 285.

135. See Sharon, *To Be or Not To Be*, *supra* note 24, at 1068 (“Unfortunately, although federation is an ideal solution for SIDS, it is not realistic. A merger of this type requires the non-threatened state to give up more than it has bargained for . . . [as they] must give up a measure of sovereignty when they enter the union.”); see also Stewart, *supra* note 12 (manuscript at 19) (“As observed by James Crawford, associated statehood is often not dissimilar to protectorates, thus limiting—to greater or lesser degrees—the independence of the state.”).

136. Scholars have suggested new conventions to address this issue. See, e.g., Jacquelynn Kittel, *The Global “Disappearing Act”: How Island States Can Maintain Statehood in the Face of Disappearing Territory*, 2014 *Mich. St. L. Rev.* 1207, 1237–41 (“[T]he UN should

requires a great deal of international cooperation, and it must be palatable to a majority of states.¹³⁷ It is also uncertain whether other states would be willing to codify the preservation of statehood outright.¹³⁸

Lastly, scholars in the last decade have proposed the concept of the “deterritorialized” state, which would be a new entity in international law.¹³⁹ At its core, this proposal argues that the circumstances of climate change militate in favor of continuing the state without territory.¹⁴⁰ One prominent suggestion for this modality is the “Nation Ex-Situ,”¹⁴¹ by which the UN Trusteeship Council would be repurposed to create a trusteeship-like body that represents sinking states.¹⁴² Composed of nationals of the state, the UN entity would work alongside the current government until the state loses its normal indicia of statehood.¹⁴³ The UN entity would then retain the state’s sovereignty post-submergence, primarily to maintain maritime rights and protect its migrated nationals.¹⁴⁴

While this solution is promising, it still requires the consent and engagement of other states, placing the survival of these island states in the discretion of the international community. The e-state is a form of “deterritorialized statehood” that is less reliant on other nations. It is a collection of digital platforms under the auspices of one e-government,

create a treaty that addresses . . . the threat to statehood of disappearing islands . . .”). Small island states have also begun to call for political declarations to the effect of preserving their statehood. See *infra* section II.A.

137. For a detailed review of the challenges of the treaty system, see generally Akmal Elmurodov, *International Treaties—The Challenges of the Multilateral Treaty System* (Jan. 6, 2022), <https://ssrn.com/abstract=4002562> [<https://perma.cc/8LHB-3M2C>] (unpublished manuscript) (discussing issues of implementation, consent, and ratification in the treaty process).

138. One potential reason is that states might wish to avoid a potential “sovereignty clash,” in which nationals of the submerged state attempt to reconstitute their state in whichever country they have congregated in. See Sharon, *To Be or Not To Be*, *supra* note 24, at 1046 (“The risk of a sovereignty clash between the host state and refugee communities from SIDS will reduce the willingness of states to accept migrants from SIDS . . .”).

139. See, e.g., Rayfuse, *supra* note 12, at 285–86 (introducing the concept of a deterritorialized state as a solution for sinking states); see also Burkett, *supra* note 58, at 89–96 (building off of Rayfuse’s proposal and describing the “nation ex-situ”).

140. See Burkett, *supra* note 58, at 95.

141. See, e.g., Atapattu, *supra* note 13, at 20–21; James L. Johnsen, *Protecting the Maritime Rights of States Threatened by Rising Sea Levels: Preserve Legacy Exclusive Economic Zones*, 36 *Berkeley J. Int’l L.* 166, 169 n.16 (2018); Sharon, *To Be or Not To Be*, *supra* note 24, at 1052; Erik Woodward, *Promoting the Continued Sovereign Status of Deterritorialized Island Nations*, 14 *Yale J. Int’l Affs.* 48, 54–56 (2019).

142. Burkett, *supra* note 58, at 108–14.

143. *Id.* at 111–12. Before submergence, Burkett suggests that the UN organization works as an interim body that could (1) determine appropriate modifications to the current in-situ political and economic institutions; (2) enact legislation for continued citizenship as well as distribution of monies from resource rents, adaptation funding, or compensation; (3) resolve resource rents; and (4) develop mechanisms for determining what is in the best interest of the dispersed population. *Id.* at 111.

144. *Id.* at 112.

which includes services such as e-banking, e-taxes, digital ID, and e-residency. Further, the development of this system is entirely at the discretion of at-risk SIDS, although its ability to retain the status of statehood would still require the acceptance of the international community. Because the e-state can accomplish many functions traditionally ascribed to territorial states, however, this modality has the highest likelihood of being accepted by international law. Before exploring the e-state in detail in Part III, Part II highlights the value of statehood for SIDS.

II. THE VALUE OF STATEHOOD AND ITS UNCERTAIN FUTURE

This Part begins by exploring what is at stake for small island nations and their migrating populations.¹⁴⁵ Second, it details why the presumption of continuity of statehood might not be applicable to SIDS given the presumption's uncertain state in international law.

A. *A Legal Personality Worth Saving*

Only states have access to the international legal system with all of its rights, remedies, and obligations.¹⁴⁶ The loss of statehood is particularly important for a vulnerable population of migrants, as such a loss would curtail their right to self-determination. Loss of statehood would also entail a loss of maritime entitlements, voice in international organizations, access to international adjudication, and other treaty-based rights.

1. *Statehood as a Desire of At-Risk SIDS.* — One of the strongest arguments in favor of retaining statehood is that this is what SIDS want. The right of self-determination not only ensures that recognized peoples can organize themselves as they wish and be represented in the international community but also safeguards “the cultural, ethnic and/or historical identity or individuality (the ‘self’) of [the] collectivity, that is, of [the] ‘people.’”¹⁴⁷ Notably, the right to self-determination does not

145. While this Note references climate migration frequently, it does so with an emphasis on the implications of mass migration for statehood and on what the home state can provide for its population. A discussion of the international human rights and protections afforded to those migrants in their own travels is its own distinct topic. For articles discussing this aspect of the climate crisis, see generally McAdam, *supra* note 11 (determining the legal status of people displaced from “disappearing States”); Atapattu, *supra* note 13 (detailing how international law does not protect people forced to migrate due to climate change).

146. Wong, *supra* note 61, at 347–48 (citing Karen Knop, *Statehood: Territory, People, Government*, in *The Cambridge Companion to International Law* 95 (James Crawford & Martti Koskenniemi eds., 2012); Inger Österdahl, *Relatively Failed. Troubled Statehood and International Law*, 14 *Finnish Y.B. Int'l L.* 49, 49 (2003)).

147. Ori Sharon, *Tides of Climate Change: Protecting the Natural Wealth Rights of Disappearing States*, 60 *Harv. Int'l L.J.* 95, 123–24 (2019) [hereinafter Sharon, *Tides of Climate Change*] (alterations in original) (internal quotation marks omitted) (quoting David Raic, *Statehood and the Law of Self-Determination* 223 (2002)).

disappear with territory,¹⁴⁸ and in this particular case, SIDS have made it abundantly clear that they would like to retain statehood.¹⁴⁹

At the UN General Assembly in September 2022, the Prime Minister of Vanuatu, together with the President of the Marshall Islands, called for support for their new Rising Nations Initiative.¹⁵⁰ The four-part initiative starts with a call for the international community to reaffirm its commitment to preserving the states' sovereignty.¹⁵¹ While it is unclear if this alone will preserve statehood, this is a clear signal from these nations that they are determined to maintain their own legal personality.¹⁵²

2. *Impact on Maritime Entitlements.* — SIDS will also want to retain their maritime entitlements as a way of securing resources for their diasporic population. The law of maritime entitlements is sourced in UNCLOS,¹⁵³ which delineates the waters both in and around coastal states in five different categories: (1) internal waters,¹⁵⁴ (2) territorial waters,¹⁵⁵

148. Kathleen McVay, *Self-Determination in New Contexts: The Self-Determination of Refugees and Forced Migrants in International Law*, 28 *Utrecht J. Int'l & Eur. L.* 36, 46 (2012).

149. Other states have also stressed the importance of self-determination in settling this issue. See, e.g., Submission by the Principality of Liechtenstein to the International Law Commission on the Topic "Sea Level Rise in Relation to International Law" 1–3 (June 29, 2023), https://legal.un.org/ilc/sessions/75/pdfs/english/slr_liechtenstein.pdf [<https://perma.cc/7GXM-P5JT>] ("Liechtenstein sees a fundamental role for the right of self-determination in addressing the issues raised by sea-level rise for the protection of persons affected by sea-level rise and for statehood.").

150. Rising Nations Initiative, *Glob. Ctr. for Climate Mobility*, <https://climatemobility.org/rising-nations-initiative/> [<https://perma.cc/L57N-8K8R>] (last visited Aug. 12, 2023).

151. Pacific Atoll Nations Launch Global Plan to Preserve Heritage, *Fr.* 24 (Sept. 21, 2022), <https://www.france24.com/en/live-news/20220921-pacific-atoll-nations-launch-global-plan-to-preserve-heritage> [<https://perma.cc/344C-XXAJ>]. The other three requests are for an adaptation program to increase resilience and protect livelihoods, a repository of the Islands' cultural heritage, and the acquisition of UNESCO World Heritage Status. *Id.* Canada, Germany, South Korea, and the United States have all signaled support for this initiative. *Id.* This is not the first time island nations have expressed this interest, as Tuvalu's Foreign Minister has said that Tuvalu is "looking at legal avenues where [they] can . . . retain [their] recognition as a state under international law." Stefica Nicol Bikes, *Tuvalu Looking at Legal Ways to Be a State if It Is Submerged*, *Reuters* (Nov. 9, 2021), <https://www.reuters.com/business/cop/tuvalu-looking-legal-ways-be-state-if-it-is-submerged-2021-11-09/> (on file with the *Columbia Law Review*).

152. As part of its Future Now Project, Tuvalu will aim to establish new diplomatic relations only with those that recognize Tuvalu's statehood as permanent. Future Now Project, *supra* note 18.

153. U.N. Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

154. *Id.* art. 8. Internal waters include all bodies of water that are inland, such as lakes, bays, and rivers, and are considered no different than domestic territory. See *id.* (defining internal waters generally as waters on the landward side of the baseline of the territorial sea).

155. *Id.* arts. 2, 3. The territorial sea extends twelve nautical miles out from the baseline, and here, too, the coastal state retains most of its sovereignty. *Id.*

(3) the contiguous zone,¹⁵⁶ (4) the exclusive economic zone,¹⁵⁷ and (5) the high seas,¹⁵⁸ all of which are established from a coastal state's baseline.¹⁵⁹ While sovereign rights vary between these maritime zones, the state always has rights over natural resources in the water as well as the seabed and subsoil up to the outer bound of the Exclusive Economic Zone. The state can also regulate marine scientific research, preserve the marine environment, and establish artificial islands.¹⁶⁰ Unfortunately, island nations would lose these entitlements if they are no longer states.¹⁶¹

Losing maritime entitlements would have drastic consequences because coastal states heavily rely on the sea.¹⁶² Retaining these entitlements, however, would empower coastal states and their citizens to at least maintain the status quo. Residents could continue their livelihoods with unimpeded access to these zones. The state could also monetize their maritime zones and redistribute the resources collected from these entitlements to the diasporic population.¹⁶³ Because the ocean is

156. *Id.* art. 33. The contiguous zone extends from the territorial sea out another twelve to twenty-four nautical miles, over which states can “exercise the control necessary to prevent or punish certain legal violations that occurred or may occur in its territory.” Ann Powers & Christopher Stucko, *Introducing the Law of the Sea and the Legal Implications of Rising Sea Levels*, in *Threatened Island Nations*, *supra* note 8, at 123, 126–27.

157. UNCLOS, *supra* note 153, art. 57. Also starting from the territorial sea, the exclusive economic zone (EEZ) extends out 200 nautical miles. See Powers & Stucko, *supra* note 156, at 127.

158. The high seas are everything not covered by UNCLOS. Fae Sapsford, *What Is High Seas Governance?*, *Ocean Expl.* (July 20, 2022), <https://oceanexplorer.noaa.gov/facts/high-seas-governance.html> [<https://perma.cc/5PAG-2T2B>].

159. UNCLOS, *supra* note 153, art. 5. A state's baseline is determined by its low-water mark. *Id.*

160. See *id.* art. 56 (outlining the rights and duties of the coastal state in the EEZ).

161. Rayfuse, *supra* note 12, at 281 (explaining that only states are entitled to maritime zones). But see Sharon, *Tides of Climate Change*, *supra* note 147, at 122–25 (arguing that states hold maritime entitlements as a trust for their populations and that therefore the dissipation of statehood does not necessarily imply the loss of these entitlements so long as there is an identifiable population).

162. See *About Small Island Developing States*, UN Off. High Representative for Least Developed Countries, Landlocked Developing Countries & Small Island Developing States, <https://www.un.org/ohrlls/content/about-small-island-developing-states> [<https://perma.cc/V8RW-P4UM>] (last visited Aug. 12, 2023) (noting that for SIDS, the EEZ is “on average, 28 times the country's land mass,” and thus small island states are often dependent on the ocean within the EEZ for industry, resources, and economic health).

163. For example, SIDS can offer fishing licenses in their territory for a fee to countries like the United States and Japan. See UNCLOS, *supra* note 153, art. 62, ¶ 4 (“Nationals of other States fishing in the [EEZ] shall comply with . . . terms and conditions established . . . [by] the coastal State. These . . . may relate . . . to the following: (a) licensing of fishermen, fishing vessels and equipment, including payment of fees and other forms of remuneration”); Powers & Stucko, *supra* note 156, at 140 (“Coastal States will lose their legal authority to collect fishing licensing fees, which means that ships from major fishing countries such as the United States and Japan will no longer need to pay to fish in the former EEZs.”). The concept of a state that collects resources through rent for the purpose of

intricately tied to the heritage of island nations, retaining these zones would also help island nations preserve access to their culture.¹⁶⁴

3. *Voice in International Organizations.* — Statehood is a prerequisite for full membership in international organizations such as the UN.¹⁶⁵ The UN is a forum where states can collaborate to tackle the most pressing global issues, including climate change and the law of the sea.¹⁶⁶ While some non-state entities have been granted observer status in the UN,¹⁶⁷ voting rights are reserved for state parties to the UN.¹⁶⁸ States also have the ability to leave comments and clarify their state practice, which might aid the development of CIL.¹⁶⁹

redistribution is not a new one. The rentier State was a form of governance prominent in oil-bearing Middle Eastern countries that accumulated wealth by leasing their oil resources. See Hazem Beblawi, *The Rentier State in the Arab World*, 9 *Arab Stud. Q.* 383, 386 (1987). The government would then redistribute that wealth to remain in power. See *id.*

164. See Thomas, *supra* note 102, at 417 (“[E]ach of the [Pacific Island] cultures fundamentally relies on the peoples’ connections to the islands and ocean where they live.”).

165. See *About UN Membership: How Does a Country Become a Member of the United Nations?*, UN, <https://www.un.org/en/about-us/about-un-membership> [<https://perma.cc/SXY3-U34Q>] (last visited Aug. 13, 2023) (noting “[m]embership . . . is open to all . . . states that accept the obligations contained in the United Nations Charter” (emphasis added) (internal quotation marks omitted) (quoting U.N. Charter art. 4, ¶ 1)).

166. See, e.g., U.N. Charter art. 1, ¶ 3 (“The Purposes of the United Nations are . . . solving international problems of an economic social, cultural, or humanitarian character”); Kahlil Hassanali, *Participating in Negotiation of a New Ocean Treaty Under the Law of the Sea Convention—Experiences of and Lessons From a Group of Small-Island Developing States*, 9 *Frontiers Marine Sci.*, no. 90274, 2022, at 1, 2–3 (explaining the development of negotiations for a new treaty under UNCLOS on managing marine resources in the high seas).

167. See, e.g., *About Permanent Observers*, UN, <https://www.un.org/en/about-us/about-permanent-observers> [<https://perma.cc/5CT5-4FFA>] (last visited Aug. 29, 2023) (defining permanent observer and specifying they “have free access to most meetings and relevant documentation”); *The Permanent Observer, Permanent Observer Mission of the Holy See to the UN*, <https://holyseemission.org/contents/mission/the-permanent-observer.php> [<https://perma.cc/44U9-PWXQ>] (last visited Aug. 13, 2023).

168. See U.N. Charter art. 18, ¶ 1 (“Each *member* of the General Assembly shall have one vote.” (emphasis added)); *General Assembly*, UN, <https://www.un.org/en/model-united-nations/general-assembly> [<https://perma.cc/8M5Q-ZQGW>] (last visited Aug. 13, 2023) (“The Assembly adopts its resolutions and decisions by a majority of *members* present and voting.” (emphasis added)); *UN Voting*, Dan Hammarskjöld Libr., <https://www.un.org/en/library/page/voting-information> [<https://perma.cc/BNL7-UHUA>] (last visited Sept. 4, 2023). The loss of statehood may deprive SIDS of not only voting rights but also a seat on the Security Council, a central body in the UN that possesses more binding power than the General Assembly. See U.N. Charter art. 23, ¶ 1 (“The Security Council shall consist of fifteen *Members* of the United Nations.” (emphasis added)); *Security Council Membership*, Dan Hammarskjöld Libr., <https://research.un.org/en/unmembers/scmembers> [<https://perma.cc/82D2-9R8K>] (last visited Aug. 29, 2023) (detailing membership of the UN Security Council).

169. *Int’l L. Comm’n, Draft Conclusions on Identification of Customary International Law*, U.N. Doc. A/73/10, at 120 (2018), reprinted in [2018] 2 *Y.B. Int’l L. Comm’n* 91, U.N. Doc. A/73/10 (“Forms of evidence of acceptance as law (*opino juris*) include, but are not

While SIDS might not exert the influence that larger states do in the UN, they can still work together to counteract the influence of developed states.¹⁷⁰ SIDS constitute an important portion of the G77, a group of 131 small and developing states in the UN that coordinates common positions.¹⁷¹ SIDS also have their own regional organization in the Alliance of Small Island States (AOSIS).¹⁷² The aggregation of every coordinated vote is critical in advancing important issues for small island nations, as evidenced by Vanuatu's UN General Assembly (UNGA) resolution requesting an advisory opinion from the International Court of Justice (ICJ).¹⁷³ The resolution asks the ICJ to clarify states' climate protection obligations and to define the consequences for states that have harmed the climate system.¹⁷⁴ For the ICJ to even consider the question, the resolution needed to pass by a simple majority vote.¹⁷⁵ Although this resolution ultimately passed by consensus,¹⁷⁶ it required a concerted effort from this bloc of small island states.¹⁷⁷

limited to: public statements made on behalf of States . . ."). On this very issue, the ILC has welcomed comments on their practice regarding sea-level rise in relation to international law. See Galvão Teles & Ruda Santolaria, *supra* note 9, para. 22.

170. Groups of Member States, UN, <https://www.un.org/fr/node/44631> [<https://perma.cc/ZT57-APBW>] (last visited Aug. 29, 2023) ("The regional groups were formed to facilitate the equitable geographical distribution of seats among the Member States in different UN bodies."); see also, e.g., Erica Yunyi Huang, *Deadlock in the Negotiation Rooms to Protect Global Oceans*, *New Sec. Beat* (Nov. 10, 2022), <https://www.newsecuritybeat.org/2022/11/deadlock-negotiation-rooms-protect-global-oceans/> [<https://perma.cc/2K4T-HEGZ>] (reporting that the G77 took common positions counter to that of Western States in negotiations regarding the usage of marine genetic resources).

171. The Member States of the Group of 77, G77, <https://www.g77.org/doc/members.html> (on file with the *Columbia Law Review*) (last visited Aug. 16, 2023) (listing the states that are members of the G77).

172. About Us: Member States, All. of Small Island States, <https://www.aosis.org/about/member-states/> [<https://perma.cc/ND4E-74CY>] (last visited Aug. 13, 2023).

173. The Republic of Vanuatu Succeeded in the Adoption of a UNGA Resolution Calling for an Advisory Opinion on Climate Change From the International Court of Justice, Vanuatu ICJ Initiative, <https://www.vanuatuicj.com/> [<https://perma.cc/4GLT-FN5J>] (last visited Aug. 29, 2023) ("Vanuatu successfully led a coalition of 132 nations in Adopting by Consensus a UNGA Resolution calling for a non-binding Advisory Opinion from the International Court of Justice to gain clarity how existing International Laws can be applied to strengthen action on climate change . . .").

174. See Valerie Volcovici, *Island Nation Vanuatu Sends Climate Resolution to UN for Court Opinion*, *Reuters* (Nov. 30, 2022), <https://www.reuters.com/business/cop/island-nation-vanuatu-sends-climate-resolution-un-court-opinion-2022-11-30/> [<https://perma.cc/QV7A-PZFF>] (reporting on Vanuatu's request for legal clarification from the ICJ on climate change accountability).

175. See *id.*

176. General Assembly Votes to Seek World Court's Opinion, in *Quest for 'Bolder' Climate Action*, *United Nations: UN News* (Mar. 29, 2023), <https://news.un.org/en/story/2023/03/1135142> [<https://perma.cc/KJH8-4DM6>].

177. Palau attempted to seek an advisory opinion from the ICJ in 2011 but never introduced the resolution due to pressure from the United States. Climate Desk,

4. *Access to International Adjudication, Rights, and Benefits.* — In a similar vein, statehood allows a state to negotiate agreements for the protection of its citizens.¹⁷⁸ Given that sea-level rise is a slow-onset event that will take decades to come to fruition, it is possible that states will negotiate treaties for planned migrations and establish obligations for host states to accept migrants.¹⁷⁹ Generally, when a state is replaced by a successor state, the first state's rights and obligations are either transmitted to the successor state or terminated according to the laws of state succession.¹⁸⁰ When a small island developing state's statehood is terminated with no successor state, its rights and obligations might automatically terminate as well.¹⁸¹

The termination of statehood might additionally limit SIDS' access to international adjudication. First, these states would lose their right to pursue diplomatic protection, which allows a state to bring an action against another state that has harmed one of the first state's nationals.¹⁸² Since individuals generally cannot sue states directly, this tool would be important in adjudicating harms caused by a host state.¹⁸³ The loss of statehood would also preclude submerged states from accessing the ICJ—the main adjudicatory body in international law—as the Statute of the ICJ only permits states to bring claims before them.¹⁸⁴

Can a Pacific Island Nation Use Old Industrial Law to Stop Climate Change?, *The Atlantic* (Aug. 22, 2012), <https://www.theatlantic.com/technology/archive/2012/08/can-a-pacific-island-nation-use-old-industrial-law-to-stop-climate-change/261455/> (on file with the *Columbia Law Review*).

178. See VCLT, *supra* note 47, art. 6 (“Every State possesses capacity to conclude treaties.”).

179. See Kittel, *supra* note 136, at 1237–38 (proposing a treaty under which countries that significantly contributed to climate change should accept displaced migrants).

180. See Vienna Convention on Succession of States in Respect of Treaties, Aug. 23, 1978, 1946 U.N.T.S. 3 (detailing how and when a succeeding state inherits the rights and obligations of the preceding state).

181. See Atapattu, *supra* note 13, at 19 (“In this situation, which seems to be the most likely (and realistic) scenario, the state could disappear when the territory disappears, along with its territorial sea . . . the population would lose its nationality, diplomatic protection (unless the recipient state extends citizenship) and other rights associated with nationality.”).

182. See Restatement (Third) of the Foreign Relations Law of the United States § 711 (Am. L. Inst. 1987) (“A state is responsible under international law for injury to a national of another state caused by [certain] official act[s] or omission[s] . . .”).

183. See How Do You Go About Suing a Country?, NPR (Oct. 8, 2016), <https://www.npr.org/2016/10/08/497164736/how-do-you-go-about-suing-a-country> [<https://perma.cc/N44Q-HUEQ>] (discussing sovereign immunity for nations).

184. ICJ Statute, *supra* note 46, art. 34; Noto, *supra* note 42, at 750 (“If states no longer qualify under the traditional Declarative or Constitutive Theories of statehood, then they may be foreclosed from bringing claims before the International Court of Justice and other international courts.”).

B. *The Problem With the Presumption of Continuity*

As noted in Part I, the general consensus in international law is that it is exceedingly difficult for states to go extinct.¹⁸⁵ States and scholars have argued that the strong presumption of continuity could apply to SIDS that will lose their territory or become uninhabitable due to sea-level rise.¹⁸⁶ Several small states left comments in both the 2021 and 2022 meetings of the UNGA Sixth Committee, the UN's primary legal body, indicating their support for this presumption.¹⁸⁷

There is no guarantee, however, that this presumption will apply to the case of sinking states without applicable state practice. Customary international law is built off of state practice, but there is no such practice on this issue given the unprecedented nature of the sea-level-rise crisis.¹⁸⁸ Scholars have long held that the requirement of territory is fundamental to statehood, with one writer contending “that a State would cease to exist if for instance the whole of its population were to perish or to emigrate, or if its territory were to disappear (e.g. an island which would become submerged).”¹⁸⁹ Although that author wrote long before the world was aware of emissions-induced sea-level rise, others have echoed their view, arguing that all four Montevideo criteria “are necessary attributes of the state.”¹⁹⁰ They likewise argue that as a matter of practicality, “[o]ne cannot contemplate a State as kind of a disembodied spirit[;] . . . there must be some portion of the earth's surface which its people inhabit and over which its Government exercises authority.”¹⁹¹

Additionally, while there is some precedent for the presumption of continuity, SIDS face different circumstances than those entities to which the principle has historically been applied. First, the Sovereign Order of Malta and the Holy See are not states; although they do possess an international legal personality, they do not have all the privileges of full

185. See *supra* section I.B.2; see also Crawford, *supra* note 58, at 715 (demonstrating the rarity of states going extinct); Burkett, *supra* note 58, at 94 (discussing the history of international law's presumption of continuity and disfavor toward extinction); Jain, *supra* note 40, at 31 (“Both the possible categories of involuntary extinction of statehood are extremely limited.”).

186. E.g., Galvão Teles & Ruda Santolaria, *supra* note 9, para. 194 (“With regard to small island developing States whose territory could be covered by the sea or become uninhabitable . . . a strong presumption in favour of continuing statehood should be considered. Such States have the right to provide for their preservation . . .”).

187. *Id.* paras. 184–191.

188. See *supra* note 109 and accompanying text.

189. Marek, *supra* note 64, at 7; see also Matthew C.R. Craven, *The Problem of State Succession and the Identity of States Under International Law*, 9 *Eur. J. Int'l L.* 142, 159 (1998) (“[W]here the territory of a state becomes submerged by the sea . . . it should be possible to conclude that the state has ceased to exist.”).

190. Sharon, *To Be or Not To Be*, *supra* note 24, at 1054.

191. *Id.* (alternation in original) (quoting U.N. SCOR, 3d Sess., 383d mtg. at 11, U.N. Doc. S/PV.383 (Dec. 2, 1948)).

statehood.¹⁹² Second, while governments in exile are separated from their territory, the separation is presumed to be temporary because the territory of the state still *exists*, which will not be the case for SIDS.¹⁹³ Moreover, the government's exile was likely caused by the illicit use of force, meaning that states have an obligation not to recognize the loss of statehood; they would likely have no such obligation for sinking states.¹⁹⁴ Lastly, while international law tolerates failed states, those states still have territory and a population that can support a future government.¹⁹⁵

It is also unclear whether the theoretical underpinnings of the presumption of continuity support the presumption's application to SIDS. The strongest case for SIDS' statehood can be made if the Ratchet Theory were the operative interpretation of continuation. That interpretation holds that statehood is extremely hard to extinguish once it is established.¹⁹⁶ But under the Sameness Doctrine, the presumption exists to ensure that states that are fundamentally the same can continue their involvement in the international community without triggering the laws of state succession despite changes to population, borders, and governance.¹⁹⁷ When a state's territory is unrecognizable and its population dispersed, it might be difficult to argue that state is indeed the "same."

Ultimately, while a presumption of continuity exists in international law, it does not necessarily apply to the case of sinking states. But if a deterritorialized entity were to assume enough of the characteristics of the state such that it would be recognizable as the territorial state, there is a higher likelihood that international law would continue to recognize its statehood. The proposition of an e-state is meant to fulfill that very purpose.

192. See Int'l L. Comm'n, Rep. on the Study Group on Sea-Level Rise in Relation to International Law, U.N. Doc. A/CN.4/L.972, para. 53 (July 15, 2022) ("[I]t was notably emphasized that context . . . in which [the Holy See and Sovereign Order of Malta] appeared not to be truly regarded as . . . States, was fundamentally different to the context of a territory becoming unavailable . . .").

193. *Id.*; Rouleau-Dick, *Competing Continuities*, *supra* note 24, at 376 (explaining that the existence of governments in exile is dependent on their connection to the territory from which they are temporarily separated).

194. *Id.* at 369 ("The principle of *ex injuria jus non oritur* . . . [ensures] that the claim of governments in exile, displaced by illegal occupation, is recognized as legitimate by other members of the international community.").

195. See Rim, *supra* note 76, at 504–05 ("[T]he government is no longer located as the central and indispensable element for statehood; it is instead the people that are centrally positioned.").

196. See Rouleau-Dick, *Competing Continuities*, *supra* note 24, at 360–61.

197. See *id.* at 363–64.

III. THE EMERGENCE OF THE E-STATE AS AN INTERNATIONAL LEGAL ENTITY

The phrase “digital sovereignty” has taken on a variety of meanings in academic literature. In one author’s view, digital statehood is based on data sovereignty, in which data controllers wield a level of power similar to those once wielded by states.¹⁹⁸ New “digital states” can harvest data en masse through surveillance, enabling the power wielders to determine who has access to public and private services and goods and to monetize the harvested data.¹⁹⁹ Another author has written that the emergence of a digitized state should be received and considered in the international law of statehood;²⁰⁰ however, that author stops short of applying the concept of digital statehood to the climate crisis or to laws of continuity.²⁰¹

This Part is therefore the first scholarship to engage in this analysis. First, it briefly reviews Estonia as a model of e-statehood and its place in international law. Second, it details what e-statehood could look like for at-risk SIDS (hereinafter referred to as e-SIDS) and argues that this modality of statehood is the most likely to be accepted by international law. Lastly, it considers the limitations of the e-SIDS model and concludes by highlighting some of the auxiliary benefits this modality entails aside from preserving statehood.

A. *The Estonian Model of e-Statehood*

After regaining its independence from the USSR in 1991,²⁰² Estonia began its transition to a system based on Information and Communication Technology (ICT) by adopting an action plan for its establishment of an “information society,” called the Principles of Estonian Information Policy.²⁰³ Quickly building on the plan, Estonia launched the Tiger Leap

198. Katharina Pistor, *Statehood in the Digital Age*, 27 *Constellations* 3, 3 (2020).

199. See Julie E. Cohen, *Between Truth and Power: The Legal Constructions of Informational Capitalism* 242 (2019) (reasoning that the vast amount of data created by surveillance entangles private and public goods, and therefore power). Other scholars have explored the impact of digital technologies on power in a variety of ways, including how modern uses of data can be seen as a modern version of colonization. See, e.g., Nick Couldry & Ulises A. Mejias, *The Costs of Connection: How Data Is Colonizing Human Life and Appropriating It for Capitalism*, at xi (2019) (arguing that the purpose of modern data collection is the same as historical colonialism: value extraction).

200. Yeap Yee Lin, *Digital States: The Case for Statehood Under International Law*, U. Malaya L. Rev. Lex; In Breve (Aug. 30, 2019), <https://umlawreview.com/lex-in-breve/digital-states-the-case-for-statehood-under-international-law> [https://perma.cc/M6EE-9YNQ].

201. *Id.*

202. *E-Estonia, Story*, *supra* note 18.

203. Estonian Council of Informatics, *Principles of Estonian Information Policy* ¶ 2 (1998). The action plan also sought to describe the “shared societal values that serve as the basis for making public policy decisions to support the rise of the information society,” rooting this transition in ideological grounds. *Id.* ¶ 3.

Initiative in 1996, which sought to bring ICT to schools.²⁰⁴ This proved to be a resounding success, as it began the proliferation of internet usage in the country. Today, ninety-nine percent of the country uses the internet regularly.²⁰⁵ In the same year as the Tiger Leap Initiative, Estonia launched its e-banking system, which now accounts for ninety-nine percent of all banking transactions.²⁰⁶ In a society that is largely rural with sometimes-extreme climate conditions, this gave people easier and safer access to banking.²⁰⁷ Realizing it could expand its digital platforms for public services, Estonia moved its tax system online.²⁰⁸

Of particular import, Estonia has been using digital ID systems for two decades.²⁰⁹ Digital IDs—which can be both physical cards and digital applications—allow people to easily authenticate their identity online and access digital services such as e-banking anywhere in the world.²¹⁰ During the COVID-19 crisis, Estonia partnered with the UN Refugee Agency to provide insights into further developing digital ID technology for refugee protection, since digital platforms can be used to provide updates on

204. How It All Began? From Tiger Leap to Digital Society, Educ. Est., <https://www.educationestonia.org/tiger-leap> [<https://perma.cc/7FH2-4CDH>] (last visited Aug. 15, 2023). The Tiger Leap Program was built on three pillars: computers and the internet, basic teacher training, and native-language electronic courseware for general education institutions. Id. This program has since been updated in the ProgeTiger Programme and Lifelong Learning Strategy. Id.

205. E-Estonia, Story, *supra* note 18; Ease of Doing Business: E-Banking, E-Estonia, https://e-estonia.com/solutions/ease_of_doing_business/e-banking/ (on file with the *Columbia Law Review*) [hereinafter, E-Estonia, E-Banking] (last visited Aug. 29, 2023).

206. See E-Estonia, E-Banking, *supra* note 205. For clarity, e-banking refers to access to both private and government banks online. See Fed. Fin. Insts. Examination Council, E-Banking Handbook 1 (2003). Estonia also boasts that this system is open twenty-four seven and is nearly instantaneous. See E-Estonia, E-Banking, *supra* note 205. Access is granted through a citizen's digital ID. Id.

207. See E-Estonia, Story, *supra* note 18 (asserting that e-banking is valuable to Estonia because of its sometimes-extreme climate and rural character).

208. See Ease of Doing Business: E-Tax, E-Estonia, https://e-estonia.com/solutions/ease_of_doing_business/e-tax/ (on file with the *Columbia Law Review*) (last visited Aug. 13, 2023). This includes declarations for income tax, social tax, and unemployment insurance and also allows Estonians to request tax returns. Id.

209. See E-Identity, E-Estonia, <https://e-estonia.com/solutions/e-identity/id-card/> (on file with the *Columbia Law Review*) (last visited Aug. 13, 2023). Since Estonia's adoption of the program nearly twenty years ago, the EU is also considering the transition into digital identification. Leonie Cater, What Estonia's Digital ID Scheme Can Teach Europe, Politico (Mar. 12, 2021), <https://www.politico.eu/article/estonia-digital-id-scheme-europe/> [<https://perma.cc/UZ4M-NNJX>].

210. See E-Identity, *supra* note 209. E-ID can be used for public and private organizations. See Rob Pegoraro, This Country Moved Its Government Online. Here's Why That Wouldn't Fly in the U.S., Fast Co. (Sept. 10, 2021), <https://www.fastcompany.com/90671437/estonia-digital-citizenry-evoting> (on file with the *Columbia Law Review*). Digital ID is also quite durable, as it is granted to a person at birth and stays with them until death. See E-Identity, *supra* note 209.

asylum cases and increase access to healthcare services and direct financial assistance.²¹¹

Estonia has also pioneered e-residency for businesses by allowing non-Estonians to incorporate, which grants business owners government-issued digital IDs and access to much of Estonia's business environment.²¹² Although the current conception of e-residency does not grant full citizenship rights,²¹³ e-residency in Estonia is a proof of concept that a state can retain some connection to a community even if it does not exist on a state's territory.

Estonia has also made strides in digitizing its traditional government and political processes by adopting "e-cabinet" meetings.²¹⁴ Cabinet members are able to complete most of the meeting's work in advance, as they can view agenda items, formulate their opinions, and signal their objections before the meeting begins.²¹⁵ While there is sometimes still an in-person element, e-cabinet meetings have reduced time spent on meetings by eighty percent.²¹⁶

On the citizen side, Estonians with a digital ID can vote online.²¹⁷ There are several security measures in place to ensure both the integrity

211. See Nannie Sköld, UNHCR Strengthens Efforts on Digital Identity for Refugees With Estonian Support, UN High Comm'r for Refugees (June 12, 2021), <https://www.unhcr.org/neu/70493-unhcr-strengthens-efforts-on-digital-identity-for-refugees-with-estonian-support.html> [<https://perma.cc/EK9K-FB58>] (describing Estonia's increased use of digital solutions in aiding refugees).

212. See The New Digital Nation, Republic of Est.: E-Residency, <https://web.archive.org/web/20230102125753/https://www.e-resident.gov.ee/> [<https://perma.cc/Q2DU-8X2P>] (last visited Sept. 20, 2023). The government website boasts having the world record for the fastest incorporation time: fifteen minutes and thirty-three seconds. *Id.*

213. Since Estonian e-residency is still in its early days, it currently provides access to only a limited number of banks and does not grant European Union citizenship. See E-Residency of Estonia: The Definitive Guide, Go Visa Free, <https://govisafree.com/e-residency-estonia/> [<https://perma.cc/N52S-DJUA>] (last updated July 26, 2022).

214. See E-Estonia, Story, *supra* note 18; Herman van den Bosch, E-Estonia: A Great Example of E-Government, Amsterdam Smart City (Aug. 28, 2021), <https://amsterdamsmartcity.com/updates/news/e-estonia-a-great-example-of-e-government> (on file with the *Columbia Law Review*) ("Governmental bodies at all levels use a paperless information system—e-cabinet—that has streamlined decision making and reduced the time spent on meetings [by] 80%.")

215. Van den Bosch, *supra* note 214.

216. *Id.*

217. See Case Study 8: Estonia E-Government and the Creation of a Comprehensive Data Infrastructure for Public Services and Agriculture Policies Implementation, *in* Org. for Econ. Coop. & Dev., Digital Opportunities for Better Agricultural Policies 207 (2019) (discussing Estonia's use of internet voting as a proof of concept for e-ID cards). Digital voting is available in local, parliamentary, presidential, and EU elections. Internet Voting in Estonia, Nat'l Democratic Inst., <https://www.ndi.org/e-voting-guide/examples/internet-voting-in-estonia> [<https://perma.cc/A4NP-Y9F9>] (last visited Aug. 29, 2023); see also Statistics About Internet Voting in Estonia, Valimised, <https://www.valimised.ee/en/archive/statistics-about-internet-voting-estonia>

of the election and the anonymity of the voters themselves.²¹⁸ This system has seen great success, with 27.9% of eligible voters and 43.9% of participating voters in the 2019 election voting online.²¹⁹

There are, of course, crucial questions regarding the safety of this system. In 2007, Estonia was the subject of a cyberattack, and since then the e-government has done its best to ensure the utmost protection of its data and services.²²⁰ It responded by decentralizing its digital services management system to limit the amount of data stored in one location.²²¹ Estonia also opened a “Data Embassy” in Luxembourg, a cloud storage system that has a backup of its services in case anyone tampers with any of its main domestic servers.²²² Like a regular embassy, the Data Embassy is the diplomatic property of Estonia and is afforded the same level of protection in international law as a regular embassy under the Vienna Convention on Diplomatic Relations.²²³ Functionally, this means that if Estonia is ever invaded, the government of Estonia can continue to administer the services that it was providing while it held power in its territory.²²⁴

The lack of scholarship evaluating e-Estonia under the international law of statehood is likely due to Estonia’s qualification as a traditional state under the Montevideo Convention. Even were the Estonian government once more displaced from its territory, it could still fall under the well-

[<https://perma.cc/4TH8-ZHQS>] (last visited Aug. 13, 2023) (listing voter participation and demographic statistics from 2005 to the present).

218. See Internet Voting in Estonia, *supra* note 217. This system includes the ability to recast a vote multiple times, with only the last one counting, so that people can avoid casting a vote by coercion. *Id.* These votes are backed up by blockchain and are fully anonymous to everyone but the government officials in charge of the election. See Michelle Mount, Innovations in Internet Voting Systems, 4 *Geo. L. Tech. Rev.* 699, 704 (2020) (noting that Estonia’s use of its KSI blockchain for internet voting lacks transparency because key monitoring and authentication activities are managed on government servers).

219. Case Study 8, *supra* note 217. This represented votes from Estonians located in 143 countries. *Id.*

220. See Rice, *supra* note 19 (explaining protective measures taken by the Estonian e-government).

221. See Interoperability Services: X-Road, E-Estonia, <https://e-estonia.com/solutions/interoperability-services/x-road/> (on file with the *Columbia Law Review*) (last visited Aug. 13, 2023) (describing how X-Road, e-Estonia’s open-source software solution, connects the nation’s various public and private sector e-information systems).

222. Rice, *supra* note 19.

223. E-Governance: Data Embassy, E-Estonia, <https://e-estonia.com/solutions/e-governance/data-embassy/> (on file with the *Columbia Law Review*) (last visited Jan. 2, 2022) (describing the Data Embassy as “an extension in the cloud of the Estonian government”); cf. Nick Robinson, Laura Kask & Robert Krimmer, The Estonian Data Embassy and the Applicability of the Vienna Convention: An Exploratory Analysis, *in* Proceedings of the 12th International Conference on Theory and Practice of Electronic Governance 391, 395 (Soymaya Ben Dhaou, Lemuria Carter & Mark Gregoy eds., 2019) (finding that general international law does not protect entities like the Estonian Data Embassy but that a bilateral treaty with Luxembourg extends those protections).

224. Rice, *supra* note 19.

accepted form of a government in exile.²²⁵ While an e-state's connection to statehood is limited, there is extensive scholarship on the relationship between cyberspace and sovereignty.²²⁶ Although there still are ongoing debates in that field, one general consensus is that a state's sovereignty does apply to its digital apparatus.²²⁷ Thus, there is support for the view that the e-state is more than just a *tool* of the state and can be recognized as an integral *part* of the state.

B. *Troubleshooting Statehood: e-SIDS*

Based on the e-Estonia Model, this Note envisions e-SIDS as a collective set of digital platforms (online websites and services) utilized for fulfilling the central functions of a state to the degree that it can retain the state's identity on its own. Much like Maxine A. Burkett's Nation Ex-Situ, e-SIDS would take advantage of the slow-onset nature of sea-level rise and use the time pre-inundation to fully transition into this system.²²⁸ Before submergence, the e-SIDS would operate similarly to e-Estonia domestically. Post-submergence, however, the e-SIDS' primary functions would be to manage state resources, offer legal protections, and create a venue that can maintain a sense of connectedness.²²⁹

1. *e-SIDS in Practice.* — The Estonia model of e-statehood provides a strong blueprint and baseline for what e-SIDS could entail. Like the Estonian e-state, e-SIDS could use digital technology to organize government, as well as provide citizens with public good and services, digital IDs, and some form of digital residency. The diasporic nature of the populations of these sunken states, however, as well as their undetermined legal status in international law, necessitates several core differences from the Estonian model; in those instances, this Note takes inspiration from Estonia's efforts and expands upon them in a way that addresses the specific needs of e-SIDS and their people.

The element of e-SIDS that likely will be most similar to Estonia's e-state is the development of a digital government.²³⁰ Estonia's e-cabinet

225. See *supra* note 118 and accompanying text.

226. See, e.g., Harriet Moynihan, Chatham House Int'l L. Programme, *The Application of International Law to State Cyberattacks: Sovereignty and Non-intervention* (2019), <https://www.chathamhouse.org/sites/default/files/publications/research/2019-11-29-Intl-Law-Cyberattacks.pdf> [<https://perma.cc/GW4W-RR3F>].

227. *Id.* at 8 ("While there was formerly some dispute about whether the existing rules of international law were applicable to cyberspace at all, states agreed at the UN GGE in 2013 and 2015 that international law, including the principles of sovereignty and non-intervention, does apply to states' activities in cyberspace . . .").

228. Burkett, *supra* note 58, at 112–13.

229. *Id.*

230. This is also one of the most important elements of e-SIDS both practically and legally: practically because the e-SIDS will exist to provide services, goods, and international representation to its population, and that can only be accomplished through a functional administrative body; legally because the presence of a government is one of the four criteria of statehood. See *supra* notes 74–81 and accompanying text.

system can be readily adapted here, enabling political representatives to view all agenda items online before their meetings and decide their positions in advance,²³¹ wherever in the world they are.²³² Beyond pre-meeting planning, the e-SIDS' politicians can use video conferencing technology to conduct meetings virtually.²³³ Since COVID-19, use of video conferencing technology has increased drastically,²³⁴ and platforms have adapted their commercial products to meet governmental needs.²³⁵ Any state that desires at least some in-person component to governance can explore holding meetings in the Metaverse.²³⁶ Meetings held over Zoom or similar technologies could be recorded or allow for citizens to join the call as well to observe the proceedings²³⁷—similar to the function of C-SPAN²³⁸—to encourage virtual civic engagement and accountability. Likewise, virtual technology could help facilitate direct out-of-session communication both between government officials and between officials and citizens. Finally, e-SIDS governments can create a repository of all relevant information for their citizens, including any relevant government sessions, decisions, developments, and generally helpful resources.²³⁹

231. Van den Bosch, *supra* note 214.

232. For pre-meeting discussions, e-SIDS can likely work toward developing or adapting instant messaging platforms designed for organizational communication, such as Slack, which is a messaging platform that already has been adapted by several government agencies around the world. See, e.g., The Value of Slack for Government, Slack, <https://slack.com/resources/why-use-slack/the-value-of-slack-for-government> [<https://perma.cc/M48N-B7PA>] (last visited Aug. 13, 2023) (demonstrating that governments are currently using Slack as a tool for government communication).

233. For an example of a video conference platform that has been adapted for government use, see Zoom for Government, <https://www.zoomgov.com/> [<https://perma.cc/269G-SMG4>] (last visited Aug. 13, 2023).

234. Bob Evans, The Zoom Revolution: 10 Eye-Popping Stats From Tech's New Superstar, *Acceleration Econ.* (Nov. 8, 2022), <https://accelerationeconomy.com/cloud/the-zoom-revolution-10-eye-popping-stats-from-techs-new-superstar/> [<https://perma.cc/DC4J-R8TN>] (explaining that Zoom experienced a 169% revenue increase and 354% customer growth year-over-year in Q1 2020).

235. See, e.g., Zoom for Government, *supra* note 233.

236. See Bill Gates, Reasons for Optimism After a Difficult Year, *GatesNotes* (Dec. 7, 2021), <https://www.gatesnotes.com/Year-in-Review-2021> [<https://perma.cc/J5UM-LWC9>] (“Within the next two or three years, I predict most virtual meetings will move from 2D camera image grids . . . to the metaverse, a 3D space with digital avatars.”).

237. See Zoom for Government, *supra* note 233 (describing Zoom for Government's recording functionality and ability to support up to 1,000 meeting participants).

238. Our History, C-SPAN, <https://c-span.org/about/history/> [<https://perma.cc/XCT5-ETJL>] (last visited Aug. 29, 2023) (“We are a non-profit created in 1979 by a then-new industry called cable television, and today we remain true to our founding principles, providing gavel-to-gavel coverage of the workings of the U.S. Congress, both the House and Senate, all without editing, commentary or analysis.”).

239. Recently, the co-chairs of the UN Intergovernmental Negotiations (IGN) framework, which convenes meetings on reform of the UN Security Council, decided to create a repository of all relevant documents to come from the negotiations. This was lauded by many states as a helpful mechanism that will allow the negotiating members to keep track of the varying positions and remain involved members. See, e.g., (Part I) General

States that adopt the e-SIDS model can design an online voting system to encourage active engagement and help maintain democratic legitimacy.²⁴⁰ With Estonians voting online from over 140 different countries as of 2019,²⁴¹ citizens of e-SIDS can likewise vote no matter where they are, better ensuring that the will of the people is best represented in their e-government. Voting systems could also be used to survey citizens on how the state is working in practice, which may allow e-SIDS to dynamically adapt to unforeseen circumstances.

Of course, there are several specific issues that would need to be resolved to ensure that this system works.²⁴² First, the voting system itself would need to be secure from outside influence and tampering.²⁴³ Second, the dispersed population would need to be aware that the vote was taking place.²⁴⁴ While these are challenging issues, the period before submergence could help sinking states design and test a system that would work for them. The Estonian e-voting model may have been groundbreaking, and there are several different models that e-SIDS could explore.²⁴⁵ Additionally, at-risk SIDS could set fixed election dates, practices, and norms while they still possess territory so that even if a

Assembly: Informal Meeting of the Plenary on the Intergovernmental Negotiations on the Question of Equitable Representation on and Increase in the Membership of the Security Council and Other Matters Related to the Council, 77th Session, UN, at 1:04:25 (Mar. 9, 2023), <http://media.un.org/en/asset/k19/k19mlf0tfw> (on file with the *Columbia Law Review*) (showing the representative of the Netherlands thanking the co-chairs for their decision to webcast the meeting); see also First Segment of UN Intergovernmental Negotiations Framework Meetings Now Webcast: UNGA President, ANI News (June 30, 2023), <https://www.aninews.in/news/world/us/first-segment-of-un-intergovernmental-negotiations-framework-meetings-now-webcast-unga-president20230630055304/> [<https://perma.cc/ZX5Z-BTJF>].

240. Alberto Grillo, Voter Turnout and Government's Legitimate Mandate, 59 *Eur. J. Pol. Econ.* 252, 252 (2019) (“[I]n line with a view of elections as a mechanism for the generation of popular support for the government and its policies, scholars have often referred to the legitimizing function of electoral participation.” (citations omitted)).

241. Case Study 8, *supra* note 217.

242. See Mount, *supra* note 218, at 700–01 (describing the “inherent challenges” of internet voting systems); Bill Hewitt, Online Voting and Democracy in the Digital Age, *Consumer Reps.* (May 17, 2016), <https://www.consumerreports.org/online-voting/online-voting-democracy-in-the-digital-age/> [<https://perma.cc/24MA-JA4C>] (“[E]fforts to introduce Internet voting face the same overriding issue: how to make sure ballots aren’t subject to manipulation or fraud by hackers or compromised by a system failure.”).

243. See Case Study 8, *supra* note 217 (“Data security is taken very seriously in Estonia and is considered to be the most important feature allowing the Estonian digital society to function.”).

244. See, e.g., *id.* (“In order to support the shift from paper to digital, the government launched different advertising campaigns to communicate its advantages to farmers, including a more rapid identification and treatment of errors.”). See generally Mount, *supra* note 218, at 700 (“The systems vary widely because the feasibility of each system depends on each jurisdiction’s Internet access, priorities, budget, laws, and election risk, as well as the digital literacy of its voters.”).

245. See Mount, *supra* note 218, at 702–10 (explaining that Estonia was the first country to use internet voting nationally and describing three other online voting systems).

citizen were to miss a notification, they would still know when and how elections proceed. Setting clear election norms, communications, and expectations now could help ensure that democratic participation remains stable later—even if citizens become displaced or notifications occasionally falter.

Digital IDs could also be used to define and keep track of the population and to grant access to e-SIDS protections, resources, and voting rights, as in e-Estonia.²⁴⁶ Since digital IDs can exist virtually and migrate with their user,²⁴⁷ they have the potential to prove ideal for scenarios of mass migration.²⁴⁸ This system also may help make citizenship less abstract, as individuals could tangibly link to their e-SIDS of origin through their digital ID. Here, Estonia's e-residency—although limited to business²⁴⁹—may serve as a proof of concept that e-citizenship is possible and has the potential to be adapted to the specific needs of the SIDS populations. The laws of nationality generally are within the purview of a state's domestic law,²⁵⁰ and e-SIDS could decide who can join. At a minimum, e-citizenship should apply to all existing members of the territorial state and their offspring.²⁵¹ While e-SIDS would want to exercise discretion in choosing new nationals for fear of people abusing e-SIDS resources, there might be avenues to join the e-state for limited purposes, like with the Vatican City's

246. See E-Identity, *supra* note 209 (“People use their e-IDs to pay bills, vote online, sign contracts, shop, access their health information, and much more.”).

247. See generally Abhishek Sinha, Amar Shama & Sam Nazari, *The Great Convergence: Portable Digital Identity*, EY (Sept. 21, 2022), https://www.ey.com/en_ca/financial-services/the-great-convergence-portable-digital-identity [<https://perma.cc/RDT2-GDUC>] (“Policy interventions to promote enhanced privacy and data portability, technology advancement and a strong consumer demand for better experience and trust have resulted in the rampant growth of [self-sovereign identity model] adoption across the globe.”).

248. See Sköld, *supra* note 211 (describing efforts by the UN High Commissioner for Refugees to provide digital identities to stateless persons).

249. See E-Residency of Estonia, *supra* note 213 (“E-residency of Estonia is the most proficient way out for anyone who wishes to run a business internationally but wants to work remotely.”).

250. See Marilyn Achiron & Radha Govil, *Nationality and Statelessness: Handbook for Parliamentarians* N° 22, at 8 (2d ed. 2014), <https://www.refworld.org/pdfid/53d0a0974.pdf> [<https://perma.cc/7BBJ-H3ZR>] (“In principle, questions of nationality fall within the domestic jurisdiction of each State. However, the applicability of a State's internal decisions can be limited by the similar actions of other States and by international law.”); Satvinder S. Juss, *Nationality Law, Sovereignty, and the Doctrine of Exclusive Domestic Jurisdiction*, 9 Fla. J. Int'l L. 219, 229 (1994) (describing how states have domestic jurisdiction over their own nationality laws).

251. If only members of the territorial state and their offspring were granted nationality, then the state would likely dissipate after a few generations. While the e-state might not need to last indefinitely, its termination should be at its own discretion. See Burkett, *supra* note 58, at 113 n.86 (“[A] decision to dissolve is integral to the exercise of [a nation ex-situ]’s sovereignty. Therefore, the State and its nationals are the only ones that can legitimately make this decision.”). There are also practical questions to consider regarding which offspring would qualify in cases in which there is a non-e-SIDS parent. Ultimately, this too is for the state to decide. See Juss, *supra* note 251, at 229.

caretaker population.²⁵² e-SIDS likewise could admit new members who are dedicated to preserving and managing the state—its maritime zones and physical data centers, for example—or those who are dedicated to combating climate change.²⁵³ Relevant considerations as to who to admit to the state might also include technical skills and qualifications that might be of use to the state so as to ensure that the technological expertise of the state is not limited to those already within it.

While e-SIDS and e-Estonia might serve similar functions, their ultimate goal is different, as the primary purpose of e-SIDS is to protect their dispersed populations by providing both legal and financial support. Although citizens of SIDS will be forced away from their islands due to extreme climate conditions and lack of habitable territory, they do not qualify as refugees under international law and therefore are not afforded any legal protections associated with refugee status.²⁵⁴ To that end, these populations will enter foreign countries simply as non-citizens.²⁵⁵ While there are certain rights that receiving states must respect, states can nevertheless “draw distinctions between citizens and non-citizens with respect to political rights explicitly guaranteed to citizens and freedom of movement.”²⁵⁶ Practically, “there is . . . a large gap between the rights that international human rights law guarantees to [non-citizens] and the realities that they face Nearly all categories of non-citizens face official and non-official discrimination.”²⁵⁷ These migrants could struggle to find adequate livelihoods and integrate into host-state populations,²⁵⁸ and they may face detention and deportation.

252. See Stoutenburg, *supra* note 68, at 66 (“The inhabitants of the Vatican City live there only because and as long as they hold office with the Holy See Yet . . . [the Holy See] is recognized by other States as a State.”).

253. The Sovereign Order of Malta, whose sole aim is to further humanitarian goals, is a good analogue. See About the Sovereign Order of Malta, Sovereign Ord. of Malta (Apr. 12, 2017), <https://www.orderofmalta.int/news/what-is-the-sovereign-order-of-malta/> [<https://perma.cc/J9RL-UZ4L>] (“[T]he Sovereign Order of Malta has diplomatic relations with over 100 states and the European Union, and permanent observer status at the United Nations. . . . [T]he Order of Malta is active in 120 countries caring for people in need through its medical, social and humanitarian works.”).

254. See Atapattu, *supra* note 13, at 22 (“International law recognizes several categories of people and the legal protection accorded to them varies according to each category. Climate migrants do not fit within any of these categories.”); McAdam, *supra* note 11, at 15 (“Few States even have a status determination procedure to identify stateless persons, by contrast to refugees.”).

255. UN Off. of the UN High Comm’r for Hum. Rts., *The Rights of Non-Citizens* 5 (2006), <https://www.ohchr.org/sites/default/files/Documents/Publications/noncitizensen.pdf> [<https://perma.cc/VN2E-FM3K>].

256. *Id.*

257. *Id.*

258. See, e.g., Magdalena Szaflarski & Shawn Bauldry, *The Effects of Perceived Discrimination on Immigrant and Refugee Physical and Mental Health*, 19 *Advances in Med. Socio.* 173, 175 (2019); Christina Nuñez, *7 of the Biggest Challenges Immigrants and Refugees Face in the US*, *Glob. Citizen* (Dec. 12, 2014),

To combat those difficulties, e-SIDS can use their international legal personalities to negotiate treaties that govern how their nationals are treated in host states.²⁵⁹ Such a treaty might help direct how migration efforts could proceed, what specific obligations the host state has to the migrants, and how the migrants can integrate into the host state, including via the acquisition of dual citizenship. Ultimately, the contours of such a treaty are outside the scope of this Note; the existence of a functioning e-government, however, ensures that a treaty can be negotiated at all. Even without a treaty, the e-SIDS can provide citizens the ability to register complaints online about their treatment in a host state, and the state can pursue diplomatic protection actions whenever deemed appropriate or advocate on behalf of its people in the international arena.²⁶⁰

Similarly, e-SIDS can use the resources they accrue through their maintained maritime zones to financially assist their populations. The e-SIDS might be able to extract resources from their exclusive economic zone or leverage their ownership to seek rent from foreign use of their zones. Those funds then can be used to pursue the prerogatives of the e-SIDS or be directly redistributed to the population through digital platforms similar to Estonia's e-banking system.²⁶¹ Digital currencies and the cashless economy have grown substantially over the last few years,²⁶² and SIDS can begin developing a digital cash system before their territory is submerged.²⁶³

Furthermore, e-SIDS can use digital platforms to address a host of other possible issues. e-SIDS' digital systems can increase access to

<https://www.globalcitizen.org/en/content/the-7-biggest-challenges-facing-refugees-and-immig/> [<https://perma.cc/Z66J-J7KD>]; Settlement Challenges, Roads to Refuge (2020), <https://www.roads-to-refuge.com.au/settlement/settlement-challenges.html> [<https://perma.cc/7RM8-KG3Z>]; Understanding the Employment Barriers for Refugees, Oyster (June 10, 2022), <https://www.oysterhr.com/library/understanding-the-employment-barriers-for-refugees> [<https://perma.cc/AR4P-ZFFQ>].

259. These treaties can be either bilateral or multilateral. For a discussion of a potential treaty, see McCullough, *supra* note 44, at 128–36.

260. While it would be at the discretion of the state to pursue diplomatic protection, this also would help e-SIDS aggregate data about repeated harms caused to their nationals by host states.

261. E-Estonia, E-Banking, *supra* note 205; Ceyla Pazarbasioglu & Alfonso Garcia Mora, Expanding Digital Financial Services Can Help Developing Economies Cope with Crisis Now and Boost Growth Later, World Bank (Apr. 29, 2020), <https://blogs.worldbank.org/voices/expanding-digital-financial-services-can-help-developing-economies-cope-crisis-now-and-boost-growth-later> [<https://perma.cc/PHS4-9XQT>] (explaining how digital financial services can help developing countries).

262. COVID-19 Drives Global Surge in Use of Digital Payments, World Bank (June 29, 2022), <https://www.worldbank.org/en/news/press-release/2022/06/29/covid-19-drives-global-surge-in-use-of-digital-payments> [<https://perma.cc/P8QJ-VAYX>].

263. See Karlis Salna & Jacki Range, Vanuatu a Step Closer to Becoming a Cashless Paradise, Int'l Fin. Corp. (Oct. 2022), https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/vanuatu-cashless-paradise [<https://perma.cc/3U9Y-6TEK>] (detailing Vanuatu's efforts to transition to a cashless economy).

healthcare by offering telehealth services, guiding users to nearby clinics and services, and keeping health records of citizens in a centralized location.²⁶⁴ Likewise, the e-SIDS platform can serve as a job directory board, highlighting remote jobs or open opportunities within the host state, potentially posted by other citizens of the migrating state who have found more success in the job market. The platform also can have other relevant information about the host state, including how and where to find affordable housing.²⁶⁵ Ultimately, such a platform can both aid in migrant integration and continue to serve as a general resource for the population's well-being.

The digital platforms can also serve a limited judicial function, resolving relevant disputes between e-SIDS citizens.²⁶⁶ With limited enforcement power and potential practical challenges for collecting and retaining evidence, the type of cases an online court could adjudicate would inherently be limited. The cases might pertain to dealings between e-SIDS citizens, such as contract disputes. Failure to comply with a ruling could be enforced by withholding some of the state's resources from the non-complying party. e-SIDS might also find it expedient to establish laws that dictate how their citizens interact with the e-state. For example, e-SIDS might require voting or checking in to the digital platform at periodic intervals. An e-court could adjudicate violations of those laws and potentially threaten withholding some benefit as a form of enforcement. Of course, these benefits are meant to maintain the people's well-being, so such punishment should be meted out sparingly. Other legal issues arising out of the citizens' affairs in the host state likely would fall within the jurisdiction of the host state's courts.

On the social side of statehood, the e-SIDS platforms can be used to preserve a sense of community and culture. Websites could be used to coordinate social events and gatherings or keep track of residential groupings of islanders so that they know where to find others from their homeland.²⁶⁷ e-SIDS might also develop their own social media platforms that allow people to keep up with their communities and engage in long-

264. See Laura Lovett, Emily Olsen & Mallory Hackett, *How Digital Health Can Help Refugees Access Medical Care*, *Mobi Health News* (Sept. 3, 2021), <https://www.mobihealthnews.com/news/how-digital-health-can-help-refugees-access-medical-care> [<https://perma.cc/G57K-29UR>] (describing digital health initiatives developed in response to refugee crises in Afghanistan and Syria).

265. See *id.*

266. See Brandon Moss, *Courts Continue to Embrace Remote Proceedings*, *Thomson Reuters* (Nov. 30, 2022) <https://www.thomsonreuters.com/en-us/posts/news-and-media/courts-remote-proceedings/> [<https://perma.cc/MQE5-Z39N>] (describing remote proceedings in U.S. courts during the COVID-19 pandemic).

267. While not scaled for government, online community building has been developing for years and can take a variety of different forms. See, e.g., Maddie Martin, *The Top 17 Best Online Community Platforms in 2023*, *Thinkific* (June 2022), <https://www.thinkific.com/blog/best-online-community-platforms/> [<https://perma.cc/SB98-YUXL>].

distance online communication.²⁶⁸ Likewise, Tuvalu’s exploration of using the Metaverse to connect people demonstrates another way people can maintain a connection to their community.²⁶⁹ Tuvalu’s attempt to replicate their island state in the Metaverse will shed light on whether e-SIDS could preserve important cultural sites that are now submerged.

To make this possible, the e-SIDS would need to establish data centers abroad, similar to Estonia’s Data Embassy. First, this step would ensure the continued survival of the digital platforms—as they rely on physical servers—as well as create backup systems in case of a cyberattack.²⁷⁰ Second, it would increase the e-state’s exposure to foreign powers. As such exposure would extend over decades, data center establishment might normalize the concept of an e-state in international affairs and in turn increase e-SIDS’ legitimacy as a modality capable of retaining statehood.

2. *e-SIDS in the Law.* — While the concept of e-SIDS might provide practical solutions for addressing migration-related issues, it also gives SIDS the chance to retain their international legal personalities as states. There is likely enough flexibility in the law of statehood to accept e-SIDS as a modality of continued statehood.²⁷¹ e-SIDS serve the same holistic purposes as territorial states and would operate like any other nation in international affairs. This iteration of “deterritorialized statehood” would therefore bolster SIDS’ claims for their continuation with their own unilateral action.

At the outset, the concept of e-SIDS is premised on the presumption of continuity in international law.²⁷² This Note is not arguing that nonterritorial entities can gain access to the international legal system by creating a cohesive e-governance system but rather that the organization and functionality of e-SIDS would permit preexisting states to invoke continuity. This argument therefore relies on distinguishing between

268. Reddit is one successful community platform that has allowed individual groups to form their own sub-communities built around interests, identities, and locations. While this Note is not advocating for Reddit-based community building, it serves as a proof of concept. See Dive Into Anything, Reddit, <https://www.redditinc.com> [<https://perma.cc/MQV2-4LTW>] (last visited Sept. 20, 2023) (“Reddit is home to thousands of communities, endless conversation, and authentic human connection. Whether you’re into breaking news, sports, TV fan theories, or a never-ending stream of the internet’s cutest animals, there’s a community on Reddit for you.”); see also Madison Malone Kircher, What’s Going on With Reddit?, N.Y. Times (June 16, 2023), <https://www.nytimes.com/2023/06/16/style/whats-going-on-with-reddit.html> (on file with the *Columbia Law Review*) (“Thousands of subreddits—the individualized communities where people discuss dog breeds, allergies, influencers, dating, and extremely NSFW topics . . . ha[ve] long been bolstered and operated by a network of unpaid moderators who keep subreddits from disintegrating into chaos.”).

269. See Shepherd, *supra* note 16.

270. See Rice, *supra* note 19.

271. Burkett, *supra* note 58, at 94 (“[A]lthough statehood is a legal concept with a determinate content, it is flexible.”).

272. See *supra* section I.B.2.

creation of a state—dictated by the Montevideo Convention criteria—and the *continuity* of an existing state.²⁷³

e-SIDS would likely find greatest support for their introduction into international law under the Ratchet Theory of state continuity. If the bar for state extinction is high,²⁷⁴ it is likely that SIDS could survive in the form of a tangible e-state that carries out state functions. Despite their lack of physical territory, such states would have functioning governments that carry out services to defined—potentially communal—populations. e-SIDS therefore are continued tangible entities in which the status of statehood could inhere, and with the “ratchet” set, the presumption against extinction could control.

This argument is all the stronger when considering the expanded notions of statehood put forward by various scholars. These e-SIDS would be consistent with the existing concept of “deterritorialized statehood,” in which the exigent circumstances of climate change militate in favor of accepting statehood without territory.²⁷⁵ Likewise, e-SIDS fit neatly into the family resemblance theory of continued statehood,²⁷⁶ under which e-SIDS would carry on enough “state-like” characteristics that international law could accept them into the family of statehood. This might also be a moment to conceptualize statehood as a “bundle of sticks” composed of various essential and nonessential elements so that states can differ in exact form while still retaining statehood.²⁷⁷ One author broke down what the statehood bundle might look like, and although they considered physical territory as one of the required “sticks,” they noted that the world might see the day when a state could exist in cyberspace.²⁷⁸ Written over twenty-five years ago, this aside in a footnote is exactly what this Note is advocating for in the limited context of sinking states.

Even under traditional paradigms of statehood, there is still an argument that e-SIDS fulfill the sameness approach to continuity: e-SIDS accomplish many of the same holistic goals of the territorial state, and they therefore might be capable of preserving a state’s identity. First, if territory is a “means to an end” in hosting a population that can politically organize itself,²⁷⁹ then e-SIDS satisfy that mission, as their digital IDs define a

273. See *supra* note 101 and accompanying text. Otherwise, any Big Tech corporation or other institution that manages vast amounts of data and can exhibit a “population” in its userbase and “government” in its structure might be able to access the international legal system. See concerns of this nature in Pistor, *supra* note 198, at 3–4.

274. Atapattu, *supra* note 13, at 19.

275. See Burkett, *supra* note 58, at 93–96.

276. See Willcox, *supra* note 96, at 127–29.

277. See Celia R. Taylor, A Modest Proposal: Statehood and Sovereignty in a Global Age, 18 U. Pa. J. Int’l Econ. L. 745, 754–55 (1997).

278. *Id.* at 758 n.43 (“It is, I suppose, possible to imagine a State without physical boundaries existing in cyberspace, but despite technological advances, this eventuality remains far in the future.”).

279. Stoutenburg, *supra* note 68, at 61.

population that can vote for governmental representation and services. If the goal is to provide a source of security,²⁸⁰ e-SIDS can provide legal security to their nationals abroad.²⁸¹ If the goal is to serve as a source of economic activity,²⁸² they can use their digital platforms to provide financial assistance to their people or potentially highlight remote job opportunities for them to pursue. If the goal is to facilitate the effective exercise of jurisdiction,²⁸³ that too can be accomplished through digital IDs, by which the state's jurisdiction applies to all its registered nationals abroad.²⁸⁴ Lastly, if the goal is to demarcate the physical boundaries of the state,²⁸⁵ then the e-SIDS retention of their respective maritime zones means that there still are physical zones over which the e-SIDS exercise control.

Second, e-SIDS can help satisfy the population requirement. Here, the population is not determined by people in a given territory but instead set by the digital ID system.²⁸⁶ Further, while this does not promote "communal activity" in our traditional understanding of that concept, SIDS can readily maintain a venue for community building and community preservation.²⁸⁷

Third, the government criterion would certainly be fulfilled even under traditional understandings of statehood, as an e-government could work the same before and after submergence, with an equal level of legitimacy.²⁸⁸ Additionally, if government is the criterion that matters most in statehood,²⁸⁹ then this factor alone might sway in favor of recognizing the continued statehood of e-SIDS.

Similarly, e-SIDS also likely fulfill the requirement of independence. The potential risk of foreign influence on a government's operation might raise concern for the independence of e-SIDS. But while the laws of continuity recognize governments in exile,²⁹⁰ which are centered in a singular host state, the ability of e-governments to be constituted by people from all over the world makes them less likely to fall under the coercion of any single foreign host state.

280. Jain, *supra* note 40, at 23.

281. See *supra* notes 251–257 and accompanying text.

282. Jain, *supra* note 40, at 23.

283. *Id.*

284. *Id.* at 24 ("It is technologically possible to exercise jurisdiction over persons outside the territorial frontiers of a state.").

285. See *id.*

286. See *supra* note 82.

287. See *supra* notes 69–75 and accompanying text.

288. Given the great flexibility states have in deciding how their government is structured, the e-government is likely in line with what international law would accept. See *supra* notes 81–83 and accompanying text.

289. Rim, *supra* note 76, at 494–95.

290. Galvão Teles & Ruda Santolaria, *supra* note 9, para. 140.

Lastly, developing diplomatic relations with and data embassies in other nations means that the international community might normalize the concept of the e-state, making it more likely that it recognizes e-SIDS as a valid modality of statehood. It is possible that engaging with the e-state before submergence might build a “habit” of acknowledging the legal dimension of the e-state.²⁹¹ Given the slow-onset nature of sea-level rise, there are decades for states to build these habits.

Ultimately, e-SIDS provide a modality of statehood that adheres closely to our traditional understanding of state functions, and thus it is more likely that the e-SIDS model can carry forward the presumption of continuity. While there are other solutions that can help SIDS retain their statehood, this is a path forward that can be taken by SIDS through unilateral decisionmaking. This option does not require a treaty; the purchase of a large, habitable land mass; or the merging or ceding of sovereignty. While it ultimately will hinge on eventual acceptance by the international community, this approach provides SIDS with the strongest argument for the international community to offer that acceptance. Ultimately, this Note is not arguing that e-SIDS fulfill the Montevideo criteria per se, but where international law is meant to create a consistent and stable system, it might not be anathema for the international community to accept a digital state under these circumstances.

3. *Technical Difficulties.* — Of course, this solution is not without its limitations. Even in this unilaterally developed modality, the e-state still introduces the potential for what one author called a “sovereignty clash,” in which SIDS nationals decide to reconstitute their home state in a host state.²⁹² This, in turn, might dissuade other nations from accepting these nations into their borders.²⁹³ This issue applies to e-SIDS as much as it does to any form of deterritorialized state, but it might be less pronounced in the e-SIDS context. While in other systems there is no tangible “state” with which migrants can interact, e-SIDS might invoke a strong enough sense of community for migrants that they would not feel the need to recreate their state physically in their current locale. Further, citizens of the e-SIDS could seek out dual citizenship, retaining their old connection while planting new roots in their new host state.

There might also be a concern as to how far “digital statehood” could extend. Technically, large corporations, rebel groups, secessionist movements, and potentially any group of individuals might try to claim statehood as long as they have a website or digital platform. If a company develops a virtual state in a virtual reality platform with a working government, population, and supposed independence, does it have a

291. See Ted Hopf, *The Logic of Habit in International Relations*, 16 *Eur. J. Int'l Rels.* 539, 554–55 (2010) (explaining how the logic of habit stabilizes longstanding relationships of cooperation and conflict between states).

292. Sharon, *To Be or Not To Be*, *supra* note 24, at 1046.

293. *Id.*

strong claim to statehood? This Note neither advocates for nor allows for such claims. Instead, the e-SIDS concept relies heavily on the distinction between the criteria for the *creation* of a state and the *continuity* of a state.²⁹⁴ Namely, habitable territory would still be a requirement to properly create a state but would not be a requirement to continue its existence when a state is subject to extinction because of climate-change–induced sea-level rise.

Lastly, states would need to address a series of technical issues for this approach to work. First, the state would need to establish a safe and secure data embassy or a series of data embassies to keep the state running. While one of the primary benefits of e-SIDS is that they do not require the large-scale cooperation of the international community, this is an area that likely would require some assistance. While it is possible that a data server could exist underwater, it is unlikely that such a server would remain fully secure from malicious actions. Here, however, SIDS could reach out to a variety of potential partners, including sympathetic neighboring island states or Luxembourg, which already has displayed its willingness to house Estonia’s data embassy.²⁹⁵ Unlike attempting to purchase land from another state, establishing a data embassy would require only a limited amount of space and would not be used to host an entire community. The safest option would be housing the embassy in an international organization, such as the UN headquarters; of course, that would then require the widescale cooperation that this Note is seeking to avoid.

Another potential drawback is lack of access to travel documents such as passports. While everyone currently living on the islands theoretically could get passports from their state, those passports might expire, and newer generations certainly will not have them. One solution that fits nicely in the e-SIDS model is the development of digital passports.²⁹⁶ More likely, however, is that e-SIDS will need to facilitate agreements with host states to allow their migrants to print travel documents locally. Regardless of the specific solution, this issue will also likely require some level of international cooperation, at least with the potential host states.

Lastly, and potentially most importantly, the development of e-SIDS will require a concerted effort and concentration of resources. While the goal of this Note is to explore the legal feasibility of this model, it is informative only if the e-SIDS model is practically possible. That said, there is reason to believe that it can escape the status of being purely theoretical. First, over the course of decades, Estonia was successful in developing an e-state despite its rough economic beginnings post-independence.²⁹⁷

294. See *supra* note 100 and accompanying text.

295. Rice, *supra* note 19.

296. See Virtual Passport: Your Passport in the Cloud?, Thales, <https://www.thalesgroup.com/en/markets/digital-identity-and-security/government/passport/virtual-passport> [<https://perma.cc/DM5Q-BPYU>] (last visited Aug. 11, 2023).

297. See Amedeo Gasparini, From State to Market: Thirty Years of Economic Success in Estonia, Friedrich Naumann Found. (June 8, 2021), <https://www.freiheit.org/>

Here, the slow-onset nature of sea-level rise is an advantage, as it gives SIDS time to develop these systems and adapt them to their specific needs. Second, these changes might have broader benefits beyond just retaining statehood, as they might be useful during harsh climate events. Third and finally, there is generally a push in the international community to support SIDS in developing their technological and digital capabilities, and if SIDS decided this was an avenue they wanted to pursue, resources might be available through those avenues.²⁹⁸

Ultimately, these difficulties are important to acknowledge because a decision to develop these systems is entirely within the discretion of the SIDS, and it is vital that they understand the risks and costs involved. However, exploring this issue is worthwhile so long as the e-SIDS model remains a viable option and one that has a strong chance of retaining statehood without territory.

C. *Benefits Beyond Statehood*

Although statehood might still elude SIDS if the international community rejects their claims, the e-SIDS system can still be helpful in addressing the practical challenges of climate change and in enabling SIDS to retain some level of international legal personality. Climate change and sea-level rise will lead to extreme weather events and cause an increase in internal migration.²⁹⁹ Transitioning to a digital governance system can make those migrations easier, as government and monetary systems would not be tied to any one location.

central-europe-and-baltic-states/state-market-thirty-years-economic-success-estonia [https://perma.cc/ASY6-BS9N] (noting the history of Estonia's independence in 1991, economic collapse in 1993, and subsequent successes in implementing an e-state since 2000).

298. See UN Dep't of Econ. & Soc. Affs., Interagency Task Team on STI for the SDGs, Policy Brief #5: Financial Flows to Promote Technology Transfers and Gender Inclusiveness for Small Island Developing States (SIDS) 1 (2022), https://sdgs.un.org/sites/default/files/2022-04/5th%20UN%20Policy%20Brief%20on%20STI%20roadmaps%20-%20SIDS%20finance_0.pdf [https://perma.cc/HF5S-APRH] (“In the past three decades, international society has been striving hard to mobilize financial resources to promote technology transfers to SIDS and facilitate its sustainable development.”); Mariam Abdelaty, How SIDS Are Leveraging the Potential of Their Digital Economy, SparkBlue (Sept. 14, 2022), <https://www.sparkblue.org/content/how-sids-are-leveraging-potential-their-digital-economy> [https://perma.cc/5DKS-FJGP] (noting SIDS' leadership in implementing digital solutions in the SAMOA Pathway, the Sustainable Development Goals, and the Paris Agreement).

299. Climate Change and Security—The Challenge of Internal Displacement in Small Island Developing States, UN (Nov. 11, 2020), <https://www.un.org/ohrrls/news/climate-change-and-security-challenge-internal-displacement-small-island-developing-states/> [https://perma.cc/6TLB-Q8M9].

e-SIDS might also be a means for island nations to retain some level of international legal personality if not full statehood.³⁰⁰ One author argues that for at-risk SIDS to maintain an international legal personality, they would need to create a separate entity with that personality that represents certain interests of the state, similar to the Sovereign Order of Malta.³⁰¹ When the territory submerges, the separate entity can continue to exist with the limited rights that are granted to it by the international legal community.³⁰² The digital platforms of e-SIDS could be that separate entity. While not ideal, this provides a viable backup that has more precedent in current international law.

Finally, adopting an e-SIDS modality leaves every other option open. If the e-SIDS want to simultaneously try to negotiate treaties or rework the UN trusteeship program, that is within their power. The resources expended on this project would not be wasted, as the adoption of digital infrastructure has practical benefits beyond legal ones. The degree of flexibility of this modality therefore maximizes SIDS' autonomy in shaping their post-territory future.

CONCLUSION

A review of the literature on this topic reveals a proclivity to compare these small island nations to Atlantis.³⁰³ This Note has avoided any such reference because the story of these states does not need to end underwater. Ultimately, the willingness of the international legal system to accept the continuity of these states will be determinative of their future. The goal of this Note, therefore, is to detail a modality of statehood that fits well within the ambit of the contemporary international law of statehood while reducing reliance on the discretion of the international community. This solution also benefits from the slow-onset nature of this crisis; if the e-SIDS system is adopted within the next few years, there are decades for the international community to warm to the idea. e-SIDS will provide an opportunity for threatened small island nations to preserve their resources, their polity, and at some level, their community. Most

300. See Rouleau-Dick, *A Blueprint for Survival*, *supra* note 45, at 624–26 (discussing a possibility of at-risk SIDS “secur[ing] some level of legal personality even beyond the possible loss of its statehood”).

301. *Id.* at 629, 638–39 (alluding to the “progressive dissociation” between the legal entity and the physical elements of a state as seen in the Sovereign Military Order of Malta until the loss of Malta).

302. *Id.* at 637–38, 644. These rights can include treaty-making rights and diplomatic protections for the state’s nationals.

303. See, e.g., Jain, *supra* note 40, at 1 (referencing a “21st Century Atlantis” in the title); Johnsen, *supra* note 141, at 167 (“Whether these countries are lost like Atlantis is a matter for urgent consideration.”); Juvelier, *supra* note 40, at 29 (“[T]he phrase ‘modern day Atlantis’ summons a striking image.”); Noto, *supra* note 42, at 747 (referencing a “Modern Atlantis” in the title).

importantly, it returns to small island nations autonomy stripped by a crisis that they took no part in creating.